P R E F A C E

The present publication is the twenty-first of the annual series brought out by the Economics & Statistics Division which attempts to present detailed petroleum and natural gas statistics relating to Indian Economy and relevant International statistics. This publication, in line with our previous annual publications, tries to provide various key national petroleum and natural gas statistics both on financial as well as on calendar year basis, the former to meet the requirements of national planning and adminstration and the later to meet various obligations to U.N. and other international bodies and for purposes of maintaining historical continuity.

2. In this publication, we have provided couple of new tables, including on natural gas pricing. It is hoped that officers and executives of the Government of India, Planning Commission, Oil Coordination Committee and other organisations associated with the development of oil/ natural gas industries would find this publication useful.

3. While we have taken all possible care to ensure accuracy in presentation of data contained in various table, we would welcome suggestions from readers for rectification of any error or omission noticed by them.

Sd/-

(J.S.Sinha)
Deputy Adviser

October, 1987.

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SCOPE AND COVERAGE OF DATE PUBLISHED

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

2. Coverage: The statistics presented in the publication covers the exploration, production, refining, marketing, etc. activities 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 on voluntary basis under the directives issued by the Ministry to the said companies from time to time.

The sources of all the secondary data, including international statistics, incorpora= ted in the publication, have been indicated at the bottom of tables showing such statistics.

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 parti- cular 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 nautral 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 extrac= tion 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 companies 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 include crude oil/POL products imported by the Indian oil comp anies 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 included 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 abbrevations used have been provided in Appendix.

12. Conversion Factors: The conversion factors generally used in the Oil Sector are also given in the Appendix.

Selected Economic Indicators of the Indian Economy.

Indicator	unit/base	1970-71	1975-76	1980-81	1984-85	1985-86	1986-87(P)
1.	2.	3.	4.	5.	6.	7.	8.
1.Geographical Area	m.Sq.km.	3.27	3.29	3.29	3.29	3.29	3.29
2.Population(Revised.)	Million	548	612	685	745(e)	761(e)	776(e)
3.Gross National Product at factor cost:							
(i)At current prices	Rs. Crores	36452	66375	113846	189417	213553	N.A.
(ii)At 1970-71 Prices	"	36452	42799	50711	61427	64583	N.A.
4.Net National Product at factor cost:							
(i)At current Prices	Rs./Crores	34235	62302	105743	174018	195707	N.A.
(ii)At 1970-71 Prices	"	34235	40274	47414	57243	60143	N.A.
5.Per Capital Net National Product							
(i)At current prices	Rs./Crores	632.8	1026.4	1557.3	2354.8	2595.6	N.A.
(ii)At 1970-71 prices	"	632.8	663.5	698.3	774.6	797.7	N.A.
6.Foreign Exchange Reserves:							
(i)Gold	"	182.5	182.5	225.6	245.8	274.3	274.3
(ii)SDR	Mn.SDRs	148.9	202.8	490.5	146.5	115.1	231.7
(iii)Foreign Exchange	Rs/crores	438.1	1491.7	4822.1	6816.8	7384.4	7645.2
7.Foreign Trade							
(i)Import	Rs./Crores	1634	5265	12549	17134	19747	20063
(ii)Export	"	1535	4036	6711	11744	11012	12550
(iii)Balance of Trade	"	-99	-1229	-5838	-5390	-8735	-7513
8.Index of Production:							
(i)Agriculture	*	111.5	125.1	135.3	155.0	158.0	N.A.
(ii)Industrial	1970-100	100.0	123.4	154.1	197.4	209.8	N.A.
9.Wholesale Price Index:	1970-71 --100	100.0	173.0	257.3	338.4	359.8	378.6
10.Consumer price index:							
(i)Industrial Workers	1960--100	186	313	401	582	620	N.A.
(ii)Agricultural Labours	1960-61 100	192	317	409	525	546	N.A.
(iii)Urban Non-Manual workers	1960-100	174	277	469	532	568	N.A.
11.Employment:							
(i)Organised Sector							
(a)Public Sector	Million	10.73	13.32	15.48	17.30	N.A.	N.A.
(b)Private Sector	"	6.74	6.84	7.40	7.32	N.A.	N.A.
Total:	"	17.47	20.16	22.88	24.62	N.A.	N.A.
(ii)No.of persons on life register of employment exchange.	Million	4.07	9.35	16.20	23.91	27.03	N.A.
12.Energy Generation(gross):							
Coal	Mn.Tonnes	72.95	99.68	113.91	147.39	154.24	165.9
Lignite		3.39	3.03	5.11	7.80	8.03	8.50
Natural Gas	(Mn.Cub.Metrs)	1445	2368	2358	7241	8134	9853
Crude Oil	Mn.tonnes	6.82	8.45	10.51	28.99	30.17	30.46
Petroleum products	"	18.33	22.06	25.44	35.17	42.69	45.64
13.Electricity:							
(i)Utilities	B.KWH						
Hydel	"	25.25	33.30	46.54	53.82	50.94	53.76
Thermal	"	28.16	43.30	61.30	98.54	114.12	128.82
Nuclear	"	2.42	2.63	3.00	4.08	4.98	5.02
Total	"	55.83	79.23	110.84	156.44	170.04	187.61
(ii)Non utilities	"	5.38	6.70	8.42	12.21	13.37	14.75
GRAND TOTAL:	"	61.21	85.93	119.29	168.65	183.41	202.36

SOURCE: (1) = RGI's 1st March estimates. (2) = Economic Survey
(P) = Provisional/RBE. N.A.= Not Available.

Selected Economic Indicators of the Indian Economy.

Indicator	unit/base	1970-71	1975-76	1980-81	1983-84	1985-86	1986-87(P)
1.	2.	3.	4.	5.	6.	7.	8.
1. Reserves@ (Balance recoverable).							
(i) Crude Oil	Million tonnes	128	144	366	526	500	581
(ii) Natural Gas	Biilion Cubic Metres	62	88	352	475	479	541
2. Consumption							
(i) Crude Oil (in returs of refinery crude throughout)	Mn. tonnes	18.38	22.28	25.84	35.26	42.91	45.70
(ii) Petroleum products	"	17.91	22.45	30.90	35.84	40.87	43.40
3. Production:							
(i) Crude Oil	"	6.82	8.45	10.51	26.02	30.17	30.48
4. Imports & Exports							
(a) Gross Imports							
(i) Qty.: Crude Oil	"	11.68	13.62	16.25	15.97	15.14	15.53
POL Products	"	1.09	2.22	7.29	4.33	3.87	3.04
Total-(i)	"	12.77	15.84	23.54	20.30	19.01	18.57
(ii) Value: Crude Oil	Rs/Crores	107	1052	3349	3541	3687	2058
POL products	"	30	204	1917	1271	1274	648
Total-(ii)	"	137	1256	5266	4812	4961	2706
(b) Exports							
(i) Qty.: Crude Oil	Mn.tonnes	—	—	—	5.42	0.53	—
POL Products	"	0.33	0.17	0.04	1.47	1.96	2.49
Total-(i)	"	0.33	0.17	0.04	6.99	2.49	2.49
(ii) Value: Crude Oil	Rs/Crores	—	—	—	1231	135	—
POL products	"	5	14	8	357	510	411
Total-(ii)	"	5	14	8	1588	645	411
(c) Net Imports:							
(i) Qty.: Crude Oil	Mn.tonnes	11.68	13.62	16.25	10.44	14.61	15.53
POL Products	"	0.75	2.05	7.25	2.86	1.91	0.55
Total-(i)	"	12.43	15.67	23.50	13.30	16.52	16.08
(ii) Value: Crude Oil	Rs/Crores	107	1052	3349	2310	3552	2058
POL products	"	25	190	1909	914	764	237
Total-(ii)	"	132	1242	5258	3224	4316	2295
(d) Unit value of crude oil Imports (Gross)	Rs/M.T.	91	772	2061	2218	2435	1325
5. India's Total Exports	Rs/Crores	1535	4036	6711	9872	10420	12550
6. POL Imports as percentage of India's total exports							
(i) Gross imports	%	8.9	31.1	78.5	48.7	47.6	21.6
(ii) Net imports	%	8.6	30.7	78.3	32.7	41.7	18.3
7. Contribution of all sector to Centre/State Resources							
(i) Royality from crude oil	Rs/Crores	7	13	41	155	177)	) 1127aa
(ii) Royality from gas	"	Neg.	1	3	13	22)	
(ii) Oil Development Cess	"		50	60	813	866	900(RE)
(iv) Excise & Custom duties	"	638	1155	1512	1649	2886	3183
(v) Sales Tax	"	N.A.	N.A.	628	1099	1564	1888
(vi) Generation of Internal resources	"	N.A.	N.A.	359	1633	2358	2703
(vii) Corporate Tax	"	N.A.	N.A.	76	1012	740	792
8. Natural Gas:							
(i) Gross Production	Mn.Cu. Metres	1445	2368	2358	5961	8134	9853
(ii) Utilisation	"	647	1124	1522	3399	4950	7072

Neg. = Negibile. (P) Provisional @ As on 1st January of first year.

PART–I
PETROLEUM STATISTICS

I. HIGHLIGHTS OF INDIAN PETROLEUM INDUSTRY

1. The exploration and production activities in the country during 1986-87 were accelerated by ONGC by commissioning of 7 new drilling rigs from BHEL (6 in Eastern Region and one in Nagore (Cauvery), 6 Romanian rigs, one Russian rig and 2 American rigs. Apart from this 7 new workover rigs (5 in Western Region and 2 in Eastern Region) were also commissioned by ONGC during the year. One mobile Jack-up Sagar Laxmi was commissioned and a second seismic vessel `Sagar Sandhani´ was also acquired.

2. Drilling operations were extended by ONGC to 17 new onland structures (out of which 3 in Cauvery, 4 in Krishna-Godavery in Andra Pradesh, 4 in Eastern Region, 4 in Gujarat, one in Jwalamukhi and one in Andaman onland) and 26 new offshore structure (out of which 16 in Bombay offshore, 5 in Krishna-Godavery offshore, 1 in Cauvery, one in Andaman, one in Kutch, one in West Coast and one in Bengal offshore area).

3. The OIL also stepped up its exploration work in Eastern Region and extended its activities to Rajasthan and Andaman islands.

4. The onshore exploration operation of ONGC/OIL led to discovery of oil at Shalmari and Namti in Assam. Oil was struck for the first time in Krishna-Godavery onshore area. Rajgarh 3 produced gas per day with 16 kilo litres per day of condensate through 4 mm bean during initial testing.

5. In the offshore areas, oil was struck for the first time in Tapti offshore area. Oil was also struck in 4 new structures. One in Tapti offshore and the other 3 in Bombay offshore areas. Gas was also struck in a new structures in Bombay offshore area.

6. Though the production and exploration activities were intensified throughout the year 1986-87, but the overall production of oil in the country during the year 1986-87 to 30.48 million tonnes could not meet the Seventh Plan original target of 31.08 million tonnes. As a result import of crude oil increased from 14.62 million tonnes during 1985-86 to 15.53 million tonnes during the year and the self-reliance on oil in 1986-87 decreased 53% from 55% during the year 1985-86.

7. On March 30, 1987 the launching of the Karnal Refinery Project (Haryana) was done by the Hon´ble Prime Minister.

8. Seven new LPG bottiling plants, of which one at Jaipur by BHEL, five by HPCL at Visakh, Mysore, Goa, Aurangabad and Chandrapur and one at Sawai-Madhopur by IOC were commissioned during the year.

9. The oil companies expanded their marketing activities by opening 434 new retail outlets, 142 new Kerosene/LDO dealerships and 324 new LPG dealerships during the year.

10. About 17 lakhs new LPG consumers were enrolled during the year. With this the number of LPG domestic consumers increased to over 124 lakhs at the end of 1986-87 resulting in saving of valuable foreign exchange through reduced pressure in Kerosene.

11. The cess on crude oil was raised from Rs.300/MT to Rs.600/MT w.e.f. 1.3.1987. Consequently the price of indigenous crude oil was increased from Rs.1513/MT to Rs.1813/MT.

II. CHRONOLOGY OF IMPORTANT EVENTS IN THE HISTORY OF PETROLEUM INDUSTRY IN INDIA FOR 1986-87.

A. EXPLORATION AND PRODUCTION

1. Oil India Limited

1986

The entire offshore exploration operations in Andaman PEL was carried out and completed during the year with the help of two offshore rigs one dynamically positioned rig 'Petrol' and the other jack up rig 'D.R.Stewart'.

Offshore exploratory drilling in Andaman PEL commenced with a new concept of deploying a wareship close to the area of drilling operation for the first time in the country during May, 1986.

On 4.6.1986 oil was struck in Shalmari well No.1 in upper Assam. The well produced 30 KL of oil per day during the initial testing.

Rajgarh 3 produced gas at the rate of 53,000 standard cubic metres of gas per day with 16 kilo litres per day of condensate through 4 mm bean during initial testing.

1987

In the newly acquired PEL area in the north bank of Brahmaputra, seismic survey operation commenced on January, 1987.

Onshore exploratory drilling commenced in the Mahanadi PEL area on 16th February.

On 29th March, after a gap of seven years, exploratory drilling operations were resumed in the remote area on Kumchain in Arunachal Pradesh.

Seismic Surveys in Assam and Rajasthan have overshot the targets.

The balance of recoverable reserves have exceeded the fifty million tonnes mark during the year 1986-87.

In OIL's Rajasthan project interpretation of survey has been carried out and 3 locations have already been released for drilling.

2. Oil & Natural Gas Commission

1986

In April, early production system was commissioned at Indrora and Nandason, a new workover rig was commissioned in Western Region and a new structure was taken up in B.O.P. (West Coast) for drilling.

In May, new workover rig was commissioned in Western Region and early production was commissioned at Gandhar, 9 new structures (4 offshore areas and 5 in onshore areas) were taken up for drilling and a new BHEL rig was commissioned in Nagore (Cauvery). Oil was struck for the first time in Tapti offshore area, second seismic vessel `Sagar Sandhani´ was acquired, and a new seismic party was raised in Northern Region.

In June, 4 new structures (3 in Bombay Offshore and one Onland) were taken up for drilling and 3 new rigs (a BHEL rig in Assam, a Romanian rig in Ahmedabad and a Russian rig in Jwalamukhi) were commissioned.

In July, a new workover rig was commissioned in Tripura and 3 new offshore structures were taken up for drilling. A new Romanian rig was commissioned in Bhuvangiri (Cauvery) and oil was struck for the first time in Krishna-Godavery onshore area.

In August, a new workover rig was commissioned in Eastern Regions, 4 new structures (2 offshore and 2 onland) were taken up for drilling and 3 new rigs (two from BHEL and one American) were commissioned in Assam, and two new Romanian rigs were deployed in Western Region.

In September, 2 new structures (One offshore and one onland) were taken up for drilling. Oil was struck in two new structures, one in Tapti offshore and the other in Bombay High area.

In October, well platforms were commissioned in offshore, drilling was started in 5 new structures (4 offfshore and one onland), two new BHEL rigs were deployed, one in Tripura and the other in Assam. Oil was struck for the first time in Namti (Assam).

In November, production from panna Sour field was started on experimental basis, well platform was commissioned in offshore and gas supply to GNFC, Bharuch in Western Region commenced. Two new structures (one on Andaman and the other in Bombay Offshore) were taken up for drilling, a new Romanian rig was commissioned in Assam, and oil was struck in a new structure in West Coast.

In December, 3 new workover rigs were commissioned in Western Region, drilling was started in 5 new structures (3 onland and 2 Offshore), a new BHEL rig was commissioned in Kanchanpur (Cachar).

1987 In January, gas supplies to HFC, Namrup in Eastern Region was commenced, 2 new structures were taken up for drilling in Bombay Offshore, two new rigs (one American and the other Romanian were commissioned in Assam. Oil was struck in a new structure in Bombay Offshore.

In February, isolated pool ASJOL in Western Region was put on regular production. Four new strucute (two offshore and two onland) were taken up for drilling.

In March, early production system was commssioned in Western Region, two new offshore structures (one in Bombay offshore and the other in Cauvery Offshore) were taken up for drilling. Oil and gas was struck in new structure in Bombay Offshore.

3. Gas Authority of India Limited

1986 In May, agreement was signed for composite contract with consortium led by M/s Spic Capag.

In June, pipe handling was taken over by consortium.

In August, order was placed on M/s. BHEL for C.P.System.

In October, laying of pipeline was commenced at spread `D´.

In November, production at coating plant was started at Bijapur.

1987 In March, coating of 36 pipes was completed.

4. Hydro-carbon India Limited (HIL)

1986-87: The company continued to give training to the foreign nationals in different Institutes of ONGC. Trainees from Baharain in group are being trained at present. Being overseas arm of ONGC, the company is negotiating for exploration venture in Vietnam. Besides consultancy jobs for ONGC, the company has been trying to secure such jobs from abroad.

The company, as leader of the consortium of public sector undertakings named `Indian Consortium of Oil & Natural Gas´ (ICON) has submitted number of prequalification bids for turn-key jobs in petroleum sector abroad. The Consortium has been prequalified for Ahmadi Depot Project, Kuwait. Prequalification for ERL Refinery Modification works in Bangladesh is under consideration.

B. R E F I N I N G

1. Bharat Petroleum Corporation Limited Bombay Refinery

1986 BPCL Refinery started receiving Natural Gas Liquid (NGL) from Uran by the new pipeline , on a regular basis from July.

In November, BPCL Refinery for the first time directed Carbon Monoxide to Co=Boiler. This had resulted in a fuel saving of about 38 tonnes per day. A microprocessor based electronic tank autogauging system was commissioned at the Refinery.

1987 Refinery completed 5 million manbours without loss time accident, which is a safety record.

On 30th March, Benzene line to Pirpau for tanker loading was commissioned.

2. Bongaingaon Refinery & Petro-Chemicals Limited

1986-87 The Refinery has achieved 101% of its installed capacity of MTPA for the first time since commissioning.

3. Cochin Refineries Limited

1986 On September 23rd, the company celebrated its 20th Anniversary.

In October, the Refinery achieved an all-time record in crude throughout when it processed 395,762 tonnes of crude oil against the original estimate of 374,000 tonnes. The LPG wagon loading facility under the secondary Processing Facilities was commissioned.

1987 In February, CRL commissioned electrostatic precipitator for Co-Boiler.

In March, the refinery acheived an all-time record of 8,025 tonnes in asphalt production. Another all-time record achieved by the refinery was in tankwagon loading, viz. 8128 wagons of various petroleum products, druing 1986-87.

4. Hindustan Petroleum Corporation Limited

i) Bombay Refinery

1986-87 The Refinery achieved highest ever crude throughout (imported plus BH) of 5.012 million tonnes during the year.

ATF Maximization, Hydrogen Recovery and Co-Boiler units were commissioned.

ii) Visakh Refinery

1986-87 The Refinery achieved highest crude throughout of 3.7147 million tonnes since inception.

Bitumen blowing unit, weste heat boiler and Co-boiler units were commissioned. Also bitumen bulk-loading and bulk filling plants were commissioned.

The refinery completed four million manbours without a loss time accident and completed two years of safe operation on February 11, 1987.

5. Indian Oil Corporation Limited (Refinery & Pipeline Division)

(a) IOC's Refineries

i) Assam Oil Divison, Digboi (Assam)

1986 In May, first supply of bulk Bitumen in the North-East was commenced by AOD.

The refinery begfan processing, for the first time, Low Wax Content Crude from Oil's Kharsang field in Arunchal Pradesh with effect from October. The quanitity of LWC crude processed during the year 1986-87 was 14,500 MT.

In November, Sulphur Dioxide Rectification Drying System was commissioned in the Refinery.

1987 In February, mobile laboratory to be operated by AOD on behalf of Oil Industry for the first time in the North-East for MS/HSD quality control was inaugurated.

In March, a high frequency network connecting Digboi and AOD Guwahati office was successfully commissioned.

Phase-I of the refinery effluent system was commissioned replacing the Old, inefficient system.

ii) Guwahati Refinery, Guwahati, Assam

1986 In December, CDU revamping jobs which involves replacement of low efficiency heaters with modern high efficiency heaters and optimisation of heat exchanger trains were completed and commissioned.

iii) Barauni Refinery, Barauni, Bihar

1986 In November, waste heat boiler in CCU for generating steam by recovering heat from hot flue gas was commissioned.

1987 In March, new high efficiency heaters at AVU-1 & AVU-2 were mechanically completed.

iv) Gujarat Refinery, Koyali, Gujarat

1986 In August, AU-4 debottlenecking project for increasing the unit capacity from 3.0 MMTPA to 3.3 MMTPA was completed and commissioned.

1987. In January, AU-3 debottlencking project for increasing the unit capacity from 1.4 MMTPA to 2.0 MMTPA including replacement of low efficiency heaters by modern high efficiency heaters was completed and commissioned.

On 6th February, Govt. of India accorded approval of Gujarat Hydrocracker Project at an estimated cost of Rs.635 crores including a F.E. component of Rs.121.58 crores with a mechanical completion schedule of 60 months and commissioning with 3 months thereafter.

v) Haldia Refinery Project, Haldia, West Bengal.

1987 Three Mandatory crude oil tanks were commissioned by March.

vi) Karnal Refinery Project, Haryana

1987 On March 30, the launching of the Karnal Refinery project was done by the Hon'ble Prime Minister.

(b) Pipelines Division

1986 In November, installation of solar panel-cum-battery bank at Rasulabad and Battery Banks at Bindki, Fatehpur, Shrathu, Sarasul, Osmanpur and Khaga C.P. Stations in BKPL were completed and commissioned.

1987 In January, Automatic interface detector was installed and commissioned at Kanpur of BK pipeline for accurate tracking and cutting of interface of various products.

In March, installation of telemetry/telecontrol, facilities in HB Pipeline were completed and system was commissioned.

6. Madras Refineries Limited

1986 In April, 4th conference of Chief of Personnel of Public Undertakings in Petroleum sector was held under the auspices of Madras Refineries Limited.

In May, the fourth boiler was commissioned.

In June Economizers were installed at a cost of about Rs.3.5 crores in the boilers.

In August, first business personal computer was launched. The foundation stones for 10 MW Gas Turbine Power Plant and MRL's Refinery Engineering School of TRaining (RESCOT) were laid.

In September, Union Minister for industry received a dividend cheque for Rs.14,45,71,800/- from MRL.

In October, MRL's Research and Development Centre was inaugurated.

In Novembr, MRL entered the field of direct marketing in Kerala by sending the first consignment of 50 tonnes of parffin wax supplied to SIDCO. The refinery received the British Safety Council's

prestigious award of `sword of Honour - 1986´ in Goldsmith´s Hall, London. Mr.V.R. Deenadayalu, C&MD and Mr. D. Gyman Tidewell, President Set Point Inc. signed the memorandum at USA for MRL to get Technology Transfer Package on Optimisation techniques for advanced process control in petroleum refining unit from M/s Set Point Inc. Hauston, U.S.A.

M A R K E T I N G

1. Bharat Petroleum Corporation Limited

1986 In November, a new avaiation service station was commissioned.

A new LPG boiling plant was commissioned at Mangal.

1987 In February, a new LPG mini=bottling plant was commissioned at Jaipur.

2. Hindustan Petroleum Corporation Limited

1986=87 Five new LPG bottling plants were commissioned at Visakh (37,500 MTPA), Mysore, Goa, Aurangabad and Chandrapur each with 18,500 MTPA capacity.

The first automatic gas sensor system in the country was installed at Bombay, Bangalore and Pune LPG bottling plants.

Lube blending facilities was commissioned at Madras.

New depots were commissioned at Simla, Elatnur and Bhadli and additional tankage was provided at eight other locations, totalling to 43,225 KL of additonal tankage.

3. Indian Oil Corporation Limited (Marketing Division)

1986 In April, for the first time export of Naphtha was undertaken from Lighterage point of Bombay by ship-to-ship transfer.

In May, Avaiation Fuel Station was commissioned at palam.

In July, Avaiation Fuel Station (AFS) at Imphal was commissioned. A LPG Bottling plant was commissioned at Sawai=Madhopur.

In August, Madras a new AFS in the new domestic complex was commissioned.

In September, for the first time, true bulk deliveries of Marine Lubricants had been effected to two Indian ships at Madras.

In October, new AFS at Madurai was formally inaugurated Indian Oil Depot at Vairengte in Mizoram was commissioned.

1987 In January, mobile laboratory was commissioned at New Delhi.

In February, One mobile laboratory each was commissioned in Eastern Region and Assam Oil Division.

In March, Madras foreshore terminal was commissioned.

4.Indian Oil Corporation Limited (Assam Oil Division

1986-87 First supply of bulk bitumen in the North-East was commissioned by AOD to Assam PWD during May, 1986.

Integration of 2 depots at North Lakhimpur and Imphal to IOC (MD) and IOC (AOD) was effected.

Mobile laboratory to be operated by AOD on behalf of Oil Industry for the first time in the North-East for MS/HSD quality control was inaugurated. The laboratory will cover 75 retail outlets and depots per month.

5.IBP Company Limited

1986-87 On November 1986, R & D Centre at Manesar (Gurgaon), Haryana was Inaugurated.

L U B E P L A N T S

1.Lubrizol Indian Limited

1986 In July, Sulfonic Acid manufacturing unit for manufacture of 2,00 MTPA was constructed at a cost of approximately Rs.1.64 crores, was commissioned.

1987 In January, expansion of engine oil dispersant unit from 9,000 MTPA to 12,000 MTPA, costing approximately Rs.1.82 crores was commissioned.

In February, expansion of engine oil detergent unit from 11,200 MTPA to 13,500 MTPA, costing approximately Rs.1.10 crores, was commissioned.

III. INDIA'S PETROLEUM INDUSTRY AT-A-GLANCE (1970-71 - 1986-87)

Year	Crude Oil balance recoverable reserves	Consumption (excl-RBF)	Crude Oil production	Gross Imports: Crude Oil	Gross Imports: POl Products	Refinery throughput	Refinery production	Value of POL gross imports	India's total exports	% of POL imports to India's exports	CIF Unit value of crude imports	Central Excise & Customs duties on POL
	(.....Million Tonnes.....)							(Rs./Crores)		(Rs/MT)	(Rs/Crores)	
1	2	3	4	5	6	7	8	9	10	11	12	13
1970-71	128	17.91	6.82	11.68	1.09	18.38	17.11	137	1535	8.9%	91	638
1971-72	114	20.07	7.30	12.95	2.15	20.04	18.64	194	1608	12.1%	114	772
1972-73	125	21.72	7.32	12.08	3.53	19.33	17.83	207	1971	10.5%	121	853
1973-74	127	22.35	7.19	13.87	3.55	20.96	19.50	541	2523	21.4%	300	970
1974-75	125	22.11	7.68	14.02	2.65	21.09	19.60	1112	3329	33.4%	654	1106
1975-76	144	22.45	8.45	13.62	2.22	22.28	20.83	1256	4036	31.1%	772	1155
1976-77	275	24.10	8.90	14.05	2.62	23.00	21.43	1424	5142	27.7%	837	1222
1977-78	303	25.54	10.76	14.51	2.88	24.90	23.22	1552	5408	28.7%	859	1279
1978-79	347	28.24	11.63	14.66	3.88	25.97	24.20	1681	5726	29.4%	854	1480
1979-80	354	29.88	11.77	16.12	4.72	27.47	25.79	3270	6418	51.0%	1357	1620
1980-81	366	30.90	10.51	16.25	7.29	25.84	24.12	5266	6711	78.5%	2061	1512
1981-82	468	32.52	16.19	15.30	4.88	30.15	28.18	5189	7806	66.5%	2442	1582
1982-83	471	34.66	21.06	16.95	5.03	33.16	31.07	5598	7703	63.6%	2386	1664
1983-84	527	35.84	26.02	15.97	4.33	35.26	32.93	4812	9872	48.7%	2218	1649
1984-85	511	38.80	28.99	13.64	6.09	35.36	33.24	5345	11657	45.9%	2515	2077
1985-86	500	40.39	30.17	15.14	3.87	42.91	39.88	4960	10420	47.6%	2435	2886
1986-87(P)	581	43.40	30.48	15.53	3.04	45.70	42.78	2705	12550	21.6%	1325	3183

(P) = Provisional/RBE

COMMODITY BALANCE OF CRUDE PETROLEUM AND PETROLEUM PRODUCTS

(Million Tonnes)

Items	1970-71	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87*
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
I.CRUDE													
1.Refinery Throughout	18.4	22.3	23.0	24.9	26.0	27.5	25.8	30.2	33.2	35.3	35.6	42.9	45.7
2.Domestic Production	6.8	8.4	8.9	10.8	11.6	11.8	10.5	16.2	21.1	26.0	29.0	30.2	30.5
(a) Onshore	6.8	8.4	8.5	8.7	8.3	7.3	5.5	8.2	8.2	8.6	8.9	9.1	9.9
(b) Offshore	—	—	0.4	2.1	3.3	4.4	5.0	8.0	12.9	17.4	20.1	20.8	20.6
3.Imports	11.7	13.6	14.0	14.5	14.7	16.1	16.2	15.3	16.9	16.0	13.7	15.1	15.5
4.Exports	—	—	—	—	—	—	—	0.8	4.5	5.5	6.5	0.5	==
5.Net Imports(3-4)	11.7	13.6	14.0	14.5	14.7	16.1	16.2	14.5	12.4	10.5	7.2	14.6	15.5
II.PRODUCTS													
1.Domestic Consumption of which @	17.9	22.4	24.1	25.5	28.2	29.9	30.0	32.5	34.7	35.8	38.8	40.9	43.4
(a) Naphtha	0.9	1.8	2.2	2.3	2.5	2.4	2.3	3.0	3.0	2.8	3.1	3.1	3.2
(b) Kerosene	3.3	3.1	3.3	3.6	4.0	3.9	4.2	4.7	5.2	5.5	6.0	6.2	6.6
(c) High Speed Diesel	3.8	6.6	7.1	7.7	8.6	9.8	10.3	10.8	12.0	12.6	13.7	14.9	16.0
(d) Fuel Oils	4.7	5.8	5.7	5.8	6.7	7.1	7.5	7.2	7.3	7.6	7.9	7.9	7.9
2.Domestic Production of which	17.1	20.8	21.4	23.2	24.2	25.8	24.1	28.2	31.1	32.9	33.2	39.9	42.8
(a) Naphtha	1.2	1.9	2.0	2.1	2.3	2.4	2.1	3.0	3.0	3.6	3.5	5.0	5.4
(b) Kerosene	2.9	2.4	2.6	2.5	2.5	2.5	2.4	2.9	3.4	3.5	3.4	4.0	4.9
(c) High Speed Diesel	3.8	6.3	6.4	7.1	7.4	8.0	7.4	9.0	9.8	10.9	11.1	14.6	15.5
(d) Fuel Oils	4.1	5.1	4.7	5.3	5.6	6.4	6.1	6.9	8.0	8.0	7.9	8.0	8.0
3.Imports	1.1	2.2	2.6	2.9	3.9	4.7	7.3	4.9	5.0	4.3	6.1	3.9	3.1
4.Exports @@	0.3	0.2	0.1	0.1	0.1	0.1	Neg.	0.1	0.8	1.5	0.9	2.0	2.5
5.Net Imports (3-4)	0.8	2.0	2.5	2.8	3.8	4.6	7.3	4.8	4.2	2.8	5.2	1.9	0.6

* Provisional

Neg. Negligible

@ Excluding Refinery Fuel Consumption

@@ Excluding supplies of POL Products to Nepal from 1970-71 to 1982-83.

IV. GROWTH OF PETROLEUM INDUSTRY IN INDIA

(000 Tonnes)

Year	Crude Oil		Petroleum Products	
	Production	Refineries Crude Throughout	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(P)	31157	44940	42061	45200

Rs/Crores

Year	GROSS IMPORTS			EXPORTS/RE-EXPORTS			NET POL IMPORTS (col 8-11)
	Crude Oil	Products	Total	Crude Oil	Products	Total	
1	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(P)	2027.08	824.38	2851.46	--	388.80	388.80	2462.66

(P) = Provisional.
* = Including Refinery Fuel.

GROWTH OF PETROLEUM INDUSTRY IN INDIA

(000 Tonnes)

Financial Year	Crude Oil		Petroleum Products	
	Production	Refineries Crude Throughout	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	39881	43363
1986-87(P)	30480	45698	42776	45956

(Rs/Crores)

Financial Year	GROSS IMPORTS			EXPORTS/RE-EXPORTS			NET POL IMPORTS
	Crude Oil	Products	Total	Crude Oil	Products	Total	
1	6	7	8	9	10	11	12
1960-61	39.23	39.84	79.07	--	4.40(e)	4.40 (e)	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	198.79
1973-74	416.39	124.50	540.89	0.42	8.05	8.47	532.42
1974-75	916.99	195.00	1111.99	--	17.46	17.46	1094.53
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	1246.20	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	3348.97	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	1553.94	5597.68	1063.37	133.79	1197.16	4400.52
1983-84	3541.05	1270.75	4811.80	1231.10	356.96	1588.06	3223.74
1984-85	3430.34	1914.91	5345.25	1563.16	255.03	1818.19	3527.06
1985-86	3686.80	1273.60	4960.40	135.15	509.57	644.72	4315.68
1986-87(P)	2057.54	647.76	2705.30	--	410.92	410.92	2294.38

* = including Refinery Fuel (P) = Provisional. (e) = Estimated.

V. PETROLEUM ENERGY

PETROLEUM ENERGY IN INDIA 1980 - 1986
(Calendar Years)

PRODUCTS	1980	1981	1982	1983	1984	1985	1986(P)
1	2	3	4	5	6	7	8
		A V A I L A B I L I T Y					
		IN ORIGINAL UNITS @ (MILLION TONNES)					
Kerosene	4.28	4.86	5.19	5.25	5.96	6.27	6.77
ATF	1.07	1.06	1.31	1.37	1.42	1.56	1.64
HSD	10.15	11.18	11.77	12.32	13.42	14.99	15.95
LDO	1.24	1.07	1.11	1.09	1.21	1.15	1.17
Fuel Oils	7.19	7.47	7.21	7.57	7.78	8.01	7.37
Others*	3.21	3.63	3.97	4.42	4.88	5.75	6.46
Total	27.14	29.27	30.56	32.02	34.67	37.72	39.36
		IN MILLION TONNES OF COAL EQUIVALENT UNITS @					
Kerosene	8.56	9.72	10.38	10.50	11.92	12.54	13.54
ATF	2.14	2.12	2.62	2.74	2.84	3.12	3.28
HSD	20.30	22.36	23.54	24.64	26.84	29.98	31.90
LDO	2.48	2.14	2.22	2.18	2.42	2.30	2.34
Fuel Oils	14.38	14.94	14.42	15.14	15.56	16.02	14.74
Others*	6.42	7.26	7.94	8.84	9.76	11.50	12.92
Total	54.28	58.54	61.12	64.04	69.34	75.46	78.72
		IN MILLION TONNES OF COAL REPLACEMENT UNITS @					
Kerosene	34.24	38.88	41.52	42.00	47.69	50.13	54.16
ATF	8.03	7.95	9.83	10.28	10.62	11.69	12.30
HSD	91.35	100.62	105.93	110.88	120.74	134.93	143.55
LDO	11.16	9.63	9.99	9.81	10.91	10.34	10.53
Fuel Oils	14.38	14.94	14.42	15.14	15.55	16.01	14.74
Others*	17.09	19.23	21.09	23.39	26.61	31.01	35.14
Total	176.25	191.25	202.78	211.50	232.12	254.11	270.42

PRODUCTS	1980	1981	1982	1983	1984	1985	1986=87 (P)
1	2	3	4	5	6	7	8
		C O N S U M P T I O N (#)					
		IN ORIGINAL UNITS (MILLION TONNES)					
Kerosene	4.09	4.59	5.13	5.39	5.84	6.17	6.51
ATF	1.14	1.12	1.13	1.19	1.30	1.43	1.58
HSD	10.16	10.75	11.64	12.46	13.31	14.71	15.66
LDO	1.19	1.02	1.05	1.10	1.18	1.15	1.13
Fuel Oils	7.35	7.37	7.13	7.53	7.79	7.96	7.94
Others*	3.28	3.61	3.84	4.43	4.93	5.82	6.44
Total	27.21	28.46	29.92	32.10	34.35	37.24	39.26
		IN MILLION TONNES OF COAL EQUIVALENT UNITS @					
Kerosene	8.18	9.18	10.26	10.78	11.68	12.34	13.02
ATF	2.28	2.24	2.26	2.38	2.60	2.86	3.16
HSD	20.32	21.50	23.28	24.92	26.62	29.42	31.32
LDO	2.38	2.04	2.10	2.20	2.36	2.30	2.26
Fuel Oils	14.70	14.74	14.26	15.06	15.58	15.92	15.88
Others*	6.56	7.22	7.68	8.86	9.86	11.64	12.88
Total	54.18	56.92	59.84	64.20	68.70	74.48	78.52
		IN MILLION TONNES OF COAL REPLACEMENT UNITS @					
Kerosene	32.72	36.72	41.04	43.12	46.72	49.34	52.08
ATF	8.55	8.40	8.48	8.93	9.75	10.75	11.85
HSD	91.44	96.75	104.76	112.14	119.79	132.42	140.94
LDO	10.71	9.18	9.45	9.90	10.62	10.31	10.17
Fuel Oils	14.70	14.74	14.26	15.06	15.58	15.92	15.88
Others*	17.44	18.60	20.44	23.25	26.38	31.10	34.95
Total	175.56	184.39	198.43	212.40	228.84	249.84	255.70

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

PETROLEUM ENERGY IN INDIA: 1980-1981, TO 1986-87.
(Financial Years)

PRODUCTS	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87(P)
1	2	3	4	5	6	7	8
A V A I L A B I L I T Y							
			IN ORIGINAL UNITS (MILLION TONNES)				
Kerosene	4.46	4.88	5.27	5.52	5.93	6.55	6.78
ATF	1.03	1.12	1.38	1.35	1.41	1.65	1.64
HSD	10.59	10.88	12.34	12.62	13.59	15.45	16.10
LDO	1.18	1.03	1.12	1.12	1.25	1.17	1.16
Fuel Oils	7.46	7.43	7.29	7.57	7.89	7.96	7.90
Others*	3.28	3.68	4.13	4.53	5.15	6.00	6.53
Total	28.00	29.02	31.58	32.71	35.22	38.78	40.11
			IN MILLION TONNES OF COAL EQUIVALENT UNITS @				
Kerosene	8.92	9.76	10.54	11.04	11.86	13.10	13.56
ATF	2.06	2.24	2.76	2.70	2.82	3.30	3.28
HSD	21.18	21.76	24.68	25.24	27.18	30.40	32.20
LDO	2.36	2.06	2.24	2.24	2.50	2.34	2.32
Fuel Oils	14.92	14.86	14.58	15.14	15.78	15.92	15.80
Others*	6.56	7.36	8.26	9.06	10.30	12.00	13.06
Total	56.00	58.04	63.06	65.42	70.44	77.56	80.22
			IN MILLION TONNES OF COAL REPLACEMENT UNITS @				
Kerosene	35.68	39.04	42.16	44.16	47.44	52.40	54.24
ATF	7.73	8.40	10.35	10.13	10.58	12.38	12.30
HSD	95.31	97.92	111.06	113.58	122.31	139.05	144.90
LDO	10.62	9.27	10.08	10.08	11.25	10.53	10.44
Fuel Oils	14.92	14.86	14.58	15.14	15.78	15.92	15.80
Others*	17.54	19.38	21.99	24.24	27.95	32.22	35.68
Total	181.80	188.87	210.22	217.33	235.31	262.50	273.36

PRODUCTS	1980-81	1981-82	1982=83	1983=84	1984=85	1985=86	1986-87
1	2	3	4	5	6	7	8
C O N S U M P T I O N (#)							
Kerosene	4.23	4.69	5.21	5.52	5.96	6.20	6.64
ATF	1.13	1.13	1.15	1.21	1.34	1.44	1.60
HSD	10.35	10.83	12.01	12.60	13.70	14.74	15.97
LDO	1.12	1.04	1.07	1.10	1.20	1.10	1.14
Fuel Oils	7.47	7.18	7.30	7.56	7.94	7.71	7.94
Others*	3.31	3.70	4.08	4.59	5.07	5.99	6.56
Total	27.61	28.57	30.82	32.58	35.21	37.18	39.85
			IN MILLION TONNES OF COAL EQUIVALENT UNITS @				
Kerosene	8.46	9.38	10.42	11.04	11.92	12.40	13.28
ATF	2.26	2.26	2.30	2.42	2.68	2.88	3.20
HSD	20.70	21.66	24.02	25.20	27.40	29.48	31.94
LDO	2.24	2.08	2.14	2.20	2.40	2.20	2.28
Fuel Oils	14.94	14.36	14.60	15.12	15.88	15.42	15.88
Others*	6.62	7.40	8.16	9.18	10.14	11.98	13.12
Total	55.22	57.14	61.64	65.16	70.42	74.36	79.70
			IN MILLION TONNES OF COAL REPLACEMENT UNITS @				
Kerosene	33.84	37.52	41.68	44.16	47.67	49.60	53.12
ATF	8.48	8.48	8.63	9.08	10.02	10.80	12.00
HSD	93.15	97.47	108.09	113.40	123.26	132.64	143.73
LDO	10.08	9.36	9.63	9.90	10.78	9.88	10.26
Fuel Oils	14.94	14.36	14.60	15.12	15.88	15.42	15.88
Others*	17.35	19.04	21.61	24.13	27.82	32.23	35.93
Total	177.84	186.23	203.24	215.79	234.93	250.57	270.92

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

VI. EXPLORATION

AREA WISE DEPLOYMENT OF DEEP DRILLING RIGS, WELLS & METERAGE DRILLED BY ONGC & OIL FROM 1970-71 TO 1986-87.

YEAR	ONSHORE			OFFSHORE			TOTAL		
	Rigs (Nos.)	Wells (Nos.)	Metreage ('000')	Rigs (Nos.)	Wells (Nos.)	Metreage ('000')	Rigs (Nos.)	Wells (Nos.)	Metreage ('000')
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				(A.) OIL & NATURAL GAS COMMISSION:					
1970-71	31	89	168	1	--	1	32	89	168
1975-76	35	106	229	4	15	28	39	121	257
1976-77	33	99	206	5	24	59	38	123	265
1977-78	32	87	175	3	35	67	35	122	242
1978-79	30	67	159	4	16	43	34	83	202
1979-80	31	69	138	5	28	59	36	97	197
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
1986-87*	82	232	502	20	77	231	102	309	733
				(B.) OIL INDIA LIMITED:					
1970-71	4	12	48	--	--	--	4	12	48
1975-76	3	11	36	--	--	--	3	11	36
1976-77	4	8	33	--	--	--	4	8	33
1977-78	4	19	73	--	--	--	4	19	73
1978-79	4	17	62	--	--	--	4	17	62
1979-80	4	13	48	1	--	2	5	13	50
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
				TOTAL (A + B):					
1970-71	35	101	216	--	--	1	36	101	216
1975-76	38	117	265	4	15	28	42	132	293
1976-77	37	107	239	5	24	59	42	131	298
1977-78	36	106	248	3	35	67	39	141	315
1978-79	34	84	221	4	16	43	38	100	264
1979-80	35	92	186	6	28	61	41	110	247
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	22	79	248	114	337	853

* = Provisional.

EXPLORATORY & DEVELOPMENT DRILLING DONE BY ONGC & OIL.

Y E A R	Exploratory		Development		Total	
	Wells (Nos.)	Metreage (`000´)	Wells (Nos.)	Metreage (`000´)	Wells (Nos.)	Metreage (`000´)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(A) ON SHORE			
1970-71	51+IP	106	50+3P	112	101+3P	218
1975-76	49+IP	120	68+IP	145	117+2P	265
1976-77	49+IP	116	58+IP	133	107+2)	249
1977-78	47+2P	113	59+IP	135	106+3P	248
1978-79	38+IP	96	46	126	84+IP	222
1979-80	43+2P	98	39+2P	80	82+4P	178
1980-81	44+IP	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	128+7P	284
1983-84	61+3P	157	79+2P	181	140+5P	338
1984-85	70+5P	186	82+IP	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
			(B) OFFSHORE			
1970-71	----	1	----	----	-----	1
1975-76	10	19	5	9	15	28
1976-77	17	35	7	14	24	49
1977-78	20	39	15	28	35	67
1978-79	16	43	----	----	16	43
1979-80	15+IP	40	13	29	28+IP	69
1980-81	15+IP	40	18	42	33+IP	82
1981-82	12	39	34	72	46	111
1982-83	17	57	47	105	64	162
1983-84	22+IP	70	68	149	90+IP	219
1984-85	20+IP	62	51	109	71+IP	171
1985-86	33+2P	100	44	89	77+2P	189
1986-87*	44+3P	132	35	116	79+3P	248
			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
1976-77	66+1P	151	65+1P	147	131+2P	298
1977-78	67+2P	152	74+1P	163	141+3P	315
1978-79	54+1P	139	46	126	100+2P	265
1979-80	58+3P	138	52+2P	109	110+5P	247
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+13	709
1986-87*	122+6P	368	215+8P	485	337+14P	853

(P)=Partly Drilled. * Provisional

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

(NUMBERS)

Company/ Year	OIL	GAS	DRY	UNDER TEST	INJEC-CTION	OTHERS	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			A.	Assam Oil Company *			
1970	380	19	-	-	10	588	997
1975	377	7	-	-	5	612	1001
1976	380	6	-	-	5	610	1001
1977	404	8	-	-	6	583	1001
1978	415	10	-	-	6	570	1001
1979	416	10	-	-	6	569	1001
1980	417	10	-	-	6	568	1001
1981	418	9	-	-	6	568	1001
1982	418	9	-	-	6	568	1001
1983	441	-	305	16	4	235	1001
1984	440	5	305	20	5	226	1001
1985	431	4	305	7	7	247	1001
1986	399	2	305	7	6	282	1001
1987	314	2	305	2	8	370	1001
			B.	Oil India Limited			
1970	216	12	29	24	7	-	288
1975	250	18	34	27	20	-	349
1976	251	20	34	32	25	-	362
1977	250	21	36	37	26	-	370
1978	264	21	37	40	27	-	389
1979	266	23	39	47	31	-	406
1980	273	26	40	48	34	-	421
1981	283	27	42	48	35	-	435
1982	291	34	42	20	37	30	454
1983	295	36	43	26	43	28	471
1984	307	38	45	32	46	34	502
1985	321	42	49	35	50	31	528
1986	327	37	52	12	53	81	562
1987	344	41	56	21	59	74	595
			C.	OIL & Natural Gas Commission			
1970	442	63	191	76	20	-	792
1975	605	79	320	141	28	-	1173
1976	695	85	334	152	29	-	1295
1977	763	91	378	158	29	-	1419
1978	844	101	422	140	29	-	1536
1979	886	111	461	135	30	-	1623
1980	951	123	487	125	32	-	1718
1981	1008	133	508	137	38	-	1824
1982	1116	140	530	139	41	-	1966
1983	1219	154	551	178	42	-	2144
1984	1322	166	590	218	53	-	2349
1985	1434	170	659	216	67	-	2546
1986	1642	190	740	164	80	-	2816
1987	1836	206	804	177	102	-	3125
				TOTAL (A + B + C)			
1970	1033	94	220	100	37	588	2077
1975	1282	104	354	168	53	612	2523
1976	1326	111	368	184	59	610	2658
1977	1417	120	414	195	61	583	2790
1978	1523	132	459	180	62	570	2926
1979	1568	144	500	182	67	569	3030
1980	1641	159	527	173	72	568	3140
1981	1709	169	550	185	79	568	3260
1982	1825	183	572	159	84	598	3421
1983	1955	190	899	220	89	263	3616
1984	2069	209	940	270	104	260	3852
1985	2186	216	1011	258	124	278	4073
1986	2368	229	1097	183	139	363	4379
1987	2494	249	1165	200	169	444	4721

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

STATE=WISE ACHIEVEMENT OF GEOLOGICAL FIELD PARTIES IN INDIA SINCE INCEPTION UPTO MARCH, 1987.

(Provisional.)

	STATE	Detailed mapping (Sq.Km.)	Semi-detailed (Sq.Km.)	Traversing line (Kms.)	Reconnaissance (Sq.Km.)	Special Studies (Sq.Km.)	Geoneotectonic studies (Sq.Km.)	Reconatory Traversing (Sq.Km.)
	1.	2.	3.	4.	5.	6.	7.	8.
1.	Andhra Pradesh	-	1000	-	5295	-	45000	-
2.	Tamil Nadu	2860	6090	271	11160	GC 595	-	-
3.	Assam (including Meghalaya, Nagaland Mizoram, Tripura & Arunachal Pradesh & Nefa)	8005	36068	11440	4979	CW 740 Photo geo - 1100 logical	-	167
4.	Gujarat	9529	25505	1624	25628	-	-	-
5.	Madhya Pradesh.	-	10786	-	-	-	-	-
6.	Bihar	-	3617	93	-	-	-	-
7.	Himachal Pradesh & Punjab.	9710	11314	4915	4568	1489	-	330 200 (RM)
8.	Jammu & Kashmir	1764	11372	1923	6548	70 + CH 372	-	-
9.	Uttar Pradesh	4658	11681	2087	913	4170	-	-
10.	Rajasthan	3584	26180	1734	17890	-	-	-
11.	Other areas falling in Vindhyan and Gondawana Basin	-	38095	-	-	-	-	-
12.	West Bengal	912	4830	477	2397	-	5400	-
13.	Andaman and Nicobar	833	3157	647	2151	-	-	-
14.	Nepal	194	8446	1087	-	-	-	-
15.	Bhutan	-	1821	95	270	-	-	-
	T O T A L :	42049	199962	26393	81799	5729 +CW 740 + Photo geological 1100 +GC 595 +CH 372	50400	497 +RM 200

Abbreviations: RM = Road Mapping
CW = Compilation Work
CH = Checking lines.
GC = Ground Checking

STATE-WISE ACHIEVEMENT OF GEOPHYSICAL FIELD PARTIES OF ONGC AND OIL SINCE INCEPTION UPTO MARCH 1987.

(Provisional)

	STATE	DEPARTMENTAL		CONTRACT	
		Lines Kms.	SLK	Lines Kms.	SLK
	1	2	3	4	5
1.	Andhra Pradesh	7108	13722	1184	-
2.	Assam (including Tripura Mizoram, Arunachal Pradesh & Meghalaya)	14707	19972	250	-
3.	Gujarat	43202	26141	4661	-
4.	Bihar	2426	1447	-	-
5.	Himachal Pradesh & Punjab.	5400	588	-	549
6.	Madras/Tamil Nadu	9639	11341	1676	-
7.	Jammu & Kashmir	1937	-	99	-
8.	Orissa	1644	-	-	3814
9.	Uttar Pradesh	12190	5847	-	-
10.	Rajasthan	3554	4374	4105	8140
11.	West Bengal	15730	8676	1801	-
12.	Madhya Pradesh	-	149	-	-
	TOTAL ONSHORE	117537	92257	13776	15211
	OFFSHORE	145897	-	128691	7629
	TOTAL	263434	92257	142467	22840

SLK: Standard Line Kilometres.

STATE-WISE ACHIEVEMENT OF DRILLING IN INDIA SINCE INCEPTION UPTO MARCH 1987.

STATE	DRILLING (000 METRES)			
	DEPARTMENTAL		CONTRACT	
	Wells	Metreage	Wells	Metreage
1	2	3	4	5
A. ONLAND :				
1. Andhra Pradesh (Including Kerala)	22	87.9	-	-
2. Assam, Andaman & Nicobar (including Tripura, Mizoram, Meghalaya, West Bengal and Nagaland)	1213+6P	4005.4		
3. Gujarat (including Kutch Maharashtra and Madhra Pradesh)	1822	2970.3	-	-
4. Bihar	2	12.8	1	4.9
5. Himachal Pradesh (including Punjab)	8	26.9	2	9.5
6. Tamil Nadu & Pondicherry	29	72.8	-	-
7. Jammu & Kashmir	3	6.6	-	-
8. Orissa	-	-	1	1.4
9. Uttar Pradesh	3	8.6	1	5.3
10.Rajasthan	16	29.6	6	11.4
Total ONLAND	3118+6P	7220.9	11	42.5
B. OFFSHORE :				
1. Andeman	-	-	1+2P	13.7
2. West Coast	520	1206.0	-	-
3. East Coast (Mahanandi+NEC)	60	191.1	10	37.6
Total OFFSHORE	580	1397.1	11+2P	51.3
TOTAL (A + b)	3698+6P	88618	22+2P	93.8

VII. C R U D E O I L

State wise Reserves of Crude Oil @

(MMT)

YEAR	ON SHORE				OFF SHORE	
	Guajarat	Assam	Rajasthan	Total	Bombay High	Grand Total
1	2	3	4	5	6	7
1966	62.73	90.27	-	153.00	-	153.00
1967	65.88	88.96	-	154.84	-	154.84
1968	64.92	76.08	-	141.00	-	141.00
1969	59.80	72.51	-	132.31	-	127.84
1970	56.38	71.46	-	127.84	-	127.84
1971	51.08	62.70	-	113.78	-	113.78
1972	52.28	72.90	-	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	82.65*	-	135.38	230.95	366.33
1981	51.48	89.00*	-	140.48	328.29	468.77
1982	53.18	91.52*	-	144.70	325.18	469.88
1983	90.58	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

@ Proved & Indicated Balance Recoverable Reserves.
* Includes crude oil reserves in Nagaland.

Note: For AOC & OIL the figures relate to Ist January of each year but in case of ONGC the date pertains to Ist October upto the year 1974 and thereafter to Ist January of each year.

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

('000' Tonnes)

YEAR	ON SHORE				OFFSHORE	GRAND TOTAL	CUMULATIVE PRODUCTION
	AOC	OIL	ONGC	TOTAL	ONGC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Upto 1947	5826	-	-	5826	-	5826	5826
1948	255	-	-	255	-	255	6081
1949	258	-	-	258	-	258	6339
1950	259	-	-	259	-	259	6598
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	-	451	10234
1961	184	319	10	513	-	513	10747
1962	188	556	334	1078	-	1078	11825
1963	184	805	663	1652	-	1652	13477
1964	170	1274	768	2212	-	2212	15689
1965	158	1742	1122	3022	-	3022	18711
1966	149	2143	2355	4647	-	4647	23358
1967	134	2752	2781	5667	-	5667	29025
1968	117	2771	2965	5853	-	5853	34878
1969	112	3074	3537	6723	-	6723	41601
1970	107	3070	3632	6809	-	6809	48410
1971	98	3146	3941	7185	-	7185	55595
1972	93	3183	4097	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	228	8659	94598
1977	58	3120	5569	8747	1438	10185	104783
1978	55	2697	5551	8303	2968	11271	116054
1979	47	2848	5537	8432	4407	12839	128893
1980	41	796	4033	4870	4529	9399	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		2776	6007	8783	19150	27933	226032
1985		2635	6580	9215	20645	29860	255892
1986		2713	7150	9863	21294	31157	287049

(a) = After takeover 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.

COMPANY-WISE PRODUCTION OF CRUDE OIL IN INDIA
(FINANCIAL YEARS)

('000' Tonnes)

YEAR	ON SHORE				OFFSHORE	GRAND TOTAL	CUMULATIVE PRODUCTION SINCE INCEPTION
	AOC	OIL	ONGC	TOTAL	ONGC		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1965-66	151	1895	1427	3473	-	3473	19915
1966-67	148	2217	2538	4903	-	4903	24818
1967-68	128	2836	2821	5785	-	5785	30603
1968-69	117	2848	3084	6059	-	6059	36662
1969-70	112	3079	3627	6819	-	6819	43481
1970-71	104	3084	3634	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)	2995	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

* Provisional.

(e)= After take over 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.

STATE-WISE PRODUCTION OF CRUDE OIL IN INDIA

('000' Tonnes)

YEAR	ON SHORE					OFF SHORE	Grand Total
	Arunachal Pradesh	Tamil Nadu	Assam	Gujarat	Total	Bombay High	
1	2	3	4	5	6	7	8
			C A L A N D E R Y E A R S				
1960	-	-	451	-	451	-	451
1965	-	-	2900	1122	3022	-	3022
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	4276	9215	20645	29860
1986	59	4	5270	4530	9863	21294	31157
			F I N A N C I A L Y E A R S				
1960-61	-	-	448	-	448	-	448
1965-66	-	-	2046	1427	3473	-	3473
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	-	5009	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

* Provisional.

