PREFACE

The present publication is the twenty-second of the annual series brought out by the Economics & Statistics Division which presents detailed petroleum and natural gas statistics relating to India 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 calender year basis, the former to meet the requirments 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 a couple of new tables including crude petroleum product prices around the world. 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 in various tables, we would welcome suggestion from readers for rectification of any error or omission noticed by them.

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Deputy Adviser

October, 1988.

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SCOPE AND COVERAGE OF DATA PUBLISHED

1. Scope: The Indian Petroleum & Natural Gas Statistics presents comprehensive statistics on various aspects of Indian Petroleum 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, incorporated 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 particular State.

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

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

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

7. Petroleum Exports: The data relating to export of crude oil includes Indian Crude oil (Bombay High) consigned for processing abroad. The refined petroleum products supplied by the Indian oil 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 companies on behalf of Nepal for processing of crude oil in Indian refineries and arranging supplies of desired products to Nepal. Petroleum products actually brought into the country from processing of Indian or International crudes at foreign refineries for Indian oil companies, have also been included under the product import figures.

9. Value of Import/Export: The value data in respect of exports of petroleum 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 abbreviations 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	1980-81	1983-84	1984-85	1985-86	1986-87	1987-88(P)
1.	2.	3.	4.	5.	6.	7.	8.
1. Geographical Area	m.sq.km.	3.29	3.29	3.29	3.29	3.29	3.29
2. Population	Million	685	730	745	761 (e)	776 (e)	791 (e)
3. Gross National Product at factor cost:							
i) At current prices	Rs/Crores	122571	185462	205308	231876	259155	N.A.
ii) At 1980-81 prices	,,	122571	143418	147816	155000	161298	N.A.
4. Net National Produc at factor cost:							
i) At current prices	Rs/Crores	110484	166140	183051	205436	229035	N.A.
ii) at 1980-81 prices	,,	110484	128922	132367	138611	143935	N.A.
5. Per Capita Net National Product:							
i) At current prices	Rupees	1627.2	2294.8	2477.0	2721.0	2974.5	N.A.
ii) At 1980-81 prices	,,	1627.2	1780.7	1791.2	1835.9	1869.3	N.A.
6. Foreign Exchange Reserves:							
i) Gold	Rs/Crores	225.6	225.6	245.8	274.3	274.3	274.3
ii) SDR	Mn.SDRs	490.5	216.4	146.5	115.1	139.4	69.7
iii) Foreign Exchange	Rs/Crores	4822.1	5497.9	6816.8	7384.4	7645.2	6360.1
7. Foreign Trade:							
i) Import	Rs/Crores	12549	15832	17134	19658	20084	22343
ii) Export	Rs/ ,,	6711	9771	11744	10895	12567	15719
iii) Balance of Trade	,,	-5838	-6061	-5390	-8763	-7517	-6624
8. INdex of Production:							
i) Agriculture	*	135.3	156.4	154.6	161.7	152.6	N.A.
ii) Industrial	1980-81=100	100.0	120.4	130.7	142.1	155.1	164.4**
9. Wholesale Prices Index:	1970-71=100	257.3	316.0	338.4	357.8	376.8	405.2
10. Consumer Prices Index:							
i) Industrial Workers	1960=100	401	547	582	620	674	736
ii) Agricultural Labourers	1960-61=100	N.A.	520	N.A.	546	572	629
iii) Urban Non-manual workers	1960=100	369	492	532	568	613	656**
11. Employment:							
i) Organised sector							
a) Public sector	Million	15.48	16.87	17.27	17.68	18.00	18.47**
b) Private sector	,,	7.40	7.35	7.31	7.36	7.36	7.34**
TOTAL:	,,	22.38	24.22	24.58	25.04	25.36	25.81**
ii) No. of persons on life register of employment exchange@	Million	16.20	22.35	23.92	27.03	30.48	29.57
12. Energy Generation (Gross):							
Coal	Mn. Tonnes	113.91	138.22	147.41	154.20	165.69	179.75
Lignite	,,	5.11	7.30	7.80	8.05	9.63	10.15
Natural gas (Mn. cubic Metres)		2358	5961	7241	8134	9853	11422
Crude oil	Mn. Tonnes	10.51	26.02	28.99	30.17	30.48	30.36
Petroleum Products	,,	25.49	34.86	35.27	42.37	45.37	47.28
13. Electricity:							
i) Utilities:	B.KWH						
Hydel	,,	46.54	49.95	53.82	50.54	53.76	47.40
Thermal	,,	61.30	86.68	98.54	114.12	128.82	149.46
Nuclear	,,	3.00	3.55	4.08	4.98	5.02	5.34
TOTAL:	,,	110.84	140.18	156.44	170.04	187.61	202.20
ii) Non-Utilities:	,,	8.42	10.69	12.21	13.37	14.78	16.07
GRAND TOTAL	,,	119.26	150.87	168.65	183.41	202.39	218.27

SOURCE: (1) RGI's 1st March estimes. (2) Economic Survey.
(P)=Provisional/BE. N.A.=Not Availabe. (e)=Projected Figures based on 1981 Census.
*Triennium ending 1969-70=100.
@=As at end of March
**Provisional/Estimated.

Selected Economic Indicators of the Indian Economy

	Unit	1980-81	1983-84	1984-85	1985-86	1986-87	1987-88(P)
1.	2.	3.	4.	5.	6.	7.	8.
1. Reserves@ (Balance recoverable)							
i) Crude Oil	Mn.Tonnes	366	527	511	500	558	581
ii) Natural Gas Bn.	Cub.Metres	352	475	478	479	497	541
2. Consumption							
i) Crude Oil (in terms of refinary cruds throughput)	Mn.Tonnes	25.84	35.26	35.56	42.91	45.70	47.74
ii) Petroleum Products	,,	30.90	35.84	38.80	40.87	43.66	46.40
3. Production:							
i) Cruds Oil	,,	10.51	26.02	28.99	30.17	30.48	30.36
ii) POL. Products	,,	24.12	32.89	33.23	39.88	43.76	44.63
4. Imports & Exports:							
(a) Gross Imports:	Mn. Tonnes						
i) Qty.: Crude Oil	Mn.Tonnes	16.25	15.97	13.64	15.15	15.48	18.04
POL Products	,,	7.29	4.33	6.09	3.86	3.04	3.93
TOTAL-(i)	,,	23.54	20.30	19.73	19.01	18.52	21.97
ii) Value: Crude oil	Rs/Crores	3349	3541	3430	3687	2120	3065
POL products	,,	1917	1271	1915	1274	653	973
TOTAL (ii)	,,	5266	4812	5345	4961	2773	4038
(b) Exports:							
i) Qty.: Crud Oil	Mn.Tonnes	--	5.52	6.48	0.53		
POL Produts	,,	0.04	1.47	0.93	1.96	2.49	3.41
TOTAL- (i)	,,	0.04	6.99	7.41	2.49	2.49	3.41
ii) Value: Crude Oil	Rs/Crores	--	1231	1563	135	--	--
POL Products	,,	8	357	255	510	411	649
TOTAL-(ii)	,,	8	1588	1818	645	411	649
(c) Net Imports:							
i) Qty.: Crude Oil	Mn. Tonnes	16.25	10.44	7.16	14.62	15.48	18.04
POL Products	,,	7.25	2.86	5.16	1.90	0.55	0.52
TOTAL- (ii)	,,	23.50	13.30	12.32	16.52	16.03	18.56
ii) Value: Crude Oil	Rs/Crores	3349	2310	1867	3552	2120	3065
POL Products	,,	1909	914	1660	764	242	324
TOTAL - (ii)	,,	5258	3224	3527	4316	2362	3389
(d) Unit Value of crude oil imports (Cross)	Rs/MT	2061	2217	2515	2435	1370	1699
5. India's Total Exports	Rs/Crores	6711	9771	11744	10895	12567	15719
6. POL Imports as Percentage of India's exports							
i) Gross imports	%	78.5	49.2	45.5	45.5	22.1	25.7
ii) Net imports	%	78.3	33.0	30.0	39.6	18.8	21.6
7. Contribution of Oil Sector to Center/State Resources							
i) Royalty from Cruds Oil	Rs/Crores	41	155	389	379	1091aa	570
ii) Royalty from Gas	,,	3	13	24	24	46	78
iii) Oil Development Cess	,,	60	813	844	866	989	1513
iv) Excise & Custom duties	,,	1512	1649	2077	2886	3183	4563(RE)
v) Sales Tax	,,	628	1099	1263	1564	1888	1871
vi) Generation of internal resources	,,	359	1633	2044	2358	2792	3237
vii) Corporation Tax	,,	76	1012	920	740	792	797(P)
8. Natural Gas:							
i) Gross Production	Mn.Cu.Meters	2358	5961	7241	8134	9853	11422
ii) Utilisation	,,	1222	3399	4141	4950	7072	7945

N.A.=Not Available. (P)=Provisional. @=As on 1st January of First year.
aa=This includes impact of Addl. royalty of Rs. 131 per mt. due to revision of rates
(RE)=Recived Estimates.

PART—I
PETROLEUM STATISTICS

PART—I

PETROLEUM STATISTICS

HIGHLIGHTS OF INDIAN PETROLEUM INDUSTRY DURING THE YEAR 1987-88

1. The intensifiecation of the exploration and production activities in the country during 1987-88 were done by ONGC by commissioning 5 new drilling rigs from BHEL and 6 new workover rigs. A new seismic party GP-85 started seismic survey operations in Combay Basin in Western Region with land air guns as an energy source and 3D seismic survey was taken up for the first time in Eastern Region. Drill- ship Sagar Bhusan was commissioned in Bombay Offshore.

2. Drilling operation were extended by ONGC to 30 onland structures (out of which 7 were located in Cauvery Basin in Tamil Nadu, 5 in Krishna-Godavari, 9 in Western Region, 4 in Central Region, 4 in Eastren Region, and one in Northern Region) and 14 new offshore structures (out of which 7 in Bombay, 5 in Cauvery, one in Bengal and one in Kerala Kankan offshore areas).

3. Oil and Gas were discovered in different new onland structures due to intensified exploration activities by ONGC & OIL. Oil was discovered in 2 new structures in Cauvery Basin, one in Combay Basin, 2 in Arunachal Pradesh, and 2 in Assam). Gas was struck in Agartala (Tripura) and in Kumchai (Arunachal Pradesh).

4. The exploration work undertaken by ONGC in the offshore area led to the discovery of oil in 3 new structures in Bombay offshore and one in Krishna-Godavari offshore. Gas was also struck in two new structures in Bombay offshore.

5. A new isolated structures 'Pakhajan' and a new isolated gas pool 'Akhaj ' both in Western Region were put on production. Early production System was commissioned at Namti in Eastern Region and Bhuvangiri-2 in Southern region and at Bhandut structure in Western Region.

6. One LPG plant at Hazira in Gujarat and two effluent treatment plants, one at Vadinar and one at Viramgam were commissioned during the year.

7. The import of crude oil increased to 18.04 million tonnes during the year 1987-88 as against 15.48 millions tonnes during 1986-87 and the production of crude oil during the year was 30.36 million tonnes.

8. Ten new LPG bottling plants, of which four by BPCL at Jabalpur, Jalgoan, Solarpur and Lalru, three by HPCL at Srinagar, Jind and Raipur, and three by IOC at Durgapur, Sawaimadhopur and Hazira were commissioned during the year.

9. The oil companies expanded their marketing activities by opening 267 new retail outlets, 113 new Kerosene/LDO dealerships and 241 new LPG dealerships during the year.

10. About 14 lakhs new LPG consumers were enrolled during the year. With this the number of LPG domestic consumers increased to over 138 lakhs at the end of 1987-88.

11. The basic ceiling selling price of Motor Spirit of both grade was increased by Rs. 1000 per KL with effect from 9th January, 1988.

CHRONOLOGY OF IMPORTANT EVENTS IN THE HISTORY OF PETROLEUM INDUSTRY IN INDIA FOR 1987-88

A. EXPLORATION AND PRODUCTION

1. Oil India Limited

1987 In June, oil was discovered in deeper new stratigraphic horizones in Dignjan formation in Kharsang Well No. 29.

In July, oil was discovered in Barail formation in Dirori (Assam).

In September, oil and gas were discovered in Girujan formation in Kumchai (Arunachal Pradesh).

In October, oil was discovered in Barail and Tipam formations in Hapjan (Assam).

2.Oil & natural Gas Commission

1987. In April, a new workover rig was commissioned in Western Region and 3 new structures (two onland and one offshore) were taken up for drilling. A new BHEL rig was commissioned in Adamtilla (Cachar) in Eastern Region.

In May, early production system was commissioned at Kovil Kalappal in Southern Region and 6 new structure (3 onland & 3 offshore) were taken up for drilling. A new BHEL rig was commissioned in Surinsar (Jammu).

In June, two new workover rigs were commissioned and the South Malpur structure was put on production in Western Region, HBJ gas pipeline was charged and supply of gas to M/s GAIL and Sabar Dairy in Mehsana in Western Region commenced. Five new structures (3 offshore and 2 onland) were taken up for drilling and oil was struck in a new structure in Bombay Offshore.