VIII. NATURAL GAS

State-wise Reserves of Natural Gas @

(Bn. Cubic Metres)

YEAR	ON SHORE				OFF SHORE	
	Gujarat	Assam	Rajasthan	Total	Bombay High	Grand 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	-	63.24
1969	22.90	42.70	-	65.60	-	65.60
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	-	67.86
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	79.58	264.64	344.22
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	377.21	475.26
1984	18.60	81.31*	0.54	100.54	377.80	478.25
1985	21.87	87.67*	0.54	110.08	368.55	478.63
1986	26.99	91.83*	0.54	119.36	377.69	497.05
1987	41.26	97.82*	0.74	139.82	400.99	540.81

@ Proved & Indicated Balance Recoverable Reserves.
* Includes Natural Gas Reserves in Tripura & Nagaland.

Note: For AOC & OIL the figures relate to Ist January of each year but in case of ONGC the date pertains to Ist October upto the year 1974 and thereafter to Ist January of each year.

STATE-WISE GROSS PRODUCTION OF NATURAL GAS IN INDIA

(Million Cubic Metres)

YEAR	ON SHORE			OFF SHORE	GRAND TOTAL
	Assam	Gujarat	Total	Bombay High	
1	2	3	4	5	6
		CALENDAR YEARS			
1970	966	458	1424	-	1424
1971	993	516	1509	-	1509
1972	1031	533	1564	-	1564
1973	1155	519	1674	-	1674
1974	1328	590	1918	-	1918
1975	1550	760	2310	-	2310
1976	1595	815	2410	28	2438
1977	1677	888	2565	161	2726
1978	1527	903	2430	340	2770
1979	1709	843	2552	532	3084
1980	621	868	1489	588	2077
1981	1605	761	2366	1120	3486
1982	1855	741	2596	2065	4661
1983	1903	760	2664@	3104	5768
1984	2027	758	2786	4034	6820
1985	2053	884	2937	4971	7908
1986	2132	980	3112	6350	9462
		FINANCIAL YEARS			
1970-71	980	465	1445	-	1445
1971-72	1012	523	1535	-	1535
1972-73	1034	531	1565	-	1565
1973-74	1195	518	1713	-	1713
1974-75	1388	653	2041	-	2041
1975-76	1595	773	2368	-	2368
1976-77	1558	822	2380	48	2428
1977-78	1717	893	2610	229	2839
1978-79	1518	908	2426	386	2812
1979-80	1385	840	2225	542	2767
1980-81	843	842	1685	673	2358
1981-82	1748	758	2506	1345	3851
1982-83	1829	750	2579	2357	4936
1983-84	1954	748	2702	3259	5961
1984-85	2058@	775	2833	4408	7241
1985-86	2335@	919	2954	5180	8134
1986-87*	2177@	971	3148	6705	9853

@ = Includes one million Cubic Metres of Natural Gas production from Arunachal Pradesh in 1984-85 and 6 Million Cubic Metres of Natural gas in 1985-86 and 13 millions cubic metres in 1986-87.

* = Provisional.

State-wise Gross and Net Production of Natural Gas

(Mn.Cubic Metres)

PERIOD	Gross Prodn.	Re-injected	Flarred	Net Production
1	2	3	4	5
		ON - SHORE		
GUJARAT				
1970-71	465	-	155	310
1971-72	523	-	143	380
1972-73	531	-	117	414
1973-74	518	-	144	374
1974-75	653	-	121	532
1975-76	773	-	136	637
1976-77	822	-	131	691
1977-78	893	-	147	746
1978-79	908	-	164	744
1979-80	840	-	178	662
1980-81	842	-	146	696
1981-82	758	-	77	681
1982-83	750	-	55	695
1983-84	748	-	67	681
1984-85	775	-	85	690
1985-86	919	-	118	801
1986-87	971	-	184	787
ASSAM				
1970-71	980	36	607	337
1971-72	1012	49	625	338
1972-73	1034	141	536	357
1973-74	1195	115	692	388
1974-75	1388	139	830	419
1975-76	1595	162	946	487
1976-77	1558	190	678	690
1977-78	1717	184	818	715
1978-79	1518	148	607	763
1979-80	1385	127	616	642
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	2177	63	871	1243

State-wise Gross and Net Production of Natural Gas

(Mn.Cubic Metres)

PERIOD	Gross Prodn.	Re-injected	Flarred	Net Production
1	2	3	4	5
		OFFSHORE		
1970-71	-	-	-	-
1971-72	-	-	-	-
1972-73	-	-	-	-
1973-74	-	-	-	-
1974-75	-	-	-	-
1975-76	-	-	-	-
1976-77	48	-	48	-
1977-78	229	-	226	3
1978-79	386	-	182	204
1979-80	542	-	170	372
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	3067
1986-87	6705	-	1663	5042
TOTAL				
1970-71	1445	36	762	647
1971-72	1535	49	768	718
1972-73	1565	141	653	771
1973-74	1713	115	836	762
1974-75	2041	139	951	951
1975-76	2368	162	1082	1124
1976-77	2428	190	857	1381
1977-78	2839	184	1191	1464
1978-79	2812	148	953	1711
1979-80	2767	127	964	1676
1980-81	2358	67	769	1522
1981-82	3851	110	1519	2222
1982-83	4936	91	1888	2957
1983-84	5961	45	2517	3399
1984-85	7241	48	3052	4141
1985-86	8134	66	3118	4950
1986-87	9853	63	2718	7072

State-wise Utilisation of Natural Gas in India

(Mn.Cubic Metres)

YEAR	ON-SHORE			OFFSHORE	GRAND TOTAL
	Gujarat	Assam	Total	BOMBAY HIGH	
1	2	3	4	5	6
1970-71	310	337	647	-	647
1971-72	380	338	718	-	718
1972-73	414	357	771	-	771
1973-74	374	388	762	-	762
1974-75	532	419	951	-	951
1975-76	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	690	936	1626	2515	4141
1985-86	801	1082	1883	3067	4950
1986-87*	787	1243	2030	5042	7072

* = Provisional.

INDUSTRY-WISE OFFTAKES OF NATURAL GAS IN INDIA.

(Million Cubic Metres)

YEAR	Energy Purposes						Non Energy Purpose				
	Power Generation	Industrial Fuel	Tea plantation	Domestic Fuel	Captive use/LPG Shriukage	Total	Fertilizer Industry	Petro-Chemicals	Others	Total	Grand 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	–	–	201	771
1973-74	323	157	22	Neg.	81	583	179	–	–	179	762
1974-75	354	164	29	6	80	633	318	–	–	318	951
1975-76	366	143	33	13	104	659	463	–	2	465	1124
1976-77	344	155	38	15	142	694	663	–	24	687	1381
1977-78	372	165	39	13	171	760	673	9	22	704	1464
1978-79	560	175	43	13	176	967	721	5	18	744	1711
1979-80	514	156	39	13	174	896	755	7	18	780	1676
1980-81	492	163	45	14	176	890	611	5	16	632	1522
1981-82	612	166	47	15	364	1204	991	8	19	1018	2222
1982-83	1025	185	51	14	499	1774	1155	7	21	1183	2957
1983-84	1209	230	56	16	572	2083	1283	10	23	1316	3399
1984-85	1454	250	62	18	721	2505	1603	11	22	1636	4141
1985-86	1299	223	78	21	795	2416	2500	10	24	2534	4950
1986-87*	2041	257	93	25	1295	3711	3335	–	26	3361	7072

Neg. = Negligible

* = Provisional estimated.

IX. REFINING.

Petroleum Refining Capacity in India. as on 1.4.1987

(Million Tonnes Per Annum)

Refinery	Year of Commissioning	Installed Capacity as on 1.4.1987	Capacity after expansion under consideration/Implementation	likely date of Commissioning
1.	2.	3.	4.	5.
A. Refineries in Operation:				
1. IOC, Digboi	1901	0.50		
2. BPCL, Bombay	1955	6.00		
3. HPCL, Bombay	1954	3.50*		
4. HPCL, Vizag	1957	4.50		
5. IOC, Gauhati	1962	0.85		
6. IOC, Barauni	1964	3.30		
7. IOC, Koyali	1965	8.10		
8. IOC, Haldia	1974	2.50		
9. IOC, Mathura	1982	6.00		
10. CRL, Cochin	1966	4.50		
11. MRL, Madras	1969	5.60		
12. BRPL, Assam	1979	1.35		
	TOTAL:	46.70*		
B. Refineries under Expansion:				
1. Mathura		6.00	7.50	April, 1988
2. Koyali		7.30	9.50	July, 1988
C. Projects under Consideration:				
1. Karnal			6.00	
2. Mangalore			3.00	
3. New Assam refinery			2.00	

* Excludes 2 MTPA of Swing Refinery capacity available at HPCL, Bombay.

REFINERY CRUDE THROUGHOUT AND PRODUCTION OF PETROLEUM PRODUCTS 1960 TO 1986

('000' Tonnes)

YEAR	CRUDE THROUGHOUT			PRODUCTION		
	Public Sector	Private Sector	Total (2+3)	Public Sector	Private Sector	Total (5+6)
1.	2.	3.	4.	5.	6.	7.
		CALENDAR YEARS				
1960	-	6091	6091	-	5747	5747
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	10132	7040	17172
1971	11198	8390	19588	10293	7932	18225
1972	11838	7834	19672	10835	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(P)	44940	-	44940	42061	-	42061

REFINERY CRUDE THROUGHOUT AND PRODUCTION OF PETROLEUM PRODUCTS 1960-61 TO 1986-87

('000' Tonnes)

YEAR	CRUDE THROUGHOUT			PRODUCTION		
	Public Sector	Private Sector	Total (2+3)	Public Sector	Private Sector	Total (5+6)
1.	2.	3.	4.	5.	6.	7.
			FINANCIAL YEARS			
1960-61	--	6130	6130	--	5777	5777
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	10623	8016	18639
1972-73	11565	7763	19328	10575	7255	17830
1973-74	11616	9342	20958	10647	8848	19495
1974-75	15572	5522	21094	11572	8031	19603
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	45698	--	45698	42776	--	42776

REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION (NET) OF POL PRODUCTS 1960-61 - 1985-86

('000' Tonnes)

Y E A R	AOC/ AOD	BSR/ BPCL	ESSO/ HPCL	CORIL/ HPC(VMYU)	GUWHATI	BARAUNT
1.	2.	3.	4.	5.	6.	7.
1960-61:						
Total Production	416	2731	1772	858	---	----
Crude Run	446	2879	1904	901	---	----
1965-66:						
Total Production	479	3743	2552	1053	721	613
Crude Run	488	3989	2672	1118	804	753
1970-71:						
Total Production	452	3333	2275	1085	631	1996
Crude Run	476	3541	2367	1175	686	2191
1975-76:						
Total Production	489	3438	2635	1007	762	2722
Crude Run	527	3630	2830	1081	827	2949
1980-81:						
Total Production	477	4629	2907	1208	577	432
Crude Run	503	4901	3113	1319	639	504
1981-82:						
Total Production	474	4754	3253	1067	667	2773
Crude Run	496	4999	3483	1178	746	3031
1982-83:						
Total Production	501	4272	2926	1004	733	2861
Crude Run	521	4485	3124	1077	802	3071
1983-84:						
Total Production	528	5073	3104	977	797	2662
Crude Run	549	5258	3308	1093	871	2907
1984-85:						
Total Production	511	5230	3021	1157	712	2710
Crude Run	531	5481	3220	1249	761	2896
1985-86:						
Total Production	511	5981	4102	2438	696	2513
Crude Run	529	6389	4375	2659	766	2766
1986-87*:						
Total Production	530	5277	4752	3452	738	2604
Crude Run	551	5580	5011	3715	802	2860

*Provisional.

REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION (NET) OF POL PRODUCTS 1960-61 - 1985-86

('000' Tonnes)

YEAR	GUJARAT	HALDIA	MATHRUA	CRL	MRL	BR & T	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.
1960-61:							
Total Production	-	-	-	-	-	-	5777
Crude Run	-	-	-	-	-	-	6130
1965-66:							
Total Production	400	-	-	-	-	-	9561
Crude Run	409	-	-	-	-	-	10233
1970-71:							
Total Prod.	3208	-	-	2346	1784	-	17110
Crude Run	3463	-	-	2498	1982	-	18379
1975-76:							
Total Prod.	3854	1295	-	2187	2435	-	20829
Crude Run	4107	1348	-	2294	2690	-	22283
1980-81:							
Total Prod.	6629	2056	-	2795	2376	37	24123
Crude Run	6974	2308	-	2912	2611	52	25836
1981-82:							
Total Prod.	6711	2067	466	2999	2570	381	28182
Crude Run	7042	2277	520	3120	2801	453	30146
1982-83:							
Total Prod.	6667	2301	3610	3048	2635	515	31073
Crude Run	7089	2503	3844	3187	2857	596	33156
1983-84:							
Total Prod.	6813	2351	4914	2740	2438	529	32926
Crude Run	7331	2580	5223	2847	2647	649	35263
1984-85:							
Total Prod.	7290	2101	5909	826	3139	630	33236
Crude Run	7777	2365	6239	872	3413	752	35556
1985-86:							
Total Prod.	7305	2579	5734	2560	4723	739	39881
Crude Run	7830	2822	6075	2749	5057	893	42910
1986-87*:							
Total Production	7384	2390	6006	3954	4842	847	42776
Crude Run	7834	2623	6353	4166	5192	1011	45698

* Provisional.

TRENDS IN DOMESTIC PRODUCTION OF PETROLEUM PRODUCTS DURING THE PERIOD 1970-71 TO 1986-87.

(Qty. '000 Tonnes)

Products	1970-71	1975-76	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Light Distillates	3021	3630	4051	4295	4459	4101	5138	5313	6134	6315	8253	9068
of which :												
LPG*	169	331	383	403	406	366	410	406	514	596	867	995
Mogas	1526	1275	1423	1515	1512	1519	1614	1797	1937	2144	2306	2515
Naphtha	1205	1910	2120	2262	2415	2115	3004	2986	3578	3470	4955	5437
2. Middle Distillates	8562	10769	12079	12476	13080	12115	14134	15625	16873	17226	21613	23324
of which												
Kerosene	2896	2439	2450	2514	2539	2396	2907	3393	3528	3364	4030	4912
ATF	710	925	1077	1177	1104	1001	1009	1137	1195	1297	1519	1553
HSD	3840	6285	7129	7350	7975	7371	9042	9761	10862	11086	14624	15450
LDO	986	946	1224	1227	1230	1108	949	1121	1081	1253	1177	1172
3. Heavy Ends	5527	6430	7089	7422	8255	7907	8910	10135	9919	9694	10015	10384
of which												
F.O.	2987	3595	3454	3425	4086	4041	4015	4829	4588	4095	3791	3865
LSHS/HHS	1103	1488	1878	2219	2265	2079	2893	3135	3412	3791	4164	4146
Total Fuel Oils	4090	5083	5332	5644	6351	6120	6908	7964	8000	7886	7955	8011
Lube Oils	231	342	413	490	487	426	407	434	470	414	501	491
Petroleum Coke	151	160	155	122	99	86	141	149	136	181	192	264
Bitumen	805	697	992	962	1103	1082	1298	1397	1069	944	1107	1325
TOTAL PRODUCTION :	17110	20829	23219	24193	25794	24123	28182	31073	32926	33236	39881	42776
Crude Throughout	18379	22283	24898	25974	27474	25836	30146	33156	35263	35556	42910	45698
LPG Production from Natural Gas	—	—	—	—	—	—	73	169	223	277	363	494

(P) = Provisional

* = Excludes LPG production from Natural Gas.

PRODUCTION OF PETROLEUM PRODUCTS - 1982 TO 1986.

('000' Tonnes)

PRODUCT	PRODUCTION					% Variation	
	1982	1983	1984	1985 (P)	1986	1985/1984	1986/1985
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	a) From Crude Oil:						
1. Light Distillates:	5112	5954	6226	7745	8859	+24.4	+14.4
of which							
L.P.Gas	377	484	583	788	963	+35.2	+22.2
Naphtha	2871	3473	3479	4586	5300	+31.8	+15.6
Mogas	1750	1880	2062	2252	2464	+ 9.2	+ 9.4
SBPS/Hexane	49	43	28	30	40	+ 7.1	+33.3
2. Middle Distillates:	15013	16512	17003	20451	22824	+20.3	+11.6
of which							
ATF/Jet A-1	1092	1163	1332	1462	1510	+ 9.8	+ 3.3
Kerosene	3253	3467	3304	3842	4735	+16.3	+23.2
M.T.O.	90	84	105	104	104	- 1.0	--
H.S.D.	9365	10588	10954	13725	15166	+25.3	+10.5
L.D.O.	1104	1077	1197	1156	1176	- 3.4	+ 1.7
J.B.O.	61	80	50	96	70	+92.0	-27.1
3. Heavy Ends:	9859	9832	9734	10068	10194	+ 3.4	+ 1.3
of which							
F.O.	4801	4486	4296	3944	3738	- 8.2	- 5.2
LSHS/HHS	3001	3335	3618	4152	4190	+14.8	+ 0.9
Total (Fuel Oils)	7802	7821	7914	8096	7928	+ 2.3	- 2.1
Lube Oils	404	462	455	470	478	+ 3.3	+ 1.7
Bitumen	1300	1216	919	1069	1247	+16.3	+ 6.7
Pet. Coke*	159	127	174	180	249	+ 3.4	+38.3
Waxes	58	63	66	77	84	+16.7	+ 9.1
4. Total Production:	29984	32298	32963	38264	42061	+16.1	+ 9.9
5. Crude Run	32107	34534	35265	41226	44940	+17.0	+ 9.0
	(b) From Natural Gas:						
6. L.P.G.	145	208	261	342	465	+31.0	+36.0

* Includes calcined Pet.Coke

PATTERN OF REFINERY PRODUCTION:

(Percentages)

PRODUCTS	1982	1983	1984	1985	1986
Light Distillates @	15.9	17.2	17.7	18.8	19.7
Middle Distillates	46.8	47.8	48.3	49.6	50.8
Heavy Fuel Oils	24.3	22.7	22.5	19.6	17.6
Bitumens	4.0	3.5	2.6	2.6	2.8
Lubes	1.3	1.3	1.3	1.1	1.1
Others	1.1	0.9	1.1	1.1	1.6
Total Production	93.4	93.4	93.6	92.8	93.6
RBF & Losses/Inventories	6.6	6.6	6.4	7.2	6.4
Crude Run	100	100	100	100	100

PRODUCTION OF PETROLEUM PRODUCTS - 1982-83 TO 1986-87

('000' Tonnes)

PRODUCT	PRODUCTION					%Variation	
	1982-83	1983-84	1984-85	1985-86	1986-87	1985-86 / 1984-85	1986-87 / 1985-86
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(b) From Crude Oil:						
1. Light Distillates:	5313	6134	6315	8253	9068	+30.7	+ 9.9
of which							
L.P.Gas	406	514	596	867	995	+45.5	+14.8
Naphtha	2986	3578	3470	4955	5437	+42.8	+ 9.7
Mogas	1797	1937	2144	2306	2515	+ 7.6	+ 9.1
SBPS/Hexane	54	33	29	31	32	+ 6.9	+ 3.2
2. Middle Distillates:	15625	16873	17226	21613	23324	+25.5	+ 7.9
of which							
ATF/Jet A-1	1137	1195	1297	1519	1553	+17.1	+ 2.2
Kerosene	3393	3528	3364	4030	4912	+19.8	+21.9
M.T.O.	98	82	107	106	105	- 0.9	- 0.9
H.S.D.	9761	10862	11086	14624	15450	+31.9	+ 5.6
L.D.O.	1121	1081	1253	1177	1172	- 6.1	- 0.4
J.B.O.	60	74	61	91	67	+49.2	+26.4
3. Heavy Ends:	10135	9919	9694	10015	10384	+ 3.3	+ 3.7
of which							
F.O.	4829	4588	4095	3791	3865	- 7.4	+ 2.0
LSHS/HHS	3135	3412	3791	4164	4146	+ 9.8	- 0.4
Total (Fuel Oils)	7964	8000	7886	7955	8011	+ 0.9	+ 0.7
Lube Oils	434	470	414	501	491	+21.0	- 2.0
Bitumens	1397	1069	944	1107	1325	+17.3	+19.7
Pet. Coke*	149	136	181	192	264	+ 6.1	+37.5
Waxes	58	64	73	81	79	+11.0	- 2.5
4. Total Production:	31073	32926	33236	39881	42776	+20.0	+ 7.3
5. Crude Run	33156	35263	35556	42910	45698	+20.7	+ 6.5
	(b) From Natural Gas:						
6. L.P.G.	169	223	277	363	494	+31.0	+36.1

(P) Provisional. * Includes calcined Pet. Coke.

PATTERN OF REFINERY PRODUCTION:

(Percentages)

PRODUCTS	82-83	83-84	84-85	1985-86	1986-87
Light Distillates @	16.0	17.4	17.8	19.2	19.9
Middle Distillates	47.1	47.9	48.4	50.4	51.0
Heavy Fuel Oils	24.0	22.7	22.2	18.5	17.5
Bitumens	4.2	3.0	2.7	2.6	2.9
Lubes	1.3	1.3	1.2	1.2	1.1
Others	1.1	1.1	1.2	1.0	1.2
Total Production	93.7	93.4	93.5	92.9	93.6
RBF & Losses/Inventories	6.3	6.6	6.5	7.1	6.4
Crude Run	100	100	100	100	100

X. CONSUMPTION / SALES

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

(Qty. '000' Tonnes)

Year	Total Consumption	% age Growth	Year	Total Consumption	% age Growth
1.	2.	3.	4.	5.	6.
1948	2657	- 2.9	1948-49	2774e	+ 2.1
1949	3125	+17.6	1949-50	3174e	+14.4
1950	3319	+ 6.2	1950-51	3485e	+ 9.8
1951	3888	+17.1	1951-52	3851e	+10.5
1952	3741	- 3.8	1952-53	3785e	- 1.7
1953	3916	+ 4.7	1953-54	3948e	+ 4.3
1954	4089	+ 4.4	1954-55	4270e	+ 8.2
1955	4817	+17.8	1955-56	4920e	+15.2
1956	5229	+ 8.6	1956-57	5376e	+ 9.3
1957	5819	+11.3	1957-58	5894e	+ 9.6
1958	6117	+ 5.1	1958-59	6291e	+ 6.7
1959	6812	+11.4	1959-60	7100e	+12.9
1960	7964	+16.9	1960-61	8285	+16.7
1961	8570	+ 7.6	1961-62	8724	+ 5.3
1962	9536	+11.3	1962-63	9832	+12.7
1963	10387	+ 8.9	1963-64	10671	+18.3
1964	11478	+10.5	1964-65	11700	+ 9.7
1965	12356	+ 7.6	1965-66	12437	+ 6.3
1966	12990	+ 5.1	1966-67	13348	+ 7.3
1967	14133	+ 8.8	1967-68	14397	+ 7.9
1968	15871	+12.3	1968-69	16305	+13.3
1969	17371	+ 9.3	1969-70	17797	+ 9.2
1970	18816	+ 8.3	1970-71	19135	+ 7.5
1971	20706	-10.0	1971-72	21299	+11.3
1972	22675	+ 9.5	1972-73	22978	+11.3
1973	23726	+ 4.6	1973-74	23574	+ 2.6
1974	23023	- 3.0	1974-75	23302	+ 1.2
1975	23541	+ 2.2	1975-76	23673	+ 1.6
1976	24897	+ 5.8	1976-77	25400	+ 7.3
1977	26570	+ 6.7	1977-78	26990	+ 6.3
1978	28894	+ 8.7	1978-79	29719	+10.1
1979	31306	+ 8.3	1979-80	31323	+ 5.4
1980	31633	+ 1.0	1980-81	32261	+ 3.0
1981	34037	+ 7.6	1981-82	34107	+ 5.7
1982	35403	+ 4.0	1982-83	36395	+ 6.7
1983	37223	+ 5.1	1983-84	37776	+ 3.8
1984	39934	+ 7.3	1984-85	40828	+ 8.1
1985	42973	+ 7.6	1985-86	43363	+ 6.2
1986(P)	45200	+ 5.2	1986-87(P)	45956	+ 6.0

NOTE:= i) Includes Refinery fuel from 1960/1960-61 onwards.
ii) Prior to that Refinery fuel consumption is not available.
* = Excludes sales to Nepal from 1975/1975-76 onwards.
(P) Provisional.
e = Estimated.

TRENDS IN SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE PERIOD 1970-71 TO 1986-87.

('000' Tonnes)

PRODUCT	1970 -71	1975 -76	1976 -77	1977 -78	1978 -79	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87(P)	Annual Growth Rate of 1986-87/1970-1
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1. LIGHT DISTILLATES:	2697	3596	4042	4228	4583	4460	4388	5187	5420	5600	6318	6776	7390	6.5
of which: LPG	176	336	368	391	408	410	405	492	601	746	953	1241	1495	14.3
Mogas	1453	1275	1316	1391	1499	1490	1522	1599	1722	1891	2084	2275	2508	3.5
Naphtha	904	1836	2196	2290	2515	2413	2325	2963	2958	2804	3125	3106	3231	8.3
2. MIDDLE DISTILLATES:	9040	11653	12655	13771	15172	16321	17056	17919	19660	20651	22429	23948	25566	6.7
of which: Kerosene	3283	3104	3322	3634	3952	3872	4228	4693	5214	5524	5959	6229	6636	4.5
ATF/Jet A-1	689	897	956	1041	1154	1144	1125	1128	1145	1208	1336	1453	1594	5.4
HSD	3837	6595	7106	7736	8638	9801	10345	10832	12013	12600	13696	14886	15970	9.3
LDO	1092	878	1082	1164	1216	1266	1122	1036	1067	1097	1198	1123	1141	0.3
3. HEAVY ENDS:	6175	7198	7404	7540	8486	9102	9452	9417	9577	9590	10048	10148	10448	3.3
FO/TDO	3513	4279	4220	3958	4395	4796	5406	4306	4208	4207	4256	3806	3691	0.3
LSHS	962	1381	1499	1847	2189	2268	2065	2878	3093	3351	3688	4094	4246	8.5
HHS	189	121	14	34	84	17	2							
Total Fuel Oils	4664	5781	5733	5839	6668	7081	7473	7184	7301	7558	7944	7900	7937	3.4
Lube Oils	523	425	436	459	526	546	570	567	577	590	634	658	717	2.0
Greases	22	16	18	19	18	20	23	25	28	27	30	42	34	2.8
Lubes & Greases (Total)	545	441	454	478	544	566	593	592	605	617	664	700	751	2.0
Bitumens	777	690	882	908	943	1069	1064	1292	1379	1050	935	1126	1288	3.2
Petroleum Coke	107	151	175	146	155	185	137	174	103	114	234	163	203	4.1
Other Misc.	82	135	160	170	176	201	185	175	189	251	271	259	269	7.7
TOTAL (1+2+3)	17912	22447	24101	25539	28241	29883	30896	32523	34657	35841	38795	40872	43404	5.7
Refinery Fuel	1223	1226	1299	1451	1478	1440	1365	1584	1738	1935	2033	2491	2552	4.7
GRAND TOTAL:	19135	23673	25400	26990	29719	31323	32261	34107	36395	37776	40828	43363	45956	5.6

P = Provisional.

PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE YEARS 1981 TO 1986.

(Qty.'000' Tonnes)

PRODUCT	1981	1982	1983	1984	1985	1986(P)	% change 1986/85	% age of Total'86
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.Light Distillates:	5125	5327	5390	6223	6683	7189	7.6	15.9
L.P.Gas	468	560	702	886	1175	1427	21.5	3.2
Naphtha	2954	2944	2696	3153	3107	3151	1.4	7.0
Mogas	1574	1691	1834	2026	2247	2456	9.3	5.4
SBP/Haxane	46	48	52	53	54	61	13.0	0.1
Others	83	84	106	105	100	94	-6.0	0.2
2.Middle Distillates:	17714	19166	20363	21855	23714	25114	5.9	55.6
Kerosene	4588	5125	5392	5838	6168	6514	5.6	14.4
ATF/Jet A-1	1116	1128	1187	1302	1431	1579	10.3	3.5
HSD	10748	11642	12459	13310	14713	15657	6.4	34.7
LDO/MDO	1022	1050	1095	1175	1145	1134	-1.0	2.5
JBO	79	70	76	65	81	72	-11.9	0.2
MTO	92	87	85	98	100	101	1.0	0.2
Others	68	64	69	67	76	57	-25.0	0.1
3.Heavy Ends:	9651	9340	9591	9851	10186	10340	1.5	22.9
(a)Fuel Oils (total)	7369	7126	7527	7786	7955	7943	0.1	17.6
F.O./TDO	4607	4107	4269	4221	3933	3707	5.7	8.2
LSHS/HHS	2762	3019	3258	3565	4022	4236	5.3	9.4
(b)Lubes & Greases	616	597	605	653	696	738	6.0	1.6
(c)Bitumen/Asphalt	1302	1304	1134	944	1103	1199	8.7	2.7
(d)Pet.Coke	188	125	101	202	180	191	6.1	0.4
(e)Wax	71	56	75	68	75	86	14.7	0.2
(f)Others	105	132	149	198	177	183	3.4	0.4
Total (1+2+3)	32490	33833	35344	37929	40583	42643	5.1	94.4
Refinery Fuel@	1547	1570	1879	2005	2390	2557	7.0	5.6
GRAND TOTAL:	34037	35403	37223	39934	42978	45200	5.2	100.0

@ = RBF, Lube Refinery Fuel & TPs Fuel.
P = Provisional.

PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE YEARS 1981-82 TO 1986-87

(Qty.'000' Tonnes)

PRODUCT	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87(P)	% change 1986-87 1985-86	% age of Total 1986-87
1.	2.	3.	4.	5.	6.	7.	8.
1.Light Distillates:	5420	5600	6318	6776	7390	9.1	16.1
L.P.Gas	601	746	953	1241	1495	20.5	3.3
Naphtha	2958	2804	3125	3106	3231	4.0	7.0
Mogas	1722	1891	2084	2275	2508	10.2	5.5
SBP/Haxane	47	54	51	54	65	20.4	0.1
Others	92	105	105	100	91	-9.0	0.2
2.Middle Distillates:	19660	20651	22429	23948	25566	6.8	55.6
Kerosene	5214	5524	5959	6229	6636	6.5	14.4
ATF/Jet A-1	1145	1208	1336	1453	1594	9.7	3.5
HSD	12013	12600	13696	14886	15970	7.3	34.7
LDO/MDO	1067	1097	1198	1123	1141	1.6	2.5
JBO	72	64	76	85	65	-23.5	0.2
MTO	85	88	99	100	101	1.0	0.2
Others	64	70	65	72	59	-18.1	0.1
3.Heavy Ends:	9577	9590	10048	10148	10448	3.0	22.7
(a)Fuel Oils (total)	7301	7558	7944	7900	7937	0.5	17.3
F.O./TDO	4208	4207	4256	3806	3691	-3.0	8.0
LSHS/HHS	3093	3351	3688	4094	4246	3.7	9.3
(b)Lubes & Greases	605	617	664	700	751	7.3	1.6
(c)Bitumen/Asphalt	1379	1050	935	1126	1288	14.4	2.8
(d)Pet.Coke	103	114	234	76	82	7.9	0.2
(e)Wax	60	70	77	163	203	24.5	0.4
(f)Others	129	181	194	183	187	2.2	0.4
Total (1+2+3)	34657	35841	38795	40872	43404	6.2	94.4
Refinery Fuel@	1738	1935	2033	2491	2552	2.5	5.6
GRAND TOTAL:	36395	37776	40828	43363	45956	6.0	100

* = Revised
@ = RBF, Lube Refinery Fuel & TPs Fuel.
P = Provisional.

Seasonal Indices of the Sales/Consumption of Major Petroleum Products - in India.
(Base : 1980-81)

MONTH	M.S.	A.T.F.	KEROSENE	H.S.D.	L.D.O.	BITUMEN	ALL PRODUCTS
1.	2.	3.	4.	5.	6.	7.	8.
April	9.42	8.25	7.92	8.75	7.92	8.33	8.17
May	8.92	8.42	8.00	9.08	7.83	8.00	8.33
June	8.33	8.00	7.83	8.33	7.33	7.67	8.08
1st Quarter Total	26.67	24.67	23.75	26.16	23.08	24.00	24.58
July	8.08	7.92	8.08	7.92	7.42	7.67	8.08
August	7.92	8.16	8.17	7.25	7.42	7.50	7.92
September	7.83	8.25	8.25	7.33	8.33	7.08	7.92
2nd Quarter Total	23.83	24.33	24.50	22.50	23.17	22.25	23.92
October	8.25	8.33	8.33	8.00	8.67	7.59	8.25
November	8.08	8.67	8.83	8.50	9.33	8.08	8.42
December	8.50	8.33	9.00	8.92	10.08	9.25	9.00
3rd Quarter Total	24.83	25.33	26.16	25.42	28.08	24.92	25.67
January	8.25	8.67	8.92	8.75	9.00	9.25	8.75
February	8.08	8.17	8.50	8.17	8.00	8.75	8.25
March	8.34	8.83	8.17	9.00	8.67	10.83	8.83
4th Quarter Total	24.67	25.67	25.59	25.92	25.67	28.83	25.83
T O T A L :	100	100	100	100	100	100	100

NOTE : (i) Based on Sales/Consumption data from 1980-81 to 1986-87 (Prov.)
(ii) Moving Average Method.

SALES/CONSUMPTION OF PETROLEUM PRODUCT AND MARKET PARTICIPATION OF OIL COMPANIES IN INDIA. 1960-61 TO 1986-87.

(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.
1960-61	S/C	38	3722	2302	1270	155	498	7985
(E)	%	0.5	46.6	28.8	15.9	2.0	6.2	100
1965-66	S/C	2812	4270	2816	1390	168	461	11917
(E)	%	23.6	35.8	23.6	11.7	1.4	3.9	100
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	--	1107	257	32523
	%	62.0	16.3	17.5	--	3.4	0.8	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	0.6	100
1986-87(P)	S/C	25646	7932	7865	--	1667	294	43404
	%	59.1	18.3	18.1	--	3.8	0.7	100

S/C = Sales / Consumption
P = Provisional.
E = Estimated
@ = Included under ESSO/HPCL from 1980-81 onwards.

Deliveries* made to International/Coastal Bunkers during the year 1970-71 1975-76, 1979-80, 1981-82, 1982-83, 1983-84, 1984-85, 1985-86.& 1986-87

(Qty.'000' Tonnes)

I T E M S	1970 -71	1975 -76	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87(P)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.
Shipping International Bunkers:										
F.O.	207.9	137.2	135.8	148.7	67.1	85.0	104.4	154.9	64.3	110.2
H.S.D.	6.4	11.4	17.7	15.4	16.8	14.5	17.0	12.4	10.1	6.4
L.D.O.	20.0	39.5	63.1	50.4	52.3	41.7	42.3	36.6	31.5	33.7
TOTAL	234.3	188.1	216.6	214.5	136.2	141.2	199.7	203.9	105.9	150.3
Coastal Bunkers:										
F.O.	196.9	178.3	126.4	128.9	149.6	172.2	142.0	143.2	167.7	197.6
H.S.D.	22.4	25.9	41.9	42.0	61.4	81.0	86.3	86.7	98.3	134.0
L.D.O.	21.6	28.1	28.4	32.4	36.8	47.8	47.1	49.0	39.9	35.6
TOTAL	240.9	232.3	196.7	204.3	247.8	301.0	275.4	278.9	305.9	367.2
Total Bunkers:										
F.O.	404.8	315.5	262.2	277.6	216.7	257.2	282.4	298.1	232.0	307.8
H.S.D.	28.8	37.3	59.6	58.4	78.2	95.5	103.3	99.1	108.4	140.4
L.D.O.	41.6	67.6	91.5	82.8	89.1	89.5	89.4	85.6	71.4	69.3
TOTAL	475.2	420.4	413.3	418.8	384.0	442.2	475.1	482.8	411.8	517.5

* = Excluding Sales to foreign bunkers on KNPC account by IOC.
P = Provisional.

ESTIMATED STATE-WISE CONSUMPTION OF BULK PETROLEUM PRODUCTS @ 1986-87 (Prov.)

('000' Tonnes)

STATE/UNION TERRITORY	ATF	M.S	SKO	HSD	LDO	F.O-(Reg.)	LSHS	NAP-HTHA	LPG	BIT-UMEN	OTHER	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
A. STATE												
Andhra	44	149	426	1253	20	111	57	79	122	82	60	2403
Assam	54	48	220	274	7	48	36	20	26	18	56	807
Bihar	11	94	370	866	173	159	282	119	35	68	87	2264
Gujarat	49	204	614	1063	202	308	1635	629	127	86	181	5098
Haryana	24	63	123	594	36	242	150	Neg.	36	39	27	1334
Himachal Pradesh	Neg.	11	28	74	Neg.	4	Neg.	--	5	3	3	128
Jammu & Kashmir	15	27	73	100	6	3	1	--	6	18	6	255
Karnataka	41	152	354	842	20	196	47	163	71	53	40	1979
Kerala	28	134	204	545	16	100	108	187	41	48	59	1470
Madhya Pradesh	24	98	295	928	18	268	55	34	68	73	84	1945
Maharashtra	642	456	1163	1969	238	712	938	279	346	163	280	7186
Manipur	Neg.	7	17	17	1	--	--	--	2	11	--	55
Meghalaya	--	10	13	38	Neg.	--	--	--	3	2	1	67
Nagaland	--	10	10	16	--	Neg.	--	--	1	-50	1	-12
Orissa	9	35	119	317	20	80	76	102	9	21	20	808
Punjab	74	141	258	965	15	320	232	--	52	34	45	2136
Rajasthan	59	82	211	893	17	80	23	158	40	98	34	1695
Sikkim	Neg.	3	4	3	Neg.	Neg.	--	--	Neg.	2	1	13
Tamil Nadu	58	161	522	1620	45	359	430	515	150	106	79	4045
Tripura	3	4	17	21	--	Neg.	--	--	1	3	--	49
Uttar Pradesh	73	206	723	1837	114	184	121	655	132	185	139	4369
West Bengal	103	122	603	901	134	394	48	90	74	75	269	2813
TOTAL (A)	1311	2217	6367	15136	1082	3568	4239	3030	1347	1138	1472	40907
B. UNION TERRITORIES.												
A & N Islands	3	1	3	35	1	--	--	--	--	2	2	47
Arunachal Pradesh	1	3	7	14	Neg.	Neg.	--	--	Neg.	2	2	29
Chandigarh	19	18	16	34	4	2	3	--	10	42	4	152
Delhi	253	233	189	621	55	114	10	1	128	48	65	1717
Dadra & Nagar Haveli	--	1	1	2	Neg.	Neg.	--	--	Neg.	--	--	4
Goa, Daman & Diu	16	14	23	93	7	106	2	232	8	17	20	538
Lakshadweep	--	--	Neg.	1	Neg.	Neg.	--	--	--	--	--	1
Mizoram	Neg.	5	5	15	--	Neg.	--	--	2	3	--	30
Pondicherry	--	6	12	50	3	4	--	Neg.	3	1	--	79
TOTAL (B)	292	281	256	865	70	226	15	233	151	115	93	2597
C. OUTSIDE TERRITORIES.												
Bhutan	Neg.	2	3	13	--	--	--	--	Neg.	1	1	20
D. ADJUSTMENT (+)/(-)	-9	+8	+10	-44	-11	-103	-8	-32	-3	+34	+38	-120
GRAND TOTAL (A+B+C)	1594	2508	6636	15970	1141	3691	4246	3231	1495	1288	1604	43404

@ = (1) Based on Sales/Consumption of all Petroleum Products obtained from computer sheets.
(2) Figures of Sales of Lubes/Greases by Minor Pvt. Oil Cos. approximately adjusted and included in others.

Estimated State-wise per capital Sales/Consumption of POL Products (excluding International Bunkers).

(Kgs.)

State/ Territory	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87(P)
A. STATES								
Andhra Pradesh	33.7	33.3	32.7	34.3	36.2	37.7	38.8	40.0
Assam	23.0	26.6	27.0	28.4	27.6	31.5	33.7	35.3
Bihar	19.3	20.5	23.5	26.4	24.7	25.2	26.1	28.5
Gujarat	116.1	114.6	112.3	124.6	123.4	128.3	127.8	132.8
Haryana	59.1	64.7	78.7	76.9	77.0	82.0	80.0	88.2
Himachal Pradesh	19.1	19.9	19.8	19.5	20.9	23.3	24.7	26.8
Jammu & Kashmir	28.6	27.7	27.3	26.4	28.6	28.9	33.1	37.3
Karnataka	36.4	34.1	35.9	36.6	38.4	41.6	42.6	47.0
Kerala	43.0	44.9	44.4	43.3	44.3	48.3	48.5	52.0
Madhya Pradesh	20.5	21.6	23.0	25.4	28.1	30.0	31.7	32.8
Maharashtra	88.7	92.4	90.0	87.3	92.8	98.6	101.2	101.1
Manipur	22.5	29.2	32.6	33.3	42.3	32.5	30.6	33.3
Meghalaya	21.5	20.2	21.1	26.2	36.2	36.2	40.9	42.4
Nagaland	30.0	28.4	31.2	33.8	39.8	33.7	40.4	NA
Orissa	20.1	20.5	24.4	23.6	22.2	24.9	26.5	27.5
Punjab	79.5	84.0	96.5	100.1	105.8	110.9	113.9	113.8
Rajasthan	31.7	31.8	33.2	35.8	34.9	38.2	39.4	42.1
Sikkim	32.4	36.7	25.8	27.6	27.3	28.1	38.9	33.3
Tamil Nadu	63.3	66.8	60.8	66.5	65.6	70.2	72.8	74.5
Tripura	11.1	13.1	17.1	17.5	15.2	17.9	18.8	20.6
Uttar Pradesh	23.1	23.1	26.7	28.9	29.0	32.4	31.8	34.8
West Bengal	36.2	39.8	41.6	42.0	45.4	47.1	45.1	45.5
B. OTHER AREAS								
Chandigarh	117.6	209.3	217.8	185.8	226.0	235.6	226.9	245.2
Delhi	184.4	187.6	188.4	195.0	208.2	219.7	214.9	216.5
Goa.(incl.Daman & Diu Dadra & Ngr.Haveli)	416.7	290.6	401.8	414.8	368.1	368.0	375.6	392.7
Others	82.1	52.0	54.6	60.2	56.9	63.4	69.6	
TOTAL ALL-INDIA @	47.9	48.2	49.5	52.8	35.9	55.9	57.5	59.3

Estimated per capital consumption of selected petroleum products - 1979-80 to 1985-86 (incl. Bunkers).

PRODUCT	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87(P)
Naphtha	3.7	3.5	4.3	4.2	3.9	4.3	4.2	4.2
M.S.	2.3	2.3	2.3	2.5	2.6	2.9	3.0	3.2
SKO	5.9	6.3	6.9	7.5	7.7	8.2	8.3	8.6
HSDO	15.0	15.5	15.7	17.2	17.6	18.7	19.7	20.6
LDO	1.9	1.7	1.5	1.5	1.5	1.6	1.5	1.5
F.O. (Regular)	7.3	8.1	6.3	6.0	5.9	5.8	5.0	4.8
LSHS/HHS	3.5	3.1	4.2	4.4	4.7	5.1	5.3	5.5
TOTAL ALL-INDIA @ SALES CONSUMPTION	47.9	48.2	49.5	52.0	52.8	55.9	57.3	59.3

Note: i) Based on Expert Committee's population projections as on Ist March each year and projections on 1971 and 1981 Census basis.

ii) Includes Mogas, Kerosene, ATF, HSDO, LDO, Fuel Oils, LPG, Naphtha and Bitumen in 1979-80 and all products except (lubricants) in 1980-81 to 1982-83 but incl.lubricants in 1983-84 to 1986-87.

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

P = Provisional.

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF LP GAS NAPATHA & HSDO DURING 1983-84, 1984-85 & 1985-86 & 1986-87.

(Qty.'000' Tonnes)

SECTOR	1983-84 Consumption	1983-84 % to Total	1984-85 Consumption	1984-85 % to Total	1985-86 Consumption	1985-86 % to Total	1986-87(P) Consumption	1986-87(P) % to Total
1.	2.	3.	4.	5.	6.	7.	8.	9.
		L. P. GAS:						
1. Domestic	660	88.5	854	89.6	1100	88.6	1360	91.0
2. Commercial/Industry	86	11.5	99	10.4	140	11.3	121	8.1
3. Others	Neg.	Neg.	Neg.	Neg.	1	0.1	14	0.9
TOTAL :	746	100.0	953	100.0	1241	100.0	1495	100.0
		N A P H T H A.						
1. Fertilizers	2134	76.1	2365	75.7	2360	76.0	2437	75.4
2. Petrochemicals	653	23.3	726	23.2	718	23.1	758	23.5
3. Others	17	0.6	34	1.1	28	0.9	36	1.1
TOTAL :	2804	100.0	3125	100.0	3106	100.0	3231	100.0

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF HSDO, LDO FO & LSHS : 1983-84, 1984-85 & 1985-86.

(Qty.'000' Tonnes)

SECTOR	1983-84 Consumption	1983-84 % to Total	1984-85 Consumption	1984-85 % to Total	1985-86 Consumption	1985-86 % to Total	1986-87(P) Consumption	1986-87(P) % to Total
1.	2.	3.	4.	5.	6.	7.	8.	9.
			H S D O					
1. Transport:								
i) Railways	1105	8.8	1165	8.5	1217	8.2	1309	8.2
ii)Water ways:								
(a)Coastal & Inland Bunkers	86	0.7	87	0.6	98	0.6	134	0.8
(b)International Bunkers	17	0.1	12	0.1	10	0.1	6	Neg.
iii)Other transport (incl.Agr.retail trade)	9841	78.1	10575	77.2	11555	77.6	12547	78.6
Sub-TOTAL-1	11049	87.7	11839	86.4	12880	86.5	13996	87.6
II.Plantation/Food (Incl.processing)	119	0.9	128	1.0	149	1.0	155	1.0
III.Power Generation (Utilities)	145	1.2	140	1.0	160	1.1	161	1.0
IV.Industry								
i) Iron & Steel	53	0.4	59	0.4	63	0.4	40	0.3
ii)Textile & Fibre	189	1.5	168	1.2	249	1.7	236	1.5
iii)Cement	68	0.5	94	0.7	119	0.8	145	0.9
iv)Ceramic & Glass	8	0.1	13	0.1	14	0.1	14	0.1
v) Chemicals & Allied	65	0.5	61	0.5	80	0.5	76	0.5
vi)Aluminium	3	Neg.	4	Neg.	3	Neg.	4	Neg.
vii)Sugar	38	0.3	35	0.3	38	0.3	42	0.3
viii)Mining & Quarrying	324	2.6	354	2.6	414	2.8	454	2.8
ix) Engg.(Mech. & Elec.)	111	0.9	112	0.8	135	0.9	135	0.8
x) Fertilizers	24	0.2	30	0.2	36	0.2	22	0.1
xi)Other Industries & Construction	88	0.7	192	1.4	112	0.8	84	0.5
Total IV	971	7.7	1122	8.2	1263	8.5	1252	7.8
V.Misc.Services(Incl.DGS&D)	316	2.5	467	3.4	434	2.9	406	2.6
G R A N D TOTAL :	12600	100.0	13696	100.0	14886	100.0	15970	100.0

P = Provisional

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF LDO & FO DURING 1984-85, 1985-86 & 1986-87.

(Qty. '000' Tonnes)

ITEM	1984-85 Consum-ption	1984-85 % to Total	1985-86 Consum-ption	1985-86 % to Total	1986-87(P) Consum-ption	1986-87(P) % to Total
1.	2.	3.	4.	5.	6.	7.
		L.D.O				
I. Transport:						
i) Railways	6	0.5	7	0.6	8	0.7
ii) Water ways:						
a)Coastal & Inland Bunkers	49	4.1	40	3.6	35	3.1
b)International Bunkers	37	3.1	31	2.8	34	3.0
iii)Other transport (incl. Agr. retail trade)	3	0.2	8	0.7	9	0.7
Sub - T O T A L - 1:	95	7.9	86	7.7	86	7.5
II. Plantation/Food (incl. Processing)	29	2.4	30	2.7	30	2.6
III.Power Generation Utilities	233	19.5	255	22.7	273	23.9
IV. Industry						
i) Iron & Steel	23	1.9	40	3.5	35	3.1
ii)Textile & Fibre	25	2.1	26	2.3	31	2.7
iii)Cement	11	0.9	9	0,8	7	0.6
iv)Ceramics & Glass	33	2.8	33	2.9	37	3.3
v)Chemicals & Allied	82	6.8	67	6.0	78	6.8
vi)Aluminium	2	0.2	1	0.1	5	0.4
vii)Sugar	3	0.3	4	0.4	3	0.3
viii)Mining & Quarrying	10	0.8	10	0.9	8	0.7
ix)Engg.(mech.& Elec.)	92	7.7	104	9.2	116	10.2
x)Fertilizers	7	0.6	10	0.9	4	0.4
xi)Other Industries & Construction	89	7.4	93	8.3	102	8.9
Total IV	377	31.5	397	35.3	426	37.4
V.Misc.Services(incl.DGS&D)	464	38.7	355	31.6	326	28.6
T O T A L :	1198	100.0	1123	100.0	1141	100.0
	F.O. (Regular):					
I.Transport:						
i) Railways	51	1.2	44	1.1	39	1.1
ii) Water ways:						
a)Coastal & Inland Bunke	143	3.4	168	4.4	198	5.3
b)International Bunkers	155	3.6	64	1.7	110	3.0
iii)Other transport (incl. Agr. retail trade)	8	0.2	14	0.4	19	0.5
Sub - T O T A L - 1:	357	8.4	290	7.6	366	9.9
II.Plantation/Food (incl. Processing)	125	2.9	132	3.5	125	3.4
III.Power Generation Utilities	1032	24.3	804	21.1	712	19.3
IV.Industry						
Iron & Steel	218	5.1	170	4.5	150	4.1
Textile & Fibre	231	5.4	225	5.9	195	5.3
Cement	46	1.1	40	1.0	40	1.1
Ceramics & Glass	106	2.5	83	2.2	67	1.8
Chemicals & Allied	554	13.0	553	14.5	403	10.9
Aluminium	106	2.5	60	1.6	66	1.8
Sugar	17	0.4	14	0.4	10	0.3

(P) = Provisional.

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF FO & LSHS: 1983-84, 1984-85, 1985-86 & 1986-87.
(Qty. '000' Tonnes)

ITEM	1983-84 Consum-ption	1983-84 % to total	1984-85 Consum-ption	1984-85 % to total	1985-86 Consum-ption	1985-86 % to total	1986-87(P) Consum-ption	1986-87(P) % to total
1.	2.	3.	4.	5.	6.	7.	8.	9.
viii) Mining & Quarrying	39	0.9	78	1.9	53	1.4	31	0.8
ix) Engg. (Mech. & Elec.)	191	4.5	180	4.2	168	4.4	165	4.5
x) Fertilizers	574	13.7	553	13.0	500	13.1	787	21.3
xi) Other Industries & Construction	407	9.7	355	8.4	471	12.4	458	12.4
Total IV	2448	58.2	2444	57.5	2337	61.4	2372	64.3
V. Misc. Services (incl. DGS&D)	293	7.0	298	7.0	243	6.4	116	3.1
Sub - TOTAL :	4207	100.0	4256	100.0	3806	100.0	3691	100.0
LSHS/HHS.								
I. Transport	Neg.	Neg.	Neg.	Neg.	4	0.1	4	0.1
II. Plantation/Food (incl. Processing)	26	0.8	25	0.7	34	0.8	38	0.9
III. Power Generation (Utilit)	1273	38.0	1462	39.6	1526	37.3	1463	35.1
IV. Industry								
1. Iron & Steel	193	5.8	203	5.5	229	5.6	180	4.2
2. Textile & Fibre	168	5.0	199	5.4	210	5.1	194	6.5
3. Cement	8	0.2	6	0.2	16	0.4	22	0.5
4. Ceramics & Glass	58	1.7	84	2.3	102	2.5	122	2.9
5. Chemicals & Allied	416	12.4	501	13.6	517	12.6	640	15.1
6. Aluminium	8	0.2	15	0.4	55	1.3	58	1.4
7. Sugar	-	--	--	--	1	Neg.	3	0.1
8. Mining & Quarrying	87	2.6	42	1.1	82	2.0	22	0.5
9. Engg. (Mech. & Elec.)	10	0.3	22	0.6	22	0.6	37	0.9
10. Fertlizers	913	27.3	911	24.7	1032	25.2	1203	28.3
11. Other Industries & Construction	13	0.4	31	0.8	36	0.9	134	2.4
Total IV	1874	55.9	2014	54.6	2302	56.2	2515	62.7
IV. Misc. Services (incl. DGS&D)	178	5.3	186	5.1	228	5.6	226	1.2
TOTAL:	3351	100.0	3687	100.0	4094	100.0	4246	100.0

GRADEWISE CONSUMPTION/SALES OF LUBES DURING 1983-84. 1984-85, 1985-86 & 1986-87
(Qty. '000' Tonnes)

ITEM	1983-84 (R) Consum-ption	1983-84 (R) % to total	1984-85 Consum-ption	1984-85 % to total	1985-86(P) Consum-ption	1985-86(P) % to total	1986-87 Consum-ption	1986-87 % to total
1.	2.	3.	4.	5.	6.	7.	8.	9.
Total Lubes Oils of which:								
a) Automotive Oils:	332.7	56.3	355.5	56.0	383.4	59.0	423.8	59.1
HVI	332.7	56.3	355.5	56.0	383.4	59.0	423.8	59.1
MVI	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
LVI	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
b) Industrial Oils:	258.0	43.7	278.8	44.0	269.4	41.0	293.2	40.9
Total (a+b):	590.7	100.0	634.4	100.0	657.8	100.0	717.0	100.0
Industrial Oils-Break-up:								
1. Spindle Oils	4.9	1.9	4.9	1.9	4.5	1.7	5.8	2.0
2. Transformer Oil	0.4	0.2	0.4	0.1	0.4	0.2	0.8	0.3
3. Rly./Other axel Oils	9.9	3.8	6.7	2.4	9.5	3.5	10.3	3.5
4. Cylinder Oil	10.1	3.9	9.6	3.4	8.9	3.3	7.6	2.6
5. Turbine/Hydraulic Oil	53.6	20.8	64.6	23.2	63.5	23.6	66.9	22.8
6. Other Spl.Oils	70.7	27.4	95.7	34.3	74.7	27.7	76.6	26.1
7. Misc. grades	108.4	42.0	96.9	34.8	107.9	40.0	125.2	42.7
TOTAL :	258.0	100.0	278.8	100.0	269.4	100.0	93.2	100.0

P = Provisional

CONSUMPTION OF DIESEL OIL IN INDIAN RAILWAYS DURING 1960-61 TO 1986-87.

Year	No.of Diesel Locomotives Nos.	Consumption of 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
1963-64	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	486.8
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	1067477	444.2
1981-82	2520	1179682	468.1
1982-83	2638	1227236	465.2
1983-84	2800	1313200	469.0
1984-85	2905	1335664	459.8
1985-86	3046	1440269	472.8
1986-87*	3182	1557350	489.4

* = Provisional.

Source : Railways Board.

INDUSTRY/PLANT-WISE OFFTAKE ON NAPHTHA

(Qty.'000' Tonnes)

Category and Plant	Calendar Years					Financial Years				
	1982	1983	1984	1985	1986	1982-83	1983-84	1984-85	1985-86	1986-87 (P)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
I. Fertilizer Plants:										
Madras Fertilizer Ltd.	221	109	225	236	236	207	139	234	209	234
FCI, Durgapur	46	137	111	88	109	66	131	110	88	94
FCI, Gorakhpur	98	97	106	88	99	94	108	94	95	98
FCI, Sindri	26	-	-	-	-	-	-	-	-	--
FCI, Barauni	101	120	108	142	112	127	120	98	151	115
SFC, Kota	142	147	155	152	179	147	145	154	172	158
IEL, Kanpur	308	292	330	266	315	320	288	318	290	305
HSL, Rourkela	78	47	82	88	82	62	59	96	84	82
GSFC, Baroda	101	101	106	124	131	96	113	106	130	125
FACT, Cochin	126	100	134	87	123	113	110	124	95	123
ZAC, Goa	207	187	208	200	220	217	185	185	220	227
IFFCO, Phulpur	217	230	239	217	236	221	234	228	205	251
IFFCO, Kalol	54	43	53	55	41	54	41	57	42	46
IFFCO, Kandla	-	-	-	-	-	-	-	-	-	-
MCFL, Manglore	141	104	140	119	162	124	118	156	127	162
SPIC, Tuticorin	238	198	245	284	246	263	202	253	260	270
EID Parry Ltd.Madras	6	Neg.	-	-	--	4	Neg.	-	-	--
GNFC, Bharuch	1	1	1	1	1	1	1	1	1	1
FACT, Alwaye	57	39	67	69	58	54	57	67	62	65
FCI, Bombay	55	7	-	-	-	45	-	-	-	-
Coromandal Forts.Vizag	72	76	81	77	77	66	83	77	84	73
Others	-	-	7	15	17	-	-	7	45	8
Sub-Total Fertilizer	2295	2035	2398	2308	2444	2281	2134	2365	2360	2437
II. Petrochemical Plants:										
BRPL, Bongaigaon	--	--	--	2	2	--	--	--	3	-
HCC, Rasayani	4	4	4	6	3	4	5	4	4	4
IPCL, Baroda	355	375	409	450	414	372	383	415	406	478
NOCIL, Bombay	197	189	235	250	230	200	187	233	222	259
FCI, Bombay(Mathanol)	16	16	13	20	13	16	16	14	14	13
UCIL, Bombay	63	63	60	66	21	66	62	60	69	4
Sub-Total(Petro-Chem.)	635	647	721	796	683	658	653	726	718	758
III. Others.										
HSL, Bhilai etc.	14	14	34	22	24	19	17	34	28	36
Sub-Total(others)	14	14	34	22	24	19	17	34	28	36
GRAND TOTAL: (I + II + III)	2944	2696	3153	3126	3151	2958	2804	3125	3106	3231

P = Provisional.

Source: Industry Performance Review.

PLANT/CUSTOMER-WISE OFFTAKE OF LSHS/HHS.

(Qty. '000' Tonnes)

Category and Plant	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87(P)
1.Power:								
BPTS, Barauni	32.1	3.9	21.3	31.3	20.8	47.1	27.0	37.1
GEB, Gandhinagar	49.6	25.6	16.1	7.7	18.9	9.2	12.4	19.8
GEB, Kalol	1.3	-	-	-	-	-	-	--
GEB, Wanakbori	-	-	-	-	-	-	25.2	63.7
GEB, Ukai	86.9	82.7	66.6	76.8	49.8	70.5	65.0	81.7
GNTP, Bhatinda	-	-	-	2.7	-	-	-	1.3
DPH, Dhuwaran	633.6	616.6	624.5	675.6	636.7	637.0	659.1	739.4
DTPS, Durgapur	-	-	1.3	-	-	-	-	--
OTPS, Obra	-	-	-	5.3	13.9	2.5	-	--
TTP, Tuticorin	-	-	-	5.2	41.8	13.5	-	8.8
Tata Thermal Bombay	601.3	397.6	382.1	348.7	394.3	568.3	615.2	411.2
AEC, Ahmedabad	57.3	29.1	23.6	15.3	21.9	28.4	18.0	6.6
ASEB, Chandrapur	26.3	26.5	-	13.9	26.4	24.6	19.0	36.4
ASEB, Gauhati	-	-	-	-	7.3	-	-	-
MSEB, Koradi	-	-	-	-	-	-	-	-
MSEB, Uran	-	-	-	-	4.0	-	-	-
MSEB, Nasik	-	-	-	-	37.6	40.6	32.2	40.2
NLC, Nayveli	-	-	-	8.4	-	-	-	-
ETP, Ennore	-	-	-	-	-	13.7	8.2	10.5
Others	-	-	-	-	-	6.7	-	5.8
Sub-Total-1:	1488.4	1182.0	1135.5	1190.9	1273.4	1462.1	1487.5	1462.5
2. FERTILIZER/PETRO-CHEMICALS								
NFL, Nangal	113.2	120.8	202.3	188.8	172.1	181.9	193.6	119.9
NFL, Bhatinda	8.7	70.7	146.1	203.2	102.9	157.9	143.0	93.8
NFL, Panipat	-	30.4	182.0	234.0	145.8	104.2	95.8	97.5
HFC, Barauni	7.6	0.7	12.3	17.1	21.5	15.6	22.8	18.8
FCI, Sindri	31.1	14.8	26.2	178.6	174.4	176.9	94.4	161.6
FCI, Talchar	-	-	-	-	1.5	13.8	19.6	14.9
IFFCO, Phulpur	-	-	1.1	8.8	17.6	29.6	41.3	35.2
IFFCO, Kalol	31.5	41.4	41.3	44.7	40.8	45.9	32.0	38.4
IPCL,Baroda(GA&GO)	87.6	100.3	152.9	191.0	166.4	221.8	234.6	234.8
GSFC, Baroda/Bajuwa	20.0	33.0	73.7	69.6	78.9	56.0	79.3	99.8
GNFC, Bharuch	-	1.4	16.3	29.1	164.7	184.2	232.1	253.0
FACT, Cochin	51.9	64.4	66.3	69.6	60.5	56.0	52.1	64.8
HOC, Rasayani	4.8	15.0	0.9	11.7	10.0	11.1	6.1	13.1
Petrochem=Bongaigaon	-	-	-	0.5	-	-	-	-
NOCIL, Bombay	-	-	-	28.8	29.6	16.0	14.7	3.8
SPIC, Tuticorin	-	-	-	27.9	33.8	53.2	117.9	137.6
MRL/MFL,Madras	-	-	-	15.7	27.7	48.0	65.6	78.9
NLC, Neyeli	-	-	-	-	71.2	37.6	69.9	75.5
Corom.Fert.Vizag	-	-	-	-	-	27.3	26.9	31.0
Others Misc.	-	-	-	-	68.6	50.1	1.5	-
Sub-Total-2:	356.4	492.9	921.4	1319.1	1388.0	1495.7	1543.2	1572.4
3. STEEL PLANTS:								
TISCO, Jamshedpur	62.1	19.5	62.5	61.0	57.0	59.9	58.9	55.4
RSP, Rourkela	83.0	7.1	71.3	90.0	50.4	62.2	57.8	51.0
DSP, Durgapur	96.2	24.0	221.7	109.0	83.8	76.4	78.7	44.3
HSL, Bhilai	-	-	-	-	-	4.5	33.2	43.3
Sub-Total-3:	241.3	50.6	355.5	260.0	193.2	203.0	228.6	194.0
4. GENERAL TRADE:	198.3	342.0	466.0	323.7	496.0	526.6	728.7	1017.3
GRADE TOTAL :	2284.4	2067.5	2878.4	3093.6	3350.6	3687.4	3988.0	4246.2

P = Provisional.

Source = Industry Performance Review.

STATE-WISE FUEL CONSUMPTION AND POWER GENERATION IN GAS TURBINE AND DIESEL POWER STATIONS IN INDIA 1984-85.

(Provisional)

STATE	Gas Station		Diesel Stations		
	Natural Gas @ (Mn.cubic Metres)	Generation (GWH)	Diesel Oil (KL)	Generation (GWH)	Average Oil Consumption (Lts/KWH)
1.	2.	3.	4.	5.	6.
Assam	226.02	471.49	--	--	--
Bihar	--	--	188	0.55	0.34
Gujarat	--	--	44	0.09	0.49
Himachal Pradesh	--	--	34(E)	0.05	0.68
Jammu & Kashmir			--	--	--
Manipur			2411	5.76	0.42
Meghalaya			--	--	--
Nagaland			79	0.23	0.34
Punjab			--	--	--
Rajasthan			31	0.06	0.52
Sikkim			248	0.71	0.35
Tripura			553(E)	1.58	0.35
Uttar Pradesh			--	--	--
West Bengal	30448(Oil)	67.38	1267	3.84	0.33
Maharashtra	449.14	1294.98	--	--	--
Other Stations					
UNION TERRITORIES:					
A & N Islands			5924	16.46	0.36
Arunachal Pradesh			1300	3.41	0.38
Chandigarh			4	0.01	0.39
Lakshadweep			1652	4.11	0.40
Delhi			87	0.25	0.35
Mizoram			3392	7.96	0.43
All India Total	675.16 +30448(Oil)	1833.85	17214	45.07	0.38

(E) = Estimated (R) - Revised

@ = figures relating to LDO, FO & LSHS are in Kilo Litres.

SOURCE: Directorate of Central Electricity Authority.

STATEWISE CONSUMPTION OF FOSSIL FUELS FOR ELECTRICITY GENERATION FROM THERMAL POWER STATIONS IN INDIA DURING 1984-85.

(Provisonal)

STATE	Fuel Consumption in Steam Power Stations						Heat Input	Gross Generation	Average Heat Input
	Coal ('000' (Tonnes)	Lignite '000' (Tonnes)	FO '000' (KL)	LDO '000' (KL)	LSHS '000' (MT)	Natural Gas (MCM)	(K.Cal. X 10)		(K.Cal./KWH)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Andhra Pradesh	4408		15	5			15882.48	5829.30	2725
Assam	103		20	5	25	50.16	1489.47	380.77	3912
Bihar	2055		34	54	47		9106.90	2502.14	3640
Gujarat	5168		890	8	-	113	35233.52	11687.37	3015
J & K	-		-					-	-
Haryana	1007		28	12			4924.74	1262.00	3902
Madhya Pradesh	7398		229	36			28160.39	9849.02	2859
Maharashtra	8615		695	38	45	485(b)	48027.30	17112.95	2806
Orissa	1086		118	2			4319.99	1326.81	3256
Punjab	2289		55	10			9619.64	2938.27	3273
Rajasthan	837		13	2			3537.21	1117.48	3165
Tamil Nadu	3076		159	6	28		13980.55	4935.08	2833
Uttar Pradesh	5301		15	110			25864.45	6785.71	3812
West Bengal	4351		12	83			22599.24	6664.98	3391
Central Govt. Project	8117	5795		24				16819.60	8732
DVC	4449		63	24			20033.46	6144.30	3260
UNION TERRITORIES									
A & N Islands		8(a)		-			29.28	0.76	38526
Delhi	1179		23	2			5462.79	1600.84	3412
ALL INDIA TOTAL:	59439	5803	2376	421	145	648	296873.23	96957.38	3062

(a) Wood Fuel / (b) Refinery Gas in Metric Tonnes.
Source := Directorate of Central Electricity Authority.

XI. FOREIGN TRADE

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS 1970 TO 1986

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

Year	Crude Oil		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
1971	12688	139.88	1932	43.49	14620	183.37
1972	12310	144.25	3257	56.69	15567	200.94
1973	13443	244.56	3735	88.03	17178	332.59
1974	13973	899.36	2949	209.90	16922	1109.26
1975	13600	992.02	2291	199.46	15891	1191.48
1976	13883	1145.56	2293	219.70	16176	1365.26
1977	14548	1258.92	2664	272.99	17212	1531.91
1978	14892	1243.89	3916	414.13	18808	1658.02
1979	15382	1787.38	4019	727.56	19401	2514.94
1980	15976	3038.66	6800	1788.28	22776	4826.94
1981	15528	3793.83	5697	1638.58	21225	5432.41
1982	17327	4116.89	4942	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(P)	14534	2027.08	3368	824.38	17902	2851.46
			EXPORTS			
1970	-	-	412	5.72	412	5.72
1971	-	-	152	2.55	152	2.55
1972	-	-	109	8.94	109	8.94
1973	18	0.42	155	5.35	173	5.77
1974	-	-	202	19.37	202	19.37
1975	-	-	166	13.83	166	13.83
1976	-	-	82	7.60	82	7.60
1977	-	-	59	6.50	59	6.50
1978	-	-	43	4.20	43	4.20
1979	-	-	59	14.94	59	14.94
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	286.64	5871	1328.51
1984	6760	1598.55	1071	271.63	7831	1870.18
1985	2044	503.88	1695	482.06	3739	985.94
1986(P)	-	-	2364	388.80	2364	388.80
			NET IMPORTS			
1970	11665	102.36	558	24.81	12223	127.17
1971	12688	139.88	1780	40.94	14468	180.82
1972	12310	144.25	3148	47.75	15458	192.00
1973	13425	244.14	3580	82.68	17005	326.82
1974	13973	899.36	2747	190.53	16720	1089.89
1975	13600	992.02	2125	185.63	15725	1177.65
1976	13883	1145.56	2211	212.10	16094	1357.66
1977	14548	1258.92	2605	266.49	17153	1525.41
1978	14892	1243.89	3873	409.93	18765	1653.82
1979	15382	1787.38	3960	712.62	19342	2500.00
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(P)	14534	2027.08	1004	435.58	15538	2462.66

(P) Provisional.

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS
1970 - 71 TO 1986-87

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

Year	Crude Oil		Products		Total	
	Qty.	Value	Qty.	Value	Qty.	Value
1.	2.	3.	4.	5.	6.	7.
			GROSS IMPORTS			
1970-71	11683	106.72	1084	29.91	12767	136.63
1971-72	12951	147.02	2147	46.88	15098	193.90
1972-73	12084	146.37	3525	60.58	15609	206.95
1973-74	13873	416.39	3548	124.50	17421	540.89
1974-75	14016	916.99	2648	195.00	16664	1111.99
1975-76	13624	1051.76	2218	204.34	15842	1256.10
1976-77	14048	1175.91	2624	248.23	16672	1424.14
1977-78	14507	1246.20	2879	305.34	17386	1551.54
1978-79	14657	1251.17	3878	429.99	18535	1681.16
1979-80	16121	2187.53	4724	1082.39	20845	3269.92
1980-81	16248	3348.97	7289	1917.52	23537	5266.49
1981-82	15298	3736.38	4884	1453.16	20182	5189.54
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	1273.60	19009	4960.40
1986-87(P)	15531	2057.54	3035	647.76	18566	2705.30
			EXPORTS			
1970-71	--	--	332	4.67	332	4.67
1971-72	--	--	136	3.91	136	3.91
1972-73	--	--	126	8.16	126	8.16
1973-74	18	0.42	161	8.05	179	8.47
1974-75	--	--	175	17.46	175	17.46
1975-76	--	--	170	13.96	170	13.96
1976-77	--	--	74	6.89	74	6.89
1977-78	--	--	47	5.69	47	5.69
1978-79	--	--	44	4.11	44	4.11
1979-80	--	--	88	24.02	88	24.02
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	1197.16
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	509.57	2491	644.72
1986-87(P)	--	--	2491	410.92	2491	410.92
			NET IMPORTS			
1970-71	11683	106.72	752	25.24	12435	131.96
1971-72	12951	147.02	2011	42.97	14962	189.99
1972-73	12084	146.37	3399	52.42	15483	198.79
1973-74	13855	415.97	3387	116.45	17242	532.42
1974-75	14016	916.99	2473	177.54	16489	1094.53
1975-76	13624	1051.76	2048	190.38	15672	1242.14
1976-77	14048	1175.91	2550	241.34	16598	1417.25
1977-78	14507	1246.20	2832	299.65	17339	1545.85
1978-79	14657	1251.17	3834	425.88	18491	1677.05
1979-80	16121	2187.53	4636	1058.37	20757	3245.90
1980-81	16248	3348.97	7253	1909.11	23501	5258.08
1981-82	14460	3540.15	4829	1438.03	19289	4978.18
1982-83	12397	2980.37	4233	1420.15	16630	4400.52
1983-84	10445	2309.95	2856	913.79	13301	3223.74
1984-85	7164	1867.18	5159	1659.88	12323	3527.06
1985-86	14616	3551.65	1902	764.03	16518	4315.68
1986-87(P)	15531	2057.54	544	236.84	16075	2294.38

P = Provisional

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS
1983 TO 1986
(Qty. '000 Tonnes Value:Rs. Crores)

ITEM	1983		1984		1985		1986(P)	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			GROSS IMPORTS					
A. Crude Oil	15552	3471.47	14620	3525.15	14811	3808.74	14534	2027.08
B. Petroleum Products								
I. Light Distillates	123	44.69	386	118.11	175	57.45	37	8.04
1. Naphtha	77	22.66	290	83.68	100	30.42	17	2.63
2. Others	46	22.03	96	34.43	75	27.03	20	5.41
II. Middle Distillates	4033	1144.90	5342	1620.23	3913	1275.03	3083	702.28
1. ATF	223	67.13	103	35.22	121	40.25	150	30.86
2. SKO	1875	554.45	2697	851.72	2466	824.41	2078	487.33
3. HSDO	1913	518.10	2521	727.71	1326	410.37	855	184.09
4. LDO	22	5.22	21	5.58	--	--	--	--
III. Heavy Ends	104	57.01	315	111.97	204	108.22	248	114.06
1. FO	--	---	175	39.02	20	4.39	--	--
2. Lubes	100	55.92	128	69.77	184	103.75	230	79.57
3. Waxes	--	---	Neg.	Neg.	Neg.	0.08	18	34.49
4. Others	4	1.09	12	3.18	--	--	--	--
Total (B)	4260	1246.60	6043	1850.31	4292	1440.70	3368	824.38
Grand Total (A+B)	19812	4718.07	20663	5375.46	19103	5249.44	17902	2851.46
			EXPORTS @					
A. Crude Oil	4723	1041.87	6760	1598.55	2044	503.88	-	-
B. Petroleum Products								
I. Light Distillates	818	217.60	626	170.06	1448	410.58	2200	336.13
1.Naphtha	809	214.01	612	164.68	1433	404.19	2184	399.67
2.Others	9	3.59	14	5.38	15	6.39	16	6.46
II. Middle Distillates	78	26.90	127	43.99	128	46.55	146	47.90
1.HSD/LDO	39	13.01	69	22.93	67	22.81	75	23.32
2.Others	39	13.89	58	21.06	61	23.74	71	24.58
III. Heavy Ends	252	42.14	318	57.58	119	24.93	18	4.77
1. FO	246	40.42	314	55.78	110	21.97	16	3.76
2. Others	6	1.72	4	1.80	9	2.96	2	1.01
Total (B)	1148	286.64	1071	271.63	1695	482.06	2364	388.80
Grand Total (A+B)	5871	1328.51	7831	1870.18	3739	985.94	2364	388.80
			NET IMPORTS					
A. Crude Oil	10829	2429.60	7860	1926.60	12767	3304.86	14534	2027.08
B. Petroleum Prod.	3112	959.96	4972	1578.68	2597	958.64	1004	435.58
Total (Net Imports)	13941	3389.56	12832	3505.28	15364	4263.50	15538	2462.66

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

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS 1983-84 TO 1986 87

(Qty. `000´Tonnes, Value:Rs. Crores)

ITEM	1983-84		1984-85		1985-86		1986-87(P)	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
GROSS IMPORTS								
A. Crude Oil	15967	3541.05	13642	3430.34	15144	3686.80	15531	2057.54
B. Petroleum Products								
I. Light Distillates	172	57.67	470	147.03	38	13.90	45	8.12
1. Naphtha	129	37.34	338	99.42	--	--	33	5.67
2. Others	43	20.33	132	47.61	38	13.90	12	2.45
II. Middle Distillates	4047	1154.92	5312	1652.80	3608	1147.27	2758	548.53
1. ATF	169	50.63	128	44.47	150	45.84	108	18.19
2. SKO	2030	603.64	2611	844.77	2568	844.41	1923	368.54
3. HSDO	1806	489.85	2573	763.56	890	257.02	727	143.80
4. LDO	42	10.80	---	---	--	--	--	--
III. Heavy Ends	109	58.16	310	115.08	219	112.43	232	91.11
1. FO	--	---	175	39.02	20	4.39	--	--
2. Lubes	97	54.98	135	76.00	195	105.10	215	75.67
3. Waxes	--	---	0.03Neg.	0.06	4	2.94	15	11.86
4. Others	12	3.18	---	---	--	--	2	3.58
Total (B)	4328	1270.75	6092	1914.91	3865	1273.60	3035	647.76
Grand Total (A+B)	20295	4811.80	19734	5345.25	19009	4960.40	18566	2705.30
EXPORTS @								
A. Crude Oil	5522	1231.10	6478	1563.16	528	135.15	--	--
B. Petroleum Products								
I. Light Distillates	914	242.30	626	173.16	1812	455.21	2237	353.07
1. Naphtha	901	237.64	612	167.48	1796	448.52	2220	347.07
2. Others	13	4.66	14	5.68	16	6.69	17	6.00
II. Middle Distillates	110	37.90	132	45.99	130	48.05	154	45.77
1. HSD/LDO	57	19.12	71	23.53	66	23.19	80	23.30
2. Others	53	18.78	61	22.46	64	24.86	74	22.47
III. Heavy Ends	448	76.76	175	35.88	21	6.31	100	12.39
1. FO/LSHS	440	74.03	170	33.75	14	3.81	99	11.67
2. Others	8	2.73	5	2.13	7	2.50	1	0.72
Total (B)	1472	356.96	933	255.03	1963	509.57	2491	411.23
Grand Total (A+B)	6994	1588.06	7411	1818.19	2491	644.72	2491	411.23
NET IMPORTS								
A. Crude Oil	10445	2309.95	7164	1867.18	14616	3551.65	15531	2057.54
B. Petroleum Prod.	2856	913.79	5159	1659.88	1902	764.03	544	236.84
Total (Net Imports)	13301	3223.74	12323	3527.06	16518	4315.68	16075	2294.38

@ = Includes supplies of POL Products to Nepal.
P = Provisional.

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's trade with OPEC to India's total trade	
	Exports	Imports	Balance of Trade	% variation Over Preeceding Year		Exports	Imports	Balance of Trade	% variation over procding 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	-1188	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	35.6	6.0	15.7	22.1
1976-77	5142	5074	+ 72	27.4	-3.6	707	1296	589	11.7	11.2	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	933	3755	-2822	25.2	7.7	12.0	27.6
1982-83	8803	14293	-5490	12.8	5.0	867	3885	-3018	-7.1	3.5	9.8	27.2
1983-84	9771	15763	-5992	11.0	10.3	882	3251	-2369	1.7	-16.3	9.0	20.6
1984-85	11855	17173	-5318	21.3	8.9	944	3270	-2326	7.0	0.6	8.0	19.0
1985-86	11012	19759	-8747	(-)7.1	15.1	853	3407	-2554	- 9.6	4.2	7.7	17.2
1986-87	12550	20063	-7513	14.0	1.5	776	1760	- 984	- 9.0	-48.3	6.2	8.8

* = Provisional

Source = Ministry of Commerce/Economc survey.

INDIA'S FOREIGN EXCHANGE RESERVES.
(1970-71 TO 1986-87)

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
1971-72	247.7	182.53	480.38
1972-73	246.5	182.53	478.90
1973-74	244.9	182.53	580.78
1974-75	234.9	182.53	610.50
1975-76	202.8	182.53	1491.70
1976-77	187.4	187.80	2862.99
1977-78	161.6	193.09	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	070.2	225.58	4265.26
1983-84	216.4	225.58	5497.9
1984-85	146.5	245.76	6818.78
1985-86	115.1	274.28	7384.35
1986-87*	231.7	274.28	7645.20

SOURCE : Economic Survey/ M.O. Finance * - Provisional

INDIA'S IMPORTS AS A PROPORTION TO OVERALL EXPORTS FROM THE COUNTRY 1970-71 TO 1986-87.

Rs. Crores

Y E A R	POL Imports Gross	POL Imports Net	India's Total Exports Gross	Net of POL Exports	Gross POL Imports as % age of total gross Exports	Net POL Imports as % age of total Net Exports
1.	2.	3.	4.	5.	6.	7.
1970-71	137	132	1535	1530	8.9	8.6
1971-72	194	190	1608	1604	12.1	11.8
1972-73	207	199	1971	1963	10.5	10.1
1973-74	541	532	2523	2514	21.4	21.2
1974-75	1112	1095	3329	3312	33.4	33.1
1975-76	1256	1242	4036	4022	31.1	30.9
1976-77	1424	1417	5142	5135	27.7	27.6
1977-78	1552	1545	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	5190	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	11855	10037	45.1	35.1
1985-86	4961	4316	11012	10367	45.1	41.6
1986-87*	2705	2295	12550	12134	21.6	18.9

SOURCE : For Column 4 := Ministry of Commarce DGCI&S, Calcutta. * = Provisional

XII. MAN-POWER EMPLOYED.

DIRECT EMPLOYED IN THE PETROLUEM INDUSTRY IN INDIA

(NUMBER)

CATEGORY	1970	1975	1980	1982	1983	1984	1985	1986	1987
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Exploration & Production	26051	27067	31413	36089	38063	43535	48700	52041	52397
2. Refining	10715	12327	15334	18359	19507	20885	23074	23247	23810
3. Marketing	20362	19072	19920	22858	24468	26490	27717	27814	31180
4. Others :-									
1.IOC(Pipeline)	487	724	1312	1445	1592	1767	1819	1848	1936
2.ONGC(Pipeline)	346	233	411	203	280	391	496	450	232
3.OIL(Pipeline)	443	431	492	490	538	539	586	599	543
4.I.I.P.	588	676	754	744	744	767	778	763	739
5.E.I.L.	N.A.	1940	2661	3176	3422	3558	3702	3597	3685
TOTAL	1864	4004	5630	6058	6576	7022	7381	7257	7135
GRAND TOTAL	58992	62470	72297	83364	88614	97932	106872	110359	114522

CATEGORY-WISE DIRECT EMPLOYED IN THE PETROLUEM INDUSTRY IN INDIA

(NUMBER)

CATEGORY	1970	1975	1980	1982	1983	1984	1985	1986	1987
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Executive/ Managerical	4793	6461	9311	13027	15666	18620	21108	23956	25458
2. Supervisory	6205	6659	6512	7388	8221	9299	10432	10696	9691
3. Clerical	11457	11723	12403	13921	13626	14698	15878	16549	15923
4. Workmen	36437	37611	44057	48969	51023	55175	59313	59158	63361
5. TOTAL	58892	61454	72283	83305	88536	97792	106731	110359	114433
6. Expatriates/ Foreign Experts	100	16	14	59	78	140	141	—	89
GRAND TOTAL	58992	62470	72297	83364	88614	97932	106872	110359	115208

Note :- 1. Staff Employed as on 1st April of each year.
2. Total does not include staff Employed on contract basis.

CATEGORY-WISE DIRECT EMPLOYED @ IN VARIOUS SECTOR OF PETROLUEM INDUSTRY IN INDIA.

(NUMBER)

CATEGORY	1970	1975	1980	1982	1983	1984	1985	1986	1987
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
EXPLORATION AND PRODUCTION									
1. Executive/ Managerical	1765	1967	3394	4896	6796	8450	10183	12166	12831
2. Supervisory	2774	3538	1994	3068	3191	4104	4537	4297	4133
3. Clerical	3764	3538	3795	4405	3930	4526	5438	5000	5002
4. Workmen	17704	18013	22216	23683	24068	26215	28401	30578	30342
5. TOTAL	26007	27056	31399	36052	37985	43395	48559	52041	52308
6. Expatriates/ Foreign Experts Contract	44	11	14	37	78	140	141	-	89
GRAND TOTAL	26051	27056	31413	36089	38063	43535	48700	52041	52397
PETROLUEM REFINING*									
1. Executive/ Managerical	258	818	2055	2825	2892	3700	3878	4442	4564
2. Supervisory	1076	1313	1050	956	1409	1162	1648	902	992
3. Clerical	1219	1568	1791	2277	2344	2540	2728	2747	2690
4. Workmen	7857	8626	10438	12279	12862	13483	14820	15156	15564
5. TOTAL	10677	12325	15334	18337	19507	20885	23074	52041	23810
6. Expatriates/ Foreign Experts	38	2	-	22	-	-	-	-	-
GRAND TOTAL	10745	12325	15334	18359	19507	20885	23074	23247	24371
MARKETING									
1. Executive/ Managerical	2367	3519	3318	4632	5203	5599	6047	6232	6972
2. Supervisory	2081	910	1591	1049	1145	1384	1441	2816	1849
3. Clerical	6220	5870	5820	6183	6350	6488	6533	7607	7020
4. Workmen	9680	8770	9191	10994	17770	13019	13696	11159	15339
5. TOTAL	20348	19069	19920	22858	24468	26490	27717	27814	31180
6. Expatriates/ Foreign Expert	14	3	-	-	-	-	-	-	-
GRAND TOTAL	20362	19069	19920	22858	24468	26490	27717	27814	31180

@ = Data relates to the number of person directly employed by various oil companies as on 1st April of each year. Staff Employed on contract basis is not covered.

* = Includes IOC's Head Office, Regional office and R & D Centre.

XIII. PRICES

WHOLESALE PRICE INDICES OF Petroluem Products, Petro-based Industries & other Energy Items (1970-71 - 100)

Items	1972-73	1973-74	1979-80	1980-81	1981-82	1983-84	1984-85	1985-86	1986-87*
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
			I. Petroluem Products						
Petrol	121.6	178.6	361.3	430.7	505.5	522.6	531.3	612.2	642.6
Diesel Oil	105.9	119.5	186.5	279.6	373.3	414.9	415.8	440.2	452.2
L.D.O.	107.8	122.0	329.8	548.1	732.5	800.1	812.3	929.3	929.3
Kerosene	114.9	113.1	266.1	277.3	315.9	343.0	347.2	386.7	410.4
F.O.	113.3	150.7	529.9	880.1	1148.5	1228.1	1234.1	1412.5	1412.5
Avitation Spirit	125.4	173.9	431.7	581.8	589.6	593.4	601.1	688.9	688.8
Petroluem Crude & Natural Gas	142.0	317.1	1384.0	2041.8	2130.7	1739.5	1739.2	1752.1	1577.1
			II. Petro-Based Industries						
Lubricating Oil	99.0	135.8	319.6	373.6	416.1	464.4	466.4	525.8	538.6
(Nylon & Terene Mixed Cloth)	98.9	104.4	131.6	139.7	147.9	155.4	158.4	161.6	148.1
Benzene	106.1	125.7	480.3	709.0	758.4	769.5	772.4	855.3	815.6
Nitrogenous Fertilizers	104.7	109.5	171.7	254.7	281.0	277.0	275.1	279.8	303.3
Insecticides	111.6	131.6	272.2	328.6	351.8	425.9	430.6	441.8	469.3
Syn. Detergents	105.2	105.7	230.5	274.8	294.2	297.3	297.3	308.0	329.0
Polytyrene	101.0	121.8	349.8	425.8	464.8	425.1	458.9	511.1	498.6
Polythylene Moulding Powder	105.4	122.8	228.9	291.9	303.7	276.9	291.3	325.9	350.7
PVC Compounds	104.3	132.2	222.6	309.1	323.3	323.3	323.9	341.9	377.8
PVC Sheets	98.2	129.8	196.0	224.9	228.4	231.7	338.5	271.3	266.3
Syn. Resins(nes)	99.8	121.3	199.8	219.0	232.5	275.7	269.1	267.6	267.6
Syn. Fibre	101.4	106.2	150.2	157.4	167.5	169.8	173.8	158.4	148.2
Syn. Rubber	100.0	100.0	138.3	174.4	190.1	201.2	224.1	252.6	275.5
Polythene films	108.8	131.2	248.6	296.7	301.9	301.9	301.9	301.9	301.9
Carbon black	99.6	99.6	347.4	532.7	664.0	678.6	689.3	826.4	826.4
Plasticizers	104.6	103.1	269.5	314.9	310.9	320.1	346.1	410.7	431.0
			III. Other Energy Items						
Electricity	105.7	111.3	255.6	239.0	279.6	387.7	414.1	486.1	564.6
Coke	134.7	136.4	262.8	291.7	382.8	489.1	575.2	582.3	686.3
Coal	110.8	121.7	299.5	347.6	432.1	542.3	641.9	662.2	730.7
Lignite	116.6	130.5	176.9	232.0	273.4	370.8	498.3	520.5	532.1
			IV. All Commodity Index						
All commodities	116.2	139.7	217.6	257.3	281.3	316.0	338.4	357.8	376.8

Source: Monthly of Index Numbers of Wholesale Price Indices brought out by the office of the Economic Adviser, Ministry of Industry.

* = Provisional.

Prices of Indegenous 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
				(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	138.57	138.54
2. Conversion factor	Bbl./MT	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	1021.00	1021.00	1021.00	1021.00
4. Oil Development Cess	Rs/MT	@	60.00	60.00	60.00	100.00	300.00	300.00	600.00
5. Royalty	Rs/MT	@	@	42.00	61.00	61.00£	61.00£	192.00 @	192.00
6. Total Price (including Cess & Royalty)	Rs/MT	270.04	305.41	305.41	324.41	1182.00£	1382.00£	1513.00 @	1813.00
				(ii) Offshore Crude Oil					
1. Base Price as fixed by the Govt.	Rs/Bbl			45.00	45.00	138.54	138.54	138.54	138.54
2. Conversion factor	Bbl/MT			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
4. Oil Development Cess	Rs/MT			60.00	60.00	100.00	300.00	300.00	600.00
5. Royalty	Rs/MT			42.00	61.00	61.00	61.00	192.00	192.00
6. Total Price (including Cess & Royalty)	Rs/MT			433.65	452.65	1182.00£	1382.00£	1513.00	1813.00

* Inclusive of royalty @ Rs. 15/MT and Oil Development Cess @ Rs. 60/MT
** Inclusive of royalty @ Rs.42/MT
@ included in the base price
£ Shows price fixed by the Government inclusive of royalty and oil Development Cess

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 in the rate of royalty w.e.f. 1.4.84 and increase of cess of Rs. 300/MT w.e.f. 1.3.87 is being borne by pool account.

@ @ Fixed retrospectivly w.e.f. 1.4.1984.

DEVELOPMENT OF BASIC CEILING SELLING PRICES OF PETROLEUM PRODUCTS (EX-STORAGE POINT BOMBAY) SINCE 17.8.1979.

(Rs./Selling Unit)

PRODUCT	Selling Unit	Prior to 17.8. 1979	17.8. 1979	EFFECTIVE DATE 8.6. 1980	13.1. 1981	11.7. 1981	18.3. 1983	17.3. 1985	1.2. 1986	6.2 1986	20.3 1987
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
ATF	KL	1377	2117	3117	3537	3872	4122	4740	5240	5240	5240
MS 83/87	"	3538	3888	4538	4908	5438	5438@	6369	6869	6769	6769
MS 93	"	3693	4043	4693	5063	5593	5593	6424	6924	6824	6824
HSDO	"	1209	1310	1960	2330	2650	2850	3008#	3188	3116	3116
SKO	"	1194	1295	1295	1395	1545	1645	1822#	2047	1957	1957
LDO	"	807	1207	1857	2227	2506	2656	3054	3054	3054	3054
Furnace Oil:											
For non-ferts.	"	889	1209	1859	2189	2424	2524	2903	2903	2903	2903
For ferts.*	"	---	829	829	1039	1274	+1274	1320	1320	1320	1320
Bitumen St Gr.											
Bulk	MT	676	1176	1826	2061	2323	2196	2524	2524	2524	2524
Packed	"	961	1461	2111	2345	2608	2696	3100	3100	3100	3100
eaphtha:											
For non-ferts.*	"	1012	2482	2692	2792	2792	2792	3211	3211	3211	3211
For ferts.*	"	596	596	1071	1371	1723	1723	1982	1982	1982	1982
JBO*	"	789	989	1679	1999	2358	2358	2712	2712	2712	2712
SBP Spirit:											
64/69*	KL	1111	1861	2961	3331	3629	3629	4173	4173	4173	4173
Hexane*	"	1111	1861	2961	3331	3629	3629	4173	4173	4173	4173
MTO 140/205*	"	762	1124	1774	2044	2348	2348	2700	2700	2700	2700
MTO Laws*	"	844	1206	1856	2126	2430	2430	2794	2794	2794	2794
LPG:											
Domestic	MT	1633	1966	1966	2301	2634	2634	3029	3728	3449	3449
Bulk	"	1927	2260	2260	2595	2928	2928	3978	3978	3978	5001
Industrial	"	--	--	--	--	--	--	5128	5128	5128	6151

NOTE: Prices have been rounded to the nearest Rupee.

* = Prices are exclusive of Customs and Excise Duties.

@ = With the introduction of MS 87, the price of the product was increased to Rs.5538/KL w.e.f. 1.9.1983.

\# = Effective 26.3.1985.

\+ = w.e.f. 1.9.83 the price was reduced to Rs.1148/KL.

PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS AS ON 1.4.1987

(Rs./K.L.)

	Bombay	Madras	Delhi	Calcutta	Kanpur
MOTOR SPIRIT 87 ON					
Ex-MI/Storage Point Price	6694.07	6694.07	6768.91	6723.94	6914.92
Bombay Octroi Surcharge/ State Surcharge	112.00	35.00	25.00	10.00	25.00
Entry Tax	-	-	-	20.00	-
RPO Charge	11.36	11.36	11.36	11.36	11.36
RPO Surcharge	60.00	60.00	60.00	60.00	60.00
Delivery charges beyond FDZ	-	-	-	2.88	-
Octroi/T.Tax/Local levies	-	-	-	-	50.00
Sub-Total	6877.43	6800.43	6865.27	6828.18	7061.28
Sales Tax	1031.61	952.06	480.57	682.82	706.13
Dealer's Commission	80.00	80.00	80.00	80.00	80.00
Total Rs./KL	7989.04	7832.49	7425.84	7591.00	7847.41
R.S.P. Rs.Litre	7.99	7.84	7.43	7.60	7.85
HIGH SPEED DIESEL OIL					
Ex-MI/Storage Point Price	3095.55	3095.55	3172.18	3117.48	3320.12
Bombay Octroi Surcharge/ State Surcharge	76.03	35.00	25.00	1.00	5.00
Entry Tax	-	-	-	20.00	-
RPO Charge	7.27	7.27	7.27	7.27	7.27
RPO Surcharge	20.00	20.00	20.00	20.00	20.00
Delivery charges beyond FDZ	-	-	-	2.88	-
Octroi/T.Tax/Local levies	-	-	4.68	-	40.00
Sub-Total	3198.85	3157.82	3229.13	3168.63	3392.39
Sales Tax	383.86	442.09	226.04	380.24	407.09
Dealer's Commission	40.00	40.00	40.00	40.00	40.00
Total Rs./KL	3622.71	3639.91	3495.17	3588.87	3839.48
R.S.P. Rs.Litre	3.63	3.64	3.50	3.69	3.84
LIGHT DIESEL OIL					
Ex-MI Storage/Point Price	3053.97	3053.97	3151.10	3076.57	3339.87
Bombay Octroi Surcharge/ State Surcharge/Entry Tax	46.55	35.00	25.00	20.00	5.00
Octroi	-	-	4.82	-	50.00
Total	3100.52	3088.97	3180.92	3096.57	3389.87
Sales Tax	124.02	432.46	222.66	371.59	406.78
Total Rs./KL	3224.54	3521.43	3403.58	3468.16	3796.65

PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS AS ON 1.4.1987

	Bombay	Madras	Delhi	Calcutta	Kanpur
SUPERIOR KEROSENE OIL (RS/KL)					
Ex-MI/Storage Point Price	1956.93	1956.93	2033.53	1977.74	2155.00
Bombay Octroi Surcharge/ State Surcharge	58.05	35.00	25.00	-	5.00
Sales Tax	Exempted	79.68	61.76	98.89	190.08
Total	2014.98	2071.61	2120.29	2076.63	2350.08
Transportation	39.83	25.00	42.24	30.00	50.00
Wholesale Dealer's Commission	30.30	8.00	9.83	30.30	30.30
BDA/Leakage etc.	19.50	32.72	-	-	-
Wholesale Price	2104.61	2137.33	2172.36	2136.93	2430.38
Rounding of benefit	-	-	2.64	-	-
Leakage/Extra Ordinary Allo.	19.00	-	-	-	-
Retailer's Profit	39.70	112.10	69.02	39.70	50.00
Retailer's Transportation	-	-	-	22.93	20.00
Rounding Off benefit	-	-	2.98	-	-
Adhoc increase for retailer's transport	-	-	-	65.00	-
Total Rs./KL	2163.31	2250.03	2247.00	2264.56	2500.38
R.S.P. Rs./Litre	2.17	2.25	2.25	2.27	2.50
LIQUIFIED PETROLEUM GAS (Rs.14.2 Kg.cylinder)					
Ex-MI/Storage Point Price	48.98	48.98	50.58	50.58	48.98
Over/Under recovery	(=)0.22	(=)0.22	(-)0.23	(-)0.20	0.38
Nett Rate	48.76	48.76	50.35	50.77	49.36
Bombay Octroi Surcharge/ Octroi/entry Tax	1.24	-	0.20	0.51	1.42
State Surcharge	-	-	0.36	-	-
Sub-Total	50.00	48.76	50.91	51.28	50.78
Local Delivery Charges/Freight	0.75	0.75	0.75	0.75	2.70
Billiable rate excl.of Sales Tax	50.75	49.51	51.66	52.03	53.48
Sales Tax	2.03	3.96	2.58	7.80	4.28
Surcharge on Sales Tax	-	0.20	-	-	0.43
TOT/Addl.Sales Tax	-	0.20	-	-	-
Billiable rate incl.of Sales Tax	52.78	53.87	54.24	59.83	58.19
Distributors Commission	3.37	3.37	3.37	3.37	3.37
Retail Selling Price	56.15	57.24	57.61	63.20	61.56

PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS AS ON 1.4.1987.

(Rs./KL)

	Bombay	Madras	Delhi	Calcutta	Kanpur
FUEL OIL (NON-FERTILIZER)					
Ex-MI/Storage Point Price	2903.06	2903.06	3007.52	2927.37	
Bombay Octroi Surcharge/ State Surcharge/Entry Tax	73.92	35.00	25.00	20.00	
Octroi	--	--	5.18	--	
Total	2976.98	2938.06	3037.70	2947.37	
Sales Tax	119.08	323.19	212.64	235.79	
Total Rs./KL	3096.06	3261.25	3250.34	3183.16	
Note: Kanpur, we do not have storage facility.					
ATF (DOMESTIC AIRLINES)					
Ex-MI/Storage Point Price	5239.85	5239.85	5317.28	5260.24	5472.60
Bombay Octroi Surcharge/ State Surcharge/Entry Tax	103.50	--	25.00	--	--
Octroi	--	--	15.00	--	10.00
Airfield Charge	24.44	24.44	24.44	24.44	41.94
Entry Tax 1 %	--	--	--	52.85	--
Sub-Total	5367.79	5264.29	5381.73	5337.53	5524.55
Sales Tax	1234.59	810.70	376.72	135.76	552.45
Total Rs./KL	6602.38	6074.99	5758.45	5473.29	6077.00
* Concessional rate of Sales Tax applicable for supplies to Vayudoot flight only in the State of Maharashtra is Rs.135.76 per KL and it is exempted in West Bengal.					
ATF FOR INTERNATIONAL AIRLINES					
Ex-MI/Storage Point Price	5239.85	5239.85	5332.29	5260.24	
Less Refund of Basic Excise duty	333.52	333.52	333.52	333.52	
Bonded Price	4906.33	4906.33	4998.77	4926.72	
Add:Applicable Concessional Duty	24.60	24.60	24.60	24.60	
International Airfield Charges	24.44	24.44	24.44	24.44	
Sub-Total	4955.37	4955.37	5047.81	4975.76	
Adhoc Surcharge	(1503.00)	(1503.00)	(1503.00)	(1503.00)	
Net Airfield price	3452.37	3452.37	3594.81	3472.76	
Sales Tax	Exempted	531.67	Exempted	Exempted	
Total Rs./KL	3452.37	3884.04	3594.81	3472.76	

Trends in Retail Selling Prices of Selected Petroluem Products in Metropolitan Towns in India.

Prices as on	Bombay	Calcutta	Delhi	Madras	Kanpur
	MOTOR SPIRIT 83 (RS./Litre)				
1.1.1971	1.16	1.23	1.19	1.16	1.24
1.1.1972	1.42	1.46	1.43	1.39	1.46
1.1.1973	1.43	1.46	1.44	1.41	1.47
1.1.1974	2.81	2.82	2.78	2.69	2.73
1.1.1975	3.26	3.27	3.27	3.19	3.35
1.1.1976	3.36	3.39	3.39	3.30	3.47
1.1.1977	3.39	3.38	3.39	3.29	3.48
1.1.1978	3.38	3.38	3.39	3.29	3.48
1.1.1979	4.04	4.04	4.04	4.90	4.14
17.8.1979	4.43	4.42	4.41	4.25	4.52
8.6.1980	5.15	5.14	5.11	4.90	5.22
13.1.1981	5.56	5.54	5.50	5.29	5.62
11.7.1981	6.15	6.13	6.07	6.17	6.19
1.4.1982	6.15	6.13	6.07	6.17	6.19
15.2.1983	6.21	6.16	5.90	6.17	6.25
1.4.1983	6.21	6.31	5.99	6.16	6.15
1.4.1984(MS-87 ON)	6.32	6.24	6.09	6.44	6.26
1.6.1984	6.41	6.24	6.12	6.44	6.26
17.3.1985	7.34	7.16	7.00	7.39	7.16
1.2.1986	7.90	7.71	7.54	7.96	7.85
6.2.1986/1.4.1986	7.79	7.60	7.43	7.84	7.74
1.4.1987	7.79	7.60	7.43	7.84	7.85
	HIGH SPEED DIESEL OIL (Rs./Litre)				
1.1.1971	0.79	0.86	0.83	0.82	0.85
1.1.1972	0.83	0.90	0.86	0.87	0.88
1.1.1973	0.83	0.90	0.86	0.87	0.88
1.1.1974	0.81	0.87	0.84	0.88	0.87
1.1.1975	1.06	1.10	1.11	1.15	1.15
1.1.1976	1.28	1.35	1.36	1.36	1.32
1.1.1977	1.27	1.36	1.34	1.35	1.33
1.1.1978	1.27	1.36	1.34	1.35	1.33
1.4.1979	1.39	1.49	1.47	1.49	1.50
17.8.1979	1.58	1.68	1.66	1.66	1.69
11.9.1979	1.50	1.60	1.58	1.59	1.61
8.6.1980	2.21	2.25	2.28	2.24	2.34
13.1.1981	2.61	2.66	2.67	2.66	2.76
11.7.1981	2.96	3.01	3.02	3.05	3.11
1.4.1982	2.96	3.01	3.02	3.05	3.11
15.2.1983	3.21	3.31	3.18	3.27	3.46
1.4.1983	3.21	3.30	3.19	3.26	3.40
1.4.1984	3.21	3.30	3.20	3.34	3.42
1.6.1984	3.27	3.30	3.22	3.34	3.42
17.3.1985	3.52	3.35	3.47	3.60	3.70
26.3.1985	3.45	3.48	3.39	3.52	3.60
1.2.1986	3.64	3.68	3.58	3.73	3.81
6.2.1986/1.4.1986	3.57	3.60	3.50	3.65	3.73
1.4.1987	3.63	3.59	3.50	3.64	3.84

Trends in Retail Selling Prices of Selected Petroluem Products in Metropolitan Towns in India.

Prices as on	Bombay	Calcutta	Delhi	Madras	Kanpur
	SUPERIOR KEROSENE (RS./Litre)				
1.1.1971	0.54	0.58	0.58	0.56	0.65
1.1.1972	0.57	0.61	0.61	0.57	0.69
1.1.1973	0.61	0.65	0.65	0.65	0.74
1.1.1974	0.82	0.84	0.82	0.85	0.86
1.1.1975	1.04	1.05	1.08	1.10	1.25
1.1.1976	1.21	1.25	1.29	1.31	1.39
1.1.1977	1.21	1.24	1.30	1.31	1.34
1.1.1978	1.18	1.24	1.30	1.31	1.34
1.4.1979	1.29	1.38	1.43	1.43	1.47
17.8.1979	1.46	1.56	1.61	1.62	1.66
11.9.1979	1.39	1.49	1.54	1.55	1.59
8.6.1980	1.39	1.49	1.54	1.55	1.59
13.1.1981	1.49	1.60	1.65	1.67	1.70
11.7.1981	1.60	1.76	1.81	1.84	1.90
1.4.1982	1.66	1.80	1.81	1.78	1.90
15.2.1983 Subsidised	1.70	1.80	1.77	1.78	1.90
Non-subsidised	3.00	3.12	3.10	3.15	3.35
18.3.1983	1.80	1.91	1.88	1.89	2.10
1.4.1983	1.80	1.90	1.88	1.88	2.05
1.4.1984	1.81	1.92	1.89	1.88	2.05
1.6.1984	1.85	1.92	1.92	1.88	2.05
17.3.1985	2.10	2.18	2.18	2.15	2.33
26.3.1985	2.03	2.12	2.11	2.08	2.25
1.2.1986	2.26	2.36	2.34	2.34	2.50
6.2.1986/1.4.1986	2.17	2.27	2.25	2.25	2.40
1.4.1987	2.17	2.27	2.25	2.25	2.50
	LIQUIFIED PETROLUEM GAS (RS./Cylinders)				
	14.2.Kg.cyl	15.Kg.cyl	15.Kg.cyl	15.Kg.cyl	15.Kg.cyl
1.1.1971	----	23.33	22.01	23.96	22.49
1.1.1974	20.01	25.28	25.20	21.60	25.13
1.1.1975	22.10	27.79	27.36	23.94	27.61
1.1.1976	26.75@	33.31	32.61	29.36	32.85
1.1.1979	26.94@	37.06	34.98	31.90	35.42
17.8.1979	33.96@	42.93	40.23	37.32	40.82
8.6.1980	33.96@	42.93	40.23	37.81	40.82
13.1.1981	38.94@	49.09	45.53	--	46.26
11.7.1981	43.52@	54.84	50.78	48.74	53.06
1.4.1982	43.52@	54.84	50.78	48.74	53.06
1.9.1982	43.14@	51.93	44.58@	47.17	49.41
1.4.1983	43.14@	52.71	45.09@	47.17	50.41
1.4.1984	43.14@	52.71	45.09@	44.65@	47.72@
1.6.1984	44.11@	49.90@	45.47@	44.65@	48.81@
17.3.1985	49.95@	56.34@	51.35@	50.74@	54.89
1.2.1986	60.28@	67.77@	61.79@	61.56@	65.90@
6.2.1986/1.4.1986	56.15@	63.20@	57.61@	57.24@	61.56@
1.4.87	56.15@	63.20@	57.61@	57.24@	61.56@

@ = For 14.2 Kg. Cylinder.

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

Slab of Annual Volumes of Sales (KL / Annual)	Dealers Commission effective from								
	1.4. 1977	15.7. 1980	1.3. 1981	16.8. 1981	1.10. 1982	15.2. 1983	1.9. 1983	17.3 1985	6.2. 1986
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
MOTOR SPIRIT (Rs./KL) :									
Prior to 1.7.1982 :									
0-480	80*	100	107	114					
481-1080	50*	70	75	82					
Over 1080	35*	50	55	61					
Effective From 1.7.1982:									
0-360					134		135	146	151
361-600					98		99	108	113
601-1080					86		87	95	99
Above 1080					69		70	76	79
HIGH SPEED DIESEL OIL (RS./KL)									
Prior to 1.7.1982:									
0-600	50	55	58	60					
601-1200	25	30	33	35					
Above 1200	20	25	28	30					
Effective from 1.7.1982:									
0-360					79	81		83	84
361-600					58	60		62	63
601-1080					42	43		44	45
Above 1080					36	37		38	39

L.P.G. (RS./CYLINDER):

	Prior to 1st March 1981	Effective from 1.3.1983	Effective from 19.1.1987
Per cylinder	3.37	3.62	5.30**

* = The minium rate of commission was Rs. 50/KL.

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 1955 continued upto 30th June 1976. The revised commission rates effective 1.7.1976 were as follows:

Sales per Annum (Combined MS/HSDO Sales)	(Rs./KL.)	(Rs./KL)
Upto 360	80	50
361 to 720	35	10
721 and above	25	10

** The increase in Commission of LPG wise be borne by OCC/Poof A/c in ratio 50:50

XIV. EXCISE/CUSTOM DUTIES AND SALES TAX

REALISATION OF EXCISE & CUSTOM DUTIES FROM CRUDE OIL AND PETROLEUM PRODUCT DURING 1970-71 TO 1987-88 (B.E.)

(Rs./Crores)

Products	Actuals									
	1970 -71	1975 -76	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87 (RE)	1987 -88 (BE)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
A. EXCISE DUTIES										
1. Mogas	173	404	493	518	559	528	678	749	825	900
2. Kerosene Oil	121	161	124	150	168	176	164	203	235	250
3. Refined Diesel Oil & Vaporising Oil	232	300	280	359	380	423	425	563	618	645
4. Diesel Oil (Nos.)	23	21	20	19	21	21	25	23	25	27
5. Furnace Oil	33	49	45	39	44	43	40	39	43	47
6. Asphalt/Bitumen & Tar	9	11	16	19	36	27	29	32	-	-
7. Blended or Compounded Lubes & Greases	-	45	-	-	-	-	-	-	-	-
8. Petroleum Products (Nos.)	17	46	175	182	188	193	222	203	280	300
9. Calcined Pet. Coke	-	3	5	7	(included in item NO-6 above)					
10. Petroleum Gas	-	-	-	1	12	19	22	33	41	45
TOTAL (A)	608	1040	1158	1294	1408	1430	1605	1836	2267	2214
B. CUSTOM DUTIES										
1. Petroleum Crude	-	13	16	16	17	25	138	874	800	950
2. Mogas	5	9	8	10	6	2	4	6		
3. Kerosene Oil	10	37	83	87	79	80	116	101	256	260
4. Batching Lubricating & Other Mineral Oils	9	21	103	92	55	41	113	35	60	70
5. HSD & Vap. Oil	1	26	127	76	99	70	98	33		
6. Indl. Fuel Oil	5	9	17	7	neg.	1	3	1	-	-
TOTAL (B)	30	115	354	288	256	219	472	1050	1116	1280
GRAND TOTAL (A+B)	638	1155	1512	1582	1664	1649	2077	2886	3183	3494

Figures rounded to nearest crores.

Source: Budget Papers of the Central Government.

PERCENTAGE SHARE OF CENTRAL EXCISE ON POL TO TOTAL CENTRAL EXCISE AND TO THE NATIONAL PRODUCTS.

Year	Net National Product at current prices (..... Rs.Crores.....)	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 %
1.	2.	3.	4.	5.	6.	7.
1960-61	13263	416	101	3.1	0.8	24.3
1965-66	20637	898	261	4.4	1.3	29.1
1970-71	34235	1759	608	5.1	1.8	34.6
1971-72	36582	2061	708	5.6	1.9	34.4
1972-73	40317	2324	767	5.8	1.9	33.0
1973-74	50468	2602	874	5.2	1.7	33.6
1974-75	59505	3231	1011	5.4	1.7	31.3
1975-76	62302	3845	1040	6.2	1.7	27.1
1976-77	66924	4221	1110	6.3	1.7	26.3
1977-78	75706	4448	1152	5.9	1.5	25.9
1978-79	81321	5194	1290	6.4	1.6	24.0
1979-80	88813	6148	1407	6.9	1.6	22.9
1980-81	105743	6500	1158	6.1	1.1	17.8
1981-82	120966	7421	1294	6.1	1.1	17.4
1982-83	133807	8059	1408	6.0	1.1	17.5
1983-84	158265	10222	1430	6.5	0.9	14.0
1984-85	174018	11151	1605	6.4	0.9	14.4
1985-86	195707	12920	1836	6.6	0.9	14.2
1986-87(R.E)	N.A.	14067	2267	N.A.	N.A.	16.1

SOURCE : i) Government of India's Economic Survey for N.N.P.
ii) Budget papers of Central Government.