In July, two new rigs were commissioned in Western Region, and 3 new structures (one offshore and 2 onland) were taken up for drilling, oil & gas was struck in new structures in Krishna-Godavari and Bombay Offshore areas and Gas was struck in well Agartala in Tripura.

In August, a new isolated structure Pakhajan and South Viraj structure in Western Region were put on production EOR Pilot Scheme in Western Region and indigineously fabricated process platform SCA were commissiond, gas supplies to Baroda Industries from Dabka GCS commenced. Oil and gas were struck in one and two new structures respectively in Bombay Offshore area and one new onland structure was taken up for drilling.

In September, 3 new onland structures were taken up for drilling.

In October, a new isolated gas pool 'Akhaj' in Western Region was put on production, 4 new structures (3 onland and one offshore) were taken up for drilling, a new gravity magnetic Party started operations in Rajasthan, a new seismic party started seismic survey operations in Cambay Basin with land air guns as an energy source. Oil was struck in a new structure in Cauvery Basin in Southern Region.

In November, early production system was commissioned at Namti in Eastern Region, 5 new structures (3 onland and 2 offshore) were taken up for drilling, a new rig drill Ship Sagar Bhusan was commissioned in Bombay Offshore.

In December, early production system was commissioned at Bhuvangiri-2 in Southern Region and an LPG plant was commissioned at Hazira, Four new onland structures were taken up for drilling and a BHEL rig was commissioned in Tichna in Tripura.

1988 In January, gas collecting module (CGM) at Narsapur and supply of gas from Razole structure both in Southern Region and EOR Pilot Scheme at Sanand (Western Region) were commissioned. Two new onland structure were taken up for drilling, 3D seismic survey was taken up for the first time in Eastern Region and Oil was struck at Bechraji structure in Cambay Basin.

In February, Narimanam-Nagapattinam gas pipeline was commissioned and gas supplies to M/s Indian Steel Rolling Mills Ltd., Nagapattinam and M/s. Bell Ceramics in Western Region commenced, second gas collecting Module (GCM) at Narsapur in Southern Region was commissioned. Three new structures (one offshore and two onland) were taken up for drilling.

In March, free gas structure 'Gajera' and Bhandut structure in Western Region was put on production, five new structures (3 onland and 2 offshore) were taken up for drilling, one BHEL rig in Ghotaru (Rajasthan) was commissioned. Oil was struck at Naunilam structure in Cauvery Basin.

3. Gas Authority of India Limited

1987 In June, gas was taken at Hazira Terminal.

In August, gas was received at Bijapur Terminal and inauguration of gas supply to NFL Fertilizer Plant at Bijaipur was done by Hon'ble Minister for Petroleum & Natural Gas.

In Octover, coating of 18 pipes were completed.

In December, agreement was signed with M/s Punj Sons and M/s Dodsal respectively for coating of pipes and for construction of Vagodia-IPCL Pipeline.

1988 In February, coating of pipes were completed for Vagodia-IPCL pipeline section. Decision was taken by Ministry regarding transfer of responsibilities concerning processing transportation and marketing of Natural Gas with associated assets and liabilities from ONGC to GAIL in respect of Krishna Godavari and Cauvery Basin, Tripura, Western Onshore Region including Hazira Gas processing complex and CNG project.

In March, inauguration of gas supply to IFFCO Fertilizer Plant at Aonla was done by Hon'ble Minister for Petroleum and Natural Gas.

4. Hydrocarbons India Limited (HIL)

1987-88 After being requalified, the company for and on behalf of Indian Consortium of Oil and Natural Gas (ICON) submitted tenders for the prestigious projects - (a) Ahmadi Depot Projects, Kuwait and (b) Refinery Modification Projects, Bangladesh.

The Company, as external arm of ONGC, will take up production sharing contract in offshore block of Vietnam and other countries.

B. R E F I N I N G

1. Bharat Petroleum Corporation Limited, Bombay

1987 In June, Minister of Finance and Industries laid the foundation stone for C3 C4 separation facilities and co-generator gas turbine in the refinery

In August, the refinery achieved a record 8 million Man hour mark without loss time accident. The refinery was awarded the second prize in the processing group of Oil Industry Safety Awards, 1986-87.

In October, the minister of State for petrolem & Natural Gas received a dividend cheque of Rs.389.95 lakhs.

1988 In March, new CCU oil catcher at the refinery was inaugurated

2. Bongaigaon Refinery & Petrochemicals Limited

1987-88 The debottlenecking programme of CDU was completed and the crude refining capacity was increased from 1 MMTPA to 1.35 MMTPA. The PSF unit was mechanically completed and testing/commissioning of the unit was in progress.

3.Cochin Refiniries Limited

1987 In June, an Air Preheater for crude charge heaters was commissioned. The air preheater would result in an annual saving of about 14,450 tonnes of fuel oil worth around Rs. 190 lakhs.

In July, the company achieved an all-time high record of monthly crude throughput of 429,142 MT. Untill July, in CRL, LDO production was made by blending about 86% HSD with about 14% fuel oil. As a result of laboratory studies conducted by the company using clarified oil for blending LDO, it has been able to reduce the HSD component for blending to about 65%. Thus, for the first time CRL has made clarified oil as a component of LDO which has resulted in upgradation of fuel oil component to LDO. The saving an account of this new blend is about Rs. 2 lakhs per month based on the current monthly demand of 2000 MT of LDO.

The company has also achieved an all time high performance of 8483 POL wagon loadings during July.

In August, the company achieved an all time high performance of 228 LPG wagon loadings.

In december, with the loading of 8515 wagons, the refinery achieved an all time monthly record in POL wagon loading.The refinery once again achieved a safety record of one million manhours of continuous operation without a lost time accident.

1988 In February, the refinery processed 407,957 MT of crude oil. With this throughput, the refinery achieved the highest ever daily average throughput of 14,067 MT. In March, the refinery processed 429,685 MT of crude oil. This throughput is the highest monthly throughput ever achieved by the refinery. In term of capacity utilisation, the throughput works out to 114% of the prorated installed capacity. It has also achieved an all time record of loading 9,532 POL wagons. CRL was given the Award of merit by the National safety Council,

Chicago, for the operation of 1,095,978 employees hours without an occupational injury during July to December 1987.

4.Hindustan Petroleum Corporation Limited

Bombay & Vizag

1987-88 In April, HP Management Development Institute at Nagdi (near Pune) was set up with all intigrated facilities as a major step toward achieving the corporate objectives in training and development of its personnel.

In June, a memorandum of understanding was signed between HPCL, GOI and IRIL forming a joint sector company for the operation and execution of the Mangalore refinery and petrochemical project. HPCL was upgraded to the status of a schedule "A" corporation by GOI for its overall growth and performance.

In July, pilot plant at Bombay refinery for ATF de-aromatisation was commissioned. for the year ending March 1988, HPCL recorded the highest ever combined crude throughput of 9.08 million tonnes for its refineries at BOmbay and Vizag.

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

(a) IOC 's Refineries

(i) Assam Oil Division, Digboi (Assam)

1987 In November, the Digboi-Makum Section of 6" Digboi-Tinsukia white oil pipeline was extensively repaired and commissioned for Black oil Duty.

In December, captive power generation capacity was enhanced by installing (a) 1000 KVA 3.3 KV D.G set in fields power station.

1988 In February, the 1000 KVA, 415 V D.G. set was commissioned in Refinery Power Station to enhance Captive power generation. Work has been started for setting up TEL Bending plant in Digboi for MS to replace existing outdated facilities at Tihsukia Terminal.

(ii) Barauni Refinery, Barauni, Bihar

1987-88 During July-August 1987, new high efficiency heaters in AVU-2 was commissioned. Micro-processors based control system was installed and commissioned in AVU-2

(iii) Gujarat Refinery, Kayali, Gujarat

1987 In September, production and despatch of MTO was commenced. In November, Indian oil's proposal for entering into collaboration for hydrocracking technology with M/s Chevron Research Company, USA was approved by Govt of India. This will be the first hydrocracker in India.

In December, process design work was completed for modification of existing Vis-breaker Unit to soaker technology.

1988 In January, disign basis for the Gujrat hydrocracker was finalised with M/S Chevron.

(iv) Haldia Refinery Project, Haldia, West Bengal

1987 In December, efficiency improvement of heaters in crude and vaccum units were mechanically completed.

1988 In March, short term facility for production and despath of RT fuel was completed.

(v) Mathura Refinery, Mathura, Uttar Pradesh

1988 In March, efficency improvement of heaters in crude and vacuum units was mechanically completed.

(b) Pipelines Division

1987 In April, undervoltage and overvoltage relays at Sendra pump stations were installed and commissioned.

In May, the installation and commissioning of 1000 KVA D.G. set at Vadinar completed.

In June, defective stretch of 18.5 Km main line pipes was replaced in Haldia-Barauni pipelines of HMRB.

In July, effluent treatment plant at Vadinar was completed and commissioned. Relaying of 120 meters length of 12" nominal diameter mainline at Ch. 24.6 Km for crossing the Satluj-Yamuna Canal on the company's pipelines route was carried out in Ambala-Jullunder Section of MJPL.

In September, effluent treatment plant at Viramgam was completed and commissioned.

In November, civil works for "Modification of SMPL for handling Bombay High Crude during winter" was completed.

1988 In January, electric resistance type (ER Type) corrosion probes were installed at Vadinar, Viramgam and Koyali Stations of SMPL for monitoring internal corrosion of pipeline. Modification of mainline pump at Gauhati was carried out to operate the pump at higher capacity with proper dischage pressure.

In February, new C.P. Stations were commissioned at both side of Kot and Surender Nagar in SMPL and at Buxer and Mathurapur in BKPL to have improved cathodic protection of these pipelines. Interface detectors were installed and commissioned at Koyali in KAPL and at Bongaigaon and Siliguri in GSPL for accurate tracing and cutting of interface of various products.

In March, solar panel and battery banks at Dekawada (SMPL) and Reghunathpur (BKPL) C.P. stations were installed. Microprocessor based control system with control panel at Sidhpur pump station was installed.

6. Madras Refinerys Limited, Tamil Nadu

1987 In July, the Union Minister of State for petroleum and Natural gas inaugurated MRL's 10 MW Gas Turbine Unit at function in the refinery.

In September, MRL enters capital market for the first time to finance its propylene project and asphalt plant improvement scheme.

In November, first consignment of hydrogen supplied to TPL,MRL secured marketing rights for suppling LAB feed stock to LAB plant of TPL.

1988 In March, MRL and Chevron Chemical Co. of USA signed an agreement to set up a plant for 1500 tonne for the manufacture of lube oil additives.

M A R K E T I N G

1. Bharat Petroleum Corporation Limited

1987 In June, the Jabalpur botting plant was commissioned.

In August, the Jalgaon LPG botting plant was commissioned. BPCL was awarded the Ist prize in the marketing group of 'oil industry safety awards 1986-87'

1988 In January, Sholarpur LPG plant was commissioned.

In February, the Lalru LPG bottling plant was commissioned.

In March, about 3,25,520 new LPG connections were released during the year 1987-88.

2.Hindustan Petroleum Corporation Limited

1987 In July, LPG bottling plant with an installed capacity of 7000 tonnes per year at Srinagar was commissioned.

In August, LPG bottling plant at Jind with an installed capacity of 12500 tonnes per year was commissioned.

In September, LPG bottling plant at Raipur with an installed capacity of 5000 tonne per year was commissioned.

3. Indian Oil Corporation Limited (Marketing Division)

1987 In April, mobile lab commissioned in Southern Region.

In May, a depot at Bhatinda and bulk lube oil tankage for SE Railway, waltair were commissioned.

In July, the first exclusive 2/3 wheeler outlet in the country was commissioned in Madras.

In August, 575 KL tanks for Aromax was commissioned at Korukkupet Terminal, Madras.

In September, non-space dispensing pumps at Coco-I and Coco-II (carporation-owned-corporation operated) was developed, erected and commissioned at Bombay. The unprecendented fuel requirement for Indian peace keeping force opreations at SR Defence locations for Shri Lanka commenced.

In October a new depot at Dimapur and two new AFSS at Jaisalmer and Utterali were commissioned.

In November, commissioning of 1x6800 KL tank for ATF at Vasco was done and double bulking operations for Naphtha export from Vasco started.

In December, the biggest ever parcel of SKO at Bombay ex-tanker Nomicose-D was handled.

1988 In January, a major LPG bottling plant was commissioned at Durgapur. For the first time, lubricatting base stocks were received from the refinery at Rio De Janeiro, Brazil through M/S Mobil, USA. Marketing of Indane at port Blair had started.

In February, a major LPG bottling plant was commissioned at Sawaimadhopur.

In March, a mjor LPG bottling plant was commissioned at Hazira. unprecendented ATF demand for Indian AIR FORCE bases coming under jurisdiction of Western and South Eastren Air Commands were met by Northern Region during Hammer Blow exercise. Bulk lube oil tankage for SC Railway at Golden Rock, Trichy was commissioned.