COMPOSITE INCIDENCE OF EXCISE AND CUSTOM DUTIES ON PETROLEUM PRODUCTS

Year	Consumption of POL Products(Excl. R.B.F. ('000'MTS)	Central Excise Duty realisation (Rs./Crores)	Customs Duties realisation (Rs./Crores)	Total Central Excise & Custom duties (Rs./Crores)	Composite Incidence of Excise & Customs duties (Rs./Crores)
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	1110	112	1222	507.03
1977-78	25539	1152	127	1279	500.80
1978-79	28241	1290	190	1480	524.06
1979-80	29883	1407	213	1620	542.10
1980-81	30896	1158	354	1512	489.38
1981-82	32523	1294	288	1582	486.42
1982-83	34657	1408	256	1664	480.13
1983-84	35841	1430	219	1649	460.1
1984-85	38795	1605	472	2077	535.4
1985-86	40872	1836	1050	2886	706.1
1986-87	43404	2267	1116	3183	733.3

ROYALTY AND OIL DEVELOPMENT CESS PAID BY OIL COMPANIES ON PRODUCTION OF CRUDE OIL AND NATURAL GAS SINCE 1970-71 TO 1986-87

(Rs./Lakhs)

YEAR	ROYALTY PAID ON CRUDE OIL						ROYALTY PAID ON NATURAL GAS				OIL DEVELOPMENT CESS
	W.Region Gujarat	E.Region Assam	S.Region Tamil Nadu	Total On Shore	Bombay High Off Shore	Total	W.Region Gujarat	E.Region Assam	B.High Off Shore	Total	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1970-71	343	333	-	676	-	676	22	4	-	26	-
1971-72	406	370	-	776	-	776	25	4	-	29	-
1972-73	532	555	-	1087	-	1087	28	5	-	33	-
1973-74	520	548	-	1068	-	1068	26	5	-	31	-
1974-75	576	584	-	1160	-	1160	36	8	-	44	3081
1975-76	615	645	-	1260	-	1260	43	26	-	69	5007
1976-77	1279	1087	-	2366	156	2522	44	59	-	103	5289
1977-78	1742	1907	-	3649	1016	4665	102	50	-	152	6375
1978-79	1771	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	38893	242	114	2109	2405	84434
1985-86	13275	12433	-	25708	12155	37863	242	96	2109	2405	86629
1986-87(P)	8590	9395	11	17996	91192	109188	359	95	4113	456	98916

NOTE:1) Figures for 1984-85 & 1985-86 has under give revised in the light increase in Royality rate from Rs.61 to 192/- per.

2) Royalty figures in respect of oil prior to 1981-82 pertain to calender years and there-after to Financial years.

3) Oil Development cess was levied w.e.f. 23.7.1974.

(P) Provisional.

EXCISE DUTY ELEMENT INCLUDED IN SELLING PRICES OF BULK REFINED PETROLEUM PRODUCTS

(Rupees/Selling Unit)

PRODUCTS	Selling Unit	w.e.f. 1.3.79	w.e.f. 17.8.79	w.e.f. 11.9.79	w.e.f. 8.6.80	w.e.f. 13.1.81	w.e.f. 11.7.81	w.e.f. 15.2.83	w.e.f. 1.4.83	w.e.f. 1.9.83	w.e.f. 1.4.84/ 1.4.85/ 1.4.86/ 1.4.87.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Avgas 100/130	KL	2702.43	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89
2. Avgas 115/145	KL	2700.50	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32
3. Avgas 73	KL	2701.60	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21
4. M.S. 87@@	KL	2703.25	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56	2215.56
5. M.S. 93	KL	2704.90	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92	2216.92
6. A.T.F.	KL	493.10	402.56	402.56	333.52@	333.52	333.52	333.52	333.52	333.52	333.52
7. S.K.O.	KL	493.10	402.63	333.59	333.59@	333.59	333.59	333.59	333.59	333.59	333.59
8. H.S.D.O.	KL	493.95	399.15	330.00	330.00@	330.00	330.00	330.00	330.00	330.00	330.00
9. L.D.O.	KL	74.15	153.96	153.96	153.96	153.96	153.96	153.96	153.96	153.96	153.96
10. F.O. (Fert.Use)	KL	125.82	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	125.82
12. Bitumen (Bulk)	MT	157.55	110.30	110.30	110.30	110.30	110.30	110.30	110.30	110.30	110.30
13. Bitumen (Packed)	MT	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55
14. LPG(Domestic)(Packed)	MT	400.00	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50
15. LPG(Industrial)Bulk	MT	400.00	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50
16. Naphtha*(Fert.Use)	KL	4.50	4.50	4.36	4.36	4.36	4.36	---	---	4.40	4.40
17. Naphtha*(For Non-Fert.Use)	KL	26.50	26.50	26.50	26.50	26.50	26.50	---	---	26.25	26.25

* Duty at 15 Degree C.

@@ MS 83 was replaced by MS 87 w.e.f. 1.9.1983.

@ Revision effective from 11.9.1979.

NOTE: 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.

EXCISE AND CUSTOM DUTIES IN THE BASIC CEILING SELLING PRICES (BCSP) OF POL PRODUCTS EX-STORAGE POINT EFFECTIVE FROM 20.3.1987

(Rs./Selling Unit)

PRODUCT	Selling Unit	Price Ex-Storage Point (Bombay) (Rs.) @	Excise/Custom Duties (Rs.)	Col.4 as % of Col.3
1.	2.	3.	4.	5.
A.T.F.	KL	5239.85	333.52	6.4%
Motor Spirit 87	KL	6769.07	2215.56	32.7%
Motor Spirit 93	KL	6824.48	2216.92	32.5%
H.S.D.O.	KL	3115.55	330.00	10.6%
S.K.O.	KL	1956.93	333.59	17.1%
L.D.O.	KL	3053.97	153.96	5.0%
F.O. (Non-Fertilizers)	KL	2903.06	125.82	4.3%
F.O. (Fertilizers)	KL	1320.24	$	--
Bitumen St.Grade (Bulk)	MT	2524.85	110.30	4.4%
Bitumen St.Grade (Packed)	MT	3099.91	157.55	5.1%
Naphtha for non-Ferts.*	MT	3211.10		
Naphtha for Ferts.*	MT	1982.31		
J.B.O. *	MT	2712.42		
SBP Spirit 55/115*	KL	3972.56		
SBP Spirit 64/69*	KL	4173.36		
Solvent 1425*	KL	3972.56		
Hexane*	KL	4173.36		
M.T.O. 140/205*	KL	2700.26		
M.T.O. (Laws)*	KL	2793.96		
L.P.G.(Domestic Packed)	MT	3448.98	262.50	7.6%
L.P.G.(Industrial) (Bulk Essential)	MT	5001.10	262.50	5.2%
L.P.G. Industrial Bulk Non-Essential	MT	6151.39	262.50	4.3%

* = Prices shown against these products are exclusive of Custom/ Excise duties chargeable extra at applicable rates.

@ = Based on the Basic ceiling selling prices for all refinery points (Primary pricing points)applicable as at Bombay wef. 6.2.1986.

$ = No excise duty is cheargeable when used as feed stock. Excise duty @ Rs.63.46/KL only chargeable when used in fertilizer industry, other then feed stock. This is applicable wef 17.3.85.

*SALES TAX RATES APPLICABLE ON OIL, GAS AND PETROLEUM PRODUCTS AS ON 1.4.1987.

S. No.	Products	Andhra Pradesh	Assam	Bihar	Chandi-garh	Delhi	Goa, Daman & Diu	Gujarat
A.	OIL & GAS:							
	Crude Oil	--	4%	--	--	--	--	4%
	Natural Gas	--	7%	--	--	--	--	12%+20% Sc on ST.
B.	PETROLEUM PRODUCTS:							
1.	Aviation Spirit	16.69%	10%	16%	15P.L.	7%	12%	Bonded=30% Duty paid 9%.
2.	Aviation Turbine Fuel	13.77%	10%	16%	15P.L.	7%	12%	Bonded=30% Duty paid 23%.
3.	Motor Spirit	16.69%	10%	9%	15P.L.	7%	12%	15%
4.	H.S.D.	15.21%	11%	14%	10P.L.	7%	12%	15%
5.	L.D.O.	15.21%	11%	14%	6%	7%	12%	7%
6.	M.L.O.	15.82%	7%	9%	6%	7%	6%	7%
7.	S.K.O.	5.82%	2%	6%	6%	3%	4%	3%
8.	I.K.O.	5.82%	2%	5%	6%	3%	4%	3%
9.	F.O.	5.82%	7%	8%	6%	7%	12%	7%
10.	M.T.O.	5.82%	7%	9%	6%	7%	6%	7%
11.	Lubes	9.65%	9%	9%	6%	7%	6%	10%
12.	Greases	9.65%	9%	9%	6%	7%	6%	10%
13.	Petroleum Naphtha	8.34%	7%	9%	6%	7%	12%	10%
14.	Bitumen	7.07%	7%	9%	6%	7%	6%	7%
15.	Petroleum Coke	4.00%	4%	4%	--	4%	4%	4%
16.	Indane (LPG)	7.07%	7%	9%	6%	5%	12%	12%
17.	Transformer Oil	5.82%	7%	9%	6%	7%	6%	5%
18.	H.B.Fluid	7.07%	9%	9%	6%	7%	6%	11%
19.	Crude Oil	4.00%	4%	4%	--	4%	--	4%

* = Please also see the notes on page 85.

SALES TAX RATES APPLICABLE ON OIL, GAS AND PETROLEUM PRODUCTS
AS ON 1.4.1987. (Contd...)

S. No.	Products	Haryana	Himachal Pradesh	Jammu & Kashmir	Kerala	Madhya Pradesh	Maharashtra	Karnataka
A.	OIL & GAS:							
	Crude Oil	—	—	—	—		4%	—
	Natural Gas	—	—	—	—	—	8%+12%SC	—
B.	PETROLEUM PRODUCTS:							
1.	Aviation Spirit	6%	3.5%	8%	12%	14%	Bonded 23% Duty paid	20% 9%
2.	Aviation Turbine Fuel (A.T.F.)	6%	3.5%	8%	10%	14%	Bonded 30% Duty paid	20% 23%
3.	Motor Spirit	6%	3.5%	4%	15%	16%	12%	20%
4.	H.S.D.	6%	3.5%	8%	20%	16%	10%	18%
5.	L.D.O.	8%	7%	8%	20%	16%	4%	18%
6.	M.L.O.	8%	7%	8%	5%	14%	4%	7%
7.	S.K.O.	8%	7%	2%	4%	3%	Exempted	5%
8.	I.K.O.	8%	7%	2%	4%	3%	Exempted	5%
9.	F.O.	8%	7%	8%	5%	14%	4%	13%
10.	M.T.O.	8%	7%	8%	7%	16%	4%	10%
11.	Lubes	8%	7%	8%	10%	12%	6%	15%
12.	Greases	8%	7%	8%	10%	12%	6%	15%
13.	Petroleum Naphtha	8%	7%	8%	5%	14%	4%	7%
14.	Bitumen	8%	7%	5%	8%	14%	4%	10%
15.	Petroleum Coke	4%	4%	—	4%	4%	4%	4%
16.	Indane (LPG)	8%	7%	Exempted	15%	14%	4%@	15%
17.	Transformer Oil	8%	7%	8%	10%	12%	8%	13%
18.	H.B.Fluid	8%	7%	8%	10%	12%	10%	10%
19.	Crude Oil	4%	4%	—	4%	4%	—	4%

* = Please also see the notes on page.85.

SALES TAX RATES EFFECTIVE 1.4.1987

S.No.	Products	Manipur	Nagaland	Meghalaya	Orissa
A.	OIL & GAS:				
	Crude Oil	50%/KL	3%	--	4%
	Natural Gas	6%	6%	7%+1%Sc	
B.	PETROLEUM PRODUCTS				
1.	Aviation Spirit	20 PPL	8 PPL	--	13%
2.	Aviation Turbine Fuel	20 PPL	8 PPL	--	10%
3.	Motor Spirit	30 PPL	8 PPL	200+1%Sc	10%
4.	H.S.D.	25 PPL	7 PPL	110 PPL +1 10Sc	13%
5.	L.D.O.	15 PPL	7 PPL	do	13%
6.	M.L.O.	6%	5%	do	7%
7.	S.K.O.	3%	3 PPL	30PPL	8%
8.	I.K.O.	3%	2 PPL	--	Exempt
9.	F.O.	6%	5%	--	8%
10.	M.T.O.	6%	--	--	7%
11.	Lubes	25 PPL	9 PPL	100+1%Sc	12%
12.	Greases	25 PPL	9 PPL	--	12%
13.	Petroleum Naphtha	6%	--	--	7%
14.	Bitumen	6%	5%	--	7%
15.	Petroleum Coke	4%	4%	--	4%
16.	Indane (LPG)	6%	5%	--	6%
17.	Transformer Oil	--	--	--	--
18.	H.B.Fluid	--	--	--	--
19.	Crude Oil	5 PPL	4%	--	4%

* Please also see the notes of page 85.

SALES TAX RATES EFFECTIVE 1.4.1987

S.No.	Products	Punjab	Rajasthan	Tamil Nadu	Tripura	U.Pradesh	W.Bengal
A.	OIL & GAS:						
	Crude Oil	--	--	4%	4	--	--
	Natural Gas	--	--	14%	12	--	
B.	PETROLEUM PRODUCTS						
1.	Aviation Spirit	6%	15%	14%	5%	10%	9%
2.	Aviation Turbine Fuel	7.7%	15%	14%	5%	10%	25%
3.	Motor Spirit	6%	15%	14%	8%	10%	9.9%
4.	H.S.D.	4%	13%	14%	5%	12%	12%
5.	L.D.O.	7.7%	13%	14%	5%	12%	12%
6.	M.L.O.	7.7%	8%	10%	5%	8%	8%
7.	S.K.O.	7.7%	8%	4%	5%	8%	5%
8.	I.K.O.	7.7%	8%	4%	5%	8%	Exempted
9.	F.O.	7.7%	8%	10%	5%	5%	8%
10.	M.T.O.	7.7%	8%	10%	5%	12%	8%
11.	Lubes	7.7%	8%	10%	12%	8%	11%
12.	Greases	7.7%	8%	10%	5%	8%	11%
13.	Petroleum Naphtha	7.7%	8%	10%	5%	8%	8%
14.	Bitumen	7.7%	8%	8%	5%	8%	8%
15.	Petroleum Coke	4%	4%	4%	12%	4%	4%
16.	Indane (LPG)	7.7%	8%	8%	5%	8%	15%
17.	Transformer Oil	7.7%	8%	4%	5%	8%	8%
18.	H.B.Fluid	7.7%	8%	8%	5%	8%	11%
19.	Crude Oil	4%	4%	4%	5%	4%	4%

* Please also see the notes on page.85

IN ADDITION TO THE SALES TAX PAYABLE THE FOLLOWING TAX AMOUNTS ARE ALSO PAYABLE/RECOVERABLE

1.	Haryana	:	Surcharge at 2% on Sales Tax on all products under sales tax Act is payable. This is recoverable.
2.	Madhya Pradesh	:	The Sales Tax rates are inclusive of all levies.
3.	Punjab	:	Addl. Tax at 10% of the Sales Tax on products under General Sales Tax Act is payable and is recoverable. This has already been included in ST rates.
4.	W.Bengal	:	Turnover Tax @ 1% of the gross turnover of the bill is payable. This is non-recoverable.
5.	Kerala	:	Surcharge at 8% of Sales Tax is payable, but the same is not recverable from the market. Addl. Sales Tax @20% of Sales Tax is also payable which is recoverable on our Sales.
6.	J & K	:	Surchage at 5% Sales Tax is payable and the same is recoverable from the market. This does not apply to MST products.
7.	Maharashtra	:	1. Addl. Sales Tax @12% of tax is payable under the Sales Tax Act but the same is not recoverable from the market. This does not apply to Kerosene and declared goods. 2. Turnover tax @1.2% Non-recoverable.
8.	Karnataka	:	1. 1.25% turnover tax on value of oil (is non recoverable) between Rs.5 Lacs and Rs.250 Lacs and @1.50% if turnover is above Rs.250 lacs. 2. Entry tax @ 2% on oil value of Pet. products under the "The Karnataka tax on entry of goods into local areas for consumption use or sale therein 1979" (Not applicable for LPG Kerosene, Naphtha for use in manufacture of fertiliser).
9.	Tamil Nadu	:	Surcharge at 5.0% on tax is payable on all products which is recoverable, in specified areas. Addl. turnover tax at 1.25% on taxable turnover, if turnover is between Rs.10 lakhs & 40 Lacs and @ 1.50% if turover is above Rs.40.00 lakhs. This is to be borne by seller (Non-recoverable). Addl. S/C @ 5% on tax is payable but not applicable for Petrol, HSD, SKO, LDO effective 10.6.81. This applies to Sales within specified limits of some cities.
10.	Gujarat	:	Addl. Sales Tax at 20% on Sales Tax in respect of products under Gujarat Sales Tax Act, and on MST Act. This is reocoverable.
11.	Orissa	:	Addl. Sales Tax at 0.5% of Invoice Value is payable on all products. This is recoverable.
12.	Goa, Daman & Diu	:	Addl. Sales Tax @ 10% of Sales Tax is payable which is not recoverable on our sales.
13.	Andhra Pradesh	:	Surcharge at 1% on taxable turnover. This applies to all products. This is included in the Sales Tax rates indicated and it is recoverable. Also surcharge @ 10% on tax. Already included in S.T. Rates.
14.	Bihar	:	5% surcharge on tax. This is non-recoverable. 1% addl. tax on gross turnover recoverable (Not on MS,ATF,AVN,Spirits,HSD, LDO, SKO etc.)
15.	Himachal Pradesh	:	**10% surcharge recoverable under GST Act.**
16.	Chandigarh	:	**2% Addl. tax on tax. It is recoverable.**
17.	U.P.	:	**10% Addl. tax on tax. This is recoverable.**
18.	Rajasthan	:	**20% surcharge on tax is recoverable.**

SALES TAX PAYMENTS (INCLUSIVE OF MST AND CST) ON CRUDE OIL/CONDENSATES, NATURAL GAS & PETROLEUM PRODUCTS MADE BY THE OIL COMPANIES TO STATE/UNION TERRITORY GOVERNMENTS DURING THE YEAR 1979-80 TO 1986-87.

(Rs.in lakhs)

S T A T E	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
1. Crude Oil								
Assam	396	193	1707	2226	2752	2723	2550	3456
Gujarat	471	476	1228	1467	1911	2056	2248	2965
Arunachal Pradesh	-	1	1	1	8	34	32	40
Nagaland	-	-	-	-	-	-	31	54
Maharashtra	-	-	-	-	3487	3795	6965	9220
Tamil Nadu	-	-	-	-	-	-	-	3
Total (1)	867	670	2936	3694	8158	8608	11826	15738
2. Natural Gas								
Assam	69	56	84	113	98	128	114	48
Gujarat	185	214	227	231	259	264	341	347
Maharashtra (Bombay High)	-	-	-	862	602	1190	1356	4046
Tripura	-	-	-	-	-	-	-	3
Total (2)	254	270	311	1207	959	1582	1811	4444
3. POL Products								
(a) States								
Andhra Pradesh	2831	4727	5865	6193	7525	9084	10758	12764
Assam	720	798	965	1189	1614	1911	2688	2463
Bihar	2143	2992	4702	4166	5366	6131	7078	7936
Gujarat	4798	7254	9323	10712	11408	12498	15042	19045
Haryana	590	678	870	1093	1459	1692	2026	2341
Himachal Pradesh	17	20	22	24	43	53	81	341
Jammu & Kashmir	189	264	336	342	372	411	483	571
Karnataka	2711	4034	4652	5697	6043	8258	10531	12311
Kerala	3466	4854	6409	6830	8074	7965	10737	13543
Madhya Pradesh	1700	2760	3014	3525	3935	4368	5061	6468
Maharashtra	6383	9342	11672	12300	14501	15153	18762	24447
Manipur	33	29	32	29	29	30	44	81
Meghalaya	Neg.	1	1	1	Neg.	Neg.	Neg.	Neg.
Mizoram	-	-	-	-	-	-	-	1
Nagaland	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	1
Orissa	528	748	1027	1061	1410	1467	1781	2032
Punjab	1085	1220	1383	1534	1811	2067	2345	3410
Rajasthan	1666	2244	3055	3439	3799	4226	5768	6332
Tamil Nadu	8398	8407	10292	11296	12230	16416	19766	21818
Tripura	21	38	61	72	72	75	107	115
Uttar Pradesh	3584	4637	6641	8226	9317	11144	13373	15269
West Bengal	3474	4366	5459	7413	7926	8716	10883	11322
(b) Union Territories								
Chandigarh	34	34	32	35	37	38	28	39
Delhi	1291	1859	2243	2384	2689	3258	3923	4259
Goa, Daman & Diu	502	558	887	1054	1101	1144	1507	1717
Total (3)	46164	61864	78943	88615	100761	116105	142772	168626
GRAND TOTAL	47285	62804	82190	93516	109878	126295	156409	188808

XV. TRANSPORTATION

Tonnage of Indian Tankers Fleet (DWT in '000')

Year*	Oil Tanker		Ore/Oil Carrier		Total	
	No.of Tankers	DW Tonnage	No.of Ships	DW Tonnage	No.of Ships	DW Tonnage
1.	2.	3.	4.	5.	6.	7.
			(A) Coastal Tankers			
1970	5	74.1	--	--	5	74.1
1975	9	137.6	--	--	9	137.6
1976@	9	137.6	--	--	9	137.6
1977@	9	137.2	--	--	9	137.2
1978@	8	126.8	--	--	8	126.8
1979@	9	132.9	--	--	9	132.9
1980@	10	158.5	--	--	10	158.5
1981@	16	247.7	--	--	16	247.7
1982@	18	300.6	--	--	18	300.6
1983@	18	300.6	--	--	18	300.6
1984@	18	300.6	--	--	18	300.6
1985	18	306.1	--	--	18	306.1
1986**	18	306.1	--	--	18	306.1
			(B) Overseas Tankers			
1970	7	409.9	9	381.5	16	791.4
1975	20	1542.8	11	877.2	31	2420.0
1976	22	1840.6	14	1237.4	36	3078.0
1977@	23	1871.1	14	1237.8	37	3108.9
1978@	23	1871.1	17	1573.4	40	3444.5
1979@	22	1850.6	17	1573.4	39	3424.0
1980@	22	1850.6	16	1484.7	38	3335.3
1981@	23	1879.3	16	1484.7	39	3364.0
1982@	26	2034.1	16	1484.7	42	3518.8
1983@	25	1997.4	16	1484.7	41	3482.1
1984@	32	2426.9	17	1549.7	49	3976.6
1985	37	2584.2	11	1222.8	48	3807.0
1986**	39	2598.5	9	994.4	48	3592.9
			(C) All Tankers.			
1970	12	484.0	9	381.5	21	865.5
1975	29	1680.4	11	877.2	40	2557.6
1976	31	1978.2	14	1237.8	45	3215.6
1977@	32	2008.3	14	1237.8	46	3246.1
1978@	31	1997.9	17	1573.4	48	3571.3
1979@	31	1983.5	17	1573.4	48	3556.9
1980@	32	2009.1	16	1484.7	48	3493.8
1981@	39	2127.0	16	1484.7	55	3611.7
1982@	44	2334.7	16	1484.7	60	3819.4
1983@	43	2298.0	16	1484.7	59	3782.7
1984@	50	2727.5	17	1549.7	67	4277.2
1985	55	2890.3	11	1222.8	66	4113.1
1986**	57	2904.6	9	994.4	66	3899.0

* = As on 31st December of each year. @ = DWT in Metric Tonnes.
**= DWT in MT as on 31.3.1987.
Source : Ministry of Transport.

INDIAN TANKER FLEET AS ON 31.3.1987.

Owner/Name of the Ship	Year of Built	G.R.T. (Tonnes)	D.W.T. (Tonnes)
1.	2.	3.	4.
1. COASTAL OIL TANKERS			
A. The Shipping Corpn. of India Ltd. Bombay			
1. m.t. Visvesvaraya	1973	11094	16450
2. m.t. Sarojini Naidu	1975	10759	16440
3. m.t. Bhagat Singh	1974	10759	16540
4. m.t. Rafi Ahmed Kidwai	1975	15035	24439
5. m.t. Jai Narayan Vyas	1975	15035	24529
6. m.t. C.V.Raman	1981	27484	41123
7. m.t. Homi Bhaba	1982	27484	41123
B. The Varun Shipping Co. Ltd. Bombay			
8. m.t. Meghdoot	1973	2995	6102
9. m.t. Vayudoot	1980	3924	7012
10. m.t. Premdoot	1972	3662	6145
11. m.t. Pavandoot	1971	16486	26042
C. The Essar Shipping Ltd., Bombay			
12. m.t. Nand Smiti	1982	3900	6700
13. m.t. Nand Kala	1972	3827	6703
14. m.t. Nand Kishore	1981	11153	19500
15. m.t. Nand Hari	1981	11135	19604
16. m.t. Nand Kavita	1970	15098	25604
D. The Sagar Lines (India) P.Ltd., Calcutta			
17. m.t. Sagar Tarani	1965	497	712
E. M/s Seatrans Shipping Co., Bombay			
18. m.t. Raj Sevak	1966	750	1356
TOTAL (Coastal Tankers)		191077	306124
2.OVERSEAS TANKERS			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.t. Dadabhai Naorji	1977	15045	24400
2. m.t. Aurobindo	1976	15045	24411
3. m.t. Kolandia	1976	15045	24490
4. m.t. Major Hoshiar Singh PVC	1985	28704	40700
5. m.t. Lance Naik Albert Ekka PVC	1985	28704	40848
6. m.t. Subedar Joginder Singh PVC	1985	37855	61755
7. m.t. Major Dhan Singh Thapa PVC	1984	37855	61792
8. m.t. Naik Jadunath Singh PVC	1984	37855	61801
9. m.t. Company Havildar Major Puru Singh PVC	1984	37855	61801
10. m.t. Captain Gurubachan Singh Salaria PVC	1984	37855	61806

Contd.....

Owner/Name of the Ship	Year of Built	G.R.T. (Tonnes)	D.W.T. (Tonnes)
1.	2.	3.	4.
11. m.t. Lance Naik Karan Singh PVC	1984	37855	61807
12. m.t. Major Shaitan Singh PVC	1985	37855	61840
13. m.t. Major Somnath Sharma PVC	1984	37855	61864
14. m.t. Havildar Abdul Hamid PVC	1985	37855	61802
15. m.t. Colonel Ardeshir Burozore Tarapore PVC	1985	37855	61762
16. m.t. Flying Office Nirmal Jit Singh Shekhon PVC	1985	28704	40700
17. m.t. Lt. Arun Khetrapal PVC	1985	28704	40828
18. m.t. Lt. Bama Raghoba Pana PVC	1984	37855	61865
19. m.t. Lal Bahadur Shastri	1970	48441	87170
20. m.t. Vivekananda	1974	51717	89371
21. m.t. Satymurthi	1975	51533	89351
22. m.t. Netaji Subhash Bose	1973	51526	89392
23. m.t. Lok Manya Tilak	1975	51535	89411
24. m.t. B.R. Ambedkar	1974	51718	89454
25. m.t. Chattrapati Shivaji	1974	51718	89490
26. m.t. Rajendera Prasad	1975	63460	115723
27. m.t. Zakir Hussain	1975	63460	115853
28. m.t. Kanchanjunga	1975	139820	276755
29. m.t. Koyali	1976	139820	276800
B. The Great Eastern Shipping Co. Ltd.,Bombay			
30. m.t. Jag Prakash	1974	15849	25480
31. m.t. Jag Palak	1985	18542	27402
32. m.t. Jag Preeti	1981	21206	28679
33. m.t. Jag Pari	1982	20991	29139
34. m.t. Jag Priya	1975	20415	32878
35. m.t. Jag Prabhat	1985	18542	27398
36. m.t. Jag Pragati	1985	18542	27400
C. The Ratnakar Shipping Co.Ltd.Calcutta			
37. m.t. Ratna Abha	1982	40613	60725
D. M/s.Century Shipping Bombay			
38. m.t. Aditya Vikram	1981	3905	7029
E. M/s.Varun Shipping Co.Ltd. Bombay			
39. m.t. Vijaydoot	1984	4462	7314
TOTAL (Oil Tankers)		1524171	2598506
(ii) ORE OIL BULK CARRIERS			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.v. Vallabhbhai Patel	1977	62563	113926
2. m.v. Motilal Nehru	1973	62857	114086
3. m.v. Vallathol	1976	62563	114152
4. m.v. Abul Kalam Azad	1974	62857	114340
5. m.v. Maharshi Dayanand	1978	66926	123450
6. m.v. Maharshi Karve	1978	66926	123450
B. The Great Eastern Shipping Co. Ltd., Bombay			
7. m.v. Jag Laadki	1972	55540	103124
8. m.v. Jag Laxmi	1976	66723	121423
9. m.v. Jag Leela	1976	66733	125085
C. M/s.Essar Shipping Co. Ltd. Bombay			
10. Jag Lata (Ex-Walchand)	1973	57793	104750
11. m.v. Nand Shivchand	1982	37700	65000
TOTAL (Ore Oil Tankers)		669181	1222786
TOTAL (OVERSEAS TANKERS)		2193352	3806949
GRAND TOTAL (COASTAL AND OVERSES TANKERS)		2384429	4113073

Source : Department of Surface Transport, Ministry of Transport.

SHARE OF TRAFFIC IN PETROLEUM PRODUCTS IN THE TOTAL TRAFFIC HANDLED AT MAJOR PORTS DURING 1965-66 TO 1986-87.

(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*	1965-66	9.84	1.53	15.6
	1969-70	6.89	1.53	22.5
	1973-74	6.33	1.97	31.1
	1977-78	7.55	3.41	42.2
	1979-80	8.56	4.58	53.5
	1981-82	9.75	4.55	46.7
	1982-83	10.5	4.59	43.7
	1983-84	10.28	4.75	46.2
	1984-85	10.19	5.02	49.3
	1985-86	12.13	6.06	50.0
	1986-87	12.00	5.68	47.3
Bombay	1965-66	18.12	9.35	51.6
	1969-70	15.04	8.60	57.2
	1973-74	18.46	11.05	59.9
	1977-78	16.90	9.86	58.3
	1979-80	16.57	7.84	47.3
	1981-82	19.63	10.37	52.8
	1982-83	24.85	16.91	68.0
	1983-84	24.74	16.65	67.3
	1984-85	25.20	16.93	67.2
	1985-86	24.26	15.47	63.8
	1986-87	25.06	15.52	62.0
Madras	1965-66	4.87	0.93	19.1
	1969-70	6.44	2.24	34.8
	1973-74	7.75	3.47	44.8
	1977-78	8.07	3.47	43.0
	1979-80	9.99	3.73	37.3
	1981-82	11.41	4.59	40.2
	1982-83	12.41	5.81	46.8
	1983-84	13.32	6.58	49.4
	1984-85	15.01	6.93	46.2
	1985-86	18.15	8.93	49.2
	1986-87	19.75	9.95	50.3
Cochin	1965-66	2.87	1.04	36.2
	1969-70	4.79	3.56	74.3
	1973-74	3.72	2.50	67.2
	1977-78	5.17	3.81	73.7
	1979-80	5.47	3.87	70.8
	1981-82	5.51	4.18	75.9
	1982-83	5.72	4.33	75.7
	1983-84	5.13	3.80	74.1
	1984-85	3.92	2.63	67.1
	1985-86	5.11	3.83	75.0
	1986-87	6.81	5.47	80.5
Kandla	1965-66	2.51	0.93	37.1
	1969-70	2.11	0.98	46.4
	1973-74	3.12	1.50	51.3
	1977-78	3.82	2.75	72.0
	1979-80	7.27	5.45	75.0
	1981-82	9.53	7.16	75.1
	1982-83	12.65	10.74	84.9
	1983-84	14.16	11.36	80.2
	1984-85	15.75	11.94	75.8
	1985-86	16.49	12.34	74.9
	1986-87	16.20	11.93	73.64

* = Kandla POL traffic includes traffic handled at Vadinar

SHARE OF TRAFFIC IN PETROLEUM PRODUCTS IN THE TOTAL TRAFFIC HANDLED AT MAJOR PORTS DURING 1965-66 TO 1986-87.

(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.
Vishakapatnam	1965-66	4.38	2.01	45.9
	1969-70	8.30	1.94	23.4
	1973-74	7.95	1.93	24.3
	1977-78	9.69	1.74	18.0
	1979-80	10.23	1.94	19.0
	1981-82	10.85	2.11	19.4
	1982-83	10.18	2.10	20.6
	1983-84	11.35	4.03	35.5
	1984-85	12.87	4.47	34.7
	1985-86	15.91	6.27	39.4
	1986-87	15.04	5.31	35.3
Mormugao	1965-66	7.86	0.09	1.1
	1969-70	9.03	0.15	1.1
	1973-74	14.34	0.55	4.5
	1977-78	11.28	0.62	5.5
	1979-80	14.80	0.73	4.9
	1981-82	14.89	0.66	4.4
	1982-83	12.76	0.78	6.1
	1983-84	13.22	1.02	7.7
	1984-85	14.51	0.90	6.2
	1985-86	16.10	0.98	6.1
	1986-87	14.92	0.78	0.5
Paradip	1965-66	--	--	--
	1969-70	1.75	--	--
	1973-74	2.29	--	--
	1977-78	2.74	--	--
	1979-80	2.31	--	--
	1981-82	1.17	--	--
	1982-83	1.81	--	--
	1983-84	1.59	--	--
	1984-85	2.14	--	--
	1985-86	3.33	--	--
	1986-87	4.85	--	--
Port of Tuticorin	1977-78	0.63	0.35	55.6
	1979-80	2.41	0.44	18.3
	1981-32	2.69	0.47	17.5
	1982-83	3.23	0.52	16.1
	1983-84	3.55	0.43	13.5
	1984-85	3.77	0.51	13.5
	1985-86	4.22	0.34	8.1
	1986-87	4.15	0.33	8.0
New Mangalore	1977-78	0.38	0.20	52.6
	1979-80	0.90	0.21	23.3
	1981-82	1.64	0.36	22.0
	1982-83	2.27	0.35	15.4
	1983-84	2.84	0.35	12.3
	1984-85	3.38	0.44	13.0
	1985-86	3.69	0.41	11.1
	1986-87	5.43	0.53	9.8
GRAND TOTAL	1965-66	50.46	15.88	31.5
	1969-70	54.35	19.02	35.0
	1973-74	63.96	23.07	36.1
	1977-78	66.23	26.21	39.6
	1979-80	78.49	28.78	36.7
	1981-82	88.06	34.44	39.1
	1982-83	96.12	46.16	48.0
	1983-84	100.18	48.97	48.9
	1984-85	106.74	49.77	46.6
	1985-86	120.04	54.63	45.5
	1986-87	124.21	55.51	44.7

SOURCE: Ministry of Transport.

ESTIMATED FREIGHT PAID ON IMPORTS OF CRUDE OIL/POL PRODUCTS TRANSPORTED BY INDIAN/FOREIGN FLAG TANKERS DURING THE YEARS 1983 TO 1986.

Freight in Rs./Crores. Qty.in Million Tonnes

Products/Tankers	1983		1984(R)		1985(R)		1986(P)	
	Qty.	Freight	Qty.	Freight	Qty.	Freight	Qty.	Freight
A. Crude Oil								
Indian Tankers	13.26	90.18	13.97	86.44	17.25	106.54	11.53	79.01
Foreign Tankers	2.26	12.69	0.84	4.54	0.03	0.12	--	--
Total (A)	15.52	102.87	14.81	90.98	17.28	106.66	11.53	79.01
B. POL Products								
Indian Tankers	0.94	21.63	1.02	24.19	0.88	18.56	1.25	28.57
Foreign Tankers	3.25	27.04	4.35	26.37	2.60	20.35	1.65	0.25
Total (B)	4.19	48.67	5.37	50.56	3.48	38.91	2.90	28.82
C. Crude Oil/POL Products								
Indian Tankers	14.20	111.81	15.24	112.13	20.36	140.36	12.78	107.57
Foreign Tankers	5.51	39.73	5.19	30.91	2.63	20.47	1.65	0.25
Total (C)	19.71	151.54	20.43	143.04	22.99	160.83	14.43	107.82

@ = Quantity as per Bill of lading.
R = Revised.
P = Provisional.

COASTAL MOVEMENT OF PETROLEUM PRODUCTS

(Quantity moved to Indian Ports)

Year	Quantity carried (in Thousand Tonnes) By			Freight paid(Estimated)
	Indian Flag Vessels	Foreign Flag Vessels	Total	(Rs. Million)
		A. PETROLEUM PRODUCTS		
1968	754.71	2442.61	3197.32	60.04
1969	1089.76	1941.68	3031.44	54.20
1970	1131.23	1695.36	2826.59	65.79
1971	1190.04	1656.50	2846.54	82.79
1972	1452.89	1138.18	2591.07	75.50
1973	1477.73	1168.25	2645.98	86.97
1974	1640.71	1055.65	2696.35	136.59
1975	2191.35	177.62	2368.97	117.52
1976	2060.77	20.65	2081.42	84.63
1977	2342.19	--	2342.19	101.37
1978	2823.67	--	2823.67	146.06
1979	2889.00	--	2889.00	194.61
1980	2713.78	--	2713.78	254.60
1981	3200.63	--	3200.63	309.86
1982	2671.27	--	3061.28	306.13
1983	3312.44	--	3312.44	339.70
1984	4104.71	--	4104.71	378.07
1985	4119.25	--	4119.25	411.26
1986(P)	4119.40	--	4119.40	543.70
		B. CRUDE OIL		
1984	251.47	--	251.47	15.02
1985	2226.63	--	2226.63	152.47
1986(P)	2626.14	--	2626.14	189.20

* Includes freight paid on demurrage and dead freight paid.
P = Provisional.

MOVEMENT OF POL TRAFFIC ON RAILWAYS SINCE 1970-71

YEAR	Tonnes Originating ('000'MTS)	Earnings ('000'Rs.)	Average Lead (Kms)	Earnings (Paise/ Tonnes Kms).	Average freight (Col.3 divided 2 Tonnes/Rs.)
1.	2.	3.	4.	5.	6.
1970-71	8857	464081	594	9.1	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	253.03

RAIL FREIGHT IN RESPECT OF PETROLEUM PRODUCTS:

RS/KL

Distance. Kms.	Dangerous POL 1.4.82	1.4.83	15.4.85	1.12.86	1.6.82	1.6.83	Dangerous POL 1.6.84	15.4.85	11.12.86
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
100	71.40	78.00	78.00	84.30	51	59.20	63.90	63.90	69.10
300	143.30	175.20	175.20	203.40	10	130.50	141.70	141.70	164.50
500	207.60	267.00	267.00	326.60	]	197.80	215.10	215.10	263.20
800	357.20	393.90	433.30	522.10		290.90	348.30	348.30	419.70
1000	425.50	478.50	526.40	639.60		352.90	422.70	422.70	513.60
1500	584.40	655.50	721.10	914.60		482.70	578.50	578.50	733.70
2000	729.20	796.50	876.20	1123.20	)	586.10	702.60	702.60	900.60
2500	828.00	919.50	1011.50	1284.20		676.30	810.80	810.80	1029.80

Non-dangerous POL: Include HSDO, LDO Petroleum and Hydro-carbons Oil (Except Kerosene Oil).

Dangerous POL : Include Motor Spi and other dangerous mineral oils.

SOURCE : Ministry of Rai

Crude Oil & Product Pipelines in India as on 1.4.1987

ipelines	Owned by	Length in KMS	Diametre in Inches
1.	2.	3.	4.
CRUDE PIPELINES (ONSHORE)			
Ankleshwar - Koyali (Baroda)	ONGC	94.77	16"
Kalol - Nawagam	ONGC	48.90	12 3/4"
Nawagam Koyali	ONGC	77.63	14"
Sanand -Kalol	ONGC	12.52	8 5/8"
Sobhashan - North Kadi	ONGC	20.23	8 5/8"
North Kadi -Kalol	ONGC	35.59	12 3/4".
Jhalora -Sanand	ONGC	9.36	8 5/8"
Lakwa - Moran	ONGC	17.50	12 3/4"
Rudrasagar - Lakwa	ONGC	38.00	8 5/8"
Geleki - Dikhow	ONGC	18.90	8 5/8"
Goleki - Jorhat	ONGC	48.40	14"
Borhollah - Jorhat pipelin	ONGC	42.80	12 3/4"
Digboi oilfield-Digboi Refinery	OIL	12.50	6"
Digboi oilfield-Digboi Refery	OIL	10.4	4"
Nahorkatiya-Digboi	OIL	35.0	8"
Nahorkatiya-Gauhati loopl	OIL	100.0	16"
Nahorkatiya-Gauhati	OIL	401.0	16"
Gauhati-Barauni	OIL	757.0	14"
Gauhati-Barauni loopline	OIL	112.0	16"
Nararabet to Salaya tankm 2es	IOC	5.70 each	42"
Salaya-Viramgam	IOC	275.00	28"
Viramgam-Koyali	IOC	141.00	18"
Viramgam-Mathura	IOC	803.00	24"
North Kalol. GGS-I to di	ONGC	5.10	12 3/4"
Santhol to North Kadi	ONGC	4.52	12 3.4"
Jotana to Santhol	ONGC	2.73	4 1/2"
Viraj to South Kadi	ONGC	5.83	8 5/8"
Geleki-Dikhu Junctionoint	ONGC	17.08	12 3/4"
Total Onshore		3158.88	

Contd...

Crude Oil & Product Pipelines in India as on 1.4.1987

Pipelines	Owned by	Length (in KMS)	Diametre (in Inches)
1.	2.	3.	4.
II. CRUDE PIPELINES (OFFSHORE)		275.59	
BH (platform 'P') to Uran	ONGC	203.00	30"
Uran-Trombay	ONGC	24.00	36"
Trombay-Bhutcher	ONGC	4.40	36"
HRA-R-12	ONGC	38.92	12"
SBM to Nararabet	IOC	5.27	42"
Total Crude Pipelines (I+II)		3434.47	
PRODUCT PIPELINES			
Gauhati-Siliguri	IOC	435.0	8 5/8"
Digboi-Tinsukia	IOC	35.48	8 5/8"
Digboi-Tinsukia	IOC	38.95	6"
Digboi-Tinsukia	IOC	35.72	6"
Koyali-Ahemdabad	IOC	33.71	4"
Barauni-Kanpur	IOC	115.70	8 5/8"
Haldia-Mourigram-Rajbandh	IOC	668.78	12 3/4"
Haldia-Barauni	IOC	268.58	12 3/4"
Mathura-Delhi	IOC	524.83	12 3/4"
Delhi-Ambala	IOC	197.00	16"
Ambala-Jullunder	IOC	202.00	14"
Eranakulam Ins. to FACT	BPCL	164.00	12 3/4"
BPCL (R) to Pirpali Jelly	BPCL	13.00	4"
HPCL (R) to BPCL (R)	BPCL	3.50	8"
BPCL (R) to HPCL (R)	BPCL	3.00	4"
BPCL (R) to Pipeau	BPCL	1.50	8"
Bigwasan Top to Palam	BPCL	4.50	14"
		4.00	8"
Total Product Pipeline		2749.25	
III. GAS PIPELINES (OFFSHORE)			
Uran to MSEB	ONGC	6.0	12"
BH (Platform 'F') to Uran	ONGC	203.00	26"
Uran-Trombay	ONGC	24.00	18"
Uran-MSEB	ONGC	6.00	12"
Uran-Thal	ONGC	21.00	26"
South Bassein-Uran	ONGC	216.00	36"
Total (Offshore)		476.00	

Contd/-

Crude Oil & Product Pipelines in India as on 1.4.1987

Pipelines	Owned by	Length (in KMS)	Diametre (in Inches)
1.	2.	3.	4.
IV. GAS PIPELINES (ONSHORE)		468.42	
Cambay-Dhuwaran	ONGC	25.00	14"
Ankleshwar-Uttaran	ONGC	38.25	16"
Ankleshwar-Baroda	ONGC	96.55	14"
Nawagam-Calico Mills	ONGC	24.50	8 5/8"
Sanand-Kalol	ONGC	12.67	6 5/8"
Kalol-IFFCO (FG)	ONGC	2.51	8 5/8"
Kalol-IFFCO (AS)	ONGC	2.51	12 3/4"
Subhashan-Dubh Sagar	ONGC	9.20	8 5/8"
Dabka-Sarawani Platform	ONGC	10.50	4 1/2"
North Kadi to S.Kadi	ONGC	16.40	8 5/8"
Jhalora to Sanand	ONGC	9.27	8 5/8"
Jotna Santhal-N.Kadi	ONGC	7.17	8 5/8"
Motwan to Ankleshwar	ONGC	2.89	8 5/8"
Kalol-Kadi GIDC	ONGC	19.40	8 5/8
Ramol-Nawagam	ONGC	17.45	6 5/8"
Nawagam to Amul Diary	ONGC	50.0	4 1/2"
Uttran Kawas	ONGC	24.50	12 3/4"
Hatira-Karibhco	ONGC	4.00	16"
Uran-Hatira	ONGC	14.00	36"
ASEB Gas Pipeline From Lakwa to Maibella Dhiku Junction PT. - Lakwa CTF.	ONGC	16.15	12 3/4"
	ONGC	23.5	12 3/4"
Digboi-Dullajan	OIL	42.00	10"
Total Gas Pipelines (III+IV)		944.42	
V. LPG Pipelines (OFFSHORE)	ONGC		
Uran-Trombay		24.00	8"
VI. NGL Pipelines (OFFSHORE)			
Uran-Trombay	ONGC	24.00	8"
Grand Total (I to VI)		7176.14	

XVI. MARKETING NET WORK

Retail outlets in India as on Ist January of each year

(Number)

Year	Nos.	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
1971	Nos.	3583	1928	1384	2967	249	144	10255
	%	35.0	18.8	13.5	28.9	2.4	1.4	100
1972	Nos.	3535	1923	1384	3129	297	150	10418
	%	33.9	18.5	13.3	30.0	2.9	1.4	100
1973	Nos.	3478	1920	1372	3274	440	155	10639
	%	32.7	18.0	12.9	30.8	4.1	1.5	100
1974	Nos.	3262	1887	1359	3349	487	164	10508
	%	31.0	18.0	12.9	31.9	4.6	1.6	100
1975	Nos.	3173	1867	1206	3546	525	163	10480
	%	30.3	17.8	11.5	33.8	5.0	1.6	100
1976	Nos.	3157	1872	1201	3583	619	164	10596
	%	29.8	17.7	11.3	33.8	5.8	1.6	100
1977	Nos.	3183	1916	1200	3804	717	166	10986
	%	29.0	17.5	10.9	34.6	6.5	1.5	100
1978	Nos.	3241	1965	1198	4051	850	168	11473
	%	28.3	17.1	10.4	35.3	7.4	1.5	100
1979	Nos.	3288	1966	1201	4150	998	173	11806
	%	27.8	16.9	10.2	35.2	8.4	1.5	100
1980	Nos.	3296	3198@		4231	975	173	11873
	%	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	1.5	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

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

STATE=WISE NUMBER OF RETAIL OUTLETS, MPCDs/FFCS, LDO/SKO DEALERS AND LPG DISTRIBUTORS AS ON 1.4.1987

(Numbers)

	State/Union Territores	Retail outlets	MPDC/ FFC	LDO/SKO dealers	LPG distributors
	1.	2.	3.	4.	5.
	STATES				
1.	Andhra Pradesh	1103	41	594	295
2.	Arunachal Pradesh	19	2	12	6
3.	Assam	284	1	312	70
4.	Bihar	823	28	337	102
5.	Bhutan	3	--	1	--
6.	Gujarat	897	17	339	249
7.	Haryana	450	23	132	84
8.	Himachal Pradesh	64	1	20	22
9.	Jammu & Kashmir	104	1	29	37
10.	Karnataka	861	13	287	186
11.	Kerala	650	4	231	116
12.	Madhya Pradesh	807	25	327	164
13.	Maharashtra	1432	44	586	482
14.	Manipur	17	3	27	7
15.	Meghalaya	35	--	29	8
16.	Mizoram	9	1	10	2
17.	Nagaland	19	1	12	8
18.	Orissa	295	9	166	59
19.	Punjab	914	20	222	109
20.	Rajasthan	769	42	217	99
21.	Sikkim	7	--	7	1
22.	Tamil Nadu	1322	11	439	250
23.	Tripura	28	1	37	7
24.	Uttar Pradesh	1695	90	600	308
25.	West Bengal	951	16	399	170
	UNION TERRITORIES:				
26.	A.N.Islands	1	--	1	--
27.	Chandigarh	18	--	9	22
28.	D.N.Haveli	1	--	--	1
29.	Delhi	231	1	68	172
30.	Goa, Daman & Diu	65	1	21	25
31.	Pondicherry	24	--	7	5
	GRAND TOTAL	13898	396	5540	3066

STATE-WISE NUMBER OF LPG DOMESTIC CUSTOMERS AS ON 1.4.1987

(Number)

STATE/UTS	BPCL	HPCL	IOC	AOD	TOTAL
STATES					
1. Andhra Pradesh	124582	548693	387901		1061176
2. Assam			77892	94516	172408
3. Bihar	3056	28155	329617		360828
4. Gujarat	263100	229389	774811		1267300
5. Haryana	56339	37963	174755		269057
6. Himachal Pradesh		7061	51801		58862
7. Jammu & Kashmir	3381	57002	23937		84320
8. Karnataka	123668	276549	225186		625403
9. Kerala	73122	32276	260211		365609
10. Madhya Pradesh	96655	220153	404610		721418
11. Maharashtra	1244949	1153393	63173		2461515
12. Manipur			8283	10212	18495
13. Meghalaya			6397	8891	15288
14. Mizoram			5779	5571	11350
15. Nagaland			6099	5015	11114
16. Orissa	937	69461	64920		135318
17. Punjab	88395	50059	267601		406055
18. Rajasthan	77972	102842	184022		364836
19. Sikkim			3739		3739
20. Tamil Nadu	126820	87582	901223		1115625
21. Tripura			6473	5871	12344
22. Uttar Pradesh	191810	84134	886010		1161954
23. West Bengal	2423	121006	459251		582680
UNION TERRITORIES:					
24. A & N Islands	--	--	--	--	--
25 Arunachal Pradesh	--	--	2453	1101	3554
26. Bhutan	--	--	--	--	--
27. Chandigarh	3780	22879	62057	--	88716
28. D.N.Haveli		2610	--	--	2610
29. Delhi	176704	120973	580411	--	878088
30. Goa, Daman & Diu	40252	50724	--	--	90976
31. Lakshadeep	--	--	--	--	--
32. Pondicherry	1979	1214	19631	--	22824
TOTAL	2699924	3304118	6238243	131177	12373462

XVII. ENERGY

GROSS PRODUCTIONS OF ENERGY BY VARIOUS SOURCES IN INDIA

Year	Coal & Lignite			Hydro-carbon			Power Million (KWH)			
	Coal (M.T.)	Lignite (M.T.)	Total (M.T.)	Natural Gas (Mn. Cubic Metres)	Crude Petroleum '000'Tonnes	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	88.49	2.94	91.43	2041	7684	20800	40109	27875	2206	70190
1975-76	99.68	3.03	102.71	2368	8448	22055	43303	33302	2626	79231
1976-77	101.04	4.02	105.06	2428	8898	22732	50245	34836	3252	88333
1977-78	100.97	3.58	104.55	2839	10763	24670	51090	38007	2272	91369
1978-79	101.95	3.30	105.25	2811	11633	25671	52594	47159	2770	102523
1979-80	103.95	2.90	106.85	2767	11766	27235	56273	45478	2876	104627
1980-81	113.91	5.11	119.02	2358	10507	25488	61301	46542	3001	110844
1981-82	124.23	6.31	130.54	3851	16194	29765	69515	49565	3021	122101
1982-83	130.50	6.91	137.43	4936	21063	32811	79868	48373	2022	130263
1983-84	138.22	7.30	145.52	5961	26020	34861	86677	49954	3546	140177
1984-85	147.39	7.80	115.19	7241	28990	35269	98542	53819	4075	156436
1985-86	154.24	8.03	162.27	8134	30168	42372	114120	50940	4985	170045
1986-87*	165.20	8.50	173.70	9839	30481	45328	128820	53760	5020	187600

* = Provisional @ = Includes RBF

Source := i) Central Electricity Authority and Economic Survey.
ii) Coal Statistics = Coal Controller's Organization, Department of Coal.

Sectoral Shares In Commercial Energy Consumption 1960-61 to 1984-85

	Total Commercial energy			Shares of specific fuels in 1984-85		
	60-61	79-80	84-85	Oil	Electricity	Coal
Household	20.6	15.7	18.2	29	11	3
Agriculture	3.6	9.4	9.8	10	16	-
Industry	39.2	38.2	36.4	5	62	78
Transport	33.8	32.8	31.4	56	2	13
Others	2.8	3.9	4.2	-	9	6
	100.0	100.0	100.0	100	100	100

SOURCE: The Seventh Five Year Plan 1985-90

Estimates of Commercial and Non-commercial Energy Requirements In 1999-2000

Energy	Sector Consumption					
	Household	Industry	Transport	Agriculture	Other	Total
Electricity (Billion K WH)	81.4-83.5	249.0-282.8	8.28-8.9	40.9-41.5	44.42-48.0	424.0-465.0
Coal (Million Tonnes)	14.0	161.0	7.81	-	5.19	188.0*
Oil (Million Tonnes)	17.73	12.0	29.86	8.1	5.0	72.7
Fuelwood (" ")	191.6	-	-	-	-	191.6
Dungcake (" ")	105.0	-	-	-	-	105.0
Vegetable Waste (" ")	59.0	-	-	-	-	59.0

* Net of coal consumed in the power sector.

SOURCE: The Seventh Five Year Plan 1985-90.

XVIII - GENERAL

Contribution of Petroleum Sector to Net National Product (at Current Prices)

(Rs./Crores)

Year	Petroleum & Natural Gas	Petroleum Refining	Total	N.N.P. at current price	% of (Col.4 to Col. 5)
1.	2.	3.	4.	5.	6.
1970-71	27.72	47.84	75.56	34235	0.22
1971-72	32.43	59.33	91.76	36582	0.25
1972-73	32.12	N.A.		40317	
1973-74	44.63	43.97	88.60	50468	0.18
1974-75	87.10	84.47	171.57	59505	0.29
1975-76	92.14	89.78	181.92	62302	0.29
1976-77	118.25	153.35	271.60	66924	0.41
1977-78	166.26	194.06	360.32	75706	0.48
1978-79	221.10	113.77	334.87	81321	0.41
1979-80	259.62	134.64	394.26	88813	0.44
1980-81	174.48	159.66	334.14	105743	0.32
1981-82	1167.00	222.27	1389.27	120966	1.15
1982-83	1836.96	412.85	2249.81	133807	1.68
1983-84	2104.07	N.A.	N.A.	158265	
1984-85 (Quick Estimates)	2440.07	N.A.	N.A.	174018	

Gross Domestic Product of Crude Petroleum & Natural Gas and Coal and Lignite at current prices.

(Rs.Lakhs)

Year	Crude Petroleum & Natural Gas	Coal & Lignite
1976-77	18978	51671
1977-78	27278	51504
1978-79	33148	50615
1979-80	37221	75908
1980-81	33177	103357
1981-82	136950	122695
1982-83	217844	144376
1983-84(Quick Estimates)	262726	165601
1984-85(Quick Estimates)	304236	205204

XIX. INTERNATIONAL PETROLEUM STATISTICS

World Proved reserves of Oil and Natural Gas at End 1986

Country	Crude oil			Natural Gas		
	Reserves (Billion Tonnes	Percentage share of total	R/P Ratio **	Reserves (Trillion cubic metres)	Percentage share of total	R/p ratio **
1.	2.	3.	4.	5.	6.	7.
North America	5.1	5.7	9.0	8.0	7.9	15.5
U.S.A.	4.1	4.6	8.5	5.2	5.1	11.6
Canada	1.0	1.1	12.3	2.8	2.8	40.0
Latin America	12.4	12.6	37.7	5.5	5.2	71.6
Argentina	0.3	0.3	14.4	0.7	0.6	46.5
Brazil	0.3	0.3	10.1	0.1	0.1	*
Ecuador@	0.2	0.2	16.7	2.2	2.1	84.0
Mexico	7.6	7.8	56.3	0.3	0.3	82.8
Venezuela	3.6	3.6	38.7	1.7	1.6	95.8
Others	0.4	0.4	10.9	0.5	0.5	33.7
Western Europe	2.4	2.6	12.2	6.2	6.1	35.9
Norway	1.4	1.5	31.2	2.9	2.9	*
United Kingdom	0.7	0.8	5.5	0.6	0.6	14.7
Others	0.3	0.3	13.3	2.7	2.6	19.5
Middle East	54.8	57.2	85.5	26.1	25.6	*
Abu Dhabi@	4.1	4.4	80.6	2.5	2.5	*
Dubai	0.2	0.2	9.7	0.1	0.1	*
Iran@	6.7	6.9	71.1	12.7	12.4	*
Iraq@	6.3	6.7	74.7	0.8	0.8	*
Kuwait@	12.7	13.1	*	1.0	1.0	*
Neutral Zone	0.7	0.7	43.3	N.A.	N.A.	N.A.
Oman	0.6	0.6	19.8	N.A.	N.A.	N.A.
Qatar@	0.4	0.5	25.0	4.3	4.2	*
Saudi Arabia@	22.7	23.7	90.3	3.5	3.4	*
Syria	0.2	0.2	19.2	N.A.	N.A.	N.A.
Others	0.2	0.2	31.3	1.0	1.0	*
Africa	7.3	8.0	29.3	5.7	5.5	*
Algeria@	1.1	1.3	26.9	3.0	2.9	85.5
Angola	0.2	0.2	11.7	N.A.	N.A.	N.A.
Egypt	0.5	0.5	12.1	0.3	0.2	44.5
Libya@	2.8	3.0	55.1	0.6	0.6	*
Nigeria@	2.2	2.3	30.2	1.3	1.3	*
Tunisia	0.2	0.3	46.1	N.A.	N.A.	N.A.
Others	0.3	0.4	13.6	0.5	0.5	*
Asia & Australasia	2.5	2.6	14.3	5.6	5.6	54.4
Japan	+	+	14.0	+	+	14.6
Brunei	0.2	0.2	25.6	0.2	0.2	25.7
Indonesia@	1.1	1.2	16.7	1.4	1.4	36.8
Malaysia	0.4	0.4	15.0	1.4	1.4	*
Other S.E.Asia	+	+	2.8	0.5	0.5	*
India	0.6	0.6	18.0	0.5	0.5	60.4
Other South Asia	+	+	6.0	0.9	0.8	N.A.
Australia	0.2	0.2	6.8	0.5	0.5	35.5
New Zealand	+	+	21.2	0.2	0.2	42.7
Total NC World	84.5	88.7	39.1	57.1	55.9	58.7
Centrally Planned Economies (CPEs)	10.7	11.3	14.0	45.1	44.1	58.8
China	2.4	2.6	18.5	0.8	0.8	64.8
U.S.S.R.	8.0	8.4	13.1	43.9	42.9	64.0
Others	0.3	0.3	11.0	0.4	0.4	6.4
TOTAL WORLD	95.2	100.0	32.5	102.2	100.0	58.7
of which OPEC	65.0	67.9	68.7	33.7	33.0	*

* Over 100 years. +Less than 0.05. @ OPEC Member Countries. N.A.- Not Available

** Reserves/Production (R/P) ratio reflects oil reserves remaining at the end of any year divided by the production in that year. The ratio shows the length of time that those remaining reserves would last if production were to continue at the then-current level. Source: B.P.Statistical review of world energy,June 1987.

WORLD ESTIMATE CRUDE OIL PRODUCTION 1981-1986

(Million Tonnes)

Country	1981	1983	1984	1985	1986	Percentage Change 1986 over 1985	Percentage Share of Total 1986
1.	2.	3.	4.	5.	6.	7.	8.
North America							
USA	482.8	486.8	500.2	500.8	485.7	- 3.0	16.6
Canada	72.9	71.7	78.2	85.0	83.8	- 1.4	2.9
Total N. America	555.7	558.5	578.4	585.8	569.5	- 2.8	19.5
Latin America							
Argentina	25.5	24.9	24.4	24.0	22.5	- 6.1	0.8
Brazil	10.7	17.6	22.2	28.1	29.6	+ 5.3	1.0
Colombia	6.8	7.8	8.6	8.9	16.2	+81.8	0.5
Ecuador	10.3	11.6	12.6	13.5	13.4	- 0.7	0.5
Mexico	128.3	146.6	150.4	149.7	135.4	- 9.5	4.6
Trinidad	10.1	8.2	8.4	8.8	8.5	- 2.9	0.3
Venezuela	112.5	97.0	97.5	87.6	92.8	+ 6.0	3.2
Others	13.3	12.4	12.8	12.7	12.0	- 6.0	0.4
Total Latin America	317.5	326.1	336.9	333.3	330.4	- 0.8	11.3
Western Europe							
Austria	1.4	1.3	1.2	1.2	1.2	- 1.4	$
Denmark	0.8	2.2	2.3	2.9	3.6	+25.4	0.1
France	1.7	2.3	2.7	3.3	3.4	+ 5.8	0.1
Italy	1.5	2.2	2.3	2.4	2.6	+ 7.0	0.1
Norway	24.9	32.0	36.8	40.3	44.1	+ 9.3	1.5
Turkey	2.4	2.2	2.1	2.1	2.4	+11.9	0.1
United Kingdom	89.4	114.9	125.9	128.2	128.6	+ 0.3	4.4
West Germany	4.5	4.1	4.1	4.1	4.1	- 1.2	0.1
Others	3.0	7.2	7.0	7.6	8.2	+ 8.0	0.3
Total W.Europe	129.6	168.4	184.4	192.1	198.2	+ 3.2	6.7
Middle East							
Abu Dhabi	54.5	39.3	38.9	41.6	50.6	+21.7	1.7
Dubai	17.8	16.9	18.3	18.8	18.8	- 0.3	0.6
Iran	65.8	122.4	109.3	110.0	93.7	-14.8	3.2
Iraq	44.0	54.1	60.3	70.6	84.7	+19.9	2.9
Kuwait	48.2	44.7	48.9	45.7	62.3	+36.2	2.1
Neutral Zone	19.4	16.2	21.1	17.0	17.2	+ 1.5	0.6
Oman	16.4	19.6	21.0	25.4	28.0	+10.3	0.9
Qatar	20.2	14.7	20.1	15.9	16.5	+ 3.5	0.6
Saudi Arabia	491.3	255.8	233.0	173.1	251.1	+45.0	8.6
Others	11.6	11.9	12.3	15.2	16.5	+ 8.6	0.6
Total Middle East	789.2	595.6	583.2	533.3	639.4	+19.9	21.8
Africa							
Algeria	46.3	42.9	46.1	41.6	42.5	+ 2.1	1.4
Egypt	34.1	35.7	42.5	45.3	41.1	- 9.2	1.4
Libya	58.7	53.0	53.0	52.7	51.0	- 3.2	1.7
Other North Africa	5.5	5.4	5.6	4.9	5.0	+ 1.9	0.2
Gabon	7.6	7.8	7.6	7.7	8.1	+ 5.2	0.3
Nigeria	71.0	61.0	68.6	72.9	71.9	- 1.4	2.4
Other West Africa	16.5	21.2	25.4	28.9	31.2	+ 8.3	1.1
Total Africa	239.7	227.0	248.8	254.0	250.8	- 1.2	8.5

Contd.....

WORLD ESTIMATED CRUDE OIL PRODUCTION 1981-1986 (Contd...)

(Million Tonnes)

Country	1981	1983	1984	1985	1986 (P)	Percentage Change 1986 over 1985	Percentage Share of Total 1986
1.	2.	3.	4.	5.	6.	7.	8.
Asia & Australsia							
Japan	0.4	0.4	0.4	0.5	0.6	+20.0	+
Brunei	8.6	8.6	7.9	7.4	7.5	+ 1.3	0.3
Indonesia	82.2	65.3	68.5	63.9	67.3	+ 5.3	2.3
Malaysia	12.4	20.2	21.7	21.3	24.8	+16.1	0.8
Other S.E.Asia	0.6	1.3	1.8	9.2	9.2	- 0.7	0.3
South Asia	16.9	27.2	30.3	33.2	34.5	+ 3.9	1.2
of which India	19.0	21.8	25.8	29.6	31.2	+ 5.4	1.2
Total Asia&Austral.	140.1	144.8	156.4	165.1	177.9	+ 7.7	6.1
Total NCW	2171.8	2020.4	2088.1	2063.6	2166.2	+ 5.0	73.9
Centrally Planned Economics (CPEs)							
China	101.0	106.0	114.5	124.7	130.6	+ 4.6	4.4
USSR	609.0	616.3	612.7	595.0	613.0	+ 3.0	20.9
Others	21.9	23.8	23.7	22.6	23.0	+ 1.9	0.8
Total CPEs	731.9	746.1	750.9	742.5	766.6	+ 3.2	26.1
TOTAL WORLD	2903.7	2766.5	2839.0	2806.1	2932.8	+ 4.5	100.0
of which OPEC	1150.4	903.0	904.9	836.2	945.5	+13.1	32.2

* Includes crude oil, oil sands and NGLs (natural gas liquids-the liquid content o natural gas, where this is recovered sparately). Excleudes liquid fuels from other source as coal derivatives.

$ Less than 0.05.

Note: Figures for India Inserted.

SOURCE: BP Statistical Review of World Energy June 1987.

CRUDE OIL PRODUCTION BY OPEC MEMBER COUNTRIES

(Million Tonnes)

OPEC Countries	1973	1975	1979	1980	1981	1982	1983	1984	1985	1986(P)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Algeria	51	48	59	52	46	46	43	46	42	43
Ecuador	10	8	11	10	10	10	12	13	14	14
Gabon	8	11	10	9	8	8	8	8	8	8
Indonesia	66	65	79	78	82	69	65	69	64	68
Iran	293	268	158	74	66	120	122	109	110	94
Iraq	99	111	171	130	44	50	54	60	71	85
Kuwait	140	94	113	72	48	35	45	49	46	63
Libya	105	71	101	88	59	55	53	53	53	51
Nigeria	100	89	114	102	71	64	61	69	73	72
Qatar	27	21	25	23	20	16	15	20	16	17
Saudi Arabia	368	344	470	493	491	328	256	233	173	251
U.A.E.	102	107	117	111	92	75	72	78	78	87
Venuzuela	179	125	125	116	113	101	101	98	88	93
Total	1548	1362	1553	1358	1150	977	903	905	836	946

P = Provisional.

WORLD PRODUCTION OF NATURAL GAS 1981-1986

(Million Tonnes Oil equivalent)

Country	1981	1983	1984	1985	1986	Percentage Change 1986 over 1985	Percentage Share of Total 1986
1.	2.	3.	4.	5.	6.	7.	8.
North America							
USA	489.3	409.0	443.7	417.5	405.9	- 2.8	25.9
Canada	67.4	62.6	64.4	68.9	63.5	- 7.9	4.0
Total N. America	556.7	471.6	508.1	486.4	469.4	- 3.5	29.9
Latin America							
Argentina	7.5	9.3	12.1	12.7	12.6	- 0.8	0.8
Mexico	31.3	31.4	26.4	24.3	23.2	- 4.5	1.5
Venezuela	15.0	14.1	15.6	15.5	15.7	+ 0.9	1.0
Others	11.4	14.5	15.5	15.7	16.2	+ 3.2	1.0
Total Latin America	65.2	69.3	69.6	68.2	67.7	- 0.8	4.3
Western Europe							
France	6.6	5.5	5.3	4.5	3.5	-22.4	0.2
Italy	11.6	11.1	11.7	12.4	14.3	+15.2	0.9
Netherlands	67.6	61.1	61.5	64.4	58.6	- 9.0	3.7
Norway	23.5	22.9	24.8	22.8	24.3	+ 6.4	1.5
United Kingdom	31.9	30.6	33.3	37.1	38.8	+ 4.6	2.5
West Germany	14.4	13.1	13.7	12.2	11.1	- 8.4	0.7
Others	2.2	2.8	3.3	4.1	4.9	+18.4	0.3
Total W.Europe	157.8	147.1	153.6	157.5	155.5	- 1.3	9.8
Middle East							
Abu Dhabi	5.4	5.6	5.8	5.9	6.4	+ 7.8	0.4
Iran	6.5	9.9	12.2	12.2	12.5	+ 1.9	0.8
Kuwait	4.8	4.3	4.4	4.6	4.6	+ 0.6	0.3
Saudi Arabia	22.9	8.4	11.7	12.2	13.6	+11.4	0.9
Others	8.4	8.3	10.3	11.2	10.9	- 2.4	0.7
Total Middle East	48.0	36.5	44.4	46.1	48.0	+ 4.0	3.1
Africa							
Algeria	22.1	32.1	30.4	33.6	31.6	- 6.2	2.0
Libya	3.6	3.0	3.4	4.1	4.2	+ 2.2	0.3
Nigeria	1.6	1.3	1.5	1.3	1.1	-10.0	0.1
Others	1.8	3.2	4.2	5.7	5.9	+ 4.1	0.4
Total Africa	29.1	39.6	39.5	44.7	42.8	- 4.2	2.8
Asia & Australasia							
Japan	1.9	1.9	1.9	2.0	1.9	- 7.1	0.1
Indonesia	17.3	19.9	29.8	31.3	34.2	+ 9.5	2.2
Other S.E.Asia	11.1	12.8	13.9	17.1	16.9	- 0.9	1.1
Pakistan	6.1	8.6	9.1	9.3	9.9	+ 6.5	0.6
Other South Asia	6.6	10.3	12.6	12.9	13.3	+ 3.1	0.8
Of which India	3.5	5.8	6.8	7.9	9.5	+20.3	0.6
Australia	11.9	13.6	13.9	15.3	16.8	+ 9.9	1.1
Total Asia & Austra.	54.9	67.1	81.2	87.9	93.0	+ 5.9	5.9
Total NCW	911.7	831.2	896.4	890.8	876.4	- 1.6	55.8
Centrally Planned Economies(CPEs)							
China	11.6	10.8	10.9	11.5	11.8	+ 2.3	0.8
USSR	411.8	482.4	528.4	578.7	617.4	+ 6.7	39.4
Others	53.6	55.7	59.0	59.4	62.8	+ 5.7	4.0
Total CPEs	477.0	548.9	598.3	649.6	692.0	+ 6.5	44.2
TOTAL WORLD	1388.7	1380.1	1494.7	1540.4	1568.4	+ 1.8	100.0

* = Excluding gas flared or recycled. $ = Less than 0.05. P = Provisional.

SOURCE: BP Statistical Review of World Energy June 1987.

Note: Figures for India Inserted.

WORLD CONSUMPTION OF NATURAL GAS 1981-1986.

(Million Tonnes Oil equivalent)

Country	1981	1983	1984	1985	1986	Percentage Change 1986 over 1985	Percentage Share of Total 1986
1.	2.	3.	4.	5.	6.	7.	8.
North America							
USA	495.1	435.5	466.4	449.8	416.5	- 7.4	27.6
Canada	47.8	47.3	47.8	44.8	43.0	- 4.1	2.8
Total N.America	542.9	482.8	514.2	494.6	459.5	- 7.1	30.4
Western Europe							
Austria	3.9	3.8	4.2	4.5	4.5	- 1.0	0.3
Belgium & Luxembourg	9.5	8.2	8.5	8.4	7.6	-10.0	0.5
Denmark	-	-	0.1	0.6	1.1	+82.9	0.1
Finland	0.6	0.6	0.7	0.8	1.0	+21.4	0.1
France	24.5	22.2	23.5	23.3	23.4	+ 0.6	1.6
Greece	-	-	0.1	0.1	0.1	+23.6	$
Iceland	-	-	-	-	-	-	-
Republic of Ireland	0.9	1.6	1.7	1.8	1.4	-18.7	0.1
Italy	22.8	22.6	26.5	27.2	28.1	+ 3.1	1.9
Netherlands	30.0	29.5	31.2	32.5	32.2	- 1.0	2.1
Norway	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-
Spain	2.1	2.5	2.0	2.1	2.4	+10.8	0.2
Sweden	-	-	-	0.1	0.2	+88.9	$
Switzerland	0.8	0.9	1.0	1.0	0.9	-12.8	0.1
Turkey	-	-	-	-	0.3	*	$
United Kingdom	42.4	44.0	45.0	48.4	49.1	+ 1.4	3.3
West Germany	41.4	39.1	41.1	41.1	40.2	- 2.2	2.7
Cyprus/Gibraltar/Malta-		-	-	-	-	-	-
Total W.Europe	178.9	175.0	185.6	191.9	192.5	+ 0.2	13.0
Cyprus/Gibraltar/Malta-		-	-	-	-	-	-
Australasia							
Australia	10.6	11.2	11.7	12.4	13.8	+11.7	0.9
New Zealand	1.0	2.1	2.6	3.3	4.1	+24.9	0.3
Total Australsia	11.6	13.3	14.3	15.7	17.9	+14.5	1.2
Japan	24.2	25.2	33.6	35.9	36.4	+ 1.3	2.4
Total OECD	757.6	696.3	747.7	738.1	706.3	- 4.3	47.0
Rest of NCW							
Latin America	55.8	63.1	64.4	70.5	71.2	+ 1.1	4.7
Middle East	35.3	33.8	40.9	46.1	48.0	+ 4.1	3.2
Africa	21.3	25.2	24.9	26.7	28.5	+ 6.9	1.9
South Asia	8.9	12.7	15.3	16.5	17.2	+ 4.5	1.1
South East Asia	8.1	12.6	14.9	17.6	18.6	+ 5.7	1.2
Total Rest of NCW	129.4	147.4	160.4	177.4	183.5	+ 3.5	12.1
Total NCW	887.0	843.7	908.1	915.5	889.8	- 2.8	59.1
Centrally Planned Economies (CPEs)							
China	10.4	10.7	10.8	11.5	12.1	+ 5.0	0.8
USSR	353.7	405.0	435.0	477.6	505.3	+ 6.5	33.5
Others	80.8	86.1	90.8	92.5	99.9	+ 8.0	6.6
Total CPEs	444.9	501.8	536.6	578.6	617.3	+ 6.7	40.9
TOTAL WORLD	1331.9	1345.5	1441.7	1494.1	1507.1	+ 0.9	100.0

$ Less than 0.05. * Grater than 300%

Source : BP Statistical Review of World Energy, June 1987.

Note: Figure for India Inserted.

PRODUCTIVITY OF PRODUCING WELLS IN SELECTED FIELDS IN THE WORLD-1986

COUNTRY/FIELD	Discovery date	Depth (Metres)	WELLS Flowing	WELLS Pumping	Daily AV-first Six months 1986(`000`bbls)	API degree Gravity	t/w/d
1.	2.	3.	4.	5.	6.	7.	8.
ALGERIA:							
All fields since	1956	458-3834	N.A.	N.A.	584	43.5@	N.A.
LIBYA:							
BU Attifel	1968	4362	25	-	125	41.0	650
Intiser D	1967	2867	13	6	54	39.0	374
Nasser	1959	1678-2318	N.A.	N.A.	N.A.	38.0	N.A.
IRAN:							
All fields since	1923	610-3721	-	361 -	2013	32.0@	765
IRAQ:							
All fields since	1909	610-3813	N.A.	N.A.	1747	33.6@	N.A.
KUWAIT:							
All fields since	1938	1464-3050	363	-	1286	32.5@	485
SAUDI ARABIA:							
All fields since	1938	1464-2849	N.A.	N.A.	4463	33.1	N.A.
BURMA:							
All fields since	1902	30-2135	170	275	30	37.0	9
INDIA:							
On-shore fields since	1902	92-3902)					
Off-shore fields since	1974	1382-1412)	N.A.	N.A.	614	29.0	N.A.
INDONESIA:							
On-shore fields since	1893	61-4423	562	4186)	1258	34.5	33
Off-shore fields since	1970	702-3401	52	324)			

t/w/d = Tonne/Well/Day.
@ = Average
N.A. = Not Available.
SOURCE = Oil & Gas journal, December 28, 1986.

WORLD OIL REFINING CAPACITIES AT/END 1981 TO 1986

(Million Tonnes Per Annum)

COUNTRY/AREA.	1981	1982	1983	1984	1985	1986 (P)	% age Change 1986 over 1985	% age Share of 1986 Total
1.	2.	3.	4.	5.	6.	7.	8.	9.
North America	1018	952	891	880	873	871	- 0.2	23.7
USA	911	840	790	780	770	768	+ 0.1	20.9
Canada	107	112	101	100	103	103	- 0.2	2.8
Latin America	443	435	414	395	356	361	+ 1.1	9.8
Argentina	34	34	34	34	33	34	+ 0.8	0.9
Brazil	76	76	70	65	65	66	+ 1.2	1.8
Mexico	76	81	81	84	84	84	-	2.3
Netherlands Antil	1.39	39	39	37	16	16	-	0.4
Trinidad	23	19	19	16	13	15	+15.4	0.4
Venuzuela	70	68	61	61	61	61	-	1.7
Others	125	118	110	98	84	85	+ 1.1	2.3
Western Europe	979	882	828	761	731	715	- 2.1	19.5
Belgium	48	36	36	36	36	36	-	1.0
France	161	137	118	109	108	102	- 5.7	2.8
Italy	199	174	168	137	129	122	- 4.9	3.3
Netherlands	88	79	80	71	69	69	-	1.9
Spain	77	77	72	72	72	72	-	2.0
United Kingdom	118	106	105	96	93	92	- 0.9	2.5
West Germany	147	126	114	105	87	85	- 2.3	2.3
Others	141	147	137	135	137	137	-	3.7
Middle East	162	178	177	175	190	192	+ 1.0	5.1
Bahrain	13	13	13	13	13	13	-	0.3
Iran	31	31	30	26	26	26	-	0.7
Iraq	13	13	10	15	16	16	-	0.4
Kuwait	26	27	29	29	31	31	- 1.6	0.8
Saudi Arabia	33	43	43	43	56	56	+ 0.9	1.5
Others	46	51	52	49	48	50	+ 3.9	1.4
Africa	102	117	117	127	127	127	- 0.2	3.5
Asia & Auustralasia	540	537	524	539	537	537	+ 0.1	14.8
Japan	283	274	248	248	248	248	-	6.8
Indonesia	26	26	38	46	46	46	-	1.3
Singapore	51	51	51	51	51	48	- 5.8	1.3
Other South EastAsia	96	96	96	105	100	101	+ 1.4	2.8
South Asia	44	50	51	50	57	57	-	1.6
Of which India*	31.8	36.7	37.8	37.8	37.8	45.6	+20.6	1.2
Australasia	40	40	40	39	35	37	+ 5.2	1.0
Total NCW	3244	3101	2951	2877	2814	2803	- 0.4	76.4
Total Centrally Planned Economics(CPEs)	823	843	858	862	862	867	+ 0.5	23.6
TOTAL WORLD	4067	3944	3809	3739	3676	3670	- 0.2	100.0

Conversion Factor:1 Million Tonnes of oil per annum-20,000 barrel per day approx.
* = As on 1st April each year
SOURCE: BP Statistical review of World Energy, June 1987.
R = Revised/based on BP statistical Review conversion factor.

WORLD REFINERY CRUDE THROUGHPUT : 1976 TO 1986.

(Million Tonnes Per Annum)

COUNTRY/AREA.	1976	1977	1978	1979	1980	1981
	1.	2.	3.	4.	5.	6.
U.S.A.	669	728	736	720	673	621
Canada	85	90	91	98	104	97
Latin America	282	285	298	310	322	327
Western Europe	656	636	640	680	614	546
Middle East	115	112	127	118	122	110
Africa	53	58	64	67	73	76
Japan	211	213	211	216	200	181
South East Asia	93	101	116	122	118	123
South Asia	27	30	32	34	35	40
Of Which India	22.8	24.4	25.6	28.2	25.1	29.5
Australasia	33	34	34	35	32	33
Total NCW	2224	2287	2348	2400	2293	2154
Centrally Planned Economies(CPEs)	576	594	641	659	663	668
TOTAL WORLD:	2800	2881	2989	3059	2956	2822

(Million Tonnes Per Annum)

COUNTRY/AREA.	1982	1983	1984	1985	1986	%age change over 1985	% age change 1986 share of total 1986
	1.	2.	3.	4.	5.	6.	
U.S.A.	586	582	600	598	633	+ 5.9	22.6
Canada	82	77	78	74	74	- 1.1	2.6
Latin America	303	290	285	263	262	- 0.4	9.4
Western Europe	502	484	487	473	503	- 6.4	17.9
Middle East	112	125	133	139	147	+ 5.5	5.2
Africa	87	96	98	100	104	+ 4.0	3.7
Japan	167	162	167	155	149	- 4.1	5.3
South East Asia	116	118	122	132	136	+ 3.0	4.9
South Asia	42	44	44	51	55	+ 8.8	2.0
Of Which India	32.1	34.5	35.2	41.2	44.9	+ 9.0	1.6
Australasia	31	30	31	29	28	- 1.4	1.0
Total NCW	2028	2008	2045	2014	2091	+ 3.8	74.6
Centrally Planned Economies(CPEs)	676	681	692	706	711	+ 0.8	25.4
TOTAL WORLD:	2704	2689	2737	2720	2802	+ 3.0	100.0

NCW = Non Communist World. R = Revised/based on BP statstical Review conversion factor.

SOURCE: BP Statistical Review of the World Energy, 1987.

P = Provisional.

Country=wise World Oil Consumption 1981-86

(Million Tonnes)

COUNTRY/AREA.	1981	1983	1984	1985	1986	% age Change 1986 over 1985	% age Share of Total 1986
1.	2.	3.	4.	5.	6.	7.	8.
North America							
USA	746.0	704.9	726.8	724.2	746.8	+ 3.1	25.9
Canada	81.7	68.2	66.7	68.5	67.1	- 2.1	2.3
Total North America	827.7	773.1	793.5	792.7	813.9	+ 2.7	28.2
Latin America	212.6	211.0	210.0	209.7	215.4	+ 2.7	7.5
Western Europe							
Australia	11.0	10.1	9.8	9.8	10.2	+ 3.4	0.4
Belgium & Luxembourg	24.5	21.1	20.4	20.8	23.3	+12.3	0.8
Denmark	12.8	10.4	10.4	10.7	10.5	- 1.3	0.4
Finland	12.3	10.5	10.6	10.8	11.3	+ 4.6	0.4
France	99.0	89.4	85.9	84.3	85.5	+ 1.4	3.0
Greece	11.9	11.4	11.7	12.0	12.2	+ 1.5	0.4
Iceland	0.5	0.5	0.5	0.5	0.5	+ 2.0	$
Republic of Ireland	5.1	4.2	4.1	4.0	4.4	+10.3	0.2
Italy	95.7	89.2	84.9	84.4	86.5	+ 2.4	3.0
Netherlands	35.7	29.1	28.7	29.2	32.0	+ 9.6	1.1
Norway	8.7	8.3	8.6	9.0	9.4	+ 4.6	0.3
Portugal	8.8	9.5	9.5	8.8	9.5	+ 8.3	0.3
Spain	50.4	47.8	44.8	42.9	43.2	+ 0.7	1.5
Sweden	22.4	18.4	17.5	18.3	18.0	- 1.6	0.6
Switzerland	11.9	12.3	11.8	12.0	13.2	+ 9.6	0.5
Turkey	15.4	16.2	17.0	16.8	18.8	+12.4	0.7
United Kingdom	74.7	72.5	89.6	77.4	77.0	- 0.6	2.7
West Germany	117.6	110.8	110.6	112.9	119.6	+ 5.9	4.1
Cyprus/Gibraltar/ Malta	1.5	1.6	1.7	1.8	2.0	+10.7	0.1
Total W.Europe	619.9	573.3	578.1	566.4	587.1	+ 3.6	20.4
Middle East	89.5	115.2	108.5	108.3	108.3	+ 0.1	3.8
Africa	73.8	78.9	78.9	82.1	81.7	- 0.5	2.8
Japan	223.9	207.2	215.1	203.4	204.4	+ 0.5	7.1
South East Asia	118.6	114.7	114.7	102.9	117.3	+ 6.7	4.1
Australasia	33.2	31.1	32.4	30.8	31.3	+ 1.4	1.0
South Asia	43.4	46.4	50.4	53.6	56.3	+ 5.0	2.0
Of Which India	34.0	37.2	39.9	43.0	45.2	+ 5.2	1.6
Total NCW	2242.6	2150.9	2181.6	2156.9	2215.7	+ 2.7	77.0
Centrally Planned Economies (CPEs)							
China	84.8	84.7	87.5	88.9	99.2	+11.6	3.4
USSR	444.1	446.6	440.7	440.3	445.0	+ 1.1	15.4
Others	128.0	121.5	121.6	123.5	121.1	- 1.9	4.2
Total CPEs	656.9	652.8	649.8	652.7	665.3	+ 1.9	23.0
TOTAL WORLD	2899.5	2803.7	2831.4	2809.6	2881.0	+ 2.5	100.0

* Inland demand plus international aviation and marine bunkers and refinery fuel and loss. $ Less than 0.05.

Source: BP Statistical Review of World Energy. June 1987.

Note : Figure for India Inserted.

Product-wise Consumption of Main Petroleum Products in the Non-Communist World (NCW) During 1981-86

(Million Tonnes)

COUNTRY	1981	1983	1984	1985	1986 (P)	Percentage Change 1986 over 1985	Percentage Share of Total 1986
1.	2.	3.	4.	5.	6.	7.	8.
USA							
Gasoline	297.9	298.4	304.4	305.4	314.0	+ 2.8	42.0
Middle Distillates	199.2	189.0	200.9	204.8	210.0	+ 2.6	28.1
Fuel Oil	110.6	78.6	76.0	67.3	76.3	+13.3	10.2
Others	138.3	138.9	145.5	146.7	146.5	- 0.1	19.7
Total USA	746.0	704.9	726.8	724.2	746.8	+ 3.1	100.0
Canada							
Gasoline	31.3	27.3	27.2	27.7	27.3	- 1.4	40.7
Middle distillates	25.0	21.6	22.0	22.2	21.6	- 2.4	32.3
Fuel Oil	11.2	7.7	6.8	5.6	5.6	- 0.8	8.3
Others	14.2	11.6	10.7	13.0	12.6	- 3.1	18.7
Total Canada	81.7	68.2	66.7	68.5	67.1	- 2.1	100.0
Western Europe							
Gasoline	131.1	135.2	135.5	135.6	142.6	+ 5.1	24.4
Middle distillates	220.7	213.1	221.3	223.9	234.8	+ 4.9	40.1
Fuel Oil	179.3	135.2	128.5	117.9	117.9	$	20.1
Others	87.3	88.2	91.1	87.2	89.8	+ 3.0	15.4
Total Western Europe	618.4	571.7	576.4	564.6	585.1	+ 3.6	100.0
Japan							
Gasoline	39.8	39.5	40.6	40.8	42.4	+ 4.0	20.8
Middle distillates	60.6	59.6	64.2	63.6	66.0	+ 3.8	32.3
Fuel Oil	91.2	76.4	75.4	62.4	59.1	- 5.3	28.9
Others	32.3	31.7	34.9	36.6	36.9	+ 0.8	18.0
Total Japan	223.9	207.2	215.1	203.4	204.4	+ 0.5	100.0
Australasia							
Gasoline	13.1	13.1	13.5	13.5	13.7	+ 1.3	43.7
Middle distillates	9.8	9.6	10.2	10.4	10.7	+ 3.0	34.3
Fuel Oil	5.6	3.8	3.8	2.9	2.7	- 6.5	8.8
Others	4.7	4.6	4.9	4.0	4.2	+ 5.0	13.2
Total Australasia	33.2	31.1	32.4	30.8	31.3	+ 1.4	100.0
Rest of NCW							
Gasoline	96.0	99.8	99.1	105.0	107.5	+ 2.4	18.5
Middle distillates	178.1	196.9	197.2	208.4	214.4	+ 2.9	36.9
Fuel Oil	190.8	190.7	185.2	171.4	175.9	+ 2.6	30.3
Others	74.5	80.4	82.7	80.6	83.2	+ 3.2	14.3
Total Rest of NCW	539.4	567.8	564.2	565.4	581.0	+ 2.8	100.0
Total NCW							
Gasoline	609.2	613.3	620.3	628.0	647.5	+ 3.1	29.2
Middle distillates	693.4	689.8	715.8	733.3	757.5	+ 3.3	34.2
Fuel Oil	588.7	492.4	475.7	427.5	437.5	+ 2.3	19.7
Others	351.3	355.4	369.8	368.1	373.2	+ 1.4	16.9
Total NCW	2242.6	2150.9	2181.6	2156.9	2215.7	+ 2.7	100.0

P = Provisional. $ Less than 0.05.

Note: `Gasolines´ consists of aviation and motor gasolines and LDF (light distillate feedstock).
`Middle distillates´ consists of jet and burning kerosene and gas and diesel oils (including marine bunkers).
`Fuel Oil´ includes marine bunkers.
`Others consists of refinery gas, LPGs, solvents, petroleum coke, lubricants, bitumen, wax, refinery fuel and loss.

Source: BP Statistical Review of World Energy, June 1986.

WORLD OIL PRODUCTION, CONSUMPTION AND RELATIVE DEFICIT/SURPLUS. IN EACH REGION/COUNTRY DURING 1986 & 1973.

(Million Tonnes)

COUNTRY/REGION	1986(P)				1973			
	Production	Consumption	Deficit Surplus	% extent of dependence.	Production	Consumption	Deficit Surplus	% extent of dependence.
1.	2.	3.	4.	5.	6.	7.	8.	9.
North America (Including Canada)	569.5	813.9	-244.4	- 30.0	621.3	901.7	-280.4	- 31.1
Latin America	330.4	215.4	+115.0	+ 53.4	272.0	160.3	+111.7	+ 69.7
West Europe	198.2	587.1*	-388.9	- 66.2	22.5	737.1*	-714.6	- 96.9
Middle East	639.4	108.3	+531.1	+490.4	1052.5	62.2	+990.3	+1592.1
Africa	250.8	81.7	+169.1	+207.0	290.0	49.5	+240.5	+485.9
South & South East Asia (excluding India)	112.1	128.4	- 16.3	- 12.7	84.3	81.8	+2.5	+ 3.1
India	31.2	45.2	- 14.0	- 31.0	7.2	23.7	- 16.5	- 69.6
Japan	0.6	204.4	-203.8	- 99.7	0.7	269.1	-268.4	- 99.7
Australasia	34.0	31.3	+ 2.7	+ 8.6	0.7	32.9	- 14.4	+ 43.8
U.S.S.R.	613.0	445.0	+168.0	+ 37.8	429.0	325.7	+103.3	+ 31.7
Eastern Europe	23.0	121.1	- 98.1	- 81.0	18.8	99.7	- 80.9	- 81.1
China	130.6	99.2	+ 31.4	+ 31.7	54.8	53.8	+ 1.0	+ 1.9
T O T A L :	2932.8	2881.0	+ 51.8	+ 1.8	2871.6	2797.5	+ 74.1	+ 2.6

* = Inclusive of 1.4, 2.0 million tonnes consumption of Cyprus/Gibralter/Malta in 1973 and 1986 respectively.

P = Provisional.

SOURCE: B.P.Statistical Review of World Energy - June, 1987

WORLD CRUDE OIL & PETROLEUM PRODUCTS IMPORTS/EXPORTS - 1986

(Millon Tonnes)

Country/Area	IMPORTS		EXPORTS	
	Crude	Products	Crude	Products
1.	2.	3.	4.	5.
U.S.A	208.8	88.3	7.5	29.8
Canada	15.0	6.1	25.7	7.3
Latin America	61.7	18.5	114.6	61.1
Western Europe	346.9	88.5	29.5	24.1
Middle East	0.9	8.7	470.2	69.1
North Africa	1.0	4.1	98.1	23.9
West Africa	0.2	2.2	96.8	1.6
East&Southern Africa	20.9	1.5	-	0.2
South Asia	15.8	5.4	-	2.8
South East Asia	81.0	16.5	52.8	23.4
Japan	165.8	38.6	-	1.0
Australasia	4.5	4.8	1.3	3.9
U.S.S.R., E. Europe & China	50.0	5.8	84.6	63.6
Destination not known	8.6	22.8	-	-
Total World	981.1	311.8	981.1	311.8

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

(i) Bunkers are not included as exports.

(ii) Regional descriptions are geographical.

(iii) Intra-area movements (for example between individual countries in Western Europe) are excluded.

SOURCE: BP Statstical Review of world Energy-June, 1987.

EXPORTS OF CRUDE OIL REFINED PRODUCTS FROM OPEC MEMBER COUNTRIES.

(Million Tonnes)

	1973	1975	1980	1982	1983	1984	1985	1986(P)
1.	2.	3.	4.	5.	6.	7.	8.	9.
(a) CRUDE OIL:								
Algeria	49.5	43.7	35.6	11.4	13.0	9.1	8.7	8.4
Ecuador	9.7	7.3	5.5	4.5	6.3	7.3	8.4	8.6
Gabon	5.9	10.2	7.5	6.5	6.8	6.9	8.2	7.5
Indonesia	50.4	49.5	49.2	40.8	42.7	43.6	35.1	39.5
Iran, IR	262.8	232.6	39.7	80.8	85.6	75.8	78.1	72.4
Iraq	95.9	102.5	122.5	40.4	36.1	42.6	54.1	68.3
Kuwait	131.6	89.8	64.6	18.4	27.1	32.8	23.7	37.0
Libya	108.3	71.3	84.3	48.5	46.7	46.3	44.6	53.1
Nigeria	98.5	85.3	97.6	49.9	46.6	54.5	66.4	60.8
Qatar	28.4	21.3	23.2	16.1	13.4	17.8	14.2	14.6
Saudi Arabia	349.3	328.8	459.3	280.8	195.3	158.7	112.1	186.5
U.A.E.	75.8	82.8	84.5	58.1	53.6	51.6	48.7	56.4
Venezuela	105.8	73.3	64.1	52.7	48.6	49.8	41.1	43.9
TOTAL:	1371.9	1198.4	1137.6	708.9	621.8	596.8	543.4	657.0
(b) Refined Petroleum Products:								
Algeria	1.8	3.1	7.4	20.1	14.5	19.9	18.0	20.6
Ecuador	0.1	Neg.	1.2	0.8	0.6	0.9	0.7	0.9
Gabon	0.7	0.3	0.5	0.6	0.6	0.3	0.2	0.2
Indonesia	7.7	5.0	8.1	6.0	6.5	9.6	7.5	7.9
Iran, IR	7.3	10.7	7.0	9.0	2.8	2.8	2.0	0.5
Iraq	0.4	1.9	1.7	2.5	3.1	3.0	3.5	4.6
Kuwait	10.2	7.0	17.1	18.5	20.6	19.7	24.4	25.4
Libya	1.7	2.3	3.6	3.9	3.9	3.8	4.5	5.1
Nigeria	0.8	0.3	3.7	0.5	0.8	1.0	1.0	0.4
Qatar	-	-	0.1	0.6	0.8	1.2	0.9	1.1
Saudi Arabia	16.5	16.5	20.3	25.2	19.1	22.2	20.8	25.7
U.A.E.	-	-	1.0	2.3	3.0	4.9	4.6	5.6
Venezuela	51.1	30.6	28.1	23.3	25.3	25.0	26.4	28.2
TOTAL:	98.3	77.7	99.8	113.3	101.6	114.3	114.5	126.2

P = Provisional.

Note: Figures for earlier years revised based on BP conversion factor barrels/day = 49.8 tonnes/yrs.

SOURCE: OPEC Data Services Department.

CRUDE OIL IMPORTS FROM OPEC MEMBER COUNTRIES BY REGIONS 1970-1986

(MILLION TONNES)

Import Region	1970r	1975r	1978r	1979r	1980r	1981r	1982r	1983r	1984r	1985r	1986(P)
North America	68.2	170.3	278.7	276.6	211.7	152.6	81.1	69.3	68.4	63.6	104.9
Of Which USA	46.5	135.8	254.6	254.1	189.0	136.2	71.8	63.8	63.7	59.1	98.6
Latin America	96.4	144.6	128.2	136.4	114.8	90.2	70.5	63.4	58.7	47.4	44.5
Western Europe	562.3	517.1	515.7	519.1	452.8	353.1	275.6	234.3	232.4	221.5	262.2
Of which:											
France	106.8	104.1	108.6	114.0	99.8	71.6	57.2	44.4	42.9	37.0	41.9
Germany	68.7	62.4	64.4	74.4	65.8	47.3	40.3	32.6	25.1	20.3	24.2
Italy	109.1	86.6	92.5	94.3	67.6	64.5	61.0	53.0	51.1	48.2	54.7
U.K.	106.9	80.6	55.8	43.7	34.4	24.2	18.5	12.5	9.7	10.4	12.0
Middle East	20.1	15.6	18.8	21.1	21.8	21.7	23.3	19.3	18.5	19.5	21.6
Africa	23.7	31.3	22.6	18.6	16.1	14.7	10.5	7.5	8.2	8.2	10.3
Asia and Far East	214.7	278.8	305.2	308.3	286.3	266.3	227.3	214.0	193.3	168.5	190.5
Of Which											
Japan	161.9	199.1	195.9	194.7	177.2	154.9	140.1	134.4	134.9	118.0	116.0
Oceania	15.2	8.8	10.3	10.6	10.7	10.4	9.1	5.4	4.8	2.3	2.5
CPEs	2.4	15.2	19.7	23.8	17.1	8.4	8.6	6.1	9.8	11.2	20.1
Unspecified	4.1	16.7	Neg.	18.8	6.3	0.1	2.9	2.5	2.7	0.4	0.4
ECD AREA	807.6	895.3	1000.6	1001.9	852.4	671.0	505.9	443.3	440.6	405.4	485.8
TOTAL WORLD :	1007.1	1198.4	1299.2	1334.3	1137.6	917.5	708.9	621.8	596.8	542.8	657.0

P = Provisional
r = Revised., based on BP statistical Reviews conversion factor - barrels/day 49.8 tonnes/yr.
Source = OPEC Data Services Deptt. October, 1986.

COUNTRY-WISE OPEC CRUDE OIL EXPORT BY REGIONS : 1985

(Qty.'000'Barrel/day)

Country/Region	Developed Countries (OECD)					Developing Countires							
	North America	Western Europe	Oceania	Japan	Total OECD or Developed World	Latin America	Asia & Far East (Excl. Japan)	Middle East	Africa	Total Developing Countires	CPES	Un-Specified	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Algeria	30.2	130.8	-	-	161.0	10.4	-	0.8	-	11.2	9.4	-	181.6
2. Ecuador	65.0	-	-	-	65.0	46.7	35.4	-	-	82.1	-	-	147.1
3. Gabon	50.4	59.1	-	-	109.5	14.6	10.1	-	5.0	29.7	-	-	139.2
4. Indonesia	208.8	12.0	14.4	422.4	657.6	118.7	100.0	-	-	218.7	-	-	876.3
5. Iran, IR	66.7	825.1	-	257.8	1149.6	14.0	64.2	160.0	15.0	253.2	85.0	-	1487.8
6. Iraq	10.0	594.0	-	14.0	618.0	196.0	-	2.0	24.0	222.0	16.0	-	856.0
7. Kuwait	24.3	120.5	9.4	181.5	335.7	20.0	250.5	-	-	270.5	-	-	606.2
8. S.P. Libyan,A	5.4	829.8	-	-	835.2	15.0	-	20.0	7.0	42.0	35.0	-	912.2
9. Nigeria	173.2	790.8	-	-	964.0	88.8	-	-	41.3	130.1	-	-	1094.1
10. Qatar	4.1	105.8	3.4	220.0	333.3	12.0	10.0	-	1.5	23.5	-	-	356.8
11. Saudi Arabia	311.2	750.0	53.9	1062.6	2177.7	180.0	637.4	90.0	70.0	977.4	-	-	3155.1
12. U.A.E.	97.2	273.5	11.5	542.5	922.7	35.0	54.5	6.5	18.0	144.0	-	-	1036.7
13. Venezuela	331.8	200.6	-	-	532.4	434.5	-	-	-	434.5	-	24.0	990.9
TOTAL	1378.3	4692.0	92.6	2698.8	8861.7	1185.7	1162.1	279.3	181.8	2808.9	145.4	24.0	11840.0
					74.8%					23.7%	1.2%	0.3%	100.0

SOURCE : OPEC Data Services Deptt.

OIL REVENUES OF OPEC MEMBER COUNTRIES : 1974-1984.

(Billion US $)

OPEC MEMBER COUNTRIES	1974	1978	1979	1980	1981	1982(r)	1983	1984(P)
1.	2.	3.	4.	5.	6.	7.	8.	9.
Algeria	3.30	4.59	7.52	12.50	10.70	8.50	9.70	9.70
Ecuador	0.41	0.40r	0.80	1.39	1.56	1.18	1.10	1.60
Gabon	0.17	0.50r	0.90	1.80	1.60	1.50	1.50	1.40
Indonesia	1.37	5.20	8.10	12.86	14.39	12.70	9.66	10.40
Iran	17.82	19.30	20.50	13.50	9.30	17.60r	20.00	16.70
Iraq	5.70	10.20	21.29	26.10	10.40	9.50	8.40	10.40
Kuwait	6.54	7.95	16.86	17.90	14.90	9.48	9.90	10.80
Libya	6.00	8.40	15.22	22.60	15.60	14.00	11.20	10.40
Nigeria	6.66	7.90	15.90	23.41	16.72r	13.09	10.10	12.40
Qatar	1.45	2.20	3.08	4.80	4.72	3.15	3.00	4.40
Saudi Arabia	22.57	32.23	57.52	102.21	113.20	76.00	46.10	43.70
U.A.E.	5.54	8.20	10.86	19.50	18.70	16.00	12.80	13.00
Venezuela	9.27	7.32	11.96	16.34	17.40	13.54	13.50	13.70
TOTAL:	85.80	114.39	192.51	274.91	249.19	196.24	156.96	158.60

VALUE OF PETROLEUM EXPORTS FROM OPEC MEMBER COUNTRIES: 1974-1986

(Billion U/S $)

OPEC MEMBER COUNTRIES	1974	1978	1979	1980	1982	1983	1984	1985	1986 (P)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Algeria	4.27	5.86	8.75	12.65	10.77r	9.47	9.19	9.17r	3.76
Ecuador	0.69	0.61r	1.16r	1.56r	1.51r	1.73r	1.83r	1.93r	0.98
Gabon	0.71r	0.98r	1.26r	1.88r	1.72r	1.50r	1.77r	1.67r	0.85
Indonesia	5.21	7.44	8.87	15.60r	15.22r	13.56r	12.48r	9.08r	5.45
Iran	20.90	21.68	19.19	13.28	19.23r	19.22r	12.26r	13.11r	6.60
Iraq	6.53r	10.91r	21.38r	26.30r	10.10	9.90r	11.99r	11.38r	6.98
Kuwait	10.39	9.42	16.77	17.67	8.83	9.95	10.89r	9.73r	6.20
Libya	7.18r	9.68r	15.69r	21.40r	13.25r	11.91r	10.74r	10.52r	4.70
Nigeria	8.62r	8.99r	16.30r	25.28r	12.83r	10.23r	11.71r	12.34r	6.30
Qatar	1.98	2.30	3.66r	5.43r	4.13r	3.12r	4.29r	3.35r	1.46
Saudi Arabia	35.48r	40.33	62.86r	108.17r	78.12r	44.83r	36.26r	25.94r	21.19
U.A.E.	6.31	8.66	12.91r	19.49r	16.84r	13.81r	13.68r	13.40r	5.89
Venezuela	10.55	8.74	13.63	18.25	15.63	13.84	12.14	10.35	6.71
TOTAL:	119.82	135.60	202.43	286.96	208.18	163.07	149.23	131.97	77.07

r = Revised. P = Provisional/estimated.

SOURCE: i) OPEC Data Services Deptt. for October, 1986.

OFFICIAL DEVELOPMENT ASSISTANCE FROM OECD AND OPEC MEMBERS: 1980-1985

COUNTRIES	AMOUNT (Million of US.$)						As percentage of donor G.N.P.					
	1980	1981	1982	1983	1984	1985 (P)	1980	1981	1982	1983	1984	1985 (P)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
OECD:												
Italy	683	666	811	834	1133	1099	.17	.19	.24	.24	.33	.31
New Zealand	72	68	65	61	55	54	.33	.29	.28	.28	.25	.25
United Kingdom	1854	2192	1800	1610	1430	1490	.35	.43	.37	.35	.33	.33
Japan	3353	3171	3023	3761	4319	3797	.32	.28	.28	.32	.35	.29
Austria	178	220	236	158	181	248	.23	.33	.35	.24	.28	.38
Finland	111	135	144	153	178	211	.22	.28	.30	.32	.36	.39
Australia	667	650	882	753	777	747	.48	.41	.57	.49	.45	.49
Canada	1075	1189	1197	1429	1625	1638	.43	.43	.41	.45	.50	.49
Netherlands	1630	1510	1472	1195	1268	1123	1.03	1.08	1.08	.91	1.02	.90
Belgium	595	575	499	476	442	430	.50	.59	.59	.59	.57	.53
France	4162	4177	4034	3815	3788	4022	.64	.73	.75	.74	.77	.79
United States	7138	5782	8202	8081	8711	9555	.27	.20	.27	.24	.24	.24
Denmark	481	403	415	395	449	439	.74	.73	.76	.73	.85	.80
Germany(FR)	3567	3181	3152	3176	2782	2967	.44	.47	.48	.48	.45	.48
Norway	486	467	559	584	543	555	.85	.82	.99	1.10	1.03	1.00
Sweden	962	919	987	754	741	841	.79	.83	1.02	.84	.80	.86
Switzerland	253	237	252	320	286	301	.24	.24	.25	.31	.30	.31
T O T A L :	27267	25542	27730	27555	28707	29518						
OPEC												
Nigeria	34	143	58	35	51	.04	.19	.08	.05		.07	
Iran	-72	-141	-193	15	-	- 08	-.15	-.18	.01		--	
Iraq	863	203	57	-37	-48	2.35	.92	.19	-.11		-.14	
Algeria	82	55	131	61	46	.20	.13	.31	.13		.09	
Venezuela	124	66	125	141	90	.21	.10	.19	.22		.12	
Libya	376	262	43	142	17	1.16	.93	.14	.49		.06	
Saudi Arabia	5775	5575	3910	3661	3315	4.95	3.49	2.54	3.29		3.29	
Kuwait	1140	1154	1168	1006	1018	3.52	3.63	4.60	3.86		3.81	
U.A.E.	1052	800	395	364	43	3.82	2.60	1.34	1.44		.17	
Qatar	286	248	139	11	13	4.28	3.74	1.66	.13		.16	
TOTAL OAPEC	9574	8297	5843	5208	4404	3.28	2.58	1.83	1.86		1.61	
TOTAL OPEC	9660	8365	5833	5399	4545	1.47	1.47	0.99	0.95		1.16	

P = Provisional/Esimated.

SOURCE: World Development Report-1986.

LOAN ASSISTANCE FROM OPEC AND OTHER OIL SUPPLYING NATIONS : 1975-76 TO 1986-87

(Rs. Crores)

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86 Apr/Sept.	1986-87
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
U.S.S.R.:												
Authorisation	--	--	208.3	--	--	485.7	--	--	144.6	--	1134.0	--
Utilisation	26.9	26.3	25.7	21.6	34.0	32.9	22.6	40.0	74.7	108.0	161.2	175.0
OPEC:												
Abu Dhabi Fund:												
Authorisation	--	--	--	--	--	--	--	--	--	--	--	--
Utilisation	--	--	5.8	--	6.5	2.0	--	--	--	--	--	--
OPEC Fund Loans												
Authorisation	--	19.7	12.1	--	16.3	39.8	--	29.3	23.4	--	--	--
Utilisation	--	--	18.4	11.5	--	3.4	9.2	37.4	6.5	6.2	4.7	10.0
U.A.E. Loans :												
Authorisation	17.5	--	--	--	--	--	--	--	--	--	--	--
Utilisation	44.1	17.9	--	--	--	--	--	--	--	--	--	--
Saudi Arab Fund: for Devep.												
Authorisation	--	--	86.4	--	--	--	29.2	--	30.7	--	51.6	--
Utilisation	--	--	--	3.2	41.1	13.0	6.0	12.4	2.4	3.0	0.2	10.0
Kuwait Fund: for Arab Economic Develp.												
Authorisation	46.3	--	--	29.0	--	--	77.5	--	52.1	--	30.8	--
Utilisation	--	20.0	13.3	12.3	--	8.6	10.1	25.5	18.0	80.0	53.4	100.0
Iraq-Loans;												
Authorisation	33.0	32.1	--	--	--	82.9	--	--	--	--	--	--
Utilisation	31.3	33.4	3.9	3.8	1.4	0.7	--	--	--	--	--	--
Iran-Loans:												
Authorisation	923.7	73.8	--	--	--	--	--	--	--	--	--	--
Utilisation	326.5	174.3	166.7	70.1	12.6	17.3	--	--	--	--	--	--
TOTAL OPEC ASSISTANCE:												
Authorisation	1020.5	125.6	98.5	29.0	16.3	122.7	106.7	29.3	106.2	--	82.4	--
Utilisation	401.9	245.6	208.1	100.9	61.6	45.0	25.3	75.3	26.9	197.2	105.0	120.0
International Fund for Agricultural Develp.												
Authorisation	--	--	--	--	80.6	13.9	--	24.5	36.7	--	--	--
Utilisation	--	--	--	--	--	7.3	12.3	14.0	18.3	18.6	29.2	29.4
GRAND TOTAL:												
Authorisation	1020.5	125.6	306.8	29.0	96.9	622.3	106.7	53.8	287.5	--	1216.4	--
Utilisation	428.8	271.9	233.8	122.5	95.6	85.2	60.2	129.3	119.9	243.4	353.7	324.4

* = Esimated

@ = Government account only.

SOURCE = Economic Survey, 1986=87.

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES/SINCE 1974

($/bbl)

CRUDE	Grav-ity	EFFECTIVE DATES 1974 Nov.1	1975 Jan.1	1975 Oct.1	1976 Feb.14	1976 June 1	1976 July 1.	1976 Oct.1.	1977 Jan.1	1977 July 1.	1978 Jan.1.	1978 Apr.1
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
ARABIAN/PERSIAN GULF CRUDES												
Saudi Arabia:												
Arab. Light	34	10.463		10.510					12.090	12.704		
Arab. Berri	39	11.114		11.874					12.480	13.225		
Arab.Medium	31	10.380		11.331		11.280			11.690	12.323		
Arab.Heavy	27	10.268		11.140		11.040			11.370	12.016		
Iran:												
Iran Light	34	10.67		11.62					12.81			
Iran.Heavy	31	10.45		11.49	11.40	11.33b			12.49			
Kuwait:												
Kuwait	31	10.365		11.300		11.230			12.370		12.270	
Abu Dhabi:												
Umm Shaif	37	10.868	10.645	11.695					12.280	13.040		
Murban	39	11.379	10.868	11.918					12.500	13.260		
Zakum	40	11.313	10.775	11.825					12.410	13.170		
Iraq												
Basrah	35	10.48		11.53			11.43		12.58			
Qatar:												
Merine	36	10.80		11.66					13.00			
Dukhan	40	11.17		11.85					13.19			
Oman:												
Oman Blend	34											
MEDITERRANEAN & AFRICAN CRUDES.												
Iraq:												
Kirkuk	36						11.65		12.77			
Libya:												
Bregs	40			12.32			12.62		13.92	14.20	13.97	13.85
Nigeria:												
Bonny Light	37			12.70			13.10	13.25	14.31	14.61c)	14.31	14.10
Bonny Medium	26						12.55	12.52	13.71		13.66	13.55
INDONESIAN CRUDE												
Indonesia:												
Minas	34	12.60		12.80					13.55			
VENEZULAN CRUDES												
Venezuela:												
Tia Zuana	26					11.12a)	11.22c)	11.32	11.65	12.72	12.82e)	12.70
Tia Zuana	31					12.30a)			12.35	13.54		
Oficina	35					12.80a)				13.99		

a) = Effective Jan. 1. b) = Effective June, 9.
c) = Effective Apr. 1. e) = Effective Oct. 1.