5. IBP Company Limited

1987 IBP achieved a major break through in its efforts towards becoming an intergrated Oil Company when construction work of its proposed Lube Blending plant at Budge, Incorporate another Budge Calcutta commenced in October 1987. This plant will blend IBP's own brand of Lubricating Oils, both automotive and industrial for selling through its marketing network.

IBP has also embarked upon an ambitious plan to set-up its own storage and distribution points,Vis. depots at Mathura, Allahabad, Muzaffarpur have already been incorporated in the Industry's additional product tankage programme.

L U B E P L A N T

1. Indian Oil Blending Limited

1988 The company celebrated its Silver Jubilee on 25th March,1988 from the date of its registration.

2.Lubrizol India Limited

1988 The company with the apporaval of the Government of India has entered into a new Technology Transfer Agreement effective from Ist january 1988. Under this agreement; the company will acquire formulation and manufacturing technology for higher performance additives and chemicals.

III INDAIN PETROLEUM INDUSTRY - PROGRESS AT A GLANCE (1947-48 - 1987-88)

Year	Balance recoverable reserves Crude oil (MMT)	Balance recoverable reserves Natural gas (Bn.M3)	Gross production of crude oil (MMT)	Natural gas production (Bn.M3)	Refinery crude th'put (MMT)	Refinery production (MMT)	Consumption (MMT)	Gross Imports Crude Oil (MMT/Rs.Crores)	Gross Imports POL Products (MMT/Rs.Crores)	Net Imports Crude oil/ POL Products Qut. MMT	Net Imports Crude oil/ POL Products Value Rs./ Crores	c.i.f. unit value of crude imports (Rs./ MT)	India's total Imports/ Exports Imports (Rs.crores)	India's total Imports/ Exports Exports (Rs.crores)	%age of POL imports to India's Export's	Central Excise & Custom duties on POL (Rs. / Crores	Index of Self reliance
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1947-48	4	3	.25	NA	.25	.23	2.72	-	2.36	NA	NA	-	NA	NA	NA	NA	9%
1950-51	4	2	.26	NA	.26	.23	3.46	-	3.11	NA	NA	-	NA	NA	NA	NA	7%
1960-61	45	22	.45	NA	6.13	5.78	7.99	5.71 (39)	2.22 (35)	7.71	43	68	NA	NA	NA	124	5%
1970-71	128	62	6.82	1.4	18.38	17.11	17.91	11.68 (107)	1.09 (30)	12.43	132	92	1634	1535	8.9%	638	36%
1975-76	144	88	8.45	2.4	22.28	20.83	22.45	13.62 (1052)	2.22 (204)	15.67	1242	772	5265	4036	31.1%	1155	35%
1976-77	275	185	8.90	2.4	23.00	21.43	24.10	14.05 (1176)	2.62 (248)	16.60	1417	837	5074	5142	27.7%	1222	35%
1977-78	303	228	10.76	2.8	24.90	23.22	25.54	14.51 (1246)	2.88 (308)	17.34	1546	859	6020	5408	28.7%	1279	38%
1978-79	347	266	11.63	2.8	25.97	24.20	28.24	14.66 (1251)	3.88 (430)	18.49	1677	853	6811	5726	29.4%	1480	38%
1979-80	354	344	11.77	2.8	27.47	25.79	29.88	16.12 (2188)	4.72 (1082)	20.76	3246	1357	9143	6418	51.0%	1620	36%
1980-81	366	352	10.51	2.4	25.84	24.12	30.90	16.25 (3349)	7.29 (1917)	23.50	5258	2061	12549	6711	78.5%	1512	30%
1981-82	468	411	16.19	3.9	30.15	28.18	32.52	15.30 (3736)	4.88 (1453)	19.29	4978	2442	13608	7806	66.5%	1582	45%
1982-83	471	420	21.06	4.9	33.16	31.07	34.66	16.95 (4044)	5.03 (1564)	16.83	4401	2386	14293	8803	63.6%	1664	55%
1983-84	527	475	26.02	6.0	35.26	32.89	35.84	15.97 (3541)	4.33 (1271)	13.30	3224	2217	15832	9771	49.2%	1649	66%
1984-85	511	478	28.99	7.2	35.56	33.23	38.80	13.64 (3430)	6.09 (1915)	12.32	3527	2515	17134	11744	45.5%	2077	70%
1985-86	500	479	30.17	8.1	42.91	39.88	40.87	15.14 (3687)	3.87 (1274)	16.52	4316	2435	19747	10895	45.5%	2886	64%
1986-87	558	497	30.48	9.8	45.70	42.76	43.66	15.48 (2120)	3.05 (653)	16.03	2362	1370	20063	12567	22.1%	3182	66%
1987-88 (P)	581	541	30.36	11.5	47.74	44.63	46.40	18.04 (3063)	3.93 (973)	18.56	3389	1698	22343	15719	25.7%	4563 (RE)	62%

NA= Not available. (P)=Provisional. @ = As on 1st January of initial years.

30.6.48
15.8.96
15.9.96

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	1987-88*
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
I.CRUDE														
1.Refinery Thr'put	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	47.7
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	30.4
(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	10.2
(b) Offshore	-	--	0.4	2.1	3.3	4.4	5.0	8.0	12.9	17.4	20.1	20.8	20.6	20.2
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	18.0
4.Exports	-	--	--	--	--	--	--	0.8	4.5	5.5	6.5	0.5	--	--
5.Net Imports(3-4)	17.7	13.6	14.0	14.5	14.7	16.1	16.2	14.5	12.4	10.5	7.2	14.6	15.5	18.0
II.PRODUCTS														
1.Domestic Consumption	17.9	22.4	24.1	25.5	28.2	29.9	30.9	32.5	34.7	35.8	38.8	40.9	43.7	46.4
of which @														
(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	2.8
(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	7.2
(c) High Speed Diesel	3.8	6.6	7.1	7.7	8.6	9.8	10.3	10.8	2.0	12.6	13.7	14.9	16.0	17.6
(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	8.0	8.1
2.Domestic Production	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	44.6
of which														
(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	5.5
(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	5.1
(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	16.3
(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	8.5
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	3.9
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	3.4
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	0.5

* Provisional
Neg. Negligible
@ Excluding Refinery Fuel Consumption
@@ Excluding supplies of POL Products to Nepal from 1970-71 to 1982-83.

V. GROWTH OF PETROLEUM INDUSTRY IN INDIA

(Calender Year)

(000 Tonnes)

Year	Crude oil		Petroleum Products	
	Production	Refinery Thru'put	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	21186	24897
1977	10185	24430	22795	26570
1978	11271	25626	23877	28894
1979	12839	28153	26360	31306
1980	9399	25075	23597	31633
1981	14925	29528	27575	34037
1982	19734	32107	29984	35403
1983	25148	34534	32298	37223
1984	27933	35235	32963	39934
1985	29860	41226	38264	42973
1986	31157	44940	41877	45483
1987(P)	30142	47440	44583	48361

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	2069.65	818.06	2887.71	-	389.32	389.32	2498.39
1987(P)	3105.25	884.69	3989.94	-	662.07	662.07	3327.87

(P) = Provisional.

* = Including Refinery Fuel.

GROWTH OF PETROLEUM INDUSTRY IN INDIA

(Financial Year) (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	30480	45699	42761	46274
1987-88 (P)	30357	47744	44634	49013

(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	2120.15	652.69	2772.84	--	411.23	411.23	2361.61
1987-88 (P)	3064.65	973.43	4038.08	--	648.75	648.75	3389.33

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

V. PETROLEUM ENERGY

PETROLEUM ENERGY IN INDIA 1982 - 1988
(Calendar Years)

	A V A I L A B I L I T Y			
PRODUCTS	1982	1984	1986	1988
1	2	3	4	5
	IN ORIGINAL UNITS @ (MILLION TONNES)			
Kerosene	5.19	5.96	6.77	7.26
ATF	1.31	1.42	1.64	1.66
HSD	11.77	13.42	15.96	17.13
LDO	1.11	1.21	1.17	1.23
Fuel Oils	7.21	7.78	7.91	7.98
Others*	3.97	4.88	6.55	7.02
Total	30.56	34.67	40.00	42.28
	IN MILLION TONNES OF COAL EQUIVALENT UNITS @			
Kerosene	10.38	11.92	13.54	14.52
ATF	2.62	2.84	3.28	3.32
HSD	23.54	26.84	31.92	34.26
LDO	2.22	2.42	2.34	2.46
Fuel Oils	14.42	15.56	15.82	15.96
Others*	7.94	9.76	13.10	14.04
Total	61.12	69.34	80.00	84.56
	IN MILLION TONNES OF COAL REPLACEMENT UNITS @			
Kerosene	41.52	47.69	54.16	58.08
ATF	9.83	10.62	12.30	12.45
HSD	105.93	120.74	143.64	154.17
LDO	9.99	10.91	10.53	11.07
Fuel Oils	14.42	15.56	15.82	15.96
Others*	21.09	26.61	32.51	36.04
Total	202.78	232.13	268.96	287.77
	C O N S U M P T I O N (#)			
PRODUCTS	1982	1984	1986	1988
1	2	3	4	5
	IN ORIGINAL UNITS (MILLION TONNES)			
Kerosene	5.13	5.84	6.52	7.09
ATF	1.13	1.30	1.59	1.63
HSD	11.64	13.31	15.70	17.16
LDO	1.05	1.18	1.15	1.22
Fuel Oils	7.13	7.79	8.02	8.15
Others*	3.84	4.93	6.47	6.90
Total	29.92	34.35	39.45	42.15
	IN MILLION TONNES OF COAL EQUIVALENT UNITS @			
Kerosene	10.26	11.68	13.04	14.18
ATF	2.26	2.60	3.18	3.26
HSD	23.28	26.62	31.40	34.32
LDO	2.10	2.36	2.30	2.44
Fuel Oils	14.26	15.58	16.04	16.30
Others*	7.68	9.86	12.94	13.80
Total	59.84	68.70	78.90	84.30
	IN MILLION TONNES OF COAL REPLACEMENT UNITS @			
Kerosene	41.04	46.72	52.16	56.72
ATF	8.48	9.75	11.93	12.23
HSD	104.76	119.79	141.30	154.44
LDO	9.45	10.62	10.35	10.98
Fuel Oils	14.26	15.58	16.04	16.30
Others*	20.44	26.38	34.95	38.82
Total	198.43	228.84	266.73	289.49

(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: 1982-1983, TO 1987-88 (Financial Years)

A V A I L A B I L I T Y

PRODUCTS	1982-83	1984-85	1986-87	1987-88
1	2	3	4	5
	IN ORIGINAL UNITS (MILLION TONNES)			
Kerosene	5.27	5.93	6.76	7.22
ATF	1.38	1.41	1.64	1.74
HSD	12.34	13.59	16.13	17.56
LDO	1.12	1.25	1.16	1.25
Fuel Oils	7.29	7.89	7.91	7.86
Others*	4.13	5.15	6.59	7.14
Total	31.58	35.22	40.19	42.77
	IN MILLION TONNES OF COAL EQUIVALENT UNITS @			
Kerosene	10.54	11.86	13.52	14.44
ATF	2.76	2.82	3.28	3.48
HSD	24.68	27.18	32.26	35.12
LDO	2.24	2.50	2.32	2.50
Fuel Oils	14.58	15.78	15.82	15.72
Others*	8.26	10.30	13.18	14.28
Total	63.06	70.44	80.38	85.54
	IN MILLION TONNES OF COAL REPLACEMENT UNITS @			
Kerosene	42.16	47.44	54.08	57.76
ATF	10.35	10.58	12.30	13.05
HSD	111.06	122.31	145.17	158.04
LDO	10.08	11.25	10.44	11.25
Fuel Oils	14.58	15.78	15.82	15.72
Others*	21.99	27.95	33.11	36.86
Total	210.22	235.31	270.92	292.68

C O N S U M P T I O N (#)

PRODUCTS	1982-83	1984-85	1986-87	1987-88
	IN ORIGINAL UNITS (MILLION TONNES)			
Kerosene	5.21	5.96	6.65	7.23
ATF	1.15	1.34	1.60	1.65
HSD	12.01	13.70	16.01	17.66
LDO	1.07	1.20	1.16	1.24
Fuel Oils	7.30	7.94	8.05	8.14
Others*	4.08	5.07	6.62	7.14
Total	0.82	35.21	40.09	43.06
	IN MILLION TONNES OF COAL EQUIVALENT UNITS @			
Kerosene	10.42	11.92	13.30	14.46
ATF	2.30	2.68	3.20	3.30
HSD	24.02	27.40	32.02	35.32
LDO	2.14	2.40	2.32	2.48
Fuel Oils	14.60	15.88	16.10	16.28
Others*	8.16	10.14	13.24	14.28
Total	61.64	70.42	80.18	86.12
	IN MILLION TONNES OF COAL REPLACEMENT UNITS @			
Kerosene	41.68	47.67	53.20	57.84
ATF	8.63	10.02	12.00	12.38
HSD	108.09	123.26	144.09	158.94
LDO	9.63	10.78	10.44	11.16
Fuel Oils	14.60	15.88	16.10	16.28
Others*	21.61	27.82	38.02	39.85
Total	203.24	234.93	271.85	296.45

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

VI. EXPLORATION

AREA WISE DEPLOYMENT OF DEEP DRILLING RIGS, WELLS & METERAGE DRILLED BY ONGC & OIL FROM 1970-71 TO 1987-88.