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES/SINCE 1974

($/bbl)

CRUDE	Gravity	EFFECTIVE DATES 1979 Jan.1	Feb.1	April 1	May 17	June 1	July 1	Oct. 20	Nov.1	Dec.17
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
ARABIAN/PERSIAN GULF CRUDES										
Saudi Arabia:										
Arab. Light	34	13.339		14.546		18.000			24.000	
Arab. Berri	39	14.060		16.470	17.870d)	21.324			24.721	
Arab.Medium	31	12.886		14.052		17.547			23.547	
Arab.Heavy	27	12.511		13.643		17.172			23.172	
Iran:										
Iran Light	34	13.45		16.57	17.17d)	18.47	22.00	23.50i)		28.50m)
Iran.Heavy	31	13.06		16.04	16.64d)	17.74	19.90	22.77i)		27.77m)
Kuwait:										
Kuwait	31	12.830	14.030a)	15.800	16.40d)		19.490	21.431)	25.500	
Abu Dhabi:										
Umm Shaif	37	13.780	14.620	16.880	17.68		21.360		27.360	
Murban	39	14.100	15.120	17.100	17.90		21.560		27.560	
Zakum	40	14.010	15.030	17.010	17.81		21.460		27.460	
Iraq										
Basrah	35	13.21		15.60	16.20c)	16.94	19.96	21.96	23.96	25.96m)
Qatar:										
Marine	36	13.77	14.71	16.85	17.65		21.23		27.23	
Dukhan	40	14.03	15.05	17.04	17.84		21.42		27.42	
Oman:										
Oman Blend	34	13.94								
MEDITERRANEAN & AFRICAN CRUDES.										
Iraq:										
Kirkuk	36	13.41		15.82	16.42C)	17.16	21.25	22.18	24.18	26.18m)
Libya:										
Bregs	40	14.69	15.37b) 16.07x)	18.25	18.95e)	21.26f)	23.45	26.22j)		29.95n)
Nigeria:										
Bonny Light	37	14.80		18.50	20.96e)		23.47		26.24k)	29.97
Bonny Medium	26	14.23		17.50	20.00e)		22.00		24.77k)	28.70
INDONESIAN CRUDE.										
Indonesia:										
Minas	34	13.90		15.65	16.15e)	18.25g)	21.12		23.50L)	25.50
VENEZUELAN CRUDES.										
Venezuela:										
Tia Zuana	26	13.36		15.76	16.36e)		19.31	19.48i)		23.48p)
Tia Zuana	31	14.22		16.70	17.30e)		20.90			24.90p)
Oficina	35	14.69		17.21	17.81		22.45			26.75p)

a) = Effective Feb.20. b) = Effective Feb.21. c) = Effective May,1. d) = Effective May,15.
e) = Effective May 16. f) = Effective May.27. g) = Effective June 15. h) = Effective Jul.15.
i) = Effective Oct. 1. j) = Effective Oct.15. k) = Effective Nov.6. l) = Effective Nov,17.
m) = Effective Dec. 1. n) = Effective Dec.13. p) = Effective Dec.14. x) = Effective Mar.3.

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES SINCE 1974 (Contd...)
(E F F E C T I V E D A T E S) ($ / Barrel)

CRUDE	TYPE	1981				1982						
		Jan.1.	Jul.1.	Oct.1.	Nov.1.	Jan 1.	Feb.12.	Feb.23.	Mar.20.	Apr.1	Jul.1.	Aug.1
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
ARABIAN/PERSIAN GULF CRUDES												
Saudi Arabia:												
Arab. Light	34			34.00		34.00			34.00			
Arab. Berri	39			35.60		35.40			34.52			
Arab.Medium	31			33.00		32.40			32.40			
Arab.Heavy	27			31.50		31.00			31.00			
Iran:												
Iran Light	34	37.00			34.60	34.20	32.20	30.20			31.20	
Iran.Heavy	31	36.00			33.40	32.30	30.30	38.30			29.30	
Kuwait:												
Kuwait	31	35.50			33.00	32.30						
Abu Dhabi:												
Umm Shaif	37	36.36			35.50	35.30			34.36			
Murban	39	36.56			35.70	35.50			34.56			
Zakum	40	36.46			35.60	35.40			34.46			
Iraq												
Basrah	35	35.96		33.96	34.71	33.46			34.21			
Qatar:												
Marine	36	37.23			35.50	35.30			34.30			
Dukhan	40	37.42			35.65	35.45			34.49			
Oman:												
Oman Blend	34	39.50	35.50	34.00		35.00		32.00c)	34.30			34.00
			36.00*	34.50*								
MEDITERRANEAN & AFRICAN CRUDES.												
Iraq:												
Kirkuk	36	36.18		34.18		34.18			34.18			
Libya:												
Brega	40	41.00	40.00		37.50	37.00				35.50		
Nigeria:												
Bonny Light	37	40.00		36.00a)	36.50b)	36.50			35.50			
Bonny Medium	26	38.70		34.70a)	35.20b)	33.75			33.50			
INDONESIAN CRUDE												
Indonesia:												
Minas	34	35.00										
VENEZ-UELAN CRUDES												
Venezuela:												
Tia Zuana	26	32.88			32.88							
Tia Zuana	31	36.00			35.00							
Oficina	35	38.06			37.06							

* = Lower price is for buy-back crude, higher is GSP for equity crude.
a) = Effective Aug 26 b) = Effective Oct 1 c) = Effective March 1

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES SINCE 1974 (Contd...)

($ / Barrel)

CRUDE	Gravity	EFFECTIVE DATES 1980 Jan.1	Feb.1	April 1	May 1	July 1	Aug. 1.	Sept.1	Nov.1
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
				ARABIAN/PERSIAN GULF CRUDES.					
Saudi Arabia:									
Arab. Light	34	26.000		28.00			30.00		32.00
Arab. Berri	39	27.520		29.52			31.52		33.52
Arab.Medium	31	25.454		27.454			29.454		21.454
Arab.Heavy	27	25.000		27.00			29.00		31.00
Iran:									
Iran Light	34	30.00	31.00	35.37					
Iran.Heavy	31	29.27	30.27	34.37					
Kuwait:									
Kuwait	31	27.500			29.50	31.50			
Abu Dhabi:									
Umm Shaif	37	29.360			31.36			33.36	
Murban	39	29.560			31.56			33.56	
Zakum	40	29.460			31.46			33.46	
Iraq									
Basrah	35	27.96			29.96	31.96			
Qatar:									
Marine	36	29.23			31.23	33.23			
Dukhan	40	29.42			31.42	33.42			
Oman:									
Oman Blend	34					33.20c)	33.40		
				MEDITERRANEAN & AFRICAN CRUDES.					
Iraq:									
Kirkuk	36	28.18			30.18	32.18			
Libya:									
Brega	40	34.67			36.67	37.00			
Nigeria:									
Bonny Light	37		34.18e)	34.69	36.69b)	37.00			
Bonny Medium	26		32.91e)	33.42	35.42b)	35.73			
				INDONESIAN CRUDE					
Indonesia:									
Minas	34	27.50			31.50d)				
				VENEZULEAN CRUDES.					
Venezuela:									
Tia Zuana	26	25.20	26.70a)		29.28d)	29.88			
Tia Zuana	31	26.90	28.90a)		32.40d)	33.00			
Oficina	35	28.75	30.75a)		34.25d)	34.85			

a) = Effective Feb. 6 b) = Effective May.22 c) = Effective June.30
d) = Effective May.26 e) = Effective Feb. 4.

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES SINCE 1974 (Contd...)

($ /Barrel)

CRUDE	TYPE	EFFECTIVE DATES 1983 Feb. 1	1983 March.1	1983 March.15	1984 Aug. 10	1984 Oct.18	1984 Dec. 28	1985 Feb. 1	1985 July	1986 March 31	1986 July 1	1987 Sep.1	1987 Feb.1
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
ARABIAN/PERSIAN GULF CRUDES.													
Saudi Arabia:													
Arab Light	34		29.00					28.00	28.00	28.00			28.00
Arab. Berri	39		29.52					28.11	28.11	28.11			28.11
Arab.Medium	31		27.40					27.40	27.20	27.20			27.20
Arab.Heavy	27		26.00					26.50	26.00	26.00			26.00
Iran:													
Iran Light	34			28.00			26.30	28.05		28.05			28.05
Iran.Heavy	31			26.90	27.10		26.20	27.35		27.35			27.35
Kuwait:													
Kuwait	31		27.30					27.10@		27.10			27.10
Abu Dhabi:													
Umm Shaif	37		29.36					28.05			28.05	28.05	
Murban	39		29.56				28.76	28.15			28.15	13.80	
Zakum	40		29.46				28.96	28.10			28.10	13.70	
Iraq													
Basrah	35			29.21				27.96		27.96			27.96
Qatar:													
Marine	36		29.30					28.05		28.05			14.75
Dukhan	40		29.49					28.10		28.10			14.25
Oman:													
Oman Blend	34			29.00				28.00	28.00		28.00		14.20
MEDITERRANEAN & AFRICAN CRUDES.													
Iraq:													
Kirkuk	36			29.83				28.18		28.18		28.18	
Libya:													
Brega	40	30.4aa)											30.40
Nigeria:													28.65
Bonny Light	37	30.00b)				28.00		28.65		28.65			27.60
Bonny Medium	26	28.00b)				27.00		27.60		27.60			
INDONESIAN CRUDE													
Indonesia:													
Minas	34		29.53a)							28.53			28.53
Venezuela:													
Tia Zuana	26			27.88				27.60c)		27.10			27.10
Tia Zuana	31			29.84				28.25c)		28.05			28.05
Oficina	35			31.09				28.80c)		28.80			28.80

a) w.e.f. Feb.23 b) Harbor fee of 2cts/bbl not included. c)w.e.f. Feb.20. @ Effective 27th July 1985.

NATURAL GAS PRICES IN INDUSTRIAL/ DEVELOPED COUNTRIES OF THE WORLD

(US $/10 7 K.Cal.)

Country	1982	1984	1985	1986	1987(1qr.)
		A. FOR INDUSTRIAL USE			
Australia	65.18	89.94	75.81	77.95	81.61
Austria	226.80	183.89	191.06	NA	NA
Belgium	186.91	176.71	175.96	154.98	122.11
Canada	103.75	108.11	103.60	98.08	98.89
Finalnd	196.16	169.69	158.81	140.05	115.67
France	187.36	167.11	179.13	NA	NA
Germany	207.03	180.64	185.02	NA	NA
Ireland	615.95	262.12	268.45	333.53	289.24
Italy	195.90	180.71	NA	NA	NA
Japan	442.25	435.95	427.87	NA	NA
Netheralnds	172.60	163.85	-	-	-
New Zealand	115.69	95.25	95.62	116.29	142.79
Spain	317.52	244.56	250.99	258.70	233.58*
Switzerland	424.08	321.66	318.26	354.15	308.37
United Kingdom	159.28	137.63	145.91	NA	NA
United States	143.85	162.58	152.18	118.28	110.73
		B. FOR HOUSEHOLD USE			
Australia	190.57	209.50	175.25	177.23	NA
Austria	572.53	517.28	-	-	-
Belgium	354.36	328.90	331.98	365.72	350.72
Canada	147.32	166.80	160.93	154.55	145.04
Denmark	NA	362.14	372.84	492.77	684.37
Finalnd	196.16	169.69	158.81	146.29	115.67
France	407.51	355.59	373.69	NA	NA
Germany	355.79	301.14	299.99	NA	NA
Ireland	688.33	408.76	428.58	553.76	558.82
Italy	289.31	314.60	NA	NA	NA
Japan	613.14	637.83	636.90	NA	NA
Luxembourg	271.17	-	-	-	-
Netherlands	255.41	240.82	244.63	326.96	277.66
New Zealand	207.05	131.87	115.63	143.18	178.89
Spain	430.02	389.54	414.29	541.09	-
Switzerland	837.81	723.92	692.20	946.05	1100.26
United Kingdom	247.69	208.45	407.98	NA	NA
United States	199.98	235.79	235.79	241.85	204.55

0.95 tonne of oil approximate 10/7 K. Calories of natural gas.
NA = Not Available.
* = Relates to fourth quarter of 1986.
Source = International Energy Agancy's "Energy Prices and Taxes" = 1987.

Short-term trend in weighted @ average Official Prices of OPEC CRUDE Vs. their Spot Assessment since June. 1980.

WEEK ENDING	OPEC'S WEIGHTED AVERAGE OFFICIAL PRICE	Spot Assessment	DIFFERENCE (+) Premium (-) Discount
19.6.80	30.83	34.80	+ 3.97
3.7.80	31.30	34.34	+ 3.04
2.10.80	31.97	31.32	+ 1.15
7.11.80	31.76	38.78	+ 7.02
9.1.81	34.26	38.93	+ 4.67
6.2.81	34.83	37.02	+ 2.19
6.3.81	34.83	36.72	+ 1.89
3.4.81	34.83	35.90	+ 1.07
1.5.81	34.82	33.90	- 0.92
5.6.81	34.75	31.84	- 2.91
2.7.81	34.77	31.04	- 3.73
4.9.81	34.66 (34.32)	31.48	- 3.18
2.10.81	34.64 (34.32)	31.58	- 3.06
6.11.81	33.95	32.88	- 1.11
4.12.81	33.96	33.12	- 0.84
8.1.82	33.74	33.28	- 0.46
5.2.82	33.68	30.74	- 2.94
5.3.82	33.36	28.69	- 4.67
2.4.82	33.24	27.92	- 5.32
7.5.82	33.16	31.69	- 1.47
4.6.82	33.14	32.10	- 1.04
2.7.82	33.23	31.33	- 1.90
6.8.82	33.18	30.87	- 2.31
3.9.82	33.18	31.60	- 1.58
1.10.82	33.18	32.41	- 0.77
5.11.82	33.18	32.10	- 1.08
3.12.82	33.17	29.73	- 3.43
7.1.83	33.17	29.90	- 3.27
14.1.83	33.17	29.90	- 3.27
21.1.83	33.17	30.48	- 2.69
28.1.83	33.17	29.44	- 3.73
4.2.83	33.17	28.78	- 4.39
11.2.83	33.17	28.78	- 4.39
18.2.83	33.17	28.74	- 4.43
25.2.83	32.87	27.87	- 5.00
4.3.83	32.83	27.56	- 5.27
11.3.83	32.83	27.56	- 5.37
18.3.83	32.83	27.41	- 5.42
25.3.83	23.87	27.35	- 1.52
1.4.83	28.87	27.37	- 1.50
8.4.83	28.51	27.78	- 0.73
15.4.83	28.49	28.07	- 0.42
22.4.83	28.49	28.19	- 0.30
29.4.83	28.49	28.23	- 0.26
6.5.83	28.49	28.13	- 0.36
13.5.83	28.44	27.92	- 0.52
20.5.83	28.44	27.84	- 0.60
27.5.83	28.44	27.99	- 0.45
3.6.83	28.44	28.05	- 0.39
15.7.83	28.44	28.40	- 0.04

*= The weightings given are based on each nation's production relative to OPEC total.

Short-term trend in weighted @ average Official Prices of OPEC CRUDE Vs. their Spot Assessment since June, 1980. (Contd..)

WEEK ENDING	OPEC'S WEIGHTED AVERAGE OFFICIAL PRICE	Spot Assessment	DIFFERENCE (+) Premium (-) Discount
10.6.83	28.44	28.04	- 0.40
17.6.83	28.44	28.14	- 0.30
24.6.83	28.44	28.22	- 0.22
1.7.83	28.44	28.20	- 0.24
8.7.83	28.44	28.20	- 0.24
22.7.83	28.44	28.42	- 0.02
29.7.83	28.46	28.46	- ---
5.8.83	28.46	28.54	+ 0.08
12.8.83	28.47	28.53	+ 0.06
19.8.83	28.48	28.49	+ 0.01
26.8.83	28.48	28.42	- 0.06
2.9.83	28.48	28.40	- 0.08
9.9.83	28.48	28.37	- 0.11
16.9.83	28.48	28.27	- 0.21
23.9.83	28.48	28.33	- 0.15
30.9.83	28.48	28.22	- 0.26
7.10.83	28.48	28.03	- 0.45
14.10.83	28.48	28.28	- 0.20
21.10.83	28.48	28.26	- 0.22
28.10.83	28.48	28.19	- 0.29
4.11.83	28.48	28.08	- 0.40
11.11.83	28.48	28.00	- 0.48
18.11.83	28.48	27.90	- 0.58
23.11.83	28.48	27.79	- 0.69
2.12.83	28.48	27.93	- 0.55
9.12.83	28.48	27.87	- 0.61
16.12.83	28.48	27.78	- 0.70
23.12.83	28.48	27.74	- 0.74
30.12.83	28.48	27.83	- 0.65
6.1.84	28.48	27.91	- 0.57
13.1.84	28.48	27.95	- 0.53
20.1.84	28.48	27.97	- 0.51
27.1.84	28.48	28.06	- 0.42
3.2.84	28.48	28.08	- 0.40
10.2.84	28.48	28.03	- 0.45
17.2.84	28.48	28.02	- 0.46
24.2.84	28.48	28.03	- 0.45
2.3.84	28.48	28.06	- 0.42
9.3.84	28.48	28.12	- 0.36
16.3.84	28.48	28.04	- 0.44
23.3.84	28.48	28.02	- 0.46
30.3.84	28.48	28.04	- 0.44
6.1.84	28.48	27.91	- 0.57
13.1.84	28.48	27.95	- 0.53
20.1.84	28.48	27.91	- 0.51
27.1.84	28.48	28.06	- 0.42
3.2.84	28.48	28.08	- 0.40
10.2.84	28.48	28.03	- 0.45
17.2.84	28.48	28.02	- 0.46
24.2.84	28.48	28.03	- 0.45
7.3.84	28.48	28.03	- 0.45
16.3.84	28.48	28.02	- 0.46

Short-term trend in weighted @ average Official Prices of OPEC CRUDE Vs. their Spot Assessment since June. 1980. (Contd..)

WEEK ENDING	OPEC'S WEIGHTED AVERAGE OFFICIAL PRICE	Spot Assessment	DIFFERENCE (+) Premium (-) Discount
23.3.84	28.48	28.04	- 0.44
6.4.84	28.48	28.06	- 0.42
13.4.84	28.48	28.08	- 0.40
19.4.84	28.48	28.15	- 0.33
27.4.84	28.48	28.12	- 0.36
4.5.84	28.48	28.08	- 0.40
18.5.84	28.48	28.14	- 0.34
25.5.84	28.48	28.06	- 0.42
1.6.84	28.48	27.41	- 1.07
8.6.84	28.48	27.51	- 0.97
15.6.84	28.48	27.30	- 1.18
22.6.84	28.48	27.09	- 1.39
29.6.84	28.48	27.94	- 1.54
6.7.84	28.48	27.08	- 1.40
13.7.84	28.48	27.06	- 1.42
20.7.84	28.48	26.91	- 1.57
27.7.84	28.48	26.59	- 1.89
31.8.84	28.48	26.70	- 1.78
10.8.84	28.48	26.98	- 1.50
17.8.84	28.48	27.03	- 1.45
24.8.84	28.48	27.20	- 1.28
7.9.84	28.48	27.36	- 1.12
14.9.84	28.48	27.43	- 1.05
21.9.84	28.48	27.49	- 0.99
28.9.84	28.48	27.62	- 0.86
5.10.84	28.48	27.38	- 1.10
12.10.84	28.48	27.41	- 1.07
19.10.84	28.18	26.81	- 1.37
26.10.84	28.18	27.57	- 0.61
2.11.84	27.92	27.47	- 0.44
9.11.84	27.89	27.33	- 0.56
16.11.84	27.89	27.16	- 0.73
21.11.84	27.88	27.08	- 0.80
30.11.84	27.88	26.84	- 1.04
7.12.84	27.88	26.93	- 0.94
14.12.84	27.88	26.79	- 1.09
21.12.84	27.88	26.77	- 1.10
28.12.84	27.88	26.96	- 0.92
4.1.85	27.98	26.95	- 1.03
11.1.85	28.05	27.06	- 0.99
18.1.85	27.87	26.95	- 0.92
25.1.85	27.87	26.88	- 0.99
1.2.85	27.59	26.85	- 0.74
8.2.85	27.67	27.11	- 0.56
15.2.85	27.67	27.14	- 0.53
22.2.85	27.66	27.14	- 0.55
1.3.85	27.66	27.11	- 0.58
8.3.85	27.67	27.08	- 0.54
15.3.85	27.62	27.13	- 0.55
22.3.85	27.54	27.07	- 0.47
29.3.85	27.53	27.03	- 0.50

Short-term trend in weighted @ average Official Prices of OPEC CRUDE Vs. their Spot Assessment since June. 1980. (Contd..)

WEEK ENDING	OPEC'S WEIGHTED AVERAGE OFFICIAL PRICE	[illegible] Spot Assessment	DIFFERENCE (+) Premium (-) Discount
4.4.85	27.53	27.00	- 0.53
12.4.85	27.53	26.98	- 0.55
19.4.85	27.53	26.93	- 0.61
26.4.85	27.49	26.81	- 0.68
2.5.85	27.49	26.61	- 0.88
10.5.85	27.48	26.38	- 1.10
17.5.85	27.40	25.94	- 1.46
24.5.85	27.40	25.84	- 1.56
19.7.85	27.40	25.88	- 1.52
2.8.85	27.21	25.99	- 1.22
9.8.85	27.24	26.03	- 1.21
16.8.85	27.35	26.22	- 1.13
23.8.85	27.39	26.31	- 1.08
30.8.85	27.42	26.57	- 0.85
6.9.85	27.42	26.69	- 0.73
13.9.85	27.37	26.50	- 0.87
20.9.85	27.37	26.50	- 0.87
27.9.85	27.37	26.76	- 0.61
4.10.85	27.41	26.52	- 0.49
11.10.85	27.41	26.88	- 0.53
18.10.85	27.43	26.89	- 0.54
25.10.85	27.35	26.79	- 0.56
1.11.85	27.32	29.79	- 0.52
8.11.85	27.33	26.85	- 0.48
15.11.85	27.33	27.02	- 0.31
22.11.85	27.31	27.19	- 0.12
29.11.85	27.00	27.02	- 0.32
6.12.85	27.34	26.32	- 0.95
13.12.85	27.28	26.28	- 0.98
20.12.85	27.26	26.32	- 0.94
27.12.85	27.26	26.33	- 0.93
3.1.86	27.26	26.16	- 1.02
10.1.86	27.18	25.12	- 1.89
24.1.86	27.01	20.27	- 5.98
31.3.86	26.25	19.01	- 6.90
7.2.86	25.91	17.80	- 8.01
14.2.86	25.81	16.86	- 8.60
21.2.86	25.46	16.25	- 9.00
28.2.86	24.25	13.94	- 10.40
7.3.86	24.34	13.18	- 11.06
14.3.86	24.24	13.27	- 11.02
21.3.86	24.20	12.11	- 11.96
28.3.86	27.07	27.03	- 0.56

Source: Petroleum Intelligence Weekly.

Short-term trend in weighted @ average Official Prices of OPEC CRUDE Vs. their Spot Assessment since June. 1980. (Contd..)

WEEK ENDING	OPEC'S WEIGHTED AVERAGE OFFICIAL PRICE	Spot Assessment	DIFFERENCE (+) Premium (-) Discount
4.4.1986			
11.4.1986	22.74	11.62	- 11.12
18.4.1986	22.61	10.96	- 11.65
25.4.1986	22.56	10.86	- 11.70
2.5.1986	22.59	11.00	- 11.59
9.5.1986	22.93	12.28	- 11.65
16.5.1986	22.52	12.54	- 9.98
23.5.1986	22.59	12.90	- 9.68
30.5.1986	22.54	12.18	- 10.36
6.6.1986	22.45	11.30	- 11.15
13.6.1986	22.43	11.15	- 11.28
20.6.1986	22.39	10.91	- 11.48
27.6.1986	22.33	10.51	- 11.82
3.7.1986	22.05	9.87	- 12.18
11.7.1986	21.71	8.73	- 12.98
18.7.1986	21.62	8.23	- 13.39
25.7.1986	21.68	8.15	- 13.53
1.8.1986	21.52	8.16	- 13.36
8.8.1986	22.24	11.97	- 10.27
15.8.1986	22.52	12.42	- 10.10
22.8.1986	22.44	12.32	- 10.12
29.8.1986	22.59	12.77	- 9.82
5.9.1986	23.05	13.79	- 9.26
12.9.1986	23.02	13.56	- 9.46
19.9.1986	22.86	12.96	- 9.93
26.9.1986	22.93	13.02	- 9.91
3.10.1986	23.00	13.36	- 9.64
10.10.1986	22.80	13.36	- 9.44
17.10.1986	22.80	13.26	- 9.54
24.10.1986	22.83	13.32	- 9.51
31.10.1986	22.56	12.71	- 9.85
7.11.1986	22.58	13.82	- 8.76
14.11.1986	22.84	13.85	- 8.98
21.11.1986			
28.11.1986	22.77	13.80	- 8.97
5.12.1986	22.78	13.80	- 8.98
12.12.1986	22.77	13.80	- 8.97
19.12.1986	22.77	14.83	- 7.94
26.12.1986	23.30	15.91	- 7.40
2.1.1987	17.58	16.98	- 0.59
9.1.1987	18.01	17.28	- 0.73
16.1.1987	18.15	17.67	- 0.48
23.1.1987	18.15	17.64	- 0.52
30.1.1987	18.15	17.54	- 0.61
6.2.1987	18.15	17.44	- 0.71
13.2.1987			
20.2.1987	18.15	16.73	- 1.42
27.2.1987	17.94	16.41	- 1.53
6.3.1987	17.94	16.98	- 0.96
13.3.1987	17.94	16.86	- 1.08
20.3.1987	17.83	17.41	- 0.42
27.3.1987	17.83	17.48	- 0.35

Development of Spot Prices of Key OPEC Crude Oils since January 1985.

Month	Arab Light 34	Arab Heavy 27	Iran Light 33.9	Kuwait (Export)31	Iraq Basrah 34	UAE Murban 39.10	Qutar Dukhtar 10
1985							
January	28.08	26.70	27.51	27.21	27.63	28.15	28.13
February	27.41	26.65	27.53	27.40	27.89	28.15	28.13
March	27.81	26.63	27.40	27.36	27.81	28.00	27.88
April	27.66	26.53	27.20	27.00	27.66	27.85	27.66
May	27.01	25.59	26.19	25.83	26.19	27.06	26.72
June	26.79	25.05	25.93	25.21	25.93	26.56	26.35
July	27.05	25.19	26.13	25.49	26.13	26.98	26.89
August	27.50	25.39	26.59	25.83	26.58	27.70	27.49
September	27.49	25.66	27.53	26.35	27.53	28.04	27.79
October	27.80	25.78	27.52	26.75	27.55	27.93	27.93
November	27.86	25.81	27.04	26.73	27.24	27.88	27.88
December	26.92	25.17	26.42	25.92	26.93	27.17	27.17
1986							
January	23.65	22.20	23.60	22.70	23.55	23.90	23.80
February	15.88	16.50	15.88	14.88	15.88	16.19	16.00
March	13.13	11.25	13.13	12.13	13.13	13.44	13.40
April	11.17	9.83	11.17	10.33	11.17	11.50	11.50
May	12.30	10.80	12.30	11.30	12.30	12.55	12.55
June	10.67	9.67	10.83	10.17	10.67	10.92	10.92
July	8.63	7.63	8.63	7.75	8.63	8.88	8.88
August	11.69	10.70	12.05	7.00	12.05	12.30	12.30
September	13.63	12.44	13.63	12.83	13.63	13.88	13.88
October	14.00	13.00	14.00	13.25	14.00	14.25	14.13
November	13.75	12.25	13.75	14.63	13.75	14.00	14.00
December	15.19	13.63	15.19	16.95	N.A.	15.44	15.44
1987							
January	17.50	16.25	17.50	16.95	N.A.	17.72	17.72
February	16.69	15.69	16.69	16.19	N.A.	16.79	16.79
March	17.28	16.25	17.24	16.75	N.A.	17.41	17.41
April	17.38	16.38	17.38	16.88	N.A.	17.51	17.48

Source : Monthly OPEC Bulletins.

QUARTERLY DEVELOPMENT OF SPOT PRICES OF MAJOR PETROLEUM PRODUCTS IN KEY TRADING CENTRES OF THE WORLD DURING 1986-87.

Product/Type	Unit	1986-1987			
		1st. Quarter	2nd. Quarter	3rd. Quarter	4th. Quarter
1.	2.	3.	4.	6.	6.
I. NAPHTHA:	US /US Gallon				
1. Europe *	"	34.5	30.4	34.5	44.0
2. Italy/Mediterranean	"	29.1	26.1	29.6	40.0
3. Carribbean	"	32.2	31.1	32.1	42.5
4. Arabian/P.Gulf	"	30.6	27.3	31.9	39.6
5. Singapore	"	32.9	30.7	35.0	42.2
II. REGULAR GASOLINE:	US/US G.				
1. Europe *	"	41.2	37.8	34.5	42.1
2. Italy/Mediterranean	"	37.7	29.6	33.4	40.6
3. Carribbean	"	44.7	38.0	40.1	46.9
4. Arabian/P.Gulf	"	36.4	33.0	37.6	45.3
5. Singapore	"	46.3	45.4	49.5	57.0
III. JET KEROSENE:	US/US Gallon				
1. Europe *	"	NA	NA	NA	NA
2. Italy/Mediterranean	"	33.4	30.4	37.2	42.0
3. Carribbean	"	NA	NA	NA	NA
4. Arabian/P.Gulf	"	36.1	30.9	43.3	48.1
5. Singapore	"	39.2	35.1	47.3	51.8
IV. GAS OIL:	US/US Gallon				
1. Europe *	"	50.2	36.8	39.2	55.2
2. Italy/Mediterranean	"	31.7	27.0	30.6	39.9
3. Carribbean	"	39.8	35.8	39.0	47.8
4. Arabian/P.Gulf	"	36.2	28.2	34.1	46.4
5. Singapore	"	26.6	22.8	28.2	40.4
V. FUEL OIL *	$/Barrel				
1. Europe(1% Sulfer)	"	12.13	11.20	13.87	20.03
2. Italy/Mediterranean(1% Sulfer)		9.96	8.73	11.95	16.35
3. Carribbean (1% Sulfer)		5.21	4.50	5.46	7.06
4. Arabian/P.Gulf (3.5% Sulfer)		8.03	7.48	9.29	13.44
5. Singapore(3.5% Sulfer)		11.18	9.58	11.86	16.98

* = Main stream consumer prices.
SOURCE: = Petroleum Intelligence Weekly.

DEVELOPMENT OF LOWEST POSTED PRICES OF POL PRODUCTS AT BANDAR MAHSHAR/QUOIN ISLAND

PRICE AS ON	U.S. Cent/U.S. Gallon						U.S. $ Barrel	
	Naphtha Whole (A-316)	Octane 93	Octane 87	Octane 83	Turbine Fuel	Kerosene	Diesel Index	Ind. Diesel	Light Fuel
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.1.70	-	9.0	7.9	7.1	9.5	8.9	6.6	2.62	1.42
1.1.71	-	9.0	7.9	7.1	9.5	8.9	6.6	2.70	1.50
1.1.72	-	9.9	8.7	8.0	10.4	9.8	7.5	3.20	1.95
1.1.73	-	10.2	8.9	8.3	10.7	10.1	7.8	3.32	2.07
1.1.74	-	17.3	N.R.	15.4	18.6	18.3	15.7	6.16	3.75
1.1.75	-	35.9	N.R.	34.0	33.7	33.4	30.8	12.11	10.05
1.1.76	-	38.3	N.R.	36.4	36.7	36.4	33.6	12.86	10.80
1.1.77	-	38.3	N.R.	36.4	36.7	36.4	33.6	12.86	10.50
1.1.78	-	41.2	N.R.	39.0	39.6	39.2	36.5	14.35	11.85
1.1.79	-	44.0	41.5	40.5	43.5	42.5	40.5	N.R.	11.15
1.1.80	91.5*	79.3	77.0	76.0	77.5	76.5	73.0	N.R.	22.35
1.1.81	87.0**	106.3	104.0	102.5	110.0	105.0	102.0	N.R.	31.04
1.1.82	86.0**	107.8	105.5	104.0	113.5	112.5	106.5	N.R.	32.95
1.1.83	83.0**	100.8	98.5	97.0	110.0	107.0	103.0	N.R.	31.25
1.1.84	71.5**	91.0	86.0	85.0	88.0	87.5	83.0	N.R.	28.35
1.1.85	62.5	88.5	84.0	83.0	87.0	N.R.	77.0	N.R.	27.85
1.1.86	63.0	85.5	N.R.	80.0	86.0	N.R.	80.5	N.R.	25.50
1.1.87	34.0	45.5	N.R.	41.0	53.0	N.R.	48.0	N.R.	12.40

* = Ex-Ras Tanura
** = Ex-Kuwait
N.R.= Not Reported
SOURCE: Platt's Oil Grams.

WORLD SURVEY OF SELECTED PETROLEUM PRODUCT PRICES (INCLUDING TAXES), ON 1.1.1986.

US $/USG

	Exchange Rate	Automotive Fuels		Light Fuel Oil	Kerosene	LPG	Light Fuel Oil	Heavy Fuel Oil
	Foreign Currency Per U.S.Dollar	Premium Gasoline	Diesel Fuel		Residential		Industrial	
		U.S. Dollars Per Gallon					U.S.Dollars Per Barrel	
NORTH AMERICA:								
Canada	1.41	1.38	1.30	1.01	1.29	NA	42.53	NA
Mexico	389.76	1.02	.61	.21	.46	0.18	11.21	7.57
United States	1.00	1.19	1.16	1.06	1.05	.78	33.64	22.22
CENTRAL AND SOUTH AMERICA								
Argentina	.80	1.82	.73	.69	.80	.17	30.49	20.24
Bolivia	1,573,000.00	.98	.98	NA	.98	.51	36.25	NA
Brazil	11,310.00	1.81	1.17	NA	1.21	.76	20.87	23.33
Chile	184.88	1.64	1.35	.90	1.30	1.03	NA	40.84
Colombia	173.70	.70	.62	.35	.51	NA	NA	NA
Dominican Republic	2.95	1.25	1,41	1.07	.98	.46	42.71	54.10
Ecuador	97.59	.67	.41	NA	.14	.22	NA	10.76
EI Salvador	2.50	3.88	2.10	NA	2.28	1.40	42.00	42.00
Jamaica	5.48	1.66	1.20	.95	.68	.92	45.94	34.20
Panama	1.00	1.98	1.19	NA	1.10	.79	NA	NA
Paraguay	240.00	4.10	2.21	NA	2.21	3.46	89.89	49.68
Peru	14.00	1.50	1.07	NA	.27	.58	43.88	37.20
Uruguay	127.39	2.86	1.63	1.29	1.59	1.48	NA	30.44
Venezuela	7.50	.60	.18	NA	.25	.56	5.94	4.24
WESTERN EUROPE:								
Austria	17.17	2.60	1.95	1.08	NA	1.12	45.55	34.28
Belgium	49.95	2.26	1.42	1.04	1.12	1.55	37.40	22.30
Denmark	8.95	2.54	1.12	1.49	1.63	1.41	42.84	25.41
Finland	5.41	2.63	1.90	1.07	1.39	2.01	45.16	22.92
France	7.50	2.58	1.87	1.38	NA	NA	59.67	28.90
West Germany	2.44	2.04	1.70	1.00	NA	NA	36.72	25.68
Greece	148.62	2.04	1.04	1.06	NA	NA	44.52	29.10
Ireland	.80	2.97	.90	1.22	NA	NA	46.62	32.22
Italy	1,664.56	3.09	1.40	1.48	1.58	1.33	52.92	23.88
Luxembourg	49.95	2.02	1.54	1.15	1.09	1.25	45.66	26.97
Netherlands	2.75	2.26	1.28	1.17	NA	NA	NA	24.60
Norway	7.55	2.52	1.11	1.23	1.27	NA	42.00	27.33
Portugal	157.57	2.76	1.68	1.68	1.63	1.83	70.14	30.02
Spain	152.85	2.30	1.53	1.12	NA	NA	46.97	30.36
Sweden	7.59	2.26	1.40	1.32	NA	NA	34.59	37.36
Switzerland	2.07	2.18	2.38	.92	NA	NA	38.22	24.91
Turkey	585.11	1.25	.84	.84	.88	.47	35.28	22.22
U.Kingdom	.70	2.24	1.93	1.06	NA	NA	18.88	12.60
MIDDLE EAST:								
Iran	84.15	1.59	NA	.41	.10	.35	15.41	NA
AFRICA:								
Ghana	80.65	1.08	.88	NA	.57	.46	22.98	20.31
Morocco	9.60	2.39	1.36	NA	1.23	.64	29.65	27.90
South Africa	2.35	1.58	1.55	NA	.75	1.17	42.60	31.34
Tunsia	.75	2.17	NA	.78	.66	1.22	NA	17.14
FAR EAST AND OCEANIA								
Australia	1.43	2.68	1.26	NA	NA	.77	NA	NA
Burma	7.83	.45	.32	.24	.32	NA	NA	NA
Japan	200.07	2.84	1.84	1.84	1.32	2.41	64.39	39.75
New Zealand	1.94	1.76	1.35	1.38	NA	NA	56.28	36.84
Pakistan	15.98	1.83	NA	NA	.76	.51	NA	NA
Phillippines	19.04	1.47	.82	.82	1.15	1.05	NA	NA
Singapore	2.13	2.17	.99	.71	1.01	1.44	34.34	NA
Sri Lanka	27.50	1.86	1.12	NA	.91	.11	53.65	27.29
Thailand	26.65	1.66	.95	.51	.88	.77	39.97	21.39
India*	8.22	3.64	1.68	NA	1.04	1.10	NA	NA

1. liquified petroleum gas (LPG) prices refer to residential propane or a mixture of propane and butane.
2. Unleaded regular gasoline.
3. Price excludes tax.
4. Automotive gasoline, types A, B and C (contains 22 percent alcohol).

* = Ex-Bombay Price. N.A. = Not Available.

SOURCE: International Energy Annual, 1985.

Note : Figures for India inserted.

Consumer/Retail Prices of Petroleum Products in Selected Developed and Developing Countries during January/February, 1987.

	Country	Motor Spirit	Kero-sene	HSDO	LDO	F.O.	ATF	LPG (Domestic)	Exchange rate adopted/used
		(. . . . . Rs. Per Litre . . . . . .)						(Rs./KGM.)	
	Developing Countries								
1.	Argentina(B.Aire)	7.33	3.50	3.63	2.63	1.30	3.86	5.91	1 Re.-0.077 Austral.
2.	Afganistan(Kabul)	3.22	2.32	2.32	2.32	–	–	6.63	1 Re.- 6.03 Afs.
3.	Bangla Desh(Dakha)	6.22	3.14	3.09	2.83	–	3.84	–	1 Re.- TK 2.23
4.	Brazil (Brasila)	9.04	3.28	3.18	3.18	3.18	5.91	3.08	1 Re.- Crusado $ 1.25
5.	China (Beijing)	2.44	3.00	2.00	2.90	–	–	–	1 Re.- Y 0.2616
6.	Indonesia(Jakarta)	2.94	1.26	1.52	1.52	1.52	1.91	2.82	1 Re.- Rupiah 131
7.	India@(Delhi)	7.43	2.25	3.50	3.40	3.25	3.55(I) 5.76(D)	4.06	
8.	Korea (Pyongyang)	NA	2.20	3.80	–	–	–	3.81	1 Re.- Won 0.21
9.	Rep.of Korea(Seoul)	7.83	3.30	3.16	3.30	2.20	–	7.97	1 Re.- 72.8 Won
10.	Malaysia(KualaLumpur)	4.64@	2.62	2.84	–	–	3.24	5.68	
11.	Tanzania(Dares Salam)	7.80@	2.86	3.59	2.68	–	3.29	4.92	1 Re.- 3.93 Tsh.
12.	Thailand (Bangkok)	4.38	3.01	3.10	3.00	1.59	3.29	4.20	1 Re.- 2.03 Baht
13.	Pakistan(Islamabad)	5.33	2.30	2.95	2.15	1.18	4.42	3.05	1 Re.- Pak Re.1.304
14.	Sri Lanka(Colombo)	6.22	3.03	3.75	3.61	–	3.43	5.49	1 Re.- SL Rs.2.17
15.	Vietnam (Hanoi)	8.47	6.05	9.32	–	–	–	–	
	Average Prices	5.99	2.93	3.48	2.79	2.03	3.86	4.80	
II.	Developing Countries.								
1.	Japan(Tokyo)	8.81	4.03	5.74	–	–	–	–	1 Re.- 13.06
2.	Australia(Canberra)	4.55	–	4.22	–	–	4.47	4.68	1 $ - Rs.8.28
3.	Newzealand(Wellington	5.77	–	4.47	–	2.54	–	–	1 NZ $ - Rs.6.48
4.	France (Paris)	8.43	–	6.13	3.70	–	4.88	8.82	1 Re.- 0.559 F France
5.	W.Germany(Bonn)	6.00-6.40	–	5.73	–	2.35	–	15.66	1 D mark - Rs. 6.30
6.	Yugoslavia(Bengrade)	7.13	3.15	5.68	5.71	2.43	2.16	5.21	1 Re.- Denar 33.66
7.	Switzerland (Berne)	7.04	–	7.60	2.50	1.72	–	–	1 S. France - Rs. 8.00
8.	U.K. (London)	7.04@	2.64	6.40	2.73	–	4.23	12.03	1 & - Rs. 19.30
	Average Prices	6.87	3.27	5.75	3.66	2.27	3.94	9.28	
	Estd.CIF unit prices (excl taxes/Duties etc.)	1.50-1.70	1.60-1.80	1.50-1.70	1.30-1.50	1.10-1.30	1.60-1.80	2.20-2.40	

@ premium gasoline. (I)=International. (D) = Domestic.

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

(U.S. $/U.S. Gallon)

Countries/Port	Prices of Jet A.I.Fuel as on 1st April								
	1979	1980	1981	1982	1983	1984	1985	1986	1987
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Australia									
Perth	63.00	114.88	142.61	140.82	127.53	140.50	114.02	87.02	100.94
Sydney	63.00	114.88	142.61	140.82	127.53	140.50	114.02	82.02	100.94
Bahrain	76.50	153.40	167.68	165.03	148.42	148.46	148.46	120.00	120.00
Belgium									
Brussels	76.00	159.00	174.00	174.00	164.00	135.00	128.00	105.00	115.00
Egypt									
Cairo	120.0	155.20	162.77	162.77	121.13	121.13	121.13	105.00	87.00
Ethopia									
Addisababa	80.00	156.06	182.24	183.41	176.38	151.45	150.32	146.66	115.29
France									
Paris	72.03	147.90	150.00	145.00	145.00	128.00	117.24	138.29	100.59
Germany									
Frankfurt	120.00	147.32	142.31	136.78	146.50	135.00	107.69	112.84	110.90
Holland									
Amsterdam	84.47	142.60	159.80	138.00	126.00	124.13	115.00	120.00	120.00
Italy									
Rome	110.00	165.00	155.00	145.00	153.00	135.00	135.00	135.00	125.24
Kenya									
Nairobi	78.00	144.00	175.00	180.00	168.10	168.10	168.10	157.61	163.00
Lebanon									
Beirut	80.00	185.00	185.00	185.00	185.00	165.00	165.00	165.00	100.00
Malaysia									
Kualalumpur	67.00	137.00	155.00	145.00	145.00	135.00	135.00	135.00	135.00
Mauritius									
Plaisance	72.00	140.00	150.00	150.00	145.00	145.-0	126.00	125.00	60.00
Singapore									
Paya Iebar									
/Changi	65.00	137.00	152.50	151.00	141.00	128.50	128.50	128.50	90.00
Switzerland									
Geneva	98.60	155.73	155.51	144.20	132.40	129.76	105.58	118.94	118.93
U.A.E.									
Abu Dhabi	79.98	154.88	172.09	169.40	110.00	106.61	100.45	73.28	65.44
Sharjah/Dubai	76.50	154.88	172.09	169.40	147.64	147.60	147.58	119.93	99.98
UNITED KINGDOM									
London (H)	140.00	154.76	177.92	173.17	151.66	150.14	129.89	132.14	136.41
Karachi	79.24	123.28	173.76	175.50	175.80	175.50	175.50	175.50	175.50
Kuwait	56.29	113.96	135.11	132.60	112.76	106.07	98.15	82.44	70.59
New York(2)	65.00	112.00	108.19	96.90	87.25	83.50	77.75	59.87	49.10
Tehran(1)	62.00	100.96	137.89	132.13	122.13	122.13	122.13	116.23	135.44
Tokyo									
Narita	72.00	118.96	128.00	128.05	114.45	97.00	95.00	86.76	60.00
Bombay	74.78	145.22	159.80	140.51	131.87	121.92	106.07	105.75	101.39
Delhi									
Palam	79.85	150.22	166.83	149.43	134.09	124.71	108.92	108.75	104.10

* = Less rebate 2.00 $/USG. (1) Monopoly Price (2) Air India Contract Price.

Wholesale Prices of OPEC's Represntative Crudes in Current and Constant(1980) $

Period	Wholesale price@ of OPEC's representative crudes in current($/bbl.) S.Arabia (Ras Tanura)	Libya (ES Sider)	Venuzuela (Tia Zuana)	Index of consumer Prices indl. countries (1980-100)	Price of crude oil 1980 $ ($/bbl.) S.Arabia (Ras Tanura)	Libya (ES Sider)	Venuzuela (Tia Zuana)
1.	2.	3.	4.	5.	6.	7.	8.
1970	1.30	2.58	1.73	43.6	2.98	5.92	3.97
1971	1.65	3.17	2.21	45.9	3.59	6.91	4.81
1972	1.90	3.37	2.37	48.0	3.96	7.02	4.94
1973	2.70	4.80	3.56	57.7	4.68	8.32	6.17
1974	9.76	13.84	10.24	58.6	16.66	23.62	17.47
1975	10.72	11.59	10.89	65.1	16.47	17.80	16.73
1976	11.51	12.31	11.28	70.5	16.33	17.46	16.00
1977	12.40	13.87	12.42	76.4	16.23	18.15	16.26
1978	12.70	13.71	12.42	81.4	15.51	16.74	15.16
1979	17.26	21.06	16.77	89.4	19.31	23.56	18.76
1980	28.67	35.87	27.60	100.0	28.67	35.87	27.60
1981	32.50	39.83	32.03	109.9	29.57	36.24	29.14
1982	33.47	35.49	32.03	118.1	28.34	30.05	27.12
1983	29.31	30.89	28.05	124.1	23.62	24.89	22.60
1984	28.47 *	30.15	27.03	130.0	21.90	23.19	20.79
1985	27.28	29.66 *	26.44	135.5	20.66	21.89	19.51
1986	13.65(s)	28.20	N.A.	138.6	9.85(s)	20.35	N.A.

* = Estimated s = Spot Price.
@ = Source International Financial Statistics.

Wholesale price of OPEC's representatives crudes in terms of SDRs.

Period	Wholesale price of OPEC's representatives crudes in current $(s/bbl.)			SDR/US $ exchange rates	Price in SDR s/bbl.		
	S.Arabia (Ras Tanura)	Libya (ES Sider)	Venuzuela (Tia Zuana)		S.Arabia (Ras Tanura)	Libya (ES Sider)	Venuzuela (Tia Zuana)
1.	2.	3.	4.	5.	6.	7.	8.
1970	1.30	2.58	1.73	1.00000	1.30	2.58	1.73
1971	1.65	3.17	2.21	0.99702	1.65	3.16	2.20
1972	1.90	3.37	2.37	0.92105	1.75	3.10	2.18
1973	2.70	4.80	3.56	0.83883	2.26	4.03	2.99
1974	9.76	13.84	10.24	0.83150	8.12	11.51	8.52
1975	10.72	11.59	10.89	0.82362	8.83	9.55	8.97
1976	11.51	12.31	11.28	0.86616	9.97	10.66	9.77
1977	12.40	13.87	12.42	0.85652	10.62	11.88	10.64
1978	12.70	13.71	12.42	0.79872	10.14	10.95	9.92
1979	17.26	21.06	16.77	0.77399	13.36	16.30	12.98
1980	28.67	35.87	27.60	0.76833	22.03	27.56	21.21
1981	32.50	39.83	32.03	0.84806	27.56	33.78	27.16
1982	33.47	35.49	32.03	0.90579	30.32	32.15	29.02
1983	29.31	30.89	28.05	0.93545	27.42	28.90	26.24
1984	28.47	30.15	27.03	0.97560	27.78	29.41	26.37
1985	27.28*	29.66	26.44	0.98489	26.87	29.21	26.04
1986	13.65(s)	28.20*	N.A.	0.85239	11.64(s)	24.04	N.A.

* = Estimated s = Spot Price

Source: = International Financial Statistics.

WORLD TANKER FLEET BY FLAG 1981 TO 1986

(Million dwt)

FLAG	1981	1982	1983	1984	1985	1986	Percentages change 1986 over 1985	Percentages share of total 1986
Liberia	91.6	84.4	76.4	71.8	63.0	60.9	- 3.3	25.3
Panama	14.4	15.9	15.0	14.9	16.8	17.9	+ 6.5	7.4
USA	16.4	16.8	16.5	15.6	15.2	15.3	+ 0.7	6.3
France	13.2	11.6	10.4	8.9	5.6	4.6	-17.9	1.9
Greece	27.0	23.7	21.1	19.1	18.3	18.5	+ 1.1	7.7
Norway	24.4	21.2	18.9	15.7	8.5	5.2	-38.8	2.2
United Kingdom	21.3	17.6	15.3	13.3	12.4	11.7	- 5.6	4.8
Other Western Europe	36.2	35.1	34.6	36.1	32.6	29.8	- 8.6	12.4
Japan	29.7	28.5	26.3	24.9	23.3	19.9	-14.6	8.3
Others	35.4	39.0	39.1	38.5	40.2	46.6	+15.9	19.3
Total NCW	309.6	293.8	273.6	259.2	235.9	230.4	- 2.3	95.6
Centrally-Planned Economies (CPEs)	10.6	9.9	9.6	10.9	10.9	10.6	- 2.9	4.4
Total World	320.2	303.7	283.2	269.7	246.8	241.0	- 2.4	100.0

SOURCE: B.P. Statistical Review of the World Energy.

WORLD TANKER FLEET BY SIZE 1981 TO 1986

(Million dwt)

Size of Tanker	1981	1982	1983	1984	1985	1986	Percentages change 1985 over 1984	Percentages share of total 1985
15-25 000 dwt	13.8	13.5	13.0	12.8	12.3	12.4	+ 0.8	5.2
25-45 000 dwt	26.0	27.2	27.4	26.3	25.8	26.3	+ 1.9	10.9
45-65 000 dwt	16.6	16.1	15.3	15.7	15.0	14.2	- 5.3	5.9
65-125 000 dwt	55.4	51.8	48.4	46.2	44.4	46.6	+ 5.0	19.3
125-200 000 dwt	31.2	30.2	28.8	28.9	28.4	27.5	- 3.2	11.4
200-320 000 dwt	146.5	134.5	120.4	111.6	94.9	90.6	- 4.5	37.6
320 000 dwt and over	30.7	30.4	29.9	28.2	26.0	23.4	-10.0	9.7
Total World	320.2	303.7	283.2	269.7	246.8	241.0	- 2.4	100.0

WORLD TANKER FLEET TONNAGE SCRAPPED 1981 TO 1986

(Million dwt)

Size of Tanker	1981	1982	1983	1984	1985	1986	Percentages change 1986 over 1985	Percentages share of total 1986
10-25 000 dwt	0.5	0.9	0.8	1.2	0.7	0.3	-57.1	2.3
25-45 000 dwt	0.8	1.2	1.1	1.5	1.2	0.7	-41.7	5.4
45-65 000 dwt	0.9	3.6	4.2	2.7	2.2	1.5	-31.8	11.5
80-100 000 dwt	0.3	1.6	1.2	0.9	2.0	0.5	-75.0	3.9
100-160 000 dwt	0.7	1.6	1.0	0.7	1.1	1.0	- 9.1	7.7
160 000 dwt and over	8.8	12.7	15.2	11.1	19.3	9.0	-53.4	69.2
Total World	12.0	21.6	23.5	18.1	26.6	13.0	-50.9	100.0

SOURCE : B.P.Statistical Review of the World Energy June 1987.

INTER-AREA TOTAL OIL MOVEMENTS 1986

(Million Tonnes)

From \ To	U.S.A.	Canada	Latin America	W.Europe	Africa	South East Asia
1.	2.	3.	4.	5.	6.	7.
USA	-	4.1	11.9	9.9	0.2	3.6
Canada	32.8	-	-	0.2	-	-
Latin America	107.5	3.8	7.7	30.9	2.8	3.8
Western Europe	30.3	6.3	1.3	-	5.2	0.1
Middle East	45.4	4.6	28.5	174.5	16.6	70.9
North Africa	13.4	-	0.1	88.7	0.8	-
West Africa	31.8	2.3	7.5	52.7	4.1	-
East & Southern Africa	-	-	-	0.1	-	-
South Asia	1.0	-	-	0.7	-	-
South East Asia	26.0	-	-	0.2	0.2	-
Japan	-	-	-	-	-	0.5
Australasia	1.6	-	-	-	-	1.4
USSR, E.Europe & China	7.3	-	23.2	77.5	-	17.2
Total Imports	297.1	21.1	80.2	435.4	29.9	97.5

(Million Tonnes)

From \ To	Japan	Australasia	Rest of World	Destination not known*	Total
	8.	9.	10.	11.	12.
USA	1.6	0.5	1.5	4.0	37.3
Canada	-	-	-	-	33.0
Latin America	10.4	-	3.2	5.6	175.7
Western Europe	0.8	0.1	4.5	5.0	53.6
Middle East	134.4	4.9	46.3	13.2	539.3
North Africa	1.6	-	17.4	-	122.0
West Africa	-	-	-	-	98.4
East & Southern Africa	0.1	-	-	-	0.2
South Asia	0.6	0.5	-	-	2.8
South East Asia	39.2	3.3	5.4	1.9	76.2
Japan	-	-	0.5	-	1.0
Australasia	2.2	-	-	-	5.2
USSR, E.Europe & China	13.5	-	77.4	1.7	217.8
Total Imports	204.4	9.3	156.2	31.4	1362.5

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

SOURCE: = B.P.Statistical Review of World Energy June 1987.

WORLD PRIMARY ENERGY CONSUMPTION BY FUEL - 1986*.

(Million Tonnes Oil Equivalent)

Country/Area	Oil	Natural Gas	Coal	Hydro-Electric	Neclear Energy	Total
1.	2.	3.	4.	5.	6.	7.
NORTH AMERICA:						
USA	746.8	416.5	436.5	88.2	112.8	1800.8
Canada	67.1	43.0	34.6	69.0	16.9	230.6
Total North America	813.9	459.5	471.1	157.2	129.7	2031.4
Latin America	215.4	71.2	22.1	82.2	1.5	392.4
WESTERN EUROPE:						
Austria	10.2	4.5	3.8	7.7	-	25.7
Belgium & Luxembourg	23.3	7.6	9.4	0.1	9.0	49.4
Denmark	10.5	1.1	7.2	-	-	18.8
Finland	11.3	1.0	3.0	3.1	4.5	22.9
France	85.5	23.4	19.4	13.1	51.5	192.9
Greece	12.2	0.1	5.8	1.2	-	19.3
Iceland	0.5	-	0.1	1.0	-	1.6
Republic of Ireland	4.4	1.4	2.5	0.2	-	8.5
Italy	86.5	28.1	13.6	11.1	2.2	141.5
Netherlands	32.0	32.2	6.7	-	1.1	72.0
Norway	9.4	-	0.5	21.7	-	31.6
Portugal	9.5	-	0.8	1.2	-	11.5
Spain	43.2	2.4	19.3	6.6	8.3	79.8
Sweden	18.0	0.2	3.3	15.0	16.5	53.0
Switzerland	13.2	0.9	0.5	8.7	5.5	28.8
Turkey	18.8	0.3	10.4	4.0	-	33.5
United Kingdom	77.0	49.1	67.1	1.4	12.7	207.3
West Germany	119.6	40.2	77.1	5.0	27.3	269.2
Cyrus/Gibraltar/Malta	2.0	-	0.1	-	-	2.1
Total Western Europe	587.1	192.5	250.1	101.1	138.6	1269.4
Middle East	108.3	48.0	2.2	2.6	-	161.1
Africa	81.7	28.5	66.2	16.1	1.0	193.5
Japan	204.4	36.4	70.2	19.6	41.4	372.0
South East Asia	117.3	18.6	39.1	7.3	12.0	194.3
South Asia	56.3	17.2	111.7	20.0	1.3	206.5
Of which India@	45.2	4.9	105.6	4.4	0.4	160.4
Australasia	31.3	17.9	40.7	9.9	-	99.8
Total NCW	2215.7	889.8	1073.4	416.0	325.5	4920.4
Centrally-Planned Economies (CPEs):						
China	99.2	12.1	531.2	28.2	-	670.7
USSR	445.0	505.3	376.2	52.5	35.2	1414.2
Others	121.1	99.9	328.3	22.7	12.0	584.0
Total CPEs	665.3	617.3	1235.7	103.4	47.2	2668.9
Total World	2881.0	1507.1	2309.1	519.4	372.7	7589.3

@ = Estimated on the basis of financial year (despatches of coal, oil and Natural Gas)

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

SOURCE: B.P.Statistical Review of World energy June 1987.