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
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	19	77	231	101	309	733
1987-88*	92	272	577	26	91	266	118	363	843
			(B.) OIL INDIA LIMITED:						
1970-71	4	12	48	--	--	--	4	12	48
1975-76	3	11	36	--	--	--	3	11	36
1980-81	4	9	33	1	1	4	5	10	37
1981-82	5	17	64	--	--	--	5	17	64
1982-83	5	14	60	--	--	--	5	14	60
1983-84	5	23	79	1	3	10	6	26	88
1984-85	7	25	86	1	2	10	8	27	96
1985-86	8	28	110	1	--	9	9	28	119
1986-87	10	26	103	2	2	17	12	28	120
1987-88*	12	32	118	1	--	6	13	32	124
			TOTAL (A + B):						
1970-71	35	101	216	--	--	1	36	101	216
1975-76	38	117	265	4	15	28	42	132	293
1980-81	38	81	167	8	33	82	46	114	249
1981-82	43	115	275	7	46	111	50	161	386
1982-83	45	128	284	13	64	162	58	192	446
1983-84	48	140	338	15	91	219	63	231	556
1984-85	60	152	366	14	75	171	74	227	537
1985-86	72	218	520	19	77	189	91	295	709
1986-87	92	258	605	21	79	248	113	337	853
1987-88*	104	304	695	27	91	272	131	395	967

* = Provisional.

EXPLORATORY & DEVELOPMENT DRILLING DONE BY ONGC & OIL.

YEAR	Exploratory		Development		Total	
	Wells (Nos.)	Metreage ('000')	Wells (Nos.)	Metreage ('000')	Wells (Nos.)	Metreage ('000')
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			ON SHORE :			
1970-71	51+IP	106	50+3P	112	101+3P	218
1975-76	49+IP	120	68+IP	145	117+2P	265
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
1987-88*	105+4P	307	199+8P	388	304+12P	695
			OFFSHORE:			
1970-71	--	1	--	--	--	1
1975-76	10	19	5	9	15	28
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
1987-88*	39+3P	111	52	161	91+3P	272
			TOTAL (A + B) :			
1970-71	52+1P	107	50+3P	112	101+3P	218
1975-76	59+1P	139	73+1P	154	132+2P	293
1980-81	59+2P	136	56+2P	113	115+4P	249
1981-82	64+2P	169	97+4P	217	161+6P	386
1982-83	74+3P	185	118+4P	261	192+7P	446
1983-84	83+4P	227	147+2P	330	230	557
1984-85	90+6P	248	133+1P	289	223+7P	537
1985-86	123+6P	337	172+7P	372	295+13	709
1986-87	122+6P	368	215+8P	485	337+14P	853
1987-88*	144+7P	418	251+8P	549	395+15P	967

(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 *			
1975	377	7	-	-	5	612	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
1988	289	2	305	-	7	398	1001
			B.	Oil India Limited			
1975	250	18	34	27	20	-	349
1980	273	26	40	48	34	-	421
1981	283	27	42	48	35	-	435
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
1988	333	44	61	29	62	108	637
			C.	OIL & Natural Gas Commission			
1975	605	79	320	141	28	-	1173
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
1988	2024	219	896	20	125	204	3488
				TOTAL (A + B + C)			
1975	1282	104	354	168	53	612	2523
1980	1641	159	527	173	72	568	3140
1981	1709	169	550	185	79	568	3260
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
1988	2646	265	1262	49	194	710	5126

* 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, 1988.

(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.	Andhra Pradesh	-	2145	-	5295	-	45000	-
2.	Tamil Nadu	2860	6451	271	11160	GC 595	-	-
3.	Assam (including Meghalaya, Nagaland Mizoram, Tripura & Arunachal Pradesh & Nefa)	8005	39553	11440	4979	CW 740 Photo geo - logical 1100	-	167
4.	Gujarat	9529	25505	1624	25628	-	-	-
5.	Madhya Pradesh.	-	15224	-	-	-	-	-
6.	Bihar	-	4387	93	-	-	-	-
7.	Himachal Pradesh & Punjab.	9710	12740	4915	4568	1489	-	330 200 (RM)
8.	Jammu & Kashmir	1764	11527	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	3333	647	2151	-	-	-
14.	Nepal	194	8446	1087	-	-	-	-
15.	Bhutan	-	1821	95	270	-	-	-
	TOTAL :	42049	211918	26393	81799	5729 +CW 740 + Photo-geolo-gical 1100 +GC 595 +CH 372	50400	497 +RM 200

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

STATE-WISE ACHIEVEMENT OF GEOPHYSICAL FIELD PARTIES OF ONGC AND OIL SINCE INCEPTION UPTO MARCH 1988.

(Provisional)

	STATE	DEPARTMENTAL		CONTRACT	
		Lines Kms.	SLK	Lines Kms.	SLK
	1	2	3	4	5
1.	Andhra Pradesh	7108	19384	1208	-
2.	Assam (including Tripura Mizoram, Arunachal Pradesh & Meghalaya)	24935	17918	250	-
3.	Gujarat	43202	41113	6556	-
4.	Bihar	2426	1930	-	-
5.	Himachal Pradesh & Punjab.	5400	910	-	549
6.	Madras/Tamil Nadu	9639	17264	3464	-
7.	Jammu & Kashmir	1937	-	99	-
8.	Orissa	1644	-	-	3814
9.	Uttar Pradesh	12190	10454	-	-
10.	Rajasthan	3554	8755	4105	8403
11.	West Bengal	16051	10327	2149	-
12.	Madhya Pradesh	73	197	-	-
	TOTAL ONSHORE	128159	128252	17831	15474
	OFFSHORE MAHANADI	175149	-	127124	13843
	TOTAL	303308	128252	144955	29317

SLK: Standard Line Kilometres.

STATE-WISE ACHIEVEMENT OF DRILLING IN INDIA SINCE INCEPTION UPTO MARCH 1988.

STATE	DRILLING (000 METRES)			
	DEPARTMENTAL		CONTRACT	
	Wells	Metreage	Wells	Metreage
1	2	3	4	5
A. ONLAND :				
1. Andhra Pradesh (Including Kerala)	32	118.7	-	-
2. Assam, Andaman & Nicobar (including Tripura, Mizoram, Meghalaya, West Bengal and Nagaland)	1319+7P	4336.9	4+1p	10.3
3. Gujarat (including Kutch Maharashtra and Madhra Pradesh)	2001	3253.7	-	-
4. Bihar	3	15.8	1	4.9
5. Himachal Pradesh (including Punjab)	9	31.9	2	9.5
6. Tamil Nadu & Pondicherry	38	96.3	-	-
7. Jammu & Kashmir	3	9.6	-	-
8. Orissa	-	-	-	-
9. Uttar Pradesh	3	8.6	1	5.3
10. Rajasthan	19	35.6	6	11.4
Total ONLAND	3427+7P	7907.1	14+1P	41.4
B. OFFSHORE :				
1. West Coast	598	1435.2	3	14.6
2. East Coast (Mahanandi+NEC)	73	227.4	10+P	42.7
Total OFFSHORE	671	1662.6	13+1P	57.3
TOTAL (A + b)	4098+7P	9569.7	27+2P	98.7

VII. C R U D E O I L

State wise Reserves of Crude Oil @

(MMT)

YEAR	ON SHORE				OFF SHORE	
	Gujarat	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	-	132.81
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
1988	143.02	124.38*	-	267.40	371.04	638.44

@ 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 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	33(a)	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
1987		2408	7626	10034	20108	30142	317191
1988							

(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)
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
1987-88*		2448	7745	10193	20164	30357	325083

* Provisional.

(e)= After takeover of AOC by Government in OCtober 1981, its production wing was merged with OIL. So the production figures shown under AOC are upto 14th October 1981 thereafter the same have been merged with OIL.

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
CALANDER YEARS							
1970	-	-	3359	3450	6809	-	6809
1971	-	-	3542	3643	7185	-	7185
1972	-	-	3653	3720	7373	-	7373
1973	-	-	3594	3604	7198	-	7198
1974	-	-	3735	3755	7490	-	7490
1975	-	-	4189	4094	8283	-	8283
1976	-	-	4267	4164	8431	228	8659
1977	-	-	4510	4237	8747	1438	10185
1978	-	-	4076	4227	8303	2968	11271
1979	-	-	4563	3869	8432	4407	12839
1980	2	-	1056	3812	4870	4529	9399
1981	2	-	4373	3544	7919	7006	14925
1982	1	-	5124	3142	8267	11467	19734
1983	25	-	4901	3469	8395	16753	25148
1984	42	-	4939	3802	8783	19150	27933
1985	60	-	4879	4276	9215	20645	29860
1986	59	4	5270	4530	9863	21294	31157
1987	40	9	5138	4847	10034	20108	30142
FINANCIAL YEARS							
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	57	5	5239	4561	9862	20618	30480
1987-88*	36	14	5154	4989	10193	20164	30357

* Provisional.

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
1988	62.11	105.49*	0.78	168.38	411.09	579.47

@ 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	Tripura	Gujarat	Total	Bombay High	
1	2	3	4	5	6	7
1970	996	-	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	2128	4	980	3112	6350	9462
1987	2162	33	940	3135	7771	10906
			F I N A N C I A L Y E A R S			
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	2155@	22	971	3148	6705	9853
1987-88*	2160@	43	1005	3208	8259	11467

@ = 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 and 1987-88.

* = 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
1987-88	1005	-	268	737
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
1987-88	2203**	55	735	1414

** :- Includes Tripura/Tamil Nadu and Arunachal Pradesh.

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
1987-88	8259	-	2439	5820
		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
1987-88	11467	54	3442	8025

State-wise Utilisation of Natural Gas in India

(Mn.Cubic Metres)

YEAR	ON-SHORE			OFFSHORE	GRAND
	Gujarat	Assam	Total	BOMBAY HIGH	TOTAL
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
1987-88*	737	1414	2151	5820	7971

* = Provisional.

INDUSTRY-WISE OFFTAKES OF NATURAL GAS IN INDIA

(Million Cubic Metres)

YEAR	Energy Purpose						Non Energy Purpose				
	Power Generation	Industrial Fuel	Tea plantation	Domestic-Fuel	Captive Use/LPG Shriukage	Total	Fertilizer	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	10	23	1316	3399
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
1987-88*	2721	281	99	34	1316	4451	3490	-	30	3520	7971

Neg. = Negligible
* = Provisional estimated.

IX. REFINING.

Petroleum Refining Capacity in India as on 1.4 1988 89

(Million Tonnes Per Annum)

Refinery	Year of Commissioning	Installed Capacity as on 1.4.~~1988~~ 1989	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~~ 9.50		
8. IOC, Haldia	1974	~~2.50~~ 2.75	23.5	
9. IOC, Mathura	1982	~~6.00~~ 7.50		
10. CRL, Cochin	1966	4.50		
11. MRL, Madras	1969	5.60		
12. BRPL, Assam	1979	1.35		
	TOTAL:	~~46.70~~ 49.85		
B. Refineries under Expansion:				
1. Mathura		6.00	7.50	April,1989
2. Koyali		8.10	9.50	Dec.,1988
B. 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 HCPL, Bombay

REFINERY CRUDE THROUGHOUT AND PRODUCTION OF PETROLEUM PRODUCTS 1960 TO 1987

('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			
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	44940	-	44940	41877	-	41877
1987 (P)	47440	-	47440	44583	-	44583
1988 (P)	47896	-	47896	44730		44730

REFINERY CRUDE THROUGHOUT AND PRODUCTION OF PETROLEUM PRODUCTS 1960-61 TO ~~1987-88~~ 1988-89

('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			
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	45699	-	45699	42761	-	42761
1987-88	47754	-	47744	~~44632~~ 44728	-	~~44632~~ 44728
1988-89	48803	-	48803	45699	-	45699

REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION (NET)
OF POL PRODUCTS 1960-61 - ~~1987-88~~ 1988-89 ('000' Tonnes)

YEAR	AOC/ AOD	BSR/ BPCL	ESSO/ HPCL	CORIL/ HPC(VMYU)	GUWAHATI	BARAUNI
1.	2.	3.	4.	5.	6.	7.
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
1987-88*						
Total Production	468	6178	5170	3351	770	2394
Crude Run.	547	6539	5456	3621	815	2638
1988-89 TP	558	5811	5243	3514	675	2591
Crude Run	574	6132	5506	3762	762	2815

*Provisional.

REFINERY-WISE CRUDE RUN AND TOTAL PRODUCTION (NET)
OF POL PRODUCTS 1960-61 - ~~1987-88~~ 1988-89 ('000' Tonnes)

YEAR	GUJARAT	HALDIA	MATHRUA	CRL	MRL	BR P&T	TOTAL
1.	2.	3.	4.	5.	6.	7.	8.
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	7835	2623	6353	4166	5192	1011	45699
1987-88*							
Total Production	7936	2527	6202	3946	4751	941	44634
Crude Run	8444	2808	6535	4111	~~5120~~ 5131	1109	47754
Total Prod	8071	2405	6162	4545	5155	969	45699
1988-89 Crude Run	8656	2636	6557	4761	5476	1166	48803

* Provisional.

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

(Qty. '000'Tonnes)

Products	1975-76	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(P)	1988-89(P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.Light Distillates	3630	4051	4295	4459	4101	5138	5313	6134	6315	8253	9069	~~9308~~ 9245	9457
of which :													
LPG*	331	383	403	406	366	410	406	514	596	867	995	~~1030~~ 1026	1034
Mogas	1275	1423	1515	1512	1519	1614	1797	1937	2144	2306	2515	~~2854~~ 2662	2822
Naphtha	1910	2120	2262	2415	2115	3004	2986	3578	3470	4955	5437	~~5460~~ 5462	5378
2. Middle Distillates	10769	12079	12476	13080	12115	14134	15625	16873	17226	21613	23324	~~24560~~ 24563	25362
of which													
Kerosene	2439	2450	2514	2539	2396	2907	3393	3528	3364	4030	4912	~~5105~~ 5104	5201
ATF	925	1077	1177	1104	1001	1009	1137	1195	1297	1519	1553	~~1690~~ 1695	1753
HSD	6285	7129	7350	7975	7371	9042	9761	10862	11086	14624	15450	~~16296~~ 16296	16656
LDO	946	1224	1227	1230	1108	949	1121	1081	1253	1177	1172	~~1257~~ 1259	1468
3. Heavy Ends	6430	7089	7422	8255	7907	8910	10135	9919	9694	10015	10368	~~10766~~ 10870	10886
of which													
F.O.	3595	3454	3425	4086	4041	4015	4829	4588	4095	3791	3865	~~4662~~ 4563	4243
LSHS/HHS	1488	1878	2219	2265	2079	2893	3135	3412	3791	4164	4146	~~3800~~ ~~3857~~ 3903	~~3857~~ 4614
Total Fuel Oils	5083	5332	5644	6351	6120	6908	7964	8000	7886	7955	8011	8462 8466	8857
Lube Oils	342	413	490	487	426	407	434	470	414	501	491	~~478~~ 478	497
Petroleum Coke	160	155	122	99	86	141	149	136	181	192	264	~~257~~ 257	275
Bitumen	697	992	962	1103	1082	1298	1397	1069	944	1107	1224	~~1374~~ 1370	1548
TOTAL PRODUCTION :	20829	23219	24193	25794	24123	28182	31073	32926	33236	39881	42761	~~44634~~ 44728	48803
Crude Throughout	22283	24898	25974	27474	25836	30146	33156	35263	35556	42910	45699	~~47764~~	45699
LPG Production from													
Natural Gas	-	-	-	-	-	73	169	223	277	363	494	558	~~724~~ 724
NGL PRODN.	-	-	-	-	-	-	25	50	58	83	186	266	354

(P) - Provisional

* - Excludes LPG production from Natural Gas.

PRODUCTION OF PETROLEUM PRODUCTS-1982 TO 1988

('000' Tonnes)

PRODUCT	PRODUCTION						% Variation	
	1982	1983	1984	1985	1986 P	1987	1986/1985	1987/1986
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
a) From Crude Oil:								
1. Light Distillates:	5112	5954	6226	7745	8859	9318	+14.4	+ 5.2
of which								
L.P. Gas	377	484	583	788	963	1021	+22.2	+ 6.0
Naphtha	2871	3473	3479	4586	5300	5574	+15.6	+ 5.2
Mogas	1750	1880	2062	2252	2464	2789	+ 9.4	+13.2
SBPS/Hexane	49	43	28	30	40	48	+33.3	+20.0
2. Middle Distillates:	15013	16512	17003	20451	22825	24332	+11.6	+16.6
of which								
ATF/Jet A-1	1092	1163	1332	1442	1510	1647	+ 3.3	+ 9.1
Kerosene	3253	3467	3304	3842	4735	5113	+23.2	+ 8.0
M.T.O.	90	84	105	104	104	110	--	+ 5.8
H.S.D.	9365	10588	10954	13725	15166	16106	+10.5	+ 6.2
L.D.O.	1104	1077	1197	1156	1176	1242	+ 1.7	+ 5.6
J.B.O.	61	80	50	96	70	63	-27.1	-10.0
3. Heavy Ends:	9859	9832	9734	10068	10193	10933	+ 1.2	+ 7.3
of which								
F.O.	4801	4486	4296	3944	3738	4659	- 5.2	+24.6
LSHS/HHS	3001	3335	3618	4152	4190	3957	+ 0.9	- 5.6
Total (Fuel Oils)	7802	7821	7914	8086	7928	8616	- 2.1	- 8.7
Lube Oils	404	462	455	470	478	507	+ 1.7	+ 6.1
Bitumens	1300	1216	919	1069	1247	1351	+ 6.7	+ 8.3
Pet. Coke*	159	127	174	180	249	267	+38.3	+ 7.2
Waxes	58	63	66	77	84	75	+ 9.1	-10.7
4. Total Production	29984	32298	32963	38264	41877	44583	+ 9.4	+ 6.5
5. Crude Run	32107	34534	35265	41226	44940	47445	+ 9.0	+ 5.6
(b) From Natural Gas:								
6. L.P.G.	147	208	261	342	465	542	+36.0	+16.6

* Includes Calcined pet. Coke

PATTERN OF REFINERY PRODUCTION

(Percentages)

PRODUCTS	1982	1983	1984	1985	1986	1987(P)
Light Distillates @	15.9	17.2	17.7	18.8	19.7	19.6
Middle Distillates	46.8	47.8	48.3	49.6	50.8	51.3
Heavy Fuel Oils	24.3	22.7	22.5	19.6	17.6	18.2
Bitumens	4.0	3.5	2.6	2.6	2.8	2.8
Lubes	1.3	1.3	1.3	1.1	1.1	1.1
Others	1.1	0.9	1.1	1.1	1.2	1.0
Total Production	93.4	93.4	93.6	92.8	93.2	94.0
RBF & Losses/Inventories	6.3	6.6	6.4	7.2	6.8	6.0
Crude Run	100	100	100	100	100	100

PRODUCTION OF PETROLEUM PRODUCTS-1982-83 TO 1987-88

('000' Tonnes)

PRODUCT	PRODUCTION						% Variation	
	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(P)	KSQP 1986-87 / 85-86	1987-88 / 1986-87
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	b) From Crude Oil:							
1.Light Distillates:	5313	6134	6315	8253	9069	9308	+ 9.9	+ 2.6
of which								
L.P. Gas	406	514	596	867	995	1030	+14.8	+ 3.5
Naphtha	2986	3578	3470	4955	5437	5460	+ 9.7	+ 0.4
Mogas	1797	1937	2144	2306	2515	2854	+ 9.1	+13.5
SBPS/Hexane	54	33	29	31	32	61	+ 3.2	+90.6
2. Middle Distillates:	15625	16873	17226	21613	23324	24560	+ 7.9	+5.3
of which								
ATF/Jet A-1	1137	1195	1297	1519	1553	1690	+ 2.2	+ 8.8
Kerosene	3393	3528	3364	4030	4912	5105	+21.9	+ 3.9
M.T.O.	98	82	107	106	105	109	- 0.9	+ 3.8
H.S.D.	9761	10862	11086	14624	15450	16296	+ 5.6	+ 5.5
L.D.O.	1121	1081	1253	1177	1172	1259	- 0.4	+ 7.3
J.B.O.	60	74	61	91	67	63	+26.4	+ 3.3
3.Heavy Ends:	10135	9919	9694	10015	10368	10766	+ 3.7	+ 3.8
of which								
F.O.	4829	4588	4095	3731	3865	4662	+ 2.0	+20.6
LSHS/HHS	3135	3412	3791	4164	4146	3800	- 0.4	- 8.3
Total	7964	8000	7886	7955	8011	8462	+ 0.7	+ 5.6
Lube Oils	434	470	414	501	491	478	- 2.0	- 2.6
Bitumens	1397	1069	944	1107	1224	1374	+10.6	+12.3
Pet. Coke*	149	136	181	192	264	257	+37.5	- 2.7
Waxes	58	64	73	81	79	75	- 2.5	- 5.1
4. Total Prodn:	31073	32926	33236	39881	42761	44634	+ 7.2	+ 4.4
5. Crude Run	33156	35263	35556	42910	45699	47744	+ 6.5	+ 4.5
	(b) From Natural Gas:							
6. L.P.G.	169	223	277	363	494	558	+36.3	+13.0

(P) Provisional. * Includes Calcined pet. Coke

PATTERN OF REFINERY PRODUCTION

(Percentages)

PRODUCTS	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88 P
Light Distillates @	16.0	17.4	17.8	19.2	19.9	19.5
Middle Distillates	47.1	47.9	48.4	50.4	51.0	51.4
Heavy Fuel Oils	24.0	22.7	22.2	18.5	17.5	17.7
Bitumens	4.2	3.0	2.7	2.6	2.7	2.9
Lubes	1.3	1.3	1.2	1.2	1.1	1.0
Others	1.1	1.1	1.2	1.0	1.4	1.0
Total Production	93.7	93.4	93.5	92.9	93.6	93.5
RBF & Losses/Inventories	6.3	6.6	6.5	7.1	6.4	6.5
Crude Run	100	100	100	100	100	100

Chapter

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	45483	+ 5.8	1986-87	46274	+ 6.7
1987(p)	48164	+ 5.9	1987-88(p)	49012	+ 5.9

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 1987-88.

('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	1987 -88	Annual Growth Rate of 1987-88 / 1970-71
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11	12	13.	14.	15.	16.
1.LIGHT DISTILLATES:	2697	3596	4042	4228	4583	4460	4388	5187	5420	5600	6318	6776	7412	7542	6.3
of which: LPG	176	336	368	391	408	410	405	492	601	746	953	1241	1497	1686	14.2
Mogas	1453	1275	1316	1391	1499	1490	1522	1599	1722	1891	2084	2275	2505	2810	3.9
Naphtha	904	1836	2196	2290	2515	2413	2325	2963	2958	2804	3125	3106	3249	2852	7.0
2.MIDDLE DISTILATES:	9040	11653	12655	13771	15172	16321	17056	17919	19660	20651	22429	23948	25656	27998	6.9
of which: Kerosene	3283	3104	3322	3634	3952	3872	4228	4693	5214	5524	5959	6229	6645	7231	4.8
ATF/Jet A-1	689	897	956	1041	1154	1144	1125	1128	1145	1208	1336	1453	1603	1654	5.3
HSD	3837	6595	7106	7736	8638	9801	10345	10832	12013	12600	13696	14886	16009	17657	9.4
LDO	1092	878	1082	1164	1216	1266	1122	1036	1067	1097	1198	1123	1156	1245	0.7
3.HEAVY ENDS:	6175	7198	7404	7540	8486	9102	9452	9417	9577	9590	10048	10148	10594	10829	3.3
FO/LDO	3513	4279	4220	3958	4395	4796	5406	4306	4208	4207	4256	3806	3793	4191	1.0
LSHS	962	1381	1499	1847	2189	2268	2065	2878	3093	3351	3688	4094	4254	3953	7.5
HHS	189	121	14	34	84	17	2								
Total Fuel Oils	4664	5781	5733	5839	6668	7081	7473	7184	7301	7558	7944	7900	8047	8144	3.3
Lube Oils	523	425	436	459	526	546	570	567	577	590	634	658	721	756	2.2
Greases	22	16	18	19	18	20	23	25	28	27	30	42	34	35	2.8
Lubes & Greases(Total)	545	441	454	478	544	566	593	592	605	617	664	700	755	791	2.3
Bitumens	777	690	882	908	943	1069	1064	1292	1379	1050	935	1126	1309	1379	3.4
Petroleum Coke	107	151	175	146	155	185	137	174	103	114	234	163	208	244	5.0
Other Misc.	82	135	160	170	176	201	185	175	189	251	271	259	275	271	7.3
Total (1+2+3)	17912	22447	24101	25539	28241	29883	30896	32523	34657	35841	38795	40872	43662	46369	5.8
Refinery Fuel	1223	1226	1299	1451	1478	1440	1365	1584	1738	1935	2033	2491	2612	2643	4.6
GRAND TOTAL	19135	23673	24500	26690	29719	31323	32261	34107	36395	37776	40828	43363	46274	49012	5.7

P = Provisional.

PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE YEARS 1982 TO 1987.