NOTE: Figures for India inserted.

ESTIMATED PER CAPITA PRIMARY ENERGY CONSUMPTION-SOME INTERNATIONAL COMPARISONS (1986).

(Kgm.Oil Equivalent)

Country/Area	Oil	Natural Gas	Coal	WATER POWER	Neclear Energy	Total
1.	2.	3.	4.	5.	6.	7.
1. WESTERN HEMISPHERE:	1530	788	733	356	195	3602
Of whcih						
NORTH AMERICA	3064	1730	1774	592	488	7648
U.S.A.	3112	1735	1819	367	470	7503
Canada	2621	1680	1352	2695	660	9008
2. EASTERN HEMISPHERE:	435	229	427	66	57	1214
a) Western Europe	1373	450	585	236	324	2968
Of which						
Austria	1347	595	436	1017	-	3395
Belgium & Luxembourg	2280	744	920	10	880	4834
Italy	1511	491	238	194	38	2472
Netherlands	2201	2214	461	-	76	4952
Norway	2260	-	120	5216	-	7596
Portugal	923	-	78	117	-	1118
Spain	1111	62	496	170	214	2053
Sweden	2156	24	396	1796	1976	6707
Switzerlands	2069	141	78	1364	862	4514
Turkey	374	6	207	80	-	667
U.K.	1371	874	1194	25	226	3690
Germany West	1980	665	1276	83	452	4456
b) Middle East	983	435	20	24	-	1462
c) Africa	145	51	118	28	2	344
d) South Asia of	54	16	107	19	1	197
which India	57	6	138	(5)		206
e) South East Asia	262	42	87	16	27	434
f) Japan	1684	300	579	162	341	3066
g) Australasia	962	550	1252	305	-	3069
3.Centrally Planned Economies (CPEs)	458	425	851	71	33	1838
h) U.S.S.R.	1596	1812	1349	188	126	5071
i) China	94	11	502	27	-	634
j) Others	1048	865	2841	196	104	5054
4. WORLD (Excl.CPEs):	637	256	309	119	94	1415
5. WORLD (Incl.CPEs):	585	306	468	105	76	1540

SOURCE: i) BP Statistical Review of the World June,1987.Figures for India inserted.

ii) World Development Report June, 1986 and International Financial Statistics, May, 1986 for population.

ESTIMATED PER CAPITA CONSUMPTION OF MAIN PETROLEUM PRODUCTS-SOME INTERNATIONAL COMPARISONS (1986)

Kg./per capita

Country/Area	Gasoline	Middle Distillates	Fuel	Others*	Total
1.	2.	3.	4.	5.	6.
U.S.A.	1308	875	318	611	3112
Canada	1066	844	219	492	2621
W.Europe	333	549	276	210	2621
Japan	349	544	487	304	1684
Australasia	421	329	83	129	962
India	3	32	10	13	58
Rest of New	58	115	95	45	313
Total NCW	186	218	126	107	637

* = Includes refinery gas, LPG, solvents, petroleum Coke, bitumen and refinery fuel and loss.

SOURCES: 1. BP Statistical Review of World Energy June, 1986.
2. World Development Report, 1986 for population.

NOTE: Figures for India Inserted.

TRENDS IN WORLD PRIMARY ENERGY/CONSUMPTION (Revised)

(Million/Tonnes Oil Equivalent)

YEAR	Oil	Natural Gas	Solid Fuels	Hydro-Electricity	Neclear Energy	Total
1.	2.	3.	4.	5.	6.	7.
1970	2281.1	928.7	1636.0	305.4	19.8	5171.0
1971	2412.2	996.7	1632.7	317.6	28.0	5387.2
1972	2591.8	1045.0	1629.9	323.3	38.4	5628.4
1973	2797.5	1068.1	1668.2	331.5	49.4	5914.7
1974	2759.3	1088.1	1701.2	343.7	62.4	5954.7
1975	2724.0	1084.5	1715.4	353.4	86.1	5963.4
1976	2894.0	1145.7	1785.9	364.0	106.5	6296.1
1977	2985.8	1167.8	1830.7	372.3	132.1	6488.7
1978	3082.7	1214.0	1861.1	405.0	151.4	6714.2
1979	3123.9	1283.1	1968.9	423.5	154.6	6954.0
1980	2998.4	1308.1	2002.4	433.8	171.2	6913.9
1981	2899.5	1331.9	2005.3	443.9	201.7	6882.3
1982	2823.7	1329.6	2045.9	464.6	223.9	6887.7
1983	2803.7	1345.5	2100.4	485.8	248.5	6983.9
1984	2831.4	1444.7	2175.4	498.7	295.3	7245.5
1985	2809.6	1494.1	2272.7	510.8	348.1	7435.3
1986(P)	2881.0	1507.1	2309.1	519.4	372.7	7589.3

SOURCE: Various issues of B.P.Statistical Review of World Energy.
P = Provisional.

PRIMARY ENERGY/CONSUMPTION IN SELECTED COUNTIRES/AREAS OF THE WORLD = 1970, 1975, 1980, 1983, 1985 AND 1986.

(Million Tonnes Oil eqvt.)

COUNTRY/AREA	1970	1975	1980	1983	1985	1986 (P)	% Share of total 1986
1.	2.	3.	4.	5.	6.	7.	
NORTH AMERICA							
USA	1659.8	1711.8	1842.0	1718.9	1803.0	1800.8	23.7
Canada	162.7	195.0	226.1	212.0	222.8	230.6	3.0
Total North America	1822.5	1906.8	2068.1	1930.9	2025.8	2031.4	26.7
Latin America	189.6	254.0	339.6	362.0	384.8	392.4	5.2
WESTERN EUROPE:							
Austria	21.1	23.4	26.5	24.2	25.2	25.7	0.3
Belgium & Luxembourg	48.8	46.7	50.4	44.1	48.1	49.4	0.7
Denmark	20.4	18.2	19.5	15.8	18.4	18.8	0.3
Finland	15.8	17.4	21.6	21.4	22.6	22.9	0.3
France	157.7	171.1	189.3	181.9	188.6	192.9	2.5
Greece	10.0	17.0	17.4	17.4	19.0	19.3	0.3
Iceland	1.6	2.0	1.9	1.5	1.5	1.6	+
Republic of Ireland	6.5	7.1	8.5	8.2	8.5	8.5	0.1
Italy	121.9	132.9	145.8	138.5	139.6	141.5	1.9
Netherlands	60.5	71.3	73.8	64.8	69.7	72.0	1.0
Norway	24.2	28.8	30.4	30.9	32.0	31.6	0.4
Portugal	6.6	8.8	11.4	12.0	10.7	11.5	0.2
Spain	44.2	61.9	76.5	79.2	77.9	79.8	1.1
Sweden	42.2	45.6	48.0	48.1	53.5	53.0	0.7
Switzerland	21.4	23.5	26.5	26.6	28.6	28.8	0.4
Turkey	12.7	19.7	24.5	28.2	31.1	33.5	0.4
United Kingdom	215.3	204.3	203.8	194.2	202.1	207.3	2.7
West Germany	236.7	242.6	270.5	251.0	267.7	269.2	3.5
Cyprus/Gibraltar/Malta	1.0	1.1	1.5	1.6	2.0	2.1	+
Total Western Europe	1068.6	1143.4	1247.8	1189.6	1246.8	1269.4	16.7
Middle East	69.2	94.4	118.5	152.9	159.2	161.1	2.1
Africa	91.3	106.2	157.7	182.8	191.1	193.5	2.6
Japan	285.1	330.5	359.6	342.4	371.4	372.0	4.9
South East Asia	70.5	99.5	153.3	169.8	183.6	194.3	2.6
South Asia	91.9	105.7	139.1	172.7	197.2	206.5	2.7
Of which India*/R	62.8	86.6	106.6	134.5	153.9	160.5	2.1
Australasia	57.2	69.1	83.2	86.1	92.2	99.8	1.3
Total NCW	3745.9	4109.6	4666.9	4559.1	4852.1	4920.4	64.8
Centrally-Planned Economies(CPEs):							
China	289.7	410.4	518.0	552.9	635.6	670.7	8.8
USSR	748.9	969.8	1169.0	1284.8	1366.9	1414.2	18.6
Others	386.5	473.6	560.0	556.3	580.7	584.0	7.7
Total CPEs	1425.1	1853.8	2247.0	2394.0	2583.2	2668.9	35.2
Total World	5171.0	5963.4	6913.9	6983.9	7435.3	7589.3	100.0

*/R = Estimated on the basis of Financial year data)despatches offtake for coal, oil products and Natural Gas) andusing energy petroleum productivity and conversion factors as given in "BP Statistical Review of World Energy, June 1987. Figures for earlier years have been revised.

+ - Less than 0.05. P = Provisional.

SOURCE: BP Statistical Review of World Energy June 1987.

NOTE : Figures for India Inserted.

COMMERCIAL PRIMARY ENERGY PRODUCTION AND CONSUMPTION BY COUNTRY GROUPS - 1970-1995.

(Million b/d of oil Equivalent)

COUNTRY	1970		1980		1995	
	Production	Consumption	Production	Consumption	Production	Consumption
1.	2.	3.	4.	5.	6.	7.
I. Industrial Market Economics	43.2	63.1	49.9	74.2	69.1	92.0
Petroleum	12.6	32.1	14.1	36.8	13.5	34.1
Natural Gas	13.1	13.0	13.6	14.6	14.0	17.5
Solid Fuels	12.8	13.3	14.0	14.6	24.9	23.7
Primary Electricity	4.7	4.7	8.2	8.2	16.7	16.7
II. Non-Market Industrial Economics	28.0	27.2	45.0	43.2	63.2	62.5
Petroleum	8.1	7.8	14.8	13.9	15.7	16.3
Natural Gas	3.9	3.9	8.4	8.0	15.9	14.8
Solid Fuels	15.0	14.5	19.7	19.2	25.9	25.7
Primary Electricity	1.0	1.0	2.1	2.1	5.7	5.7
III. Capital Surplus Oil Exporters.	11.8	0.7	17.4	1.6	15.7	3.0
Petroleum	11.7	0.6	16.5	0.9	14.2	1.8
Natural Gas	0.1	0.1	0.9	0.7	1.5	1.2
Solid Fuels	-	-	-	-	-	-
Primary Electricity	-	-	-	-	-	-
IV. Developing Countries	18.0	9.0	22.5	15.9	42.5	33.1
i) Oil Exporters	14.6	2.9	16.9	5.1	29.0	11.1
Petroleum	13.6	2.0	15.0	3.6	21.9	5.9
Natural Gas	0.7	0.6	1.5	1.1	5.7	3.6
Solid Fuels	0.1	0.1	0.1	0.1	0.4	0.6
Primary Electricity	0.2	0.2	0.3	0.3	1.0	1.0
ii) Oil Importers	3.4	6.1	5.6	10.8	13.5	22.0
Petroleum	1.1	3.7	1.0	6.2	1.8	9.0
Natural Gas	0.2	0.2	0.4	0.4	1.5	1.6
Solid Fuels	1.5	1.6	2.6	2.6	5.2	6.4
Primary Electricity	0.6	0.6	1.6	1.6	5.0	5.0
TOTAL WORLD	101.0	100.0	134.8	134.9	190.5	190.6
Petroleum	47.1	46.2	61.4	61.4	67.1	67.1
Natural Gas	18.0	17.8	24.8	24.8	38.6	38.7
Solid Fuels	29.4	29.5	36.4	36.5	56.4	56.4
Primary Electricity	6.5	6.5	12.2	12.2	28.4	28.4
Bunkers & Others						

Average. Annual Growth rate of World Supplies (%)

	1970-80	1980-85
Total World	2.9	2.3
Petroleum	2.7	0.6
Natural Gas	3.3	3.0
Solid Fuels	2.2	3.0
Primary Electricity	6.5	5.8

SOURCE: World Bank Development Report-1983.

ECONOMIC INDICATORS OF OPEC NATIONS DURING 1986

Country	Population 1986 mid (Million)	GNP 1986 (Bn.$)	Per capita GNP 1986($)	Oil exports 1986 (Bn.$)	Total exports FOB (Bn.$)	Oil exports as % of total exports	Oil reserves 1.1.87 (Bn.bbls)	Gas reserves 1.1.87 (Bn.CM)	Producing oil wells (July,86)	Refining capacity 1.1.87	Exports of products (000 bbl/d)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Algeria	22.41	71.67	3198	3.76	6.19	61	8.8	3002	N.A.	465	412.9
Ecuador	9.60	10.37	1080	0.98	2.18	45	1.7	115	934	88	18.3
Gabon	1.17	3.58	3060	0.85	1.25	68	0.7	14	294	16	3.0
Indonesia	166.49	78.00	468	5.45	14.82	37	8.3	1400	5124	925	159.3
Iran, IR	45.58	181.18	3875	6.60	7.50	88	48.8	12743	361	530	10.0
Iraq	16.46	55.85	3393	6.98	7.28	96	47.1	793	N.A.	320	93.5
Kuwait	1.77	17.59	9938	6.20	7.39	84	91.9	991	363	620	510.9
Libya	3.60	17.49	4858	4.70	5.05	93	21.3	600	661	330	101.9
Nigeria	98.44	35.32	359	6.30	6.80	93	16.0	1331	1111	250	8.8
Qatar	0.33	5.66	17152	1.46	1.61	91	3.2	4304	174	62	21.4
Saudi Arabia	11.97	74.72	6242	21.19	23.00	92	166.6	3511	N.A.	1125	515.6
U.A.E.	1.38	22.20	16087	5.89	6.69	88	32.9	2928	637	185	111.6
Venezuela	17.77	53.92	3034	6.71	10.07	67	25.0	1671	10103	1230	566.8
TOTAL	369.97	627.55	1581	77.07	99.83	77	477.7* (67.9%)	33754* (33%)		6146 (8.3%)	2534.0 (25%)

* = Total includes figures for neutral zone Ras - al khaimah.

Figures in brackets are OPEC´s share to total world.

PART–II
PLAN STATISTICS

1. SEVENTH PLAN

SEVENTH PLAN OUTLAY (1985-90) AND ACTUAL EXPENDITURE FOR 1985-86, 1986-87 & ANNUAL PLAN OUTLAY FOR 1987-1988 (B.R.)(R.E.) FOR MINISTRY OF PETROLEUM & NATURAL GAS.

(Rs./Crores)

Undertaking	Seventh Plan Outlay 1985-90	Actual Expenditure 1985-86- 86-87		1987-88 B.E.	1987-88 R.E.
1.	2.	3.	4.	5.	6.
A) Exploration & Production					
1. ONGC	8753	2123	2214	2057	2056
2. OIL	950	182	191	210	195
3. GAIL	950	253	593	550	670
4. MOP&NG	---	18	11	---	53
SUB-TOTAL (A)	10653	2576	3009	2817	2974
B) 1. IOC	953	119	110	177	138
2. BPCL	366	65	89	99	99
3. HPCL	299	84	82	76	66
4. MRL	33	13	16	10	35
5. CRL	28	12	11	10	9
6. BRPL	252	Neg.	Neg.	Neg.	Neg.
7. Lubrizol India Ltd. .	18	4	3	4	4
8. Engineers India Ltd..	21	5	4	8	13
SUB TOTAL (B) . . .	1975	302	315	384	364
C) Petrochemicals					
1. BRPL	105	42	31	21	28
2. BPCL	17	4	3	4	4
3. CRL	57	7	5	20	24
4. MRL	24	6	7	4	4
5. HPCL	15	--	--	2	1
6. Other	25	--	--	Neg.	Neg.
SUB TOTAL (C). . . .	243	59	46	51	61
D) Engineering					
1. IBP Co. Ltd. & Others	50	6	10	14	16
GRAND TOTAL (A+B+C+D)	12921	2943	3380	3266	3415

Domestic Crude production Profile-Seventh Plan 1985-90
(in million tonnes)

	1985-86	1986-87	1987-88	1988-89	1989-90	Total 1985-90
A. ONGC						
1. ONLAND						
Cambay basin	4.10	4.50	4.90	5.50	6.00	25.00
Upper Assam & Nagaland	2.84	3.03	3.03	3.03	4.40	16.35
Sub-Total	6.94	7.53	7.93	8.53	10.40	41.33
2. OFFSHORE	20.17	20.52	20.52	20.35	20.75	102.31
Total ONGC (1+2)	27.11	28.05	28.45	28.88	31.15	143.64
B. OIL	3.03	3.03	3.03	3.03	3.38	15.50
GRAND TOTAL (A+B)	30.14	31.08	31.48	31.91	34.53	159.14

Source: The Seventh Five Year Plan 1985-90.

Domestic Gas Production Profile-Seventh Plan 1985-90
(in million cu.m)

	1985-86	1986-87	1987-88	1988-89	1989-90	Total 1985-90
A. ONGC						
1. ONLAND						
Cambay	1.06	1.09	1.11	1.11	1.11	5.48
Upper Assam	0.42	0.45	0.45	0.45	0.61	2.38
Assam-Arakan Fold Belt (Training etc.	0.03	0.05	0.08	0.10	0.11	0.37
Sub-Total (1)	1.51	1.59	1.64	1.66	1.83	8.23
2. OFFSHORE						
Bombay (associated)	4.20	4.60	4.74	4.09	4.05	21.68
Bombay C free)	-	-	7.30	7.30	7.67	22.27
Sub-Total (2)	4.20	4.60	12.04	11.39	11.72	43.95
TOTAL ONGC (1 & 2)	5.71	6.19	13.68	13.05	13.55	52.18
B. OIL	1.66	1.59	1.49	1.40	1.36	7.50
GRAND TOTAL (A+B)	7.37	7.78	15.17	14.45	14.91	59.68
(million cu. metres/day)	(20.2)	(21.5)	(41.6)	(39.6)	(40.8)	

Source: The Seventh Five Year Plan 1985-90.

TARGETS FOR EXPLORATION ACTIVITY IN SEVENTH PLAN

	Unit	ONGC	OIL	TOTAL
1. Geological and Gravimagnetic Survey	(party Years)	107	5	112
2. Seismic Surveys				
Onland	party Years	284	38	322
Offshore	Thousand (Line metres)	140	17	157
3. Exploratory Drilling:				
Onland	Thousand Metres	1703	346	2049
Offshore	" "	710	62	772
TOTAL	" "	2413	408	2821

SOURCE: Seventh Five Year Plan Report.

SEVENTH PLAN TARGETS FOR OIL SECTOR

1	Unit 2	1984-85 (Actual) 3	1989-92 (Plan Target) 4
1. Production of Crude Oil:			
(i) On shore	Million Tonnes	8.85	13.78
(ii) Offshore	" "	20.14	20.75
TOTAL	" "	28.99	34.53
2. Production of Natural gas			
(i) On shore	Million Cu. Metres	2.83	3.19
(ii) Offshare	" " "	4.41	11.72
TOTAL	" " "	7.24	14.91
3. Refining			
(i) Refining Capacity (At yr. end)	Million Tonnes	45.55	51.75
(ii) Crude throughput	" "	36.56	48.04-48.89
(iii) Production of Petroleum Products	" "	33.51	45.06-45.47
4. Net Imports:			
(a) Quantity:			
Crude Oil	" "	7.16	13.51-14.36
Petroleum products	" "	5.16	6.94- 7.20
TOTAL		12.32	20.45-21.56
(b) Value of crude oil & petroleum products import	Rs./Crores	3527	5136
5. Demand of petroleum products	Million Tonnes	38.80	52.00-52.67
6. LPG			
(I) Production	MMT	0.87	2.54
(II) Number of Customers at year end	Lakhs	89.41	176.00
7. Compound Annual Growth Rates During 7th Plan Period	%age per annum		3.6
(i) Production of Crude Oil			15.5
--Natural Gas	" " "		6.3-6.5
--POL Products	" " "		
(ii) Consumption of all			
--POL Products	" " "		6.4
--Middle Distillates	" " "		6.8

SOURCE: Seventh Five Year Plan Report.

Demand For Petroleum Products 1984-85 To 1999-2000

	1984-85	1989-90	1994-95	1999-2000
Demand for Petroleum Products (Million tonnes)	38.63	52.67	69.00	87.70
Annual Growth rate over the five years ending in the year (%)	5.30	6.40	5.50	4.90
Share of middle distillates (%)	58.10	59.40	63.19	66.19

Source: Seventh Five Year Plan.

Import Availability Ratios of Crude Oil & POL Products 1979-80 To 1989-90

('000' Tonnes)

	1979-80	1984-85	1985-86	1989-90
A. CRUDE OIL				
1. Production	11766	28990	30168	34530
2. Imports *	16121	7164	14616	13510-14360
3. Availability (net)	27887	36154	44784	48040-48890
4. (2) as per cent of (3)	57.81	19.82	32.64	28.12-29.37
B. POL PRODUCTS				
1. Production	25794	33236	39881	45060-45470
2. Imports	4724	6092	3865	6940-7200
3. Availability (gross)	30518	39328	43746	52000-52670@
4. (2) as per cent of (3)	15.48	15.5	9.8	13.35-13.67

* Net of Crude exports. @ of this, 1.5 million tonnes is assumed to be available for export.
Source: Seventh Five Year Plan.

Value of Crude Oil & POL Products Imports During the Seventh Plan Period

(Rs./Crores)

Y E A R	Value* of Crude and POL Products Imports
1984-85	3527
1989-90	5136
Seventh Plan Total	22273

* Net of crude exports.
Source: Seventh Five Year Plan.

PART—III
FINANCIAL PERFORMANCE/ STRUCTURE AND QUICK REVIEW

FINANCIAL REVIEW/STRUCTURE OF THE PUBLIC/JOINT SECTOR UNDERTAKINGS UNDER THE PURVIEW OF MINISTRY OF PETROLEUM & NATURAL GAS DURING 1985-86, AND QUICK REVIEW DURING 1986-87.

FINANCIAL STRUCTURE/REVIEW 1985-86.

The financial structure of the Public Sector Undertakings as per their Annual published Accounts/data submitted by them for three years ending 1985-86 has been given in the attached statements. The glossary of the terms has been given at the end. The Public Sector Undertakings have been divided into four broad categories viz., (A) Oil Exploration & Production (B) Refining and Marketing (C) Petrochemicals & (D) Engineering Units. In the review/analysis that follows, consolidated financial position of all the undertakings has been given followed by an analysis of the consolidated position under each of the above mentioned categories.

OVER ALL FINANCIAL POSITION.

A consolidated picture of the financial structure and performance of the 15 Public Sector Undertakings for three years viz., 1983-84, 1984-85, and 1985-86 is provided in the tables 1 to 3. The following is the summary of the results.

(Rs./Crores)

	1983-84	1984-85	1985-86
1.1.Ordinary Share Capital	706.02	825.32	918.64
1.1.Preference Share Capital	0.50	0.50	0.50
Total paid up Capital	706.52	825.82	919.14
2. Reserves & Surplus	3215.46	4269.85	5793.93
3. Loans	3229.82	4008.23	4175.38
4. Net Worth	3880.30	4959.71	6640.13
5. Capital employed	5153.90	6643.37	8983.18
5.1.Net Fixed Assets	3723.18	4732.56	6235.63
5.2.Working Capital	1430.72	1910.81	2747.55
6.1.Sales turnover	20534.59	22119.51	24314.87
6.2.Other Income	61.22	64.53	134.16
Total	20595.81	22184.04	24449.03
7. Adjusted gross profit	2332.91	2496.14	2986.45
8. Adjusted net profit	1015.14	1199.51	1768.64
9. Dividend Paid	60.52	74.34	81.86
10. Corporate Tax	1012.51	920.13	740.22

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An analysis of the individual items in briefly discussed as under :-

CAPITAL INVESTMENT:

The capital investment defined as the sum total of the paid-up capital and loans registered an increase of 5.4% from Rs.4834.05 Crores in 1984-85 to Rs.5094.52 crores in 1985-86. The increase in the capital investment in 1984-85 over 1983-84 was 22.8%. The increase in Capital investment in 1985-86 over 1984-85 was on account ofincrease in paid up capital from Rs.825.22 Crores to Rs.919.14 Crores and also increase in the loans from Rs.4008.23 Crores to Rs.4175.38 Crores, the increase in the loans being of the order of 4.1%. The break up of increase in paid up capital and loans in 1985-86 over 1984-85 is as under :-

(A) PAID-UP CAPITAL

(Rs.Crores)

Name of the undertaking	1984-85	1985-86	% Increase
1.Bharat Petroleum Corporation	16.57	27.85	68.0%
2.Hindustan Petroleum Corporation	40.20	63.84	58.8%
3.B.R.P.L.	132.42	190.82	44.1%

(B) LOANS

1.Oil & Natural Gas Commission	2280.32	2516.78	10.3%
2.Hindustan Petroleum Corp.	424.05	493.36	16.3%
3.Cochin Refineries Ltd.	202.20	238.37	17.8%
4.Lubrizol India Ltd.	5.06	6.36	25.6%
5.Biecco Lawrie Ltd.	16.41	20.57	25.3%

The position of the foreign loans during three years viz., 1983-84, 1984-85 & 1985-86 is given below :-

	1983-84	1984-85	1985-86
a) Foreign Loans	1089.23	1532.55	1735.25
b) Total loans	3229.82	4008.23	4175.38
c) % of Foreign loans to Total loans	33.7%	38.2%	41.5%

ONGC's foreign loans were the highest of all the undertakings in all the three years.

With the increase in the loans, and capital, the paid-up capital / loans ratio increase from 0.20 in 1984-85 to 0.22 in 1985-86.

CAPITAL EMPLOYED:

Capital employed defined as the sum total of net fixed assets and working capital of the 15 Public Sector Undertakings went up by 35.2% from Rs.6643.37 Crores in 1984-85 to Rs.8983.18 Crores in 1985-86. The corresponding increase in 1984-85 over 1983-84 was 28.8%. The break-up of the figures has revealed that the major increase in the Capital Employed was on account of increase in the net fixed assets and working capital in respect of the under noted companies.

(A) NET FIXED ASSETS

(Rs./Crores)

Name of the Company	1984-85	1985-86	% Increase
1. ONGC	3217.34	4120.07	28.0
2. Oil India Ltd.	104.88	143.81	37.1
3. Indian Oil Corporation	658.41	706.54	7.3
4. Bharat Petroleum Corpn.	189.70	252.48	33.0
5. Hindustan Petroleum Corpn.	253.11	451.95	78.5
6. Cochin Refineries Ltd.	33.81	141.59	318.8
7. Madras Refineries Ltd.	149.77	175.53	17.1
8. IBP Co. Ltd.	10.17	13.70	34.7
9. Lubrizol India Ltd.	7.94	11.37	43.2
10. Indian Oil Blending Ltd.	1.59	2.93	84.2
11. Bongaigaon Refinery & Petrochemicals Ltd.	78.94	186.68	136.4
12. Engineers India Ltd.	18.18	19.70	8.4
13. Balmer Lawrie Ltd.	7.71	8.46	9.7

(B) WORKING CAPITAL

1. ONGC	699.52	989.25	41.4
2. Hydro Carbons India Ltd.	47.38	49.94	5.4
3. Oil India Ltd.	125.66	144.75	15.1
4. Indian Oil Corpn. Ltd.	394.03	707.75	79.6
5. Bharat Petroleum Corpn. Ltd.	133.29	217.18	62.9
6. Hindustan Petroleum Corp.Ltd.	153.92	238.69	55.0
7. Cochin Refineries Ltd.	58.64	85.01	44.9
8. IBP Co. Ltd.	3.86	13.30	244.5
9. Lubrizol India Ltd.	16.76	21.84	30.3
10. Indian Oil Blending Ltd.	1.03	1.07	3.8
11. Bongaigaon Refinery & Petrochemicals Ltd.	42.93	62.79	46.3
12. Balmer Lawrie Ltd.	19.57	21.99	12.3
13. Engineers India Ltd.	18.78	26.10	38.9

SALES TURNOVER :

Sales turnover of all the companeis put together increased by 9.9% from Rs.22119.51 Crores in 1984-85 to Rs.24314.87 Crores at the end of 1985-86. The corresponding increase in the preceeding year was 7.7%. The increase in the sales turnover contributed to an increase in the adjusted Gross Profit. The gross profit expressed as a percentage of sales went-up from 11.2% in 1984-85 to 12.3% in 1985-86. Out of the total sales achievement of Rs. 24314.87 Crores the companies having largest share of sales in the Oil Sector is as under:

1.	ONGC	18.0%
2.	IOC	46.0%
3.	BPCL	9. %
4.	HPCL	13. %
5.	Others	14. %
	Total	100.0%

PROFITABILITY :

A rising trend is perceptible in the over-all profitability of the Public Sector Undertakings under the Ministry of Petroleum and Natural Gas. The adjusted gross profits have shown an improvement of 19.6% from Rs.2496.14 Crores in 1984-85 to Rs.2986.47 Crores in 1985-86. The adjusted net profits expressed as a percentage of paid-up capital and net worth stood at 192.4% & 26.6% in 1985-86 as against 145.3% and 24.2% in 1984-85. The return on Capital employed measured in term of gross profit before interest and taxes on Capital employed went down from 37.5% in 1984-85 to 33.2% in 1985-86.

DIVIDENDS :

There has been an increase in the quantum of dividend in respect of Public Sector Undertakings over the three years. The dividend which stood at Rs.60.52 Crores paid in 1983-84 went up to Rs.74.34 crores in 1984-85 and Rs.81.86 Crores in 1985-86. The highest amount of dividend declared in absolute terms was in respect of ONGC which paid out Rs.34.29 Crores in 1985-86 followed by Indian Oil Corporations Ltd. with a dividend of Rs.17.26 Crores. BRPL, Biecco Lawrie Ltd, and Cochin Refineries Ltd., did not declare any dividend during 1985-86.

CORPORATE TAX :

The contribution made to the national Exchequer by the Public Sector Undertakings By way of taxes was Rs.740.22 Crores in 1985-86. The amounts of taxes paid in 1983-84 & 1984-85 were Rs.1012.51 Crores and Rs.920.13 Crores respectively.

(A) EXPLORATION & PRODUCTION :

This category includes the following four enterprises and the data in respect of the individual companies in given in table nos. 5 to 7A, while their consolidated position is provided in Table No. 4.

1. Oil & Natural Gas Commission (ONGC)
2. Hydro Carbons India Limited (HCIL)
3. Oil India Limited. (OIL)
4. Gas Authority of India Ltd. (GAIL)

There were no operations in the years under review and only from Mid 1987 GAIL was likely to reach the first phase of operation.

Summary of the results of these undertakings for the three years in as under :

	1983-84	1984-85	1985-86
1. Paid up Capital	395.85	395.85	395.85
2. Loans	1937.76	2346.25	2579.95
3. Net Worth	2615.36	3462.02	4876.63
4. Capital Employed	3109.23	4194.79	5447.85
4.1. Net Fixed Assets	2726.56	3322.23	4263.91
4.2. Working Capital	382.67	872.56	1183.94
5. Sales turnover	3878.50	4446.65	4727.63
6. Adjusted Gross Profit	1974.38	2067.18	2381.39
7. Adjusted Net Profit	865.51	1043.64	1502.49
8. Dividends	35.06	36.77	38.49
9. Corporate Tax	934.79	818.31	648.32

The sailent points of the analysis are given as under :

(1) CAPITAL INVESTMENT

There has been an increase in the investment of capital from Rs.2742.10 Crores in 1984-85 to Rs.2975.80 Crores in 1985-86. The corresponding increase in the preceeding year was of the order of 17.5%. The increase in the Capital investment was on account of increase in the loans of ONGC from Rs.2280.32 Crores in 1984-85 to Rs.2516.70 Crores in 1985-86. As a result of increase in the loans, the equity/loans ratio came down from0.16 in 1984-85 to 0.15 in 1985-86. There is a declining trend in the equity/loans ratio.

(2) CAPITAL EMPLOYED

The capital employed increased by 29.8% from Rs.4194.79 Crores in 1984-85 to Rs.5447.85 Crores in 1985-86. The corresponding increase in the preceding year was 34.9%. The increase in the capital employed comprised of increase in Net Fixed Assets (Net Block) and working capital of ONGC and oil India Limited as detailed below.

(Rs./Crores)

A Net Fixed Assets

	1984-85	1985-86	% Increase
1. Oil & Natural GAS Commission	3217.34	4120.07	28.0%
2. Oil India Limited	104.88	143.81	37.1%
Total	3322.22	4263.88	28.3%

B Working Capital

1. ONGC	699.52	989.25	41.4%
2. Oil India Ltd.	125.66	144.75	45.2%
Total	825.18	1134.00	37.4%

(3) SALES TURNOVER

The sales turnover under this category increased from Rs.4446.65 Crores in 1984=85 to Rs.4727.63 Crores showing a swing up of 6.3%. The corresponding increase in the preceding year was 14.6%. The Gross Profits expressed as a percentage of Sales turnover increased from 46.4% in 1984-85 to 50.3% in 1985-86. The sales of Oil & Natural Gas Commission increased by 7.3% and those of oil India Ltd. went down by 2.7%.

(4) PROFITABILITY

The adjusted gross profit increased by 15.2% from Rs.2067.18 Crores in 1984-85 to Rs.2381.39 Crores in 1985-86. The ratio of Gross Profit to Capital Employed has declined from 49.2% in 1984-85 to 43.7% in 1985-86. The adjusted net profit increased from Rs.1043.64 Crores in 1984-85 to Rs.1502.49 Crores in 1985-86. The ratio of Net Profit to paid up Capital and Net Worth which stood at 263.6% & 30.1% in 1984-85 went up to 379.6% and 30.80/ in 1985-86 respectively.

(5) DIVIDEND

The total dividend declared by ONGC and OIL has been going up from Rs.35.06 Crores in 1983-84 to Rs.36.77 crores in 1984-85 and to Rs.38.49 crores in 1985-86.

(6) CORPORATE TAX

The contribution made by the undertakings under this category by way of taxes to National Exchequer has decreased from Rs.818.31 crores in 1984-85 to Rs.648.32 Crores in 1985-86.

(B) REFINING AND MARKETING :

Financial structure and performance of the individual undertakings have been provided in the table Nos.9 to 16, while the consolidated summary of refining and marketing has been given in the table No.8. Summary of the results of the undertakings for three years is as under :-

(Rs./Crores)

	1983-84	1984-85	1985-86
1. Paid up Capital	208.01	293.39	328.31
2. Loans	1128.71	1476.55	1414.01
3. Net Worth	1125.53	1314.25	1517.22
4. Capital Employed	1882.38	2258.96	3206.32
4.1. Net Fixed Assets	894.71	1304.50	1756.09
4.2. Working Capital	987.67	954.46	1450.23
5. Sales turnover	16402.94	17368.68	19209.45
Other Income	33.73	48.83	49.54
Total	16436.67	17417.51	19258.99
6. Adjusted Gross Profit	335.81	402.51	558.83
7. Adjusted Net Profit	141.37	147.30	254.68
8. Dividends	25.06	37.13	42.89
9. Corporate Tax	69.60	91.13	74.42

An analysis of the salient features is as under :

(1) CAPITAL INVESTMENT

The capital Investment under this category decreased by 1.6% from Rs.1769.94 crores in 1984-85 to Rs.1742.32 Crores in 1985-86. But ther was an increase to the tune of 32.4% is the year 1984-85 over 1983-84. Though there has been a decrease of Rs.27.62 Crores in the Capital Investment, yet the paid-up Capitals of the following companies were increased during 1985-86.

(Rs./Crores)

Name of the Company	1984-85	1985-86	%Increase
1. Bharat Petroleum Corpn. Ltd.	16.57	27.85	68.0%
2. Hindustan Petroleum Corpn. Ltd.	40.20	63.84	58.8%

The increase in paid-up capital was offset by a reduction is the loans, resulting in a marginal decrease in the capital investment as given below :

			Decrease %
1. Indian Oil Corporation Ltd.	502.45	377.08	25.0%
2. Bharat Petroleum Corpn. Ltd.	108.52	106.34	2.0%
3. Madras Refineries Ltd.	233.99	191.07	18.3%

As a result of increase in the paid-up capital and decrease in loans the equity loans ratio went up from 0.20 in 1984-85 to 0.23 in 1985-86.

(2) CAPITAL EMPLOYED.

The Capital employed by the Refining and Marketing campanies increased by 41.90% from Rs.2258.96 Crores in 1984-85 to Rs.3206.32 Crores in 1985-86. The Corresponding increase in the preceding year was of the the order of 20%. The increase was made of the increases in the Net Fixed assets and the working capital as under :-

(Rs./Crores)

S.No.	Name of the Company	1984-85	1985-86	%Increase
1.	Bharat Petroleum Corpn. Ltd.	322.99	469.66	45.4%
2.	Hindustan Petroleum Corpn. Ltd.	407.03	690.64	69.7%
3.	Cochin Refineries Ltd.	92.45	226.60	145.1%
4.	IBP Co. Ltd.	14.03	27.00	92.4%
5.	Lubrizol India Ltd.	24.70	33.21	34.4%

(3) SALES TURNOVER.

The Sales turnover of the Companies under this category increased by 10.5% from Rs. 17368.68 Crores in 1984-85 to Rs.19209.45 Crores in 1985-86. The corresponding increase in the preceeding year was 5.8%. The increased Sales Turnover has resulted in increased gross Profit. The ratio of gross profit to sales increased from 2.2% in 1984-85 to 2.9% in 1985-86.

(4) PROFITABILITY.

The adjusted gross profits and Net Profits increased from Rs.402.51 crores & 147.30 crores in 1984-85 to Rs.558.83 crores & 254.68 Crores in 1985-86 respectively. The return on capital employed when expressed as % of gross profit to Capital employed went down from 17.8% in 1984-85 to 17.3 in 1985-86. The ratio of Net Profit to paid-up Capital increased from 50.2% to 77.5% and that of net profit to net worth went up from 11.2% to 16.6% in 1985-86.

(5) DIVIDEND.

During 1985-86, the companies under Refining and marketing Category paid out dividend of Rs.42.89 crores against Rs.37.13 Crores paid-in 1984-85. The amount of dividend paid in 1983-84 was 25.06 Crores.

(6) CORPORATE TAX.

The taxes paid by the marketing companies by way of taxes to National Exchequer amounted to Rs.74.42 Crores as against Rs.91.13 Crores in 1984-85. An amount of Rs.69.69 Crores was paid out in 1983-84.

(C) PETROCHEMICAL

There is one company is this category viz., Bongaigoan Refinery & Petrochemicals Ltd. under the purview of Ministry of Petroleum & Natural Gas.The financial structure and performance of BRPL for three years has been given in table no.17.

Rs./Crores

		1983-84	1984-85	1985-86
1.	Paid-up Capital	98.50	132.42	190.82
2.	Loans	146.48	164.74	155.09
3.	Net Worth	108.88	145.61	199.69
4.	Capital Employed	106.84	121.87	249.47
4.1.	Net Fixed Assets	77.28	78.94	186.68
4.2.	Working Capital	29.56	42.93	62.79
5.	Sales turnover	133.99	163.00	202.09
6.	Adjusted gross Profit	4.70	5.23	13.40
7.	Adjusted net profit	2.53	2.81	2.18

An analysis of the salient features is as under :

(1) CAPITAL INVESTMENT:

The total capital investment increased by 16.4% from Rs.297.16 Crores in 1984-85 to Rs.345.91 crores in 1985-86. The corresponding increase in the preceding year was 21.2%. As a result of increase in the paid-up capital equity loans ratio increased from 0.80 in 1984-85 to 1.23 in 1985-86.

(2) CAPITAL EMPLOYED:

The capital employed increased by 104.7% from by Rs.121.87 Crores in 1984-85 to Rs.249.47 Crores in 1985-86. The corresponding increase in the preceding year was 14.%. The increase in the capital employed in 1985-86 we due to increase in Net Fixed assets from Rs.78.94 Crores to Rs.186.68 Crores and working Capital from Rs.42.93 Crores to 62.79 Crores over 1984-85.

(3) SALES TURNOVER:

The Sales Turnover increased by 23.9% from Rs.163.00 Crores in 1984-85 to Rs.202.09 Crores in 1985-86. The corresponding increase in the preceeding year was 21.7%. The increased sale has resulted in increased gross profit from Rs.5.23 Crores in 1984-85 to Rs.13.40 Crores in 1985-86.

(4) PROFITABILITY:

The % age of gross profits to Capital Employed increased from 4.3% in 1984-85 to 5.3% in 1985-86. The ratio of Net profit to paid-up Capital and Net worth which stood at 02.1% and 1.9% at the end of 1984-85 went down to 1.1% & 1.0% in 1985-86 respectively.

(D) ENGINEERING UNITS

There are at present 3 companies under this category. The Bridge & Roof Co., was transferred from the control of Ministry of Petroleum & Natural Gas in June 86 The companies are :

1. Engineers India Ltd. (EIL)
2. Balmer Lawrie Ltd. (BL)
3. Biecco Lawrie Ltd. (BL)

The consolidated position of the three companies has been given at Table No.18 while those of the individual undertakings have been provided in table Nos.19 to 21.

Summary of the results for three companies for the three years is as under :

(Rs./Crores)

		1983-84	1984-85	1985-86
1.	Paid-up Capital	4.16	4.16	4.16
2.	Loans	16.87	20.69	26.33
3.	Net Worth	30.53	37.83	46.59
4.	Capital Employed	55.45	67.75	79.54
4.1.	Net Fixed Assets	24.63	26.89	28.95
4.2.	Working Capital	30.82	40.86	50.59
5.	Sales turnover	119.16	141.18	175.70
	Other Income	3.77	4.66	5.87
	Total	122.93	145.84	181.57
6.	Adjusted gross Profit	18.02	21.22	32.86
7.	Adjusted net profit	5.73	5.76	9.29
8.	Dividend	0.40	0.44	0.48
9.	Corporate Tax	8.12	10.89	17.48

The salient features of the analysis are as under:

(1) CAPITAL INVESTMENT

The Capital Investment under this category increased by 22.6% from Rs.24.85 Crores in 1984-85 to Rs.30.49 Crores in 1985-86. The corresponding increase in the preceding year was 18%. The increase in the capital Investment was due to increase in the laons from Rs.20.69 crores in 1984-85 to Rs.26.33 Crores in 1985-86.

(2) CAPITAL EMPLOYED

The capital employed by the engineering units has increased by 17.4% from Rs.67.75 Crores in 1984-85 to Rs.79.54 Crores in 1985-86. The corresponding increase is the preceding year was 22.1%. The net fixed assets and working capital under this category are as under:

(A) NET FIXED ASSETS

(Rs./Crores)

		1984-85	1985-86	(+)% Increase +percentage -decrease
1.	Engineers India Ltd.	18.18	19.70	(+)8.4%
2.	Balmer Lawrie Ltd.	7.71	8.46	(+)9.7%
3.	Biecco Lawrie Ltd.	1.00	0.79	(-)21.00%
	T O T A L:	26.89	28.95	(+)7.6%

(B) WORKING CAPITAL

1.	Engineers India Ltd.	18.78	26.10	(+)38.9%
2.	Balmer Lawrie Ltd.	19.57	21.99	(+)12.4%
3.	Biecco Lawrie Ltd.	2.51	2.50	(-)0.4%
	T O T A L:	40.86	50.59	23.8%

(3) SALES TURNOVER

The Sales turnover of the undertakings under this category increased by 24.4% from Rs.141.18 Crores in 1984-85 to Rs.175.70 Crores in 1985-86. The corresponding increase in 1984-85 was of the order of 18.4%. The ratio of gross profit to sales turnover which stood at 14.9% at the end of 1984-85 went up to 18.6% in 1985-86.

(4) PROFITABILITY

The adjusted gross profits have increased from Rs.21.22 Crores in 1984-85 to Rs.32.86 crores in 1985-86 (54.7%). Likewise there has been an increase in the adjusted net profit. The ratios of net profit to paid up capital and net worth were 138.4% and 15.2% went upto 222.5% and 19.7% in 1985-86 respectively.

(5) DIVIDEND

The dividend declared by EIL & Balmer Lawrie ltd. amounted to Rs.48 Lakhs in 1985-86 as compared to Rs.44 lakhs in 1984-85 Biecco Lawrie did not declare any dividend during the last three years.

(6) CORPORATE TAX

The contribution made by the companies in this category to National Exchequer by way of taxes was Rs.17.48 Crores in 1985-86 as compared with Rs.10.89 Crores in 1984-85. The amount paid in 1983-84 was Rs.8.12 Crores.

QUICK REVIEW OF FINANCIAL STRUCTURE 1986-87

During 1986-87, there were altogether 15 running enterprises under the purview of Ministry of Petroleum and Natural Gas, four under the category "Exploration and Production", eight under "Refining and Marketing" one under "Petrochemical" and three under "Engineering Units".

According to provisional figures on the financial position/performance of these enterprises available in the E & S Division, the 15 enterprises together employed a total Capital of Rs.10825.63 Crores and had a paid-up capital of Rs.932.21 crores as per details of enterprise-wise on the financial structure in Annexure I. During 1986-87 these enterprises had an annual sale turnover of Rs.26660.56 Crores and they earned a gross profit of Rs.3183.27 Crores, the corresponding figures in the year 1985-86 being Rs.24314.87 Crores & 2787.76 Crores respectively. Thus, while the sales turnover registered an increase of 9.6%, the gross profit before interest and taxes went up by 14.2%. The net profit after tax and interest amounted to Rs. 2037.40 Crores during 1986-87 as against Rs.1635.93 Crores in 1985-86. The ratio of net profit to paid up capital and Net worth worked out to 218.5% and 23.70% during 1986-87 as compared with the figures of 178.00% and 24.6% achieved during 1985-86.

The over all financial results for the year 1986-87 under each of above mentioned categories are summarised below:

Contd....

(Rs./Crores)

	Exploration and production	Refining and Marketing	Petro-Chemical	Engg. Units.	Total
Paid-up Capital	395.85	329.75	199.82	6.79	932.21
Loans	2794.76	1507.21	136.29	37.37	4475.63
Net Worth	6299.02	2003.23	229.65	56.37	8588.27
Capital Employed	6992.32	3510.43	288.09	94.79	10825.63
Sales turnover	4890.70	21324.95	235.32	191.59	26660.56
Gross Profit before Interest & Tax	2187.14	944.90	27.03	24.20	3183.27
Net Profit after Interest & Tax	1486.92	528.19	14.23	8.06	2037.40
Dividend	38.49	44.14	---	1.00	83.63
Corporate Tax	576.98	205.41	---	9.55	791.94
% age of					
1. Net Profit to Paid up Capital	357.6	160.2	7.1	118.7	218.5
2. Net Profit to net worth	23.6	26.4	6.2	14.3	23.7
3. Gross Profit to Capital employed	31.3	26.9	11.9	25.5	29.4
4. Sales to Capital employed	69.9	607.4	103.1	202.1	246.3
5. Gross Profit to Sales turnover	44.7	4.4	11.4	12.6	11.9
6. paid up capital to loans (ratio)	0.14	0.21	1.47	0.18	0.20

It will be seen from the Annexure-I that with the exception of Biecco Lawrie Ltd., all the undertakings under the Ministry of petroleum and Natural Gas have made gross profits. ONGC has made the highest gross profit of Rs.2085.80 Crores with IOC standing as second with Rs.632.72 Crores. Likewise ONGC has earned the highest net profit after tax and interest amounting to Rs.1435.67 Crores followed by IOC, with a net profit of Rs.396.51 Crores. The third to earn highest net profit was Oil India Limited with a profit of Rs.54.55 Crores.

FANANCIAL STRUCTURE /PROFITABILITY OF THE UNDERTAKINGS UNDER THE PURVIEW OF MINSTRY OF PETROLEUM & NATURAL GAS DURING 1986-87.