(Qty.'000' Tonnes)

PRODUCT	1982	1983	1984	1985	1986	1987 (P)	% change 1987/88	% age share of Total'87
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.Light Distillates:	5327	5390	6223	6683	7213	7415	2.8	15.4
L.P.Gas	560	702	886	1175	1431	1629	13.8	3.4
Naphtha	2944	2696	3153	3107	3194	2875	-10.0	6.0
Mogas	1691	1834	2026	2247	2428	2735	12.6	5.7
SBP/Haxane	48	52	53	54	62	65	4.8	0.1
Others	84	106	105	100	98	111	13.3	0.2
2.Middle Distillates:	19166	20363	21855	23714	25208	27318	8.4	56.7
Kerosene	5125	5392	5838	6168	6522	7088	8.7	14.7
ATF/Jet A-1	1128	1187	1302	1431	1588	1627	2.5	3.4
HSD	11642	12459	13310	14713	15703	17165	9.3	34.6
LDO/MDO	1050	1095	1175	1145	1149	1220	6.2	2.6
JBO	70	76	65	81	75	62	-17.3	0.1
MTO	87	85	98	100	101	103	2.0	0.2
Others	64	69	67	76	70	53	-24.3	0.1
3.Heavy ends:	9340	9591	9851	10186	10456	10811	3.4	22.4
Fuel Oils (total)	7126	7527	7786	7955	8016	8150	1.7	16.9
F.O./TDO	4107	4269	4221	3933	3761	4024	7.0	8.3
LSHS/HHS	3019	3258	3565	4022	4255	4126	-3.0	8.6
Lubes & Greases	597	605	653	696	736	794	7.9	1.7
Bitumen/Asphalt	1304	1134	944	1103	1216	1357	11.6	2.8
Pet.Coke	125	101	202	180	199	212	6.5	0.4
Wax	56	75	68	75	86	78	-9.3	0.2
Others	132	149	198	177	203	222	9.4	0.4
Total (1+2+3)	33833	35344	37929	40583	42877	45544	6.2	94.5
Refinery Fuel@	1570	1879	2005	2390	2606	2620	0.5	5.5
GRAND TOTAL:	35403	37233	39934	42973	45483	48164	5.9	100.0

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

PRODUCT-WISE SALES/CONSUMPTION OF PETROLEUM PRODUCTS DURING THE YEARS 1982-83 TO 1987-88

(Qty.'000' Tonnes)

PRODUCT	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88 (P)	% age change 1986-87 / 1987-88	%age share of Total 1987 / 1988
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.Light Distillates:	5420	5600	6318	6776	7412	7542	1.8	15.4
L.P.Gas	601	746	953	1241	1497	1686	12.6	3.4
Naphtha	2958	2804	3125	3106	3249	2852	-12.2	5.8
Mogas	1722	1891	2084	2275	2505	2810	12.2	5.7
SBP/Haxane	47	54	51	54	64	66	3.1	0.2
Others	92	105	105	100	97	128	32.0	0.3
2.Middle Distillates:	19660	20651	22429	23948	25656	27998	9.1	57.1
Kerosene	5214	5524	5959	6229	6645	7231	8.8	14.8
ATF/Jet A-1	1145	1208	1336	1453	1603	1654	3.2	3.4
HSD	12013	12600	13696	14886	16009	17657	10.3	36.0
LDO/MDO	1067	1097	1198	1123	1156	1245	7.7	2.5
JBO	72	64	76	85	70	60	-14.3	0.1
MTO	85	88	99	100	102	104	2.0	0.2
Others	64	70	65	72	71	47	-33.8	0.1
3.Heavy Ends:	9577	9590	10048	10148	10594	10829	2.2	22.1
Fuel Oils (total)	7301	7558	7944	7900	8047	8144	1.2	16.5
F.O./TDO	4208	4207	4256	3806	3793	4191	10.5	8.5
LSHS/HHS	3093	3351	3688	4094	4254	3953	-7.3	8.1
Lubes & Greases	605	617	664	700	755	791	4.8	1.6
Bitumen/Asphalt	1379	1050	935	1126	1309	1379	5.3	2.8
Pet.Coke	103	114	234	163	208	244	17.3	0.5
Wax	60	70	77	76	82	78	-4.9	0.2
Others	129	181	194	183	193	193	--	0.4
Total (1+2+3)	34657	5841	38795	40872	43662	46369	6.2	94.6
Refinery Fuel@	1738	1935	2033	2491	2612	2643	1.2	5.4
GRAND TOTAL:	36395	37776	40828	43363	46274	49012	5.9	100.0

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

16.

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	8.33	8.17	7.92	8.83	7.83	8.25	7.09
May	9.00	8.42	7.92	9.00	7.75	8.25	8.34
June	8.41	8.00	7.92	8.33	7.25	7.42	8.17
1st Quarter Total	25.74	24.59	23.76	26.16	22.83	23.92	23.60
July	8.17	8.00	8.16	8.00	7.42	7.33	8.17
August	8.00	8.16	8.08	7.25	7.42	7.58	8.00
September	7.92	8.25	8.25	7.33	8.41	7.00	8.00
2nd Quarter Total	24.09	24.41	24.49	22.58	23.25	21.91	24.17
October	8.33	8.42	8.42	8.08	8.75	7.59	8.34
November	8.17	8.67	8.83	8.50	9.33	8.00	8.59
December	8.67	8.33	8.92	8.92	10.00	9.33	9.09
3rd Quarter Total	25.17	25.42	26.17	25.50	28.08	24.92	26.02
January	8.33	8.67	8.92	8.67	9.17	9.33	8.84
February	8.17	8.08	8.50	8.17	8.00	8.83	8.42
March	8.50	8.83	8.16	8.92	8.67	11.09	8.95
4th Quarter Total	25.00	25.58	25.58	25.76	25.84	29.25	26.21
T O T A L :	100.00	100.00	100.00	100.00	100.00	100.00	100.00

NOTE : (i) Based on Sales/Consumption data from 1980-81 to 1987-88 (Prov.)
(ii) Moving Average Method.

SALES/CONSUMPTION OF PETROLEUM PRODUCT AND MARKET PARTICIPATION OF OIL COMPANIES IN INDIA. 1965-66 TO 1987-88.

(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	S/C	25820	7935	7944	-	1669	294	43662
	%	59.1	18.2	18.2	-	3.8	0.7	100
1987-88(p)	S/C	27036	8558	8720	-	1880	158	46369
	%	58.3	18.5	18.8	-	4.0	0.4	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 years 1975-76 TO 1987-88

(Qty.'000' Tonnes)

ITEMS	1975 -76	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88
1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.
Shipping International Bunkers:										
F.O.	137.2	135.8	148.7	67.1	85.0	104.4	154.9	64.3	110.2	165.1
H.S.D.	11.4	17.7	15.4	16.8	14.5	17.0	12.4	10.1	6.4	12.0
L.D.O.	39.5	63.1	50.4	52.3	41.7	42.3	36.6	31.5	33.7	44.7
TOTAL	188.1	216.6	214.5	136.2	141.2	199.7	203.9	105.9	150.3	221.8
Coastal Bunkers:										
F.O.	178.3	126.4	128.9	149.6	172.2	142.0	143.2	167.7	197.6	200.0
H.S.D.	25.9	41.9	42.0	61.4	81.0	86.3	86.7	98.3	134.0	140.0
L.D.O.	28.1	28.4	32.4	36.8	47.8	47.1	49.0	39.9	35.6	32.6
TOTAL	232.3	196.7	204.3	247.8	301.0	275.4	278.9	305.9	367.2	372.6
Total Bunkers:										
F.O.	315.5	262.2	277.6	216.7	257.2	282.4	298.1	232.0	307.8	365.1
H.S.D.	37.3	59.6	58.4	78.2	95.5	103.3	99.1	108.4	140.4	152.0
L.D.O.	67.6	91.5	82.8	89.1	89.5	89.4	85.6	71.4	69.3	77.3
TOTAL	420.4	413.3	418.8	384.0	442.2	475.1	482.8	411.8	517.5	594.4

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

STATE-WISE CONSUMPTION OF MAJOR PETROLEUM PRODUCTS: 1987-88 (Prov.)
(Including International Bunkers)

State/Territory	ATF	MS	SKO	HSD	LDO	F.O (REG.)	LSHS	NAPHTHA	LPG	BITUMEN	OTHERS	TOTAL
1	2	3	4	5	6	7	8	9	10	12	13	14
A. STATES												
1. Andhra Pradesh	51	169	473	1366	21	110	58	64	140	67	68	2587
2. Assam	56	56	236	295	6	62	42	24	27	26	51	881
3. Bihar	12	106	415	943	182	234	196	130	38	86	94	2436
4. Gujarat	63	226	667	1109	193	328	1623	610	149	117	162	5247
5. Haryana	25	73	132	685	43	261	124	-	44	44	28	1459
6. Himachal Pradesh	Neg	13	32	84	2	5	1	-	5	8	3	153
7. Jammu & Kashmir	12	34	68	123	8	2	1	-	9	21	9	287
8. Karnataka	50	169	389	908	19	190	48	103	81	38	43	2038
9. Kerala	29	139	229	600	12	141	95	166	46	40	81	1578
10. Madhya Pradesh	23	118	331	1027	18	272	66	25	79	71	87	2117
11. Maharashtra	640	508	1256	2096	276	773	938	285	376	150	344	7642
12. Manipur	1	9	19	21	-	-	-	-	3	6	1	60
13. Meghalaya	-	11	15	39	Neg	Neg	-	-	3	1	1	70
14. Nagaland	-	12	11	16	-	Neg	-	-	1	4	1	45
15. Orissa	10	40	132	347	16	141	73	90	10	19	30	908
16. Punjab	69	163	279	1134	18	449	158	4	61	31	46	2412
17. Rajasthan	44	89	226	986	21	63	31	133	48	105	37	1783
18. Sikkim	Neg	3	4	3	Neg	Neg	-	-	Neg	1	Neg	11
19. Tamil Nadu	75	185	568	1803	49	466	322	341	157	106	96	4168
20. Tripura	3	5	19	23	-	Neg	-	-	2	4	1	57
21. Uttar Pradesh	70	241	789	2080	131	145	96	554	153	209	142	4610
22. West Bengal	109	128	653	971	157	352	62	95	81	92	275	2975
TOTAL (A)	1342	2497	6943	16659	1172	3994	3934	2624	1513	1246	1600	43524
B. UNION TERRITORIES												
1. Asian Islands	3	2	4	29	1	1	-	-	Neg	2	1	43
2. Arunachal	2	4	9	18	Neg	-	-	-	1	4	Neg	38
3. Chandigarh	17	19	15	29	4	2	3	-	11	60	3	163
4. Delhi	271	260	200	741	59	88	10	4	144	43	74	1894
5. DNE Haveli	-	1	2	3	1	Neg	-	-	Neg	Neg	Neg	7
6. Goa, Daman & Diu	19	17	26	91	5	98	6	224	9	17	38	550
7. Lakshadweep	-	-	Neg.	2	-	Neg	-	-	-	-	-	2
8. Mizoram	-	5	7	15	Neg.	-	-	-	2	4	Neg	33
9. Pondisherry	-	7	12	54	3	3	-	-	3	3	1	86
TOTAL (B)	312	315	275	982	73	192	19	228	170	133	117	2116
C. OUTSIDE TERRITORIES Bhutan	Neg	2	3	12	Neg	Neg	-	-	1	1	1	20
D. ADJUSTMENT/(+/-)	-	-4	+10	+4	-	+5	-	-	+2	-1	-7	+9
GRAND TOTAL (A+B+C+D)	1654	2810	7231	17657	1245	4191	3953	2852	1686	1379	1711	46369

Figures inflated to the extent of the magnitude of lubricating oils sales by the PVT Companies.

Estimated State-wise per capta Sales/Consumption of POL Production

(Kgs.)

State Territory	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987 88(P)
A. STATES								
Andhra Pradesh	33.3	32.7	34.3	36.2	37.7	38.8	40.0	42.4
Assam	26.6	27.0	28.4	27.6	31.5	33.7	35.4	37.7
Bihar	20.5	23.5	26.4	24.7	25.2	26.1	28.5	30.0
Gujarat	114.6	112.3	124.6	123.4	128.3	127.8	133.0	134.6
Haryana	64.7	78.7	76.9	77.0	82.0	80.0	88.2	94.4
Himachal Pradesh	19.9	19.8	19.5	20.9	23.3	24.7	27.0	31.5
Jammu & Kashmir	27.7	27.3	26.4	28.6	28.9	33.1	37.3	41.1
Karnataka	34.1	35.9	36.6	38.4	41.6	42.6	47.0	47.5
Kerala	44.9	44.4	43.3	44.3	48.3	48.5	52.0	54.9
Madhya Pradesh	21.6	23.0	25.4	28.1	30.0	31.7	32.8	35.0
Maharashtra	92.4	90.0	87.3	92.8	98.6	101.2	101.5	106.3
Manipur	29.2	32.6	33.3	42.3	32.5	30.6	32.7	35.7
Meghalaya	20.2	21.1	26.2	36.2	36.2	40.9	42.4	43.5
Nagaland	28.4	31.2	33.8	39.8	33.7	40.4	40.4	44.1
Orissa	20.5	24.4	23.6	22.2	24.9	26.5	27.5	30.4
Punjab	84.0	96.5	100.1	105.8	110.9	113.9	113.8	126.8
Rajasthan	31.8	33.2	35.8	34.9	38.2	39.4	42.1	43.2
Sikkim	36.7	25.8	27.6	27.3	28.1	38.9	33.3	26.2
Tamil Nadu	66.8	60.8	66.5	65.6	70.2	72.8	74.7	77.1
Tripura	13.1	17.1	17.5	15.2	17.9	18.8	20.6	23.5
Uttar Pradesh	23.1	26.7	28.9	29.0	32.4	31.8	34.8	35.9
West Bengal	39.8	41.6	42.0	45.4	47.1	45.1	45.9	47.6
B. OTHER AREAS								
Chandigarh	209.3	217.8	185.8	226.0	235.6	226.9	246.8	250.8
Delhi	187.6	188.4	195.0	208.2	219.7	214.9	216.6	229.9
Goa.(incl.Daman & Diu Dadra & Ngr.Haveli)	290.6	401.8	414.8	368.1	375.6	368.0	393.4	400.7
Others	52.0	54.6	60.2	56.9	63.4	69.5	79.1	83.5
TOTAL ALL-INDIA @	48.2	49.5	52.8	35.9	57.5	55.9	59.7	62.0

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

PRODUCT	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(P)
Naphtha	3.5	4.3	4.2	3.9	4.3	4.2	4.2	3.6
M.S.	2.3	2.3	2.5	2.6	2.9	3.0	3.2	3.6
SKO	6.3	6.9	7.5	7.7	8.2	8.3	8.6	9.1
HSDO	15.5	15.7	17.2	17.6	18.7	19.7	20.6	22.3
LDO	1.7	1.5	1.5	1.5	1.6	1.5	1.5	1.6
F.O. (Regular)	8.1	6.3	6.0	5.9	5.8	5.0	4.9	5.3
LSHS/HHS	3.1	4.2	4.4	4.7	5.1	5.3	5.5	5.0
TOTAL ALL-INDIA @ SALES CONSUMPTION	48.2	49.5	52.0	52.8	55.9	57.3	59.3	62.0

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 1987-88.

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

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF LP GAS NAPATHA & HSDO DURING 1985-86 To 1987-88

(Qty.'000' Tonnes)

SECTOR	1985-86 Consumption	1985-86 % to Total	1986-87 Consumption	1986-87 % to Total	1987-88(P) Consumption	1987-88(P) % to total
1.	2.	3.	4.	5.	6.	7.
		L. P. GAS:				
1. Domestic	1100	88.6	1341	89.5	1415	83.9
2. Commercial/Industry	140	11.3	144	9.6	243	14.4
3. Others	1	0.1	13	0.9	28	1.7
TOTAL:	1241	100.0	1498	100.0	1686	100.0
		NAPHTHA:				
1. Fertilizers	2360	76.0	2488	76.6	2075	72.8
2. Petrochemicals	718	23.1	724	22.3	743	26.0
3. Others	28	0.9	37	1.1	34	1.2
TOTAL:	3106	100.0	3249	100.0	2852	100.0

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF HSDO, LDO FO & LSHS : 1985-86 & 1987-88.

(Qty.'000' Tonnes)

SECTOR	1985-86 Consumption	1985-86 % to Total	1986-87 Consumption	1986-87 % to Total	1987-88(P) Consumption	1987-88(P) % to total
1.	2.	3.	4.	5.	6.	7.
			HSDO			
1. Transport:						
i) Railways	1217	8.2	1309	8.2	1375	7.8
ii) Water ways:						
(a) Coastal&Inland Bunkers	98	0.6	134	0.8	140	0.8
(b) International Bunkers	10	0.1	6	Neg.	12	0.1
iii) Other transport (incl.Agr.retail trade)	11555	77.6	12559	78.5	13833	78.3
Sub-TOTAL:1	12880	86.5	14008	87.5	15360	87.0
II. Plantation/Food (Incl.processing)	149	1.0	155	1.0	177	1.0
III. Power Generation (Utilities)	160	1.1	161	1.0	209	1.2
IV. Industry						
i) Iron & Steel	63	0.4	60	0.4	57	0.3
ii) Textile & Fibre	249	1.7	236	1.5	243	1.4
iii) Cement	119	0.8	145	0.9	196	1.1
iv) Ceramic & Glass	1.4	0.1	14	0.1	20	0.1
v) Chemicals & Allied	80	0.5	76	0.5	73	0.4
vi) Aluminium	3	Neg.	4	Neg.	4	Neg.
vii) Sugar	38	0.3	42	0.3	48	0.3
viii) Mining & Quarrying	414	2.8	454	2.8	514	2.9
ix) Engg.(Mech. & Elec.)	135	0.9	135	0.8	165	0.9
x) Fertilizers	36	0.2	22	0.1	26	0.2
xi) Other Industries & Construction	112	0.8	105	0.7	154	0.9
Total IV	1263	8.5	1293	8.1	1500	8.5
V. Misc. Services (Incl.DGS&D)	434	2.9	392	2.4	411	2.3
GRAND TOTAL:	13696	100.0	16009	100.0	17657	100.0

P = Provisional

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF LDO & FO DURING 1985-86 TO 1987-88.

(Qty. '000' Tonnes)

I T E M	1985-86 Consum-ption	1985-86 % to Total	1986-87 Consum-ption	1986-87 % to Total	1987-88 Consum-ption	1987-88 % to Total
1.	2.	3.	4.	5.	6.	7.
		L.D.O				
I. Transport:						
i) Railways	7	0.6	8	0.7	6	0.5
ii) Water ways:						
a) Coastal & Inland Bunkers	40	3.6	35	3.0	33	2.6
b) International Bunkers	31	2.8	34	3.0	44	3.5
iii) Other transport (incl. Agr. retail trade)	8	0.7	9	0.8	18	1.4
Sub - T O T A L - 1:	86	7.7	86	7.5	101	8.0
II. Plantation/Food (incl. Processing)	30	2.7	30	2.6	32	2.6
III. Power Generation (Utili)	255	22.7	273	23.6	251	20.2
IV. Industry						
i) Iron & Steel	40	3.5	35	3.0	36	2.9
ii) Textile & Fibre	26	2.3	31	2.7	28	2.3
iii) Cement	9	0.8	7	0.6	10	0.8
iv) Ceramics & Glass	33	2.9	37	3.3	41	3.3
v) Chemicals & Allied	67	6.0	78	6.8	91	7.3
vi) Aluminium	1	0.1	5	0.4	5	0.4
vii) Sugar	4	0.4	3	0.3	2	0.2
viii) Mining & Quarrying	10	0.9	8	0.7	13	1.0
ix) Engg. (mech. & Elec.)	104	9.2	116	10.0	115	9.2
x) Fertilizers	10	0.9	4	0.3	6	0.5
xi) Other Industries & Construction	93	8.3	109	9.4	173	13.9
Total IV	397	35.3	433	37.5	520	41.8
V. Misc. Services (incl. DGS&D)	355	31.6	334	28.8	341	27.4
T O T A L :	1123	100.0	1156	100.0	1245	100
		F.O. (Regular):				
I. Transport:						
i) Railways	44	1.1	39	1.0	37	0.9
ii) Water ways:						
a) Coastal & Inland Bunke	168	4.4	198	5.2	200	4.8
b) International Bunkers	64	1.7	110	2.9	165	3.9
iii) Other transport (incl. Agr. retail trade)	14	0.4	11	0.3	14	0.3
Sub - T O T A L - 1:	290	7.6	358	9.4	416	9.9
II. Plantation/Food (incl. Processing)	132	3.5	125	3.3	130	3.1
III. Power Generation (Utilities)	804	21.1	712	18.8	636	15.2
IV. Industry						
Iron & Steel	170	4.5	150	4.0	161	3.8
Textile & Fibre	225	5.9	195	5.1	230	5.5
Cement	40	1.0	40	1.1	40	1.0
Ceramics & Glass	83	2.2	67	1.8	87	2.1
Chemicals & Allied	553	14.5	437	11.5	508	12.1
Aluminium	60	1.6	66	1.7	74	1.8
Sugar	14	0.4	10	0.3	11	0.3

(P) = Provisional.

ESTIMATED SECTOR-WISE (END-USE) INDUSTRY CONSUMPTION OF FO & LSHS: 1985-86 to 1987-88

(Qty. '000' Tonnes)

I T E M	1985-86 Consum-ption	% to total	1986-87 Consum-ption	% to total	1987-88(P) Consu-ption	% to total
1	2	3	4	5	6	7
		FO (Regular)				
viii) Mining & Quarrying	53	1.4	31	0.8	39	0.9
ix) Engg. (Mech. & Elec.)	168	4.4	165	4.3	151	3.6
x) Fertilizers	500	13.1	787	20.7	979	23.3
xi) Other Industries & Construction	471	12.4	481	12.7	485	11.6
Total IV	2337	61.4	2429	64.0	2765	66.0
V. Misc. Services (incl. DGS&D)	243	6.4	69	4.5	244	5.8
SUB TOTAL	3806	100.0	3793	100.0	4191	100.0
		LSHS/HHS (Rev.)				
I. Transport	4	0.1	4	0.1	2	0.1
II. Plantation/Food (incl. Processing)	34	0.8	38	0.9	36	0.9
III. Power Generation (Utilit)	1526	37.3	1489	35.0	1659	42.0
IV. Industry						
1. Iron & Steel	229	5.6	193	4.2	198	4.1
2. Textile & Fibre	234	5.7	275	6.5	212	5.4
3. Cement	16	0.4	22	0.5	29	0.7
4. Chemicals & Glass	102	2.5	122	2.9	104	2.6
5. Chemicals & Allied	461	11.3	639	15.0	579	14.6
6. Aluminium	55	1.3	58	1.4	46	1.2
7. Sugar	1	Neg	3	0.1	2	0.1
8. Mining & Quarrying	82	2.0	22	0.5	29	0.7
9. Engg. (Mech. &Elec.)	22	0.6	37	0.9	31	0.8
10. Fertilizers	1032	25.2	1203	28.2	873	22.1
11. Other Industries	131	3.2	122	3.2	139	4.4
Total IV	2365	57.8	2696	63.4	2242	56.7
V. Misc. Services (incl. DGS&D)	165	4.0	27	0.6	14	0.3
T O T A L:	4094	100.0	4254	100.0	3953	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	459.0
1984-85	2905	1335664	459.8
1985-86	3046	1440269	472.8
1986-87	3182	1557260	489.4

Source : Railway Board.

INDUSTRY/PLANT-WISE OFFTAKE ON NAPHTHA

(Qty.'000' Tonnes)

Category and Plant	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88 (P)
1.	2.	3	4	5	6	7
1. Fertilizer Plants:						
Madras Fertilizer Ltd.	207	139	234	209	234	105
FCI, Durgapur	66	131	110	88	94	95
FCI, Gorakhpur	94	108	94	95	98	88
FCI, Sindri	-	-	-	-	--	-
FCI, Barauni	127	120	98	151	115	131
SFC, Kota	147	145	154	172	158	139
IEL, Kanpur	320	288	318	290	305	253
HSL, Rourkela	62	59	96	84	82	75
GSFC, Baroda	96	113	106	130	125	118
FACT, Cochin	113	110	124	95	123	105
ZAC, Goa	217	185	185	220	227	224
IFFCO, Phulpur	221	234	228	205	251	216
IFFCO, Kalol	54	41	57	42	46	49
IFFCO, Kandla	-	-	-	-	-	--
MCFL, Manglore	124	118	156	127	162	103
SPIC, Tuticorin	263	202	253	260	270	234
EID Parry Ltd.Madras	4	Neg.	-	-	-	--
GNFC, Bharuch	1	1	1	1	1	NEG.
FACT, Alwaye	54	57	67	62	65	61
FCI, Bombay	45	-	-	-	-	13
Coromandal Forts.Vizag	66	83	77	84	73	66
Others	-	-	7	45	59	--
Sub-Total Fertilizer	2281	2134	2365	2360	2488	2075
II. Petrochemical Plants:						
BRPL, Bongaigaon	-	-	-	3	-	24
HCC, Rasayani	4	5	4	4	4	4
IPCL, Baroda	372	383	415	406	444	451
NOCIL, Bombay	200	187	233	222	259	264
FCI, Bombay (Mathanol)	16	16	14	14	13	--
UCIL, Bombay	66	62	60	69	4	--
Sub-Total (Petro-Chem.)	658	653	726	718	724	743
III. Others.						
HSL, Bhilai etc.	19	17	34	28	37	34
Sub-Total (others)	19	17	34	28	37	34
GRAND TOTAL: (I + II + III)	2958	2804	3125	3106	3249	2852

P = Provisional.

Source: Industry Performance Review.

PLANT/CUSTOMER-WISE OFFTAKE OF LSHS/HHS.