Rs./Lakhs

Provisional

Name of the Undertaking	Paid-up Capital	Loans	Net Worth	Capital Employed	Sales/ Operating Income	Gross Profit before Interest & Tax	Net Profit after Tax & Interest	Divi dend	Corp- rate Tax	Net Profit to paid up Capital	%age of Net Profit to Net Worth	Gross Profit to Capital Employed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A.Exploration & Production	39585	279476	629902	699232	489070	218714	148692	3849	57698	375.6	23.6	31.3
1. ONGC	34285	273717	584266	654193	440358	208580	143567	3429	53300	418.8	24.5	31.8
2. HIL	2500	NIL	5159	5201	450	439	220	---	219	8.8	4.3	8.5
3. OIL	2800	5759	40477	39838	48262	9695	4905	420	4179	175.2	12.1	24.3
B.Refining & Marketting	32975	150721	200323	351043	2132495	94490	52819	4414	20541	160.2	26.4	26.9
4. IOC	12327	55113	131738	161815	1263099	63272	39651	1726	18300	321.7	30.1	39.1
5. BPCL	2785	10703	22817	51207	247668	10189	5455	390	1234	195.9	23.9	19.9
6. HPCL	6384	43735	21144	81975	345632	10900	3400	639	--	53.3	16.0	13.3
7. CRL	700	20502	3117	19116	75901	2712	428	NIL	--	61.1	13.7	14.2
8. MRL	9825	19815	15604	30962	111538	5218	2709	1474	205	27.6	17.4	16.8
9. IBPCo.Ltd.	434	28	2649	2055	75499	1189	651	80	532	150.0	24.6	57.8
10. Lubrizol	480	710	2921	3474	12614	910	485	101	230	101.0	16.6	26.2
11. IOB	40	115	333	439	544	100	40	4	40	100.0	12.0	22.8
C.Petrchemicals	19982	13629	22965	22809	25332	2703	1423	--	--	7.1	6.2	11.9
12. BRPL	19982	13629	22965	22809	25332	2703	1423	--	--	7.1	6.2	11.9
D.Engineering Units	679	3737	5637	9479	19159	2420	806	100	955	118.7	14.3	25.5
13. EIL	100	600	6201	5209	5550	1714	1000	20	695	1000.0	16.1	32.9
14. Balmer Lawrie Ltd.	402	547	1824	3972	13062	925	390	80	260	97.0	21.4	23.3
15. Biecco Lawrie Ltd.	177	2590	-2388	298	547	-219	-584	--	--	Neg.	Neg.	Neg.
GRAND TOTAL	93221	447563	858827	1082563	2666056	318327	203740	8363	79194	218.5	23.7	29.4

Neg. Negative

TABLE NO.1

CONSOLIDATED FINANCIAL STRUCTURE. 1985-86

NAME OF THE COMPANY: ALL CATEGORIES (Rs./Lakhs)

I T E M	Exploration & Production.	Refining & Marketing.	Petro-Chemicals.	Engineering & Other Servicing Units.	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Authorised Capital	8000	45820	20000	900	74720
2. i) Paid-up Capital	39585	32781	19082	416	91864
ii) Preference Capital	NIL	50	NIL	NIL	50
iii) Reserve & Surpluses	451595	120008	1560	6230	577393
3. i) Total Loans	257995	141401	15509	2633	417538
ii) Of which Foreign	169256	3782	487	NIL	173525
4. Cash Credits/Advances from Banks/Others	10586	79407	662	1676	92331
5. Net Worth	487663	151722	19969	4659	664013
6. i) Gross Block	733350	345468	23863	4393	1107074
ii) Less Depreciation	306959	169859	5195	1498	483511
iii) Net Fixed Assets	426391	175609	18668	2895	623563
iv) Working Capital	118394	145023	6279	5059	274755
v) Capital Empl.(iii+iv)	544785	320632	24947	7954	898318
7. i) Sales	472763	1920945	20209	17570	2431487
ii) Other Income	7842	4954	33	587	13416
Total	480605	1925899	20242	18157	2444903
8. i) Total Emoluments (incl. perks)	19674	19621	411	2756	42462
ii) Of which Bonus	2008	2191	NIL	189	4388
iii) Average Emoluments per person p.a.	0.39	0.35	0.31	0.34	0.35
9. Inventories	98314	311639	6466	1820	418239
10. Gross Profit					
a) Gross Profit before Interest & Tax	218545	55616	1337	3278	278776
b) Adjusted Gross Profit	238139	55883	1340	3286	298647
11. Net Profit					
a) Net Profit after Tax & Interest	137266	25192	215	920	163593
b) Adjusted Net Profit	150249	25468	218	929	176864
12. Dividends Declared	3849	4289	NIL	48	8186
13. Corporate Tax	64832	7442	NIL	1748	74022
% age of:-					
a) N.P./Adjusted NP to paidup Capital	346.7/379.6	76.8/77.5	1.1	221.1	178.0/192.4
b) N.P./Adjusted N.P.to Net Worth	28.1/30.8	16.6	1.1	19.7	24.6/26.6
c) GP/Adjusted GP to Capital Emp.	40.1/43.7	17.3	5.3	41.2	31.0/33.2
d) Sales to Capital Emp.	86.7	599.1	81.0	220.8	270.6
e) G.P/Adjusted GP to Sales	46.2/50.3	2.9	6.6	18.6	11.4/12.3
f) Equity Loan Ratio.	0.15	0.23	1.23	0.15	0.22

Source: 1. Annual Reports of the Companies & data supplied by them.
2. There is no authorised Capital in respect of ONGC in exploration category.
3. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.2

CONSOLIDATED FINANCIAL STRUCTURE. 1984-85

NAME OF THE COMPANY: ALL CATEGORIES (Rs./Lakhs)

ITEM	Exploration & Production.	Refining & Marketing.	Petro-Chemicals.	Engineering & Other Servicing Units.	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Authorised Capital	8000	43320	20000	750	72070
2. i) Paid-up Capital	39585	29289	13242	416	82532
ii) Preference Capital	----	50	-----	----	50
iii) Reserve & Surpluses	318109	102597	1345	4934	426985
3. i) Total Loans	234625	147655	16474	2069	400823
ii) Of which Foreign	149526	3172	557	nil	153255
4. Cash Credits/Advances from Banks/Others	1714	32435	1633	1591	37373
5. Net Worth	346202	131425	14561	3783	495971
6. i) Gross Block	565573	259201	11376	3927	840077
ii) Less Depreciation	233350	128751	3482	1238	366821
iii) Net Fixed Assets	332223	130450	7894	2689	473256
iv) Working Capital	87256	95446	4293	4086	191081
v) Capital Empl.(iii+iv)	419479	225896	12187	6775	664337
7. i) Sales	444665	1736868	16300	14118	2211951
ii) Other Income	1084	4883	20	466	6453
Total	445749	1741751	16320	14584	2218404
8. i) Total Emoluments (incl. perks)	16477	17277	343	2434	36531
ii) Of which Bonus	982	1225	NIL	82	2289
iii) Average Emoluments per person p.a.	0.34	0.32	0.27	0.30	0.32
9. Inventories	65717	234114	5081	1851	306763
10. Gross Profit					
a) Gross Profit before Interest & Tax	193216	38978	521	2104	234819
b) Adjusted Gross Profit	206718	40251	523	2122	249614
11. Net Profit					
a) Net Profit after Tax & Interest	97380	13990	279	559	112208
b) Adjusted Net Profit	104364	14730	281	576	119951
12. Dividends Declared	3677	3713	NIL	44	7434
13. Corporate Tax.	81831	9113	NIL	1069	92013
% age of:-					
a) N.P./Adjusted NP to paidup Capital	246.0/263.6	47.6/50.2	2.1	134.3/138.4	135.8/145.3
b) N.P./Adjusted N.P.to Net Worth	28.1/30.1	10.6/11.2	1.9	14.8/15.2	22.6/24.2
c) GP/Adjusted G.P.to Capital Emp.	46.0/49.2	17.2/17.8	4.3	31.0/31.3	35.3/37.5
d) Sales to Capital Emp.	106.0	768.8	133.7	208.3	332.9
e) G.P/Adjusted GP to Sales	43.4/46.5	2.2	3.2	14.9	10.6/11.2
f) Equity Loan Ratio.	0.16	0.20	0.80	0.20	0.20

Source: 1. Annual Reports of the Companies & data supplied by them.
2. There is no authorised Capital in respect of ONGC in exploration category.
3. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.3

CONSOLIDATED FINANCIAL STRUCTURE. 1983-84

NAME OF THE COMPANY: ALL CATEGORIES (Rs./Lakhs)

I T E M	Exploration & Production.	Refining & Marketing.	Petro-Chemicals.	Engineering & Other Servicing Units.	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Authorised Capital	8000	43320	20000	750	72070
2. i) Paid-up Capital	39585	20751	9850	416	70602
ii) Preference Capital	NIL	50	----	----	50
iii) Reserve & Surpluses	224286	92296	1066	3898	321546
3. i) Total Loans	193776	112871	14648	1687	322982
ii) Of which Foreign	106896	1835	192	NIL	108923
4. Cash Credits/Advances from Banks/Others	3615	50904	1098	1256	56873
5. Net Worth	261536	112553	10888	3053	388030
6. i) Gross Block	442566	190957	10468	3409	647400
ii) Less Depreciation	169910	101486	2740	946	275082
iii) Net Fixed Assets	272656	89471	7728	2463	372318
iv) Working Capital	38267	98767	2956	3082	143072
v) Capital Empl.(iii+iv)	310923	188238	10684	5545	515390
7. a) Sales	387850	1640294	13399	11916	2053459
b) Other Income	2359	3373	13	377	6122
Total	390209	1643667	13412	12293	2059581
8. i) Total Emoluments (incl. perks)	14275	15033	273	2134	31715
ii) Of which Bonus	884	1094	---	58	2036
iii) Average Emoluments per person p.a.	0.32	0.30	0.25	0.27	0.29
9. Inventories	52879	214205	3521	1196	271801
10. Gross Profit					
a) Gross Profit before Interest & Tax	190029	34348	469	1791	226637
b) Adjusted Gross Profit	197438	33581	470	1802	233291
11. Net Profit					
a) Net profit after Tax and Interest	87174	13844	252	563	101833
b) Adjusted Gross Profit	86551	14137	253	573	101514
12. Dividends Declared	3506	2506	NIL	40	6052
13. Corporate Tax.	93479	6960	---	812	101251
% age of:-					
a) N.P./Adjusted HP to paidup Capital	220.2/218.6	66.5/67.9	2.6	135.3/137.7	144.1/143.6
b) N.P./Adjusted N.P.to Net Worth	33.3/33.1	12.3	2.3	18.4/18.7	26.2
c) GP/Adjusted G.P.to Capital Emp.	61.1/63.5	18.2/17.8	4.4	32.2	43.9/45.2
d) Sales to Capital Emp.	124.7	871.4	125.4	214.8	398.4
e) G.P/Adjusted GP to Sales 43	48.9/50.9	2.1	3.5	15.0	11.0/11.4
f) Equity Loan Ratio.	0.20	0.18	0.67	0.24	0.21

Source: 1. Annual Reports of the undertakings & data supplied by them.
2. There is no authorised Capital in respect of ONGC in exploration category.
3. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.4

CONSOLIDATED FINANCIAL STRUCTURE OF EXPLORATION & PRODUCTION

(Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	8000	8000	8000
2. i) Paid-up Capital	39585	39585	39585
ii) Preference Capital	NIL	NIL	NIL
iii) Reserve & Surpluses	224286	318109	451595
3. i) Total Loans	193776	234625	257995
ii) Of which Foreign	106896	149526	169256
4. Cash Credits/Advances from Banks/Others	3615	1714	10586
5. Net Worth	261536	346202	487663
6. i) Gross Block	442566	565573	733350
ii) Less Depreciation	169910	233350	306959
iii) Net Fixed Assets	272656	332223	426391
iv) Working Capital	38267	87256	118394
v) Capital Empl.(iii+iv)	310923	419479	544785
7. i) Sales	387850	444665	472763
ii) Other Income	2359	1084	7842
Total	390209	445749	480605
8. i) Total Emoluments (incl. perks)	14275	16477	19674
ii) Of which Bonus	884	982	2008
iii) Average Emoluments per person p.a.	0.32	0.34	0.39
9. Inventories	52879	65717	98314
10. Gross Profit			
a) Gross Profit before Interest & Tax	190029	193216	218545
b) Adjusted Gross Profit	197438	206718	238139
11. Net Profit			
a) Net profit after Tax & Interest	87174	97380	137266
b) Adjusted Net Profit	86551	104364	150249
12. Dividends Declared	3506	3677	3849
13. Corporate Tax.	93479	81831	64832
% age of:-			
a) N.P./Adjusted NP to paidup Capital	220.2/218.06	246.0/263.6	346.7/379.6
b) N.P./Adjusted N.P.to Net Worth	33.3/33.1	28.1/30.1	28.1/30.8
c) GP/Adjusted GP to Capital Emp.	61.1/63.5	46.0/49.2	40.1/43.7
d) Sales to Capital Emp.	124.7	106.0	86.7
e) G.P/Adjusted GP to Sales	48.9/50.9	43.4/46.4	46.2/50.3
f) Equity Loan Ratio.	0.20	0.16	0.15

Source: 1. Data as submitted by ONGC & annual reports of the companies.
2. There is no authorised Capital in respect of ONGC in exploration category.
3. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.5

FINANCIAL STRUCTURE

NAME OF THE COMPANY : OIL & NATURAL GAS COMMISSION (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	There is no authorised capital in respect of ONGC.		
2. i) Paid-up Capital	34285	34285	34285
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	204242	289323	416150
3. i) Total Loans	188046	228032	251678
ii) Of which Foreign	105623	146779	165976
4. Cash Credits/Advances from Banks/Others	3615	1714	10386
5. Net Worth	236192	312116	446918
6. i) Gross Block	412283	528262	686574
ii) Less Depreciation	148147	206528	274567
iii) Net Fixed Assets	264136	321734	412007
iv) Working Capital	25271	69952	90925
v) Capital Empl.(iii+iv)	289407	391686	510932
7. i) Sales	345409	403438	432618
ii) Other Income	1873	60	6174
Total	347282	403498	438792
8. i) Total Emoluments (incl. perks)	12687	14532	17278
ii) Of which Bonus	782	792	1708
iii) Average Emoluments per person p.a.	0.34	0.35	0.39
9. Inventories	46247	58728	88218
10. a) Gross Profit before Interest & Tax	169610	176122	205620
b) Adjusted Gross Profit	177010	189628	225211
11. Net Profit after Interest & Tax	80566	88241	130221
a) Adjusted Net Profit After Interest & Tax	79934	95220	143201
12. Dividends Declared	3086	3257	3429
13. Corporate Tax.	80200	74500	59600
% age of:-			
a) N.P./Adjusted HP to paidup Capital	234.9/231.4	257.4/277.7	379.8/417.6
b) N.P./Adjusted N.P.to Net Worth	34.1/33.6	28.3/30.5	29.1/32.0
c) GP/Adjusted GP to Capital Emp.	58.6/61.2	44.1/48.4	40.2/44.0
d) Sales to Capital Emp.	119.3	103.0	84.6
e) G.P/Adjusted GP to Sales	49.1/51.2	43.6/47.0	47.5/52.0
f) Equity Loan Ratio.	0.18	0.15	0.13

Source: 1. Data as supplied by the Company.
2. Adjusted/Gross & Net Profits are as indicated in the glossary of terms.

TABLE NO.6

FINANCIAL STRUCTURE

NAME OF THE COMPANY : HYDROCARBONS INDIA LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	3000	3000	3000
2. i) Paid-up Capital	2500	2500	2500
ii) Preference Capital	---	---	---
iii) Reserve & Surpluses	2009	2239	2495
3. i) Total Loans	-NIL-	-NIL-	-NIL-
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	-NIL-	-NIL-	-NIL-
5. Net Worth	4509	4739	4995
6. i) Gross Block	--	1	1
ii) Less Depreciation	---	---	-NIL-
iii) Net Fixed Assets	-NIL-	1	1
iv) Working Capital	4508	4738	4994
v) Capital Empl.(iii+iv)	4508	4739	4995
7. i) Sales	--	--	--
ii) Other Income	234	496	453
Total	234	496	453
8. i) Total Emoluments (incl. perks)	3	4	5
ii) Of which Bonus	-NIL-	-NIL-	-NIL-
iii) Average Emoluments per person p.a.	0.38	0.44	0.50
9. Inventories	-NIL-	-NIL-	-NIL-
10. Gross Profit			
a) Gross Profit before Interest & Tax	93	486	443
b) Adjusted Gross Profit	93	486	443
11. Net Profit			
a) Net Profit after Tax & Interest	(-)10	216	222
b) Adjusted net Profit	(-)10	216	222
12. Dividends Declared	-NIL-	-NIL-	-NIL-
13. Corporate Tax.	103	270	221
% age of:-			
a) N.P./Adjusted NP to paidup Capital	Negative	8.6	8.8
b) N.P./Adjusted N.P.to Net Worth	Negative	4.6	4.4
c) GP/Adjusted GP to Capital Emp.	2.0	10.2	8.8
d) Sales to Capital Emp.	-NIL-	-NIL-	-NIL-
e) G.P/Adjusted GP to Sales	-NIL-	-NIL-	-NIL-
f) Equity Loan Ratio.	-NIL-	-NIL-	-NIL-

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.7

FINANCIAL STRUCTURE

NAME OF THE COMPANY : OIL INDIA LIMITED (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	5000	5000	5000
2. i) Paid-up Capital	2800	2800	2800
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	18035	26547	32950
3. i) Total Loans	5730	6593	6317
ii) Of which Foreign	1273	2747	3280
4. Cash Credits/Advances from Banks/Others	-NIL-	-NIL-	200
5. Net Worth	20835	29347	35750
6. i) Gross Block	30282	37310	46773
ii) Less Depreciation	21762	26822	32392
iii) Net Fixed Assets	8520	10488	14381
iv) Working Capital	8488	12566	14475
v) Capital Empl.(iii+iv)	17008	23054	28856
7. i) Sales	42441	41227	40145
ii) Other Income	486	538	1185
Total	42927	41765	41330
8. i) Total Emoluments (incl. perks)	1585	1941	2391
ii) Of which Bonus	102	190	300
iii) Average Emoluments per person p.a.	0.23	0.24	0.29
9. Inventories	6632	6989	10098
10. Gross Profit			
a) Gross Profit before Interest & Tax	20326	16608	12482
b) Adjusted Gross Profit	20335	16604	12485
11. Net Profit			
a) Net Profit after Tax & Interest	6618	8923	6823
b) Adjusted Net Profit	6627	8928	6826
12. Dividends Declared	420	420	420
13. Corporate Tax.	13176	7061	5011
% age of:-			
a) N.P./Adjusted HP to paidup Capital	236.4/236.7	318.6	243.6
b) N.P./Adjusted N.P.to Net Worth	31.8	30.4	19.0
c) GP/Adjusted GP to Capital Emp.	119.6	72.0	43.2
d) Sales to Capital Emp.	249.5	178.8	139.2
e) G.P/Adjusted GP to Sales	47.9	40.3	31.3
f) Equity Loan Ratio.	0.49	0.42	0.43

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.7 A

FINANCIAL STRUCTURE

NAME OF THE COMPANY : GAS AUTHORITY OF INDIA LTD. (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital		50000	50000
2. i) Paid-up Capital		100	18100
ii) Preference Capital		-NIL-	-NIL-
iii) Reserve & Surpluses		-NIL-	-NIL-
3. i) Total Loans		4800	8700
ii) Of which Foreign		-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others		-NIL-	-NIL-
5. Net Worth		-NIL-	-NIL-
6. i) Gross Block		-NIL-	-NIL-
ii) Less Depreciation		-NIL-	-NIL-
iii) Net Fixed Assets		-NIL-	-NIL-
iv) Working Capital		-NIL-	-NIL-
v) Capital Empl.(iii+iv)		-NIL-	-NIL-
7. i) Sales		-NIL-	-NIL-
ii) Other Income		-NIL-	-NIL-
8. i) Total Emoluments (incl. perks)		-NIL-	-NIL-
ii) Of which Bonus		-NIL-	-NIL-
iii) Average Emoluments per person p.a.		-NIL-	-NIL-
9. Inventories		-NIL-	-NIL-
10. Gross Profit			
a) Gross Profit before Interest & Tax		-NIL-	-NIL-
b) Adjusted Gross Profit		-NIL-	-NIL-
11. Net Profit			
a) Net Profit after Tax & Interest		-NIL-	-NIL-
b) Adjusted Net Profit		-NIL-	-NIL-
12. Dividends Declared		-NIL-	-NIL-
13. Corporate Tax.		-NIL-	-NIL-
% age of:-		-NIL-	-NIL-
a) N.P./Adjusted HP to paidup Capital		-NIL-	-NIL-
b) N.P./Adjusted N.P.Net Worth		-NIL-	-NIL-
c) GP/Adjusted to Capital Emp.		-NIL-	-NIL-
d) Sales to Capital Emp.		-NIL-	-NIL-
e) G.P Adjusted GP to Sales		-NIL-	-NIL-
f) Equity Loan Ratio.		0.02	0.21

Source: 1. There being no operations in the two years under review, the above information is hot included in the consolidated summary of exploration & Production.

TABLE NO.8

FINANCIAL STRUCTURE

NAME OF THE COMPANY : REFINING AND MARKETING (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	43320	43320	45820
2. i) Paid-up Capital	20751	29289	32781
ii) Preference Capital	50	50	50
iii) Reserve & Surpluses	92296	102597	120008
3. i) Total Loans	112871	147655	141401
ii) Of which Foreign	1835	3172	3782
4. Cash Credits/Advances from Banks/Others	50904	32435	79407
5. Net Worth	112553	131425	151722
6. i) Gross Block	190957	259201	345468
ii) Less Depreciation	101486	128751	169859
iii) Net Fixed Assets	89471	130450	175609
iv) Working Capital	98767	95446	145023
v) Capital Empl.(iii+iv)	188238	225896	320632
7. i) Sales	1640294	1736868	1920945
ii) Other Income	3373	4883	4954
Total	1643667	1741751	1925899
8. i) Total Emoluments (incl. perks)	15033	17277	19621
ii) Of which Bonus	1094	1225	2191
iii) Average Emoluments per person p.a.	0.30	0.32	0.35
9. Inventories	214205	234114	311639
10. Gross Profit			
a) Gross Profit before Interest & Tax	34348	38978	55616
b) Adjusted Gross Profit	33581	40251	55883
11. Net Profit			
a) Net Profit after Tax & Interest	13844	13990	25192
b) Adjusted Net Profit	14137	14730	25468
12. Dividends Declared	2506	3713	4289
13. Corporate Tax.	6960	9113	7442
% age of:-			
a) N.P./Adjusted NP to paidup Capital	66.5/67.9	47.6/50.2	76.8/77.5
b) N.P./Adjusted N.P.to Net Worth	12.3	10.6/11.2	16.6
c) GP/Adjusted GP to Capital Emp.	18.2/17.8	17.2/17.8	17.3
d) Sales to Capital Emp.	871.4	768.8	599.1
e) G.P/Adjusted GP to Sales	2.1	2.2	2.9
f) Equity Loan Ratio.	0.18	0.20	0.23

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary ofterms.

TABLE NO.9

FINANCIAL STRUCTURE

NAME OF THE COMPANY : INDIAN OIL CORPORATION LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	15000	15000	15000
2. i) Paid-up Capital	12327	12327	12327
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	63689	70314	81485
3. i) Total Loans	48412	50245	37708
ii) Of which Foreign	-NIL-	673	700
4. Cash Credits/Advances from Banks/Others	23740	140	34424
5. Net Worth	76016	82641	93812
6. i) Gross Block	132159	149181	175807
ii) Less Depreciation	67251	83340	105153
iii) Net Fixed Assets	64908	65841	70654
iv) Working Capital	61617	39403	70775
v) Capital Empl.(iii+iv)	126525	105244	141429
7. i) Sales	1027571	1105506	1129841
ii) Other Income	1735	1989	2040
Total	1029306	1107495	1131881
8. i) Total Emoluments (incl. perks)	9778	11010	12686
ii) Of which Bonus	715	740	1604
iii) Average Emoluments per person p.a.	0.34	0.36	0.40
9. Inventories	132214	146567	207818
10. Gross Profit			
a) Gross Profit before Tax & Interest	23345	24087	26568
b) Adjusted Gross Profit	22713	25191	26781
11. Net Profit			
a) Net Profit after Tax & Interest	8254	8351	12897
b) Adjusted Net Profit	8679	8922	13110
12. Dividends Declared	1726	1726	1726
13. Corporate Tax.	6150	7884	6518
% age of:-			
a) N.P./Adjusted HP to paidup Cap.	67.0/70.4	67.8/72.3	104.6/106.4
b) N.P./Adjusted N.P.to Net Worth	10.8/11.4	10.1	13.8
c) GP/Adjusted GP to Capital Emp.	18.4/17.9	22.8/23.9	18.8
d) Sales to Capital Emp.	812.2	1050.4	798.8
e) G.P/Adjusted GP to Sales	2.3	2.2	2.4
f) Equity Loan Ratio.	0.25	0.25	0.33

Source: 1. Annual Reports of the Company.
2. Adjusted /Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.10

FINANCIAL STRUCTURE

NAME OF THE COMPANY : BHARAT PETROLEUM CORPORATION LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	2500	2500	5000
2. i) Paid-up Capital	1657	1657	2785
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	9191	10355	14967
3. i) Total Loans	6535	10852	10634
ii) Of which Foreign	1835	2499	3082
4. Cash Credits/Advances from Banks/Others	17563	23302	29195
5. Net Worth	10848	12012	17753
6. i) Gross Block	18328	35617	49336
ii) Less Depreciation	11664	16647	24088
iii) Net Fixed Assets	6664	18970	25248
iv) Working Capital	12192	13329	21718
v) Capital Empl.(iii+iv)	18856	32299	46966
7. i) Sales	187105	212765	233778
ii) Other Income	671	1077	1184
Total	187776	213842	234962
8. i) Total Emoluments (incl. perks)	2166	2785	2953
ii) Of which Bonus	177	215	352
iii) Average Emoluments per person p.a.	0.30	0.30	0.30
9. Inventories	16202	16628	19565
10. Gross Profit			
i) Gross Profit before Tax & Interest	3246	3965	9966
ii) Adjusted Gross Profit	3138	4140	10030
11. Net Profit			
i) Net Profit after Tax & Interest	1566	1380	6132
ii) Adjusted Net Profit	1457	1555	6197
12. Dividends Declared	=NIL=	232	390
13. Corporate Tax.	350	700	760
% age of:-			
a) N.P./Adjusted HP to paidup Cap.	94.5/87.9	83.3/93.8	220.2/222.5
b) N.P./Adjusted N.P.to Net Worth	14.4/13.4	11.5/12.9	34.5/34.9
c) GP/Adjusted GP to Capital Emp.	17.2/16.6	12.3/12.8	21.2/21.4
d) Sales to Capital Emp.	992.2	658.7	497.8
e) G.P/Adjusted GP to Sales	1.7	1.9	4.3
f) Equity Loan Ratio.	0.25	0.15	0.26

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.11

FINANCIAL STRUCTURE

NAME OF THE COMPANY : HINDUSTAN PETROLEUM CORPORATION LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	10000	10000	10000
2. i) Paid-up Capital	4020	4020	6384
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	12812	13598	13024
3. i) Total Loans	22390	42405	49336
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	6919	5923	11256
5. Net Worth	16291	17110	18383
6. i) Gross Block	25797	43561	71742
ii) Less Depreciation	13796	18250	26547
iii) Net Fixed Assets	12001	25311	45195
iv) Working Capital	10637	15392	23869
v) Capital Empl.(iii+iv)	22638	40703	69064
7. i) Sales/Income from Operation	246079	268746	321859
ii) Other Income	389	505	738
Total	246468	269251	322597
8. i) Total Emoluments (incl. perks)	1887	2161	2515
ii) Of which Bonus	143	192	85
iii) Average Emoluments per person p.a.	0.27	0.28	0.30
9. Inventories	29672	30847	40448
10. Gross Profit			
a) Gross Profit before Tax & Interest	3852	5287	9652
b) Adjusted Gross Profit	3823	5288	9625
11. Net Profit			
a) Net Profit after Tax & Interest	1788	1188	2333
b) Adjusted Net Profit	1759	1189	2314
12. Dividends Declared	311	402	543
13. Corporate Tax.	23	56	(-)9
% age of:-			
a) N.P./Adjusted HP to paidup Cap.	44.5/43.8	29.6	36.5/36.2
b) N.P./Adjusted N.P.to Net Worth	10.9	6.9	12.7
c) GP/Adjusted GP to Capital Emp.	17.0/16.8	13.0	13.9
d) Sales to Capital Emp.	1087.0	660.2	466.0
e) G.P/Adjusted GP to Sales	1.8	2.0	3.0
f) Equity Loan Ratio.	0.18	0.09	0.13

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.12

FINANCIAL STRUCTURE

NAME OF THE COMPANY : COCHIN REFINERIES LIMITED (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	1500	1500	1500
2. i) Paid-up Capital	700	700	700
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	1810	1964	1988
3. i) Total Loans	14370	20220	23837
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	1533	12	35
5. Net Worth	2510	2664	2689
6. i) Gross Block	3926	6695	18621
ii) Less Depreciation	2941	3314	4462
iii) Net Fixed Assets	985	3381	14159
iv) Working Capital	4682	5864	8501
v) Capital Empl.(iii+iv)	5667	9245	22660
7. i) Sales	58067	15903	54860
ii) Other Income	166	858	64
Total	58233	16761	54924
8. i) Total Emoluments (incl. perks)	140	183	173
ii) Of which Bonus	7	8	18
iii) Average Emoluments per person p.a.	0.22	0.22	0.19
9. Inventories	2761	5741	7461
10. Gross Profit			
a) Gross Profit before Tax & Interest	1434	898	2223
b) Adjusted Gross Profit	1437	909	2227
11. Net Profit			
a) Net Profit after Tax & Interest	947	258	25
b) Adjusted Net Profit	950	268	29
12. Dividends Declared	140	105	-NIL-
13. Corporate Tax.	-NIL-	-NIL-	-NIL-
% age of:-			
a) N.P./Adjusted HP to paidup Capital	135.7	36.8/38.3	3.4/4.1
b) N.P./Adjusted N.P.to Net Worth	37.7	09.8/10.0	0.9/1.1
c) GP/Adjusted GP to Capital Emp.	25.3	9.7	9.8
d) Sales to Capital Emp.	1024.6	172.0	242.1
e) G.P/Adjusted GP to Sales	2.5	5.6	4.0
f) Equity Loan Ratio.	0.05	0.03	0.03

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.13

FINANCIAL STRUCTURE

NAME OF THE COMPANY : MADRAS REFINERIES LIMITED (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	13500	13500	13500
2. i) Paid-up Capital	1287	9825	9825
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	2294	3354	4686
3. i) Total Loans	20866	23399	19107
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	778	2112	2906
5. Net Worth	3578	13176	14418
6. i) Gross Block	7859	20728	25410
ii) Less Depreciation	4621	5751	7857
iii) Net Fixed Assets	3238	14977	17553
iv) Working Capital	8059	19293	16539
v) Capital Empl.(iii+iv)	11297	34270	34092
7. i) Sales	62521	67305	102317
ii) Other Income	197	224	548
Total	62718	67529	102865
8. i) Total Emoluments (incl. perks)	171	296	293
ii) Of which Bonus	16	19	37
iii) Average Emoluments per person p.a.	0.25	0.25	0.28
9. Inventories	31334	31634	33254
10. Gross Profit			
a) Gross Profit before Tax & Interest	1353	3468	5600
b) Adjusted Gross Profit	1353	3468	5600
11. Net Profit			
a) Net Profit after Tax & Interest	652	2161	2805
b) Adjusted Net Profit	654	2161	2805
12. Dividends Declared	193	1102	1473
13. Corporate Tax.	3	(-)63	(-)191
% age of:-			
a) N.P./Adjusted HP to paidup Capital	50.6	22.0	28.6
b) N.P./Adjusted N.P.to Net Worth	18.2	16.4	19.5
c) GP/Adjusted GP to Capital Emp.	11.9	10.1	16.4
d) Sales to Capital Emp.	553.4	196.3	300.0
e) G.P/Adjusted GP to Sales	2.2	5.2	5.4
f) Equity Loan Ratio.	0.06	0.42	0.51

Source: 1. Annual Reports of the Company.
2. Tax of earlier years revised.
3. Adjusted/Gross Profit & Net Profit are as defined in the glossary of terms

TABLE NO.14

FINANCIAL STRUCTURE

NAME OF THE COMPANY : IBP CO. LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	300	300	300
2. i) Paid-up Capital	240	240	240
ii) Preference Capital	50	50	50
iii) Reserve & Surpluses	1190	1457	1889
3. i) Total Loans	-NIL-	28	28
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	180	325	723
5. Net Worth	1480	1747	2179
6. i) Gross Block	1494	1726	2230
ii) Less Depreciation	582	709	860
iii) Net Fixed Assets	912	1017	1370
iv) Working Capital	148	386	1330
v) Capital Empl.(iii+iv)	1060	1403	2700
7. i) Sales	50819	57182	66554
ii) Other Income	153	149	258
Total	50972	57331	66812
8. i) Total Emoluments (incl. perks)	356	426	502
ii) Of which Bonus	19	26	53
iii) Average Emoluments per person p.a.	0.23	0.25	0.29
9. Inventories	600	687	675
10. Gross Profit			
a) Gross Profit before Tax & Interest	593	632	772
b) Adjusted Gross Profit	592	614	783
11. Net Profit			
a) Net Profit after Tax & Interest	346	307	480
b) Adjusted Net Profit	346	289	491
12. Dividends Declared	46	46	51
13. Corporate Tax.	230	311	248
% age of:-			
a) N.P./Adjusted HP to paidup Capital	119.3	105.9/99.7	165.5
b) N.P./Adjusted N.P.to Net Worth	23.3	17.6/16.5	22.0
c) GP/Adjusted GP to Capital Emp.	55.9	45.0/43.8	28.6/29.0
d) Sales to Capital Emp.	4794.2	4075.7	2464.9
e) G.P/Adjusted GP to Sales	1.2	1.2	1.2
f) Equity Loan Ratio.	-NIL-	10.36	10.36

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.15

FINANCIAL STRUCTURE

NAME OF THE COMPANY : LUBRIZOL INDIA LIMITED (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	480	480	480
2. i) Paid-up Capital	480	480	480
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	1116	1332	1716
3. i) Total Loans	298	506	636
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	168	598	841
5. Net Worth	1596	1812	2196
6. i) Gross Block	1000	1272	1730
ii) Less Depreciation	397	478	593
iii) Net Fixed Assets	603	794	1137
iv) Working Capital	1338	1676	2184
v) Capital Empl.(iii+iv)	1941	2470	3321
7. i) Sales	7796	9053	11256
ii) Other Income	58	70	103
Total	7854	9123	11359
8. i) Total Emoluments (incl. perks)	152	204	254
ii) Of which Bonus	4	11	13
iii) Average Emoluments per person p.a.	0.43	0.51	0.59
9. Inventories	1409	1996	2402
10. Gross Profit			
a) Gross Profit before Tax & Interest	488	563	758
b) Adjusted Gross Profit	487	564	762
11. Net Profit			
a) Net Profit after Tax & Interest	276	312	486
b) Adjusted Net Profit	275	314	409
12. Dividends Declared	86	96	101
13. Corporate Tax.	183	183	88
% age of:-			
a) N.P./Adjusted NP to paidup Capital	57.5	65.0/65.4	101.2/101.8
b) N.P./Adjusted N.P.to Net Worth	17.3	17.2	22.1/22.3
c) GP/Adjusted GP to Capital Emp.	25.1	22.8	22.8
d) Sales to Capital Emp.	401.6	366.5	338.9
e) G.P/Adjusted GP to Sales	6.3	6.2	6.7
f) Equity Loan Ratio.	1.61	0.95	0.75

Source: 1. Annual Reports of the Company.
2. Adjusted / Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.16

FINANCIAL STRUCTURE

NAME OF THE COMPANY : INDIAN OIL BLEADING LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	40	40	40
2. i) Paid-up Capital	40	40	40
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	194	223	253
3. i) Total Loans	-NIL-	-NIL-	115
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	23	23	27
5. Net Worth	234	263	293
6. i) Gross Block	394	421	592
ii) Less Depreciation	234	262	299
iii) Net Fixed Assets	160	159	293
iv) Working Capital	94	103	107
v) Capital Empl.(iii+iv)	254	262	400
7. i) Sales	336	408	480
ii) Other Income	4	11	19
Total	340	419	499
8. i) Total Emoluments (incl. perks)	183	212	245
ii) Of which Bonus	13	14	29
iii) Average Emoluments per person p.a.	0.35	0.40	0.42
9. Inventories	13	14	16
10. Gross Profit			
a) Gross Profit before Tax & Interest	37	78	77
b) Adjusted Gross Profit	38	77	75
11. Net Profit			
a) Net Profit after Tax & Interest	15	33	34
b) Adjusted Net Profit	17	32	33
12. Dividends Declared	4	4	4
13. Corporate Tax.	21	42	28
% age of:-			
a) N.P./Adjusted NP to paidup Cap.	37.5/42.5	82.5/80.0	85.0/82.5
b) N.P./Adjusted N.P.to Net Worth	6.4/7.3	12.6	11.6/11.3
c) GP/Adjusted GP to Capital Emp.	14.6	29.7	19.2/18.7
d) Sales to Capital Emp.	132.3	155.7	120.0
e) G.P/Adjusted GP to Sales	11.0	19.1	16.0/15.6
f) Equity Loan Ratio.	-NIL-	-NIL-	0.35

Source: 1. Annual Reports of the Company.
2. The Adjusted / Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.17

FINANCIAL STRUCTURE

NAME OF THE COMPANY : BOAGAIGAON REFINERY & PETRO-CHEMICALS LTD. (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	20000	20000	20000
2. i) Paid-up Capital	9850	13242	19082
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	1066	1345	1560
3. i) Total Loans	14648	16474	15509
ii) Of which Foreign	192	557	487
4. Cash Credits/Advances from Banks/Others	1098	1633	662
5. Net Worth	10888	14561	19969
6. i) Gross Block	10468	11376	23863
ii) Less Depreciation	2740	3482	5195
iii) Net Fixed Assets	7728	7894	18668
iv) Working Capital	2956	4293	6279
v) Capital Empl.(iii+iv)	10684	12187	24947
7. i) Sales	13399	16300	20209
ii) Other Income	13	20	33
Total	13412	16320	20242
8. i) Total Emoluments (incl. perks)	273	343	411
ii) Of which Bonus	-NIL-	-NIL-	-NIL-
iii) Average Emoluments per person p.a.	0.25	0.27	0.31
9. Inventories	3521	5081	6466
10. Gross Profit			
a) Gross Profit before Tax & Interest	469	521	1337
b) Adjusted Gross Profit	470	523	1340
11. Net Profit			
a) Net Profit after Tax & Interest	252	279	215
b) Adjusted Net Profit	253	281	218
12. Dividends Declared	-NIL-	-NIL-	-NIL-
13. Corporate Tax.	-NIL-	-NIL-	-NIL-
% age of:-			
a) N.P./Adjusted HP to paidup Capital	2.6	2.1	1.1
b) N.P./Adjusted N.P.to Net Worth	2.3	1.9	1.0
c) GP/Adjusted GP to Capital Emp.	4.4	4.3	5.3
d) Sales to Capital Emp.	125.4	133.7	81.0
e) G.P/Adjusted GP to Sales	3.5	3.2	6.6
f) Equity Loan Ratio.	0.67	0.80	1.23

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.18

FINANCIAL STRUCTURE

NAME OF THE COMPANY : ENGINEERING SERVICES AND OTHER UNITS. (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	750	750	900
2. i) Paid-up Capital	416	416	416
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	3898	4934	6230
3. i) Total Loans	1687	2069	2633
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	1256	1591	1676
5. Net Worth	3053	3783	4659
6. i) Gross Block	3409	3927	4393
ii) Less Depreciation	946	1238	1498
iii) Net Fixed Assets	2463	2689	2895
iv) Working Capital	3082	4086	5059
v) Capital Empl.(iii+iv)	5545	6775	7954
7. i) Sales	11916	14118	17570
ii) Other Income	377	466	587
Total	12293	14584	18157
8. i) Total Emoluments (incl. perks)	2184	2434	2756
ii) Of which Bonus	58	82	189
iii) Average Emoluments per person p.a.	0.27	0.30	0.34
9. Inventories	1196	1851	1820
10. Gross Profit			
a) Gross Profit before Tax & Interest	1791	2104	3278
b) Adjusted Gross Profit	1802	2122	3286
11. Net Profit			
a) Net Profit after Tax & Interest	563	559	920
b) Adjusted Net Profit	573	576	929
12. Dividends Declared	40	44	48
13. Corporate Tax.	812	1089	1748
% age of:-			
a) N.P./Adjusted NP to paidup Capital	135.3/137.7	134.3/138.4	221.2/222.5
b) N.P./Adjusted N.P.to Net Worth	18.4/18.7	14.8/15.2	19.7
c) GP/Adjusted GP to Capital Emp.	32.2	31.0/31.3	41.2
d) Sales to Capital Emp.	214.8	208.3	220.8
e) G.P/Adjusted GP to Sales	15.0	14.9	18.6
f) Equity Loan Ratio.	0.24	0.20	0.15

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.19

FINANCIAL STRUCTURE

NAME OF THE COMPANY : ENGINEERS INDIA LIMITED (Rs./Lakhs)

ITEM	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	200	200	200
2. i) Paid-up Capital	50	50	50
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	3190	4095	5121
3. i) Total Loans	1	-NIL-	-NIL-
ii) Of which Foreign	-NIL-	-NIL-	200
4. Cash Credits/Advances from Banks/Others	-NIL-	-NIL-	-NIL-
5. Net Worth	3240	4145	5171
6. i) Gross Block	2018	2297	2548
ii) Less Depreciation	345	479	578
iii) Net Fixed Assets	1673	1818	1970
iv) Working Capital	1392	1878	2610
v) Capital Empl.(iii+iv)	3065	3696	4580
7. i) Sales	4108	4618	5803
ii) Other Income	317	327	376
Total	4425	4945	6179
8. i) Total Emoluments (incl. perks)	1438	1658	1812
ii) Of which Bonus	25	45	106
iii) Average Emoluments per person p.a.	0.40	0.45	0.50
9. Inventories	29	32	45
10. Gross Profit			
a) Gross Profit before Tax & Interest	1349	1598	2458
b) Adjusted Gross Profit	1349	1594	2451
11. Net Profit			
a) Net Profit after Tax & Interest	659	698	1034
b) Adjusted Net Profit	659	694	1027
12. Dividends Declared	8	8	10
13. Corporate Tax.	691	900	424
% age of:-			
a) N.P./Adjusted NP to paidup Capital	1318.0	1396.0/1388.0	2068.0/2054.0
b) N.P./Adjusted N.P.to Net Worth	20.3	16.8	20.0
c) GP/Adjusted GP to Capital Emp.	44.0	43.2	53.6
d) Sales to Capital Emp.	134.0	125.0	126.7
e) G.P/Adjusted GP to Sales	32.8	34.6	42.4
f) Equity Loan Ratio.	50.0	-NIL-	0.25

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.20

FINANCIAL STRUCTURE

NAME OF THE COMPANY : BALMER LAWRIE AND COMPANY LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	300	300	500
2. i) Paid-up Capital	189	189	189
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	705	836	1104
3. i) Total Loans	361	428	376
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	1143	1491	1596
5. Net Worth	893	1025	1293
6. i) Gross Block	1116	1336	1558
ii) Less Depreciation	427	565	712
iii) Net Fixed Assets	689	771	846
iv) Working Capital	1447	1957	2199
v) Capital Empl.(iii+iv)	2136	2728	3045
7. i) Sales	7262	8839	11137
ii) Other Income	55	134	207
Total	7317	8973	11344
8. i) Total Emoluments (incl. perks)	461	507	650
ii) Of which Bonus	23	27	69
iii) Average Emoluments per person p.a.	0.23	0.25	0.30
9. Inventories	864	1538	1506
10. Gross Profit			
a) Gross Profit before Tax & Interest	518	584	937
b) Adjusted Gross Profit	526	607	949
11. Net Profit			
a) Net Profit after Tax & Interest	159	167	306
b) Adjusted Net Profit	167	190	319
12. Dividends Declared	32	36	38
13. Corporate Tax.	122	169	324
% age of:-			
a) N.P./Adjusted HP to paidup	84.1/88.4	88.4/100.5	161.9/168.8
b) N.P./Adjusted N.P.to Net Worth	17.8/18.7	16.3/18.5	23.6/24.7
c) GP/Adjusted GP to Capital Emp.	24.3/24.6	21.4/22.5	30.8/31.2
d) Sales to Capital Emp.	329.9	324.0	365.8
e) G.P/Adjusted GP to Sales	7.4/7.5	6.6/6.9	8.4
f) Equity Loan Ratio.	0.52	0.44	0.50

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.21

FINANCIAL STRUCTURE

NAME OF THE COMPANY : BIECCO LAWRIE AND COMPANY LIMITED (Rs./Lakhs)

I T E M	1983-84	1984-85	1985-86
(1)	(2)	(3)	(4)
1. Authorised Capital	250	250	250
2. i) Paid-up Capital	177	177	177
ii) Preference Capital	-NIL-	-NIL-	-NIL-
iii) Reserve & Surpluses	3	3	5
3. i) Total Loans	1325	1641	2057
ii) Of which Foreign	-NIL-	-NIL-	-NIL-
4. Cash Credits/Advances from Banks/Others	113	100	86
5. Net Worth	(-)1081	(-)1387	(-)1805
6. i) Gross Block	275	294	287
ii) Less Depreciation	174	194	208
iii) Net Fixed Assets	101	100	79
iv) Working Capital	243	251	250
v) Capital Empl.(iii+iv)	344	351	329
7. i) Sales	546	661	630
ii) Other Income	5	5	4
Total	551	666	634
8. i) Total Emoluments (incl. perks)	235	269	294
ii) Of which Bonus	10	10	15
iii) Average Emoluments per person p.a.	0.16	0.19	0.22
9. Inventories	303	281	269
10. Gross Profit			
a) Gross Profit before Tax & Interest	(-)76	(-)78	(-)117
b) Adjusted Gross Profit	(-)73	(-)79	(-)114
11. Net Profit			
a) Net Profit after Tax & Interest	(-)255	(-)306	(-)420
b) Adjusted Net Profit	(-)253	(-)308	(-)420
12. Dividends Declared	-NIL-	-NIL-	-NIL-
13. Corporate Tax.	-NIL-	-NIL-	-NIL-
% age of:-			
a) N.P./Adjusted HP to paidup Cap.	Negative	Negative	Negative
b) N.P./Adjusted N.P.to Net Worth	Negative	Negative	Negative
c) GP/Adjusted GP to Capital Emp.	Negative	Negative	Negative
d) Sales to Capital Emp.	158.7	188.3	191.5
e) G.P/Adjusted GP to Sales	Negative	Negative	Negative
f) Equity Loan Ratio.	0.13	0.11	0.09

Source: 1. Annual Reports of the Company.
2. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

CAPITAL INVESTMENT OF THE PUBLIC/JOINT SECTOR UNDERTAKINGS AS ON 1.4.1985. 1.4.1986. and 1.4.1987.

Rs./Crores

Name of the Undertaking	As on 1.4.1985				As on 1.4.1986				As on 1.4.1987			
	Equity	Loans	Total	Govt. Share	Equity	Loans	Total	Govt. Share	Equity	Loans	Total	Govt. Share
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
A.Exploration & Production	396.9	2357.5	2754.4	420.4	576.9	2634.9	3211.8	584.2	1006.7	3282.4	4289.1	1577.1
1. ONGC	342.9	2270.9	2613.8	355.2	342.9	2515.5	2858.4	344.8	342.9	2956.8	3299.7	721.3
2. HIL	25.0	NIL	25.0	NIL	25.0	NIL	25.0	NIL	25.0	NIL	25.0	NIL
3. OIL	28.0	38.6	66.6	64.2	28.0	32.4	60.4	58.4	28.0	65.2	93.2	52.6
4. GAIL	1.0	48.0	49.0	1.0	181.0	87.0	268.0	181.0	610.8	260.4	871.2	803.2
B.Refining and Marketing	293.5	1311.2	1604.7	478.4	328.4	1264.8	1593.2	519.6	329.8	1368.9	1698.7	532.3
5. IOC	123.3	485.4	608.7	178.8	123.3	378.7	502.0	162.4	123.3	551.1	674.4	147.5
6. BPCL	16.6	139.2	155.8	42.9	27.9	136.5	164.4	58.9	27.9	167.6	195.5	67.6
7. HPCL	40.2	244.0	284.2	88.3	63.8	284.0	347.8	122.7	63.8	298.4	362.2	131.2
8. CRL	7.0	182.2	189.2	38.8	7.0	238.4	245.4	39.6	7.0	205.0	212.0	42.6
9. MRL	98.3	255.1	353.4	124.8	98.3	219.0	317.3	131.5	98.3	138.2	236.5	137.8
10.IBP Co.Ltd.	2.9	0.3	3.2	1.9	2.9	0.3	3.2	1.6	4.3	0.3	4.6	2.7
11.Lubrizol	4.8	5.0	9.8	2.9	4.8	6.4	11.2	2.9	4.8	7.1	11.9	2.9
12.IOB	0.4	NIL	0.4	NIL	0.4	1.5	1.9	NIL	0.4	1.2	1.6	--
C.Petrochemicals	132.4	165.0	297.4	146.3	190.8	139.3	330.1	190.8	199.8	136.3	336.1	199.8
13.BRPL	132.4	165.0	297.4	146.3	190.8	139.3	330.1	190.8	199.8	136.3	336.1	199.8
D.Engineering Un.	4.2	18.1	22.3	15.9	4.2	19.0	23.2	17.1	6.8	32.1	38.9	19.1
14.EIL	0.5	NIL	0.5	0.5	0.5	NIL	0.5	0.5	1.0	6.0	7.0	0.5
15.Balmer Lawrie Ltd.	1.9	4.3	6.2	0.2	1.9	3.8	5.7	NIL	4.0	8.9	12.9	NIL
16.Biecco Lawrie Ltd.	1.8	13.8	15.6	15.2	1.8	15.2	17.0	16.6	1.8	17.2	19.0	18.6
T O T A L A+B+C+D	827.0	3851.8	4678.8	1061.0 (22.6%)	1100.3	4058.0	5158.3	1311.7 (25.4%)	1543.1	4819.7	6362.8	2328.3 (36.6%)

NOTE ; Figure in brackets indicate the % age share of the Government.

GLOSSARY OF TERMS USED IN THE "ANNUAL REPORT ANALYSIS"

1. Loans : These include both secured and unsecured loans but exclude interest accured, 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 trade investments) less current liabilities and provisions (excluding cash credit & bank over-drafts and provision for gratuity).

5. Sales : Means Net sales turnover i.e. after excluding trade discounts and products used for internal consumption.

6. Adjusted Gross profit : Represents excess of Income over expenditure after providing for interest on loans, taxes, appropriation to reserves, charges pertaining to previous years, bad debts, donations, exchange fluctuations, loss on disposal of Assets, Dividends etc.

7. Adjusted Net Profit : Represents the figure arrived at after deducting from the adjusted gross profit interest on loans and taxes but before appropriation to reserves.

8. Dividend Declared : Includes also preference dividend, if any.

9. Gross Profit & Net Profit : They are as given in the Annual Accounts of the Companies.

APPENDIX

ERRATA

S.No.	Page No.	Column No.	For	Read
1.	11	1984-85(7)	35.36	35.36
2.	36 & 37	Heading secondline	1985-86	1986-87
3.	50	Second Table	1983-84 to 1985-86	1983-84 to 1986-87
4.	84	Tamilnadu (2)	14%	-
5.	123	Oman (3)	-	13.94
6.	133	Regular Gasoline (2) & Jet Kerosene (2)	US/USG US/USG	US¢/USG US¢/USG
7.	137	Mauritius Plaisance	145.-0	145.07
8.	148	Heading secondline	BR	BE
	148	IOC (2)	953	958
9.	153	Ninth line from the bottom	increase	increased
10.	156	Working Capital item 2 (4)	45.2%	15.2%
11.	159	8th line from top.	From by by	to be deleted
12.	160	6th line from top	Laons	Loans
13.	167	6th line from bottom (2)	218.06	218.6%
14.	171	Note: Second line from bottom	hot	not

EXCHANGE RATES : 1945-1986

(Rs. per U.S. Dollar)

Year	Calendar 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	9.570	9.702	9.445	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						

Notes: (1) A new value of the Indian Re.of 7.50 per 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 rates for the years 1970 and 1971 are based on 'Trade Conversion Factors'.

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

e = estimated.

Source: International Financial Statistics.

EXCHANGE RATES : 1946-1986

(Rs. per U.S. Dollar)

Year	Calendar 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	3.30952	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	3.49275	4.76190	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

Approximate Calorific Equvalents
(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. Soild 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). = 1.111 thousand million cub metres = 39.2 thousand million cub. feet = 107 million cubic feet/day of a year
4. Electricity	
(1 Kwh = 3412 BTU) (1 Kwh = 860 Kcal)	= 12 thousand million KWH

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

Itmes	Million tonnes of oil equals
1. Heat Units	
10 million million BTU	0.25
100 million therms	0.25
10.000 teraclaories	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.

COAL REPLACEMENT AND EQUVALENTS OF DIFFERENT FUELS

Fuels	Original Unit	Unit coal Equvalent in Million Tonnes (mtce)	Coal Replacement in Million Tonnes (mtcr)
1.	2.	3.	4.
Coal (coking 6640 Kcal/kg., Non-coking coal Used in steam generation(5000 Kcal/Kg.)	1mt	1.0	1.0
Hard Coke	1mt	1.3	1.3
Soft Coke	1mt	1.5	1.3
Firewood (4750 Kcal/Kg.)	1mt	0.95	0.95
Char Coal (6900 Kcal/Kg.)	1mt	1.0	1.0
2. OIL PRODUCTS : 10,000 Kcal/Kg.			
Black Products (i.e. Fuel Oil; F.O.; Refinery Fuel, LSHS,HHS).	1mt	2.0	2.0
Kerosene & LPG	1mt	2.0	8.0
HSDO & LDO	1mt	2.0	9.0
Motor Spirit & Jet Fuel	1mt	2.0	7.5
Natural Gas (9000 Kcal/Kg.)	109 x m3	1.8	3.6
Electricity	109 kwh	1.0	1.0

m = Million
mt = Million Tonnes
Source = Fuel Policy Commitee - 1974

mtce = Million Tonnes of Coal Equvalent

mtcr = Million Tonnes of Coal Replacement.

Coefficients Used To Convert From Original
Units into Standard Coal Equvalents.

Products	Hard Coal	Lignite Brown Coal	Fuel wood
1.	2.	3.	4.
A. PRIMARY SOLIDS			
1. Standard Factor	1.000	0.385	0.333
2. India	0.714	0.330	
B. OTHERS			Hydrocarbons
1. Petroleum Crude			1.454
2. Natural Gas Liquids (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 Terjouls)*			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 per cubic metre of gas under standard conditions of 15`c, 013.25 mbar, dry.

(x)

Average International Calorific Value of different Fuels

		Kcals/Kg. Mcals/Tonne	BTUS/Kg.
	1.	2.	3.
A.	Oil Equvalence:		
	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 Equvalence:		
	Average Hard Coal(b)	7,000	27,775
D.	I N D I A:		
	Hard Coal	5,000	19,840
	Lignite-Brown Coal	2,310	9,16
	Firewood @	4,750	18,848
	Charcoal @	6,900	27,379
			Kcals/Cu.metre
E.	Natural Gas-Production:(Average) India		8,000-9,480
F.	Electricity:		
	Output Basis(c)		860
	Fuel Input basis(d)		2,500-2,700

(a) Represent average global factor for crude oil/NGL production. For a Speicfic crude oil relevant convertion factor may have to be used.

(b) Factor used by United Nations to represent average calorific value of hard coals for purposes of standardising coal production to hard coal equvalent base.

(c) Calorific value of 1 kwh of electricity.

(d) Represents Kcals of hydro-carbon energies required to produce 1 kwh of electricity.

@ - As per Report of Fuel Policy Commitee 1974.

Conversion Factor: 1 Kcal - 4.19 Kjouloes.

PETROLEUM SPECIFIC GRAVITIES.

Degrees A.P.I.	Specific Gravity	Barrels per tonne*	Long ton*
25	0.9042	6.98	7.09
26	0.8984	7.02	7.13
27	0.8927	7.06	7.18
28	0.8871	7.10	7.22
29	0.8816	7.15	7.27
30	0.8762	7.19	7.31
31	0.8708	7.24	7.36
32	0.8654	7.28	7.40
33	0.8602	7.33	7.45
34	0.8550	7.37	7.49
35	0.8499	7.42	7.54
36	0.8448	7.46	7.58
37	0.8398	7.51	7.63
38	0.8348	7.55	7.67
39	0.8299	7.60	7.72
40	0.8251	7.64	7.76
41	0.8203	7.69	7.81
42	0.8156	7.73	7.85

* Approximate figure at 15.6 degrees C or 60 degree F.

PRODUCT SPECIFIC GRAVITY RANGES

P R O D U C T S	Specific Gravity	Barrels per tonne
Crde Oils	0.80-0.97	8.0-6.6
Avitation 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	3.25	23.8	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 EQUVALENT MULTIPLY BY

PRODUCTS	MULTIPLIERS
L.P.G.	1.130
Naphtha	1.075
Avitation 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

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
AvitationSpirit	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. Avitation Spirit 100/130	0.9827
2. Avitation Spirit 114/145	0.9820
3. Avitation Spirit 73 Clear	0.9824
4. Avitation 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

PRODUCT CONVERSION FACTOR

(Conversion Factor From Volume To Tonnes At Natural Temp.)

PRODUCTS	Litres to Metric Tonnes	Tonnes per K.L.	American Barrels to Matric tonnes
1.	2.	3.	4.
Avitation Spirit 100/130	1421	0.7034	8.94
Avitation Spirit 114/145	1449	0.6901	9.11
Avitation 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	1411	0.7087	8.88
JP=4	1384	0.7225	8.71
JP=5	1273	0.7855	8.01
Avitation 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 Petrloeum 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.Cock/Chemicals	1114	0.8977	7.01
Aromex	1221	0.8190	7.68
Linear Alkyl Benzen Feed Stock	1205	0.8239	7.58

MASS AND WEIGHTS

1 Ounce	=	28.3495 Grams (g).
1 Pound	=	0.453592 Kilogram (kg.).
	=	0.00892857 Hundred Weight.
1 Kilogram	=	2.20462 Pounds.
	=	0.01 Quintal.
1 Hundred Weight (cwt)	=	112 Pounds.
	=	50.8023 Kilograms (kg.).
1 American (Short) Ton	=	2000 Pounds.
	=	0.907185 Tonne.
	=	0.892857 Long Ton.
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 Kilowatt 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 (Pferdestaerke or Cheval Vapeur)	=	735.499 Watts (W).
	=	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 POnunds Force/Second.
	=	1.35962 Metric Horsepower.
	=	1.34102 Imperial 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 (dm3) 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 Cubic Foot.
	=	0.02894 American Barrel.
	=	0.00454609 Cubic Metre (m3).
1 Cubic Foot	=	28.3168 Cubic Decimetres (dm3) or Litres.
	=	7.48052 American Gallons.
	=	6.22883 Imperial Gallons.
	=	0.17811 American Barrel.
	=	0.0283168 Cubic Metre (m3).
1 American Barrel	=	9702 Cubic Inches.
	=	158.987 Cubic Decimetres (dm3) or Litrees.
	=	42 American Gallons.
	=	34.9726 Imperial Gallons.
	=	5.6146 Cubic Feet.
	=	0.158987 Cubic Metre (m3).
1 Cubic Metre	=	1000 Litres.
	=	264.172 Americal 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 of Permanently Enclosed Space.
1 Ton of Liquified Methane	=	Approx. 16 Barrels.
	=	Approx. 1400 Cubic Metres of Natural Gas Depending Upon Methane Content.

CONVERSION FACTORS USED IN THE OIL TRADE LINEAR AND SQUARE MEASURES.

LENGTH

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

AREA

1 Square Inch	=	645.16 Square Millimetres (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.
1 Square Mile	=	640 Acres.
	=	258.999 Hectares.
	=	2.58999 Square Kilometres (km2).

METRIC UNITS

LINER

10 Millimetres	=	1 Centimetre.
10 Centimetres	=	1 Decimetre.
10 Decimetres	=	1 Metre.
10 Metres	=	1 Decametre.
10 Decametres	=	1 Hectometre.
10 Hectometres	=	1 Kilometre.

AREA

100 Sq. Millimetres	=	1 Sq. Centimetre.
100 Sq. Centrimetres	=	1 Sq. Decimetre.
100 Sq. Decimetres	=	1 Sq. Metre.
100 Sq. Metres	=	1 Sq. Decimetre = 1 Acre.
100 Sq. Acres	=	1 Sq. Hectometre.
	=	1 Hectare.
100 Hectares	=	1 Sq. Kilometre.

WEIGHT

10 Milligrams	=	1 Centigram.
10 Centigrams	=	1 Decigram.
10 Decigrams	=	1 Gram.
10 Grams	=	1 Decagram.
10 Decagrams	=	1 Hectogram.
10 Hectograms	=	1 Kilogram.
100 Kilograms	=	1 Quintal.
1000 Kilograms	=	1 Matric Tonne.

CAPACITY

10 Millilitres	=	1 Centilitre.
10 Centilitres	=	1 Decilitre.
10 Decilitres	=	1 Litre.
10 Litres	=	1 Decalitre.
10 Decalitre	=	1 Hectolitre.
10 Hectolitres	=	1 Kilolitre.

VOLUME

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

(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).
HV	: High Viscosity Index.
KL	: Kilometre.
LR I	: Large Range I (45,000-79, 999 dwt).
lR II	: Large Range II (80,000-1, 59,999 dwt).
LV	: Low Viscosity.
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.
HV	: High Viscosity.
P	: Provisional.

ABBREVIATIONS

(i) Companies/Organisations

AOC	: Assam Oil Company.
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.
HPCL	: Hindustan Petroleum Corporation Limited.
HIL	: Hydrocarbons India Limited.
IBP Co. Ltd.	: IBP Co. Limited.
INDROL	: INDROL Lubricant & Specialities Limited.
IIP	: Indian Institute of Petroleum.
IPE	: Institute of Petroleum Exploration.
IOBL	: Indian Oil Blending Limited.
IOC	: Indian Oil Corporation Limited.
LIL	: Lube India Limited.
Lubrizol	: Lubrizol India Limited.
MRL	: Madras Refineries Limited.
POCL	: Petrosil Oil Company Limited.
OIL	: Oil India Limited.
ONGC	: Oil & Natural Gas Commission.
OPEC	: Organisation of Petroleum Exporting Countries.
TWOC	: Tide Water Oil Company.
PCL	: Petrofils Cooperative Limited.
NOCIL	: National Organic Chemical Industries Limited.
WIODC	: Western India Oil Distributing Company Limited.

(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.

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.