(Qty. '000' Tonnes)

Category and Plant	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88(P)
1.Power:								
BPTS, Barauni	3.9	21.3	31.3	20.8	47.1	27.0	36.7	36.2
GEB, Gandhinagar	25.6	16.1	7.7	18.9	9.2	12.4	26.7	33.4
GEB, Kalol	-	-	-	-	-	-	-	-
GEB, Wanakbori	-	-	-	-	-	25.2	63.7	92.9
GEB, Ukai	82.7	66.6	76.8	49.8	70.5	65.0	81.7	59.3
GNTP, Bhatinda	-	-	2.7	-	-	-	-	5.2
DPH, Dhuwaran	616.6	624.5	675.6	636.7	637.0	659.1	727.3	760.0
DTPS, Durgapur	-	1.3	-	-	-	-	-	-
OTPS, Obra	-	-	5.3	13.9	2.5	-	1.3	5.6
TTP, Tuticorin	-	-	5.2	41.8	13.5	-	8.8	8.3
Tata Thermal Bombay	397.6	382.1	348.7	394.3	568.3	615.2	411.2	528.4
AEC, Ahmedabad	29.1	23.6	15.3	21.9	28.4	18.0	-	-
GEB/ASEB, Chandrapur	26.5	-	13.9	26.4	24.6	19.0	46.0	54.2
ASEB, Gauhati	-	-	-	7.3	-	-	-	-
MSEB, Koradi	-	-	-	-	-	-	0.4	-
MSEB, Uran	-	-	-	4.0	-	-	-	-
MSEB, Nasik	-	-	-	37.6	40.6	32.2	40.2	25.4
NLC, Nayveli	-	-	8.4	-	-	-	-	-
ETP, Ennore	-	-	-	-	13.7	8.2	10.5	8.1
Others	-	-	-	-	6.7	38.5	34.5	42.1
Sub-Total-1:	1182.0	1135.5	1190.9	1273.4	1462.1	1526.0	1489.0	1659.1
2. FERTILIZER/PETRO-CHEMICALS								
NFL, Nangal	120.8	202.3	188.8	172.1	181.9	193.6	105.9	52.8
NFL, Bhatinda	70.7	146.1	203.2	102.9	157.9	143.0	98.6	79.5
NFL, Panipat	30.4	182.0	234.0	145.8	104.2	95.8	98.8	52.5
HFC, Barauni	0.7	12.3	17.1	21.5	15.6	22.8	18.8	19.5
FCI, Sindri	14.8	26.2	178.6	174.4	176.9	94.4	151.4	64.5
FCI, Talchar	-	-	-	1.5	13.8	19.6	14.9	22.7
IFFCO, Phulpur	-	1.1	8.8	17.6	29.6	41.3	40.8	13.3
IFFCO, Kalol	41.4	41.3	44.7	40.8	45.9	32.0	-	38.9
IPCL,Baroda(GA&GO)	100.3	152.9	191.0	166.4	221.8	234.6	226.2	225.8
GSFC, Baroda/Bajuwa	33.0	73.7	69.6	78.9	56.0	79.3	99.8	64.2
GNFC, Bharuch	1.4	16.3	29.1	164.7	184.2	232.1	303.8	269.8
FACT, Cochin	64.4	66.3	69.6	60.5	56.0	52.1	64.8	39.4
HOC, Rasayani	15.0	0.9	11.7	10.0	11.1	6.1	13.1	7.3
Petrochem=Bongaigaon	-	-	0.5	-	-	-	-	-
Bombay	-	-	28.8	29.6	16.0	14.7	3.8	2.6
SPIC, Tuticorin	-	-	27.9	33.8	53.2	117.9	137.6	46.4
MRL/MFL,Madras	-	-	15.7	27.7	48.0	65.6	78.9	31.4
NLC, Neyeli	-	-	-	71.2	37.6	69.9	75.5	73.0
Coram.Fert.Vizag	-	-	-	-	27.3	26.9	31.0	37.3
Others Misc.	-	-	-	68.6	50.1	1.5	4.8	13.2
Sub-Total-2:	429.9	921.4	1319.1	1388.0	1495.7	1543.2	1568.2	1154.1
3. STEEL PLANTS:								
TISCO, Jamshedpur	19.5	62.5	61.0	57.0	59.9	58.9	50.4	49.0
RSP, Rourkela	7.1	71.3	90.0	50.4	62.2	57.8	46.7	51.2
DSP, Durgapur	24.0	221.7	109.0	83.8	76.4	78.7	44.3	55.7
HSL, Bhilai	-	-	-	-	4.5	33.2	46.6	37.6
BASL Patratu	-	-	-	-	-	-	5.1	4.8
Sub-Total-3:	50.6	355.5	260.0	183.2	203.0	228.6	193.1	198.3
4. GENERAL TRADE:	342.0	466.0	323.7	496.0	526.6	728.7	1003.2	941.6
GRADE TOTAL :	2067.5	2878.4	3093.6	3350.6	3687.4	3988.0	4253.5	3953.1

P = Provisional.

Source = Industry Performance Review.

STATE-WISE FUEL CONSUMPTION AND POWER GENERATION IN GAS TURBINE AND DIESEL POWER STATIONS IN INDIA 1985-86.

(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	250.88	572.97	-	-	
Bihar	-	-	106	0.29	0.36
Gujarat	-	-	38	0.08	0.48
Himachal Pradesh	-	-	28	0.04	0.70
Jammu & Kashmir			-	-	-
Manipur			1197(e)	2.85	0.42
Meghalaya			-	-	-
Nagaland			131	0.26	0.50
Punjab			-	-	-
Rajasthan			19	0.04	0.47
Sikkim			277(e)	0.73	0.38
Tripura			570	1.60	0.36
Uttar Pradesh			-	-	-
West Bengal	24787 (OIL)	55.78	729	1.22	0.60
Maharashtra	373.08 + 20386 (OIL)	1128.06	-	-	-
Other Stations					
UNION TERRITORIES:					
A & N Islands			6599	18.84	0.35
Arunachal Pradesh			955	4.04	0.24
Chandigarh			8 (E)	0.02	0.40
Lakshadweep			1914	5.09	0.38
Delhi			24 (E)	0.07	0.34
Mizoram			6613	15.38	0.43
All in total	623.96 + 45173 (OIL)	1756.81	19208	50.55	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 FOSSILE FUELS FOR ELECTRICITY GENERATION FROM THERMAL POWER STATIONS IN INDIA DURING 1985-86
(Provisional)

State	Fuel Coal '000' (Tonnes)	Consumption in Steam Power Station					Heat Input (K.Cal x 10)	Gross Generation GWH	Average Heat Input (K.Cal/KWH
		Lignite '000' (Tonnes)	FO '000' (K.L.)	LDO '000' (KL)	LSHS/ '000' (MT)	Natural Gas (MCM)			
1	2	3	4	5	6	7	8	9	10
Andhra pradesh	4899	-	15	8@			18514.07	6771.70	2734
Assam	48	-	20	3	21	36.22	1010.06	271.64	3718
Bihar	2577		2	105	23		11975.07	3113.34	3846
Gujarat	6005		791	9	19	106.11	37957.99	12642.80	3002
Haryana	1072		25	9			5333.78	1206.50	4421
Jammu & Kashmir	6		-	-			39.26	5.60	6475
Karnataka	607		24	5			2441.11	247.00	9883
M.P.	9053		221	23			34167.23	11381.06	3002
Maharashtra	11422		165	33	618	235(b)	57668.39	20072.80	2877
Orissa	1098		13	3			4607.96	1304.79	3532
Punjab	3405		46	7			13214.54	4277.50	3089
Rajasthan	776		7	7			3245.11	1120.97	2895
Tamil Nadu	3808		21	8	23		15802.52	5696.20	2774
U.P.	6433		117	31			27332.34	7742.31	3530
West Bengal	4997		12	94			25757.41	7816.18	3295
C.Govt. Project	10687	5644	122	18			50325.28	21218.67	11768
DVC	4375		69	26			20047.10	6056.65	3310
UNION TERRITORIES									
A & Islands	-	10(a)					34.19	0.73	21917(a)
Delhi	1126		19				5309.09	1593.67	3331
All India Total	72034	5654	1689	389	704	377	342781.80	112540.11	3046

(a) Wood Fuel, (b) Refinery Gas in Metric Tonnes

@ = Superior Kerosene Oil

Source = Directorate of Central Electricty Authority

XI. FOREIGN TRADE

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS 1972 TO 1987

(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			
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	14481	2069.65	3362	818.06	17843	2887.71
1987(P)	17977	3105.25	3659	884.69	21636	3989.94
			EXPORTS			
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	-	-	2364	389.32	2364	389.32
1987(p)	-	-	3455	662.07	3455	662.07
			NET IMPORTS			
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	14481	2069.65	998	428.74	15479	2498.39
1987(p)	17977	3105.25	204	222.62	18181	3327.87

(P) Provisional.

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS 1970-71 TO 1987-88

(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			
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	15476	2120.15	3047	652.69	18523	2772.84
1987-88(p)	18045	3064.65	3932	973.43	21977	4038.08
			EXPORTS			
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	--	--	2491	411.23	2491	411.23
1987-88(P)	--	--	3412	648.75	3412	648.75
			NET IMPORTS			
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	15476	2120.15	556	241.46	16032	2361.61
1987-88(P)	18045	3064.65	520	324.68	18565	3389.33

P = Provisional

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS 1984 TO 1987

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

	1984		1985		1986		1987	
ITEM	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7	8	9
GROSS IMPORTS								
A. Crude Oil	14620	3525.15	14811	3808.74	14481	2069.65	17977	3105.25
B. Petroleum Products								
I. Light Distillates	386	118.11	175	57.45	37	7.25	116	35.63
1. Naphtha	290	83.68	100	30.42	17	1.85	16	3.89
2. Others	96	34.43	75	27.03	20	5.40	100	31.74
II. Middle Distillates	5342	1620.23	3913	1275.03	3083	710.14	3346	765.77
1. ATF	103	35.22	121	40.25	150	30.32	26	6.23
2. SKO	2697	851.72	2466	824.41	2078	496.06	2215	512.00
3. HSDO	2521	727.71	1326	410.37	855	183.76	1101	245.81
4. LDO	21	5.58	--	--	--	--	--	--
III. Heavy Ends	315	111.97	204	108.22	242	100.67	197	83.29
1. FO	175	39.02	20	4.39	--	--	--	--
2. Lubes	128	69.77	184	103.75	218	80.36	184	70.81
3. Waxes	Neg.	Neg.	Neg.	0.08	24	21.31	13	12.48
4. Others	12	3.18	--	--	--	--	--	--
Total (B)	6043	1850.31	4292	1440.70	3362	818.06	3659	884.69
Grand Total (A+B)	20663	5375.46	19103	5249.44	17843	2887.71	21636	3989.94
EXPORTS @								
A. Crude Oil	6760	1598.55	2044	503.88	--	--	--	--
B. Petroleum Products								
I. Light Distillates	626	170.06	1448	410.58	2200	336.65	2637	532.11
1.Naphtha	612	164.68	1433	404.19	2184	330.19	2619	527.08
2.Others	14	5.38	15	6.39	16	6.46	18	5.03
II.Middle Distillates	127	43.99	128	46.55	146	47.90	172	44.91
1.HSD/LDO	69	22.93	67	22.81	75	24.22	88	22.42
2.Others	58	21.06	61	23.74	71	23.68	84	22.49
III.Heavy Ends	318	57.58	119	24.93	18	4.77	646	85.05
1. FO	314	55.78	110	21.97	16	3.76	644	84.02
2. Others	4	1.80	9	2.96	2	1.01	2	1.03
Total (B)	1071	271.63	1695	482.06	2364	389.32	3455	662.07
Grand Total (A+B)	7831	1870.18	3739	985.94	2364	389.32	3455	662.07
NET IMPORTS								
A. Crude Oil	7860	1926.60	12767	3304.86	14481	2069.65	17977	3105.25
B. Petroleum Prod.	4972	1578.68	2597	958.64	998	428.74	204	222.62
Total (Net Imports)	12832	3505.28	15364	4263.50	15479	2498.39	18181	3327.87

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

IMPORTS/EXPORTS OF CRUDE OIL AND PETROLUEM PRODUCTS DURING 1984-85 TO 1987-88

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

ITEM	1984-85		1985-86		1986-87		1987-88(P)	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	2	3	4	5	6	7	8	9
GROSS IMPORTS								
A. Crude Oil	13642	3430.34	15144	3686.80	15476	2120.15	18045	3064.65
B. Petroleum Products								
I. Light Distillates	470	147.03	38	13.90	55	9.90	136	43.97
1. Naphtha	338	99.42	-	-	34	5.73	--	--
2. Others	132	47.61	38	13.90	21	4.17	136	43.97
II. Middle Distillates	5312	652.80	3608	1147.27	2758	550.28	3557	826.57
1. ATF	128	44.47	150	45.84	108	18.08	66	16.76
2. SKO	2611	844.77	2568	844.41	1900	383.77	2158	511.70
3. HSDO	2573	763.56	890	257.02	750	148.43	1329	296.38
4. LDO	--	--	--	--	--	--	--	--
III. Heavy Ends	310	115.08	219	112.43	234	92.51	239	102.89
1. Furnace Oil	175	39.02	20	4.39	--	--	--	--
2. Lubes	135	76.00	195	105.10	219	80.65	224	89.24
3. Waxes	0.03	0.06	4	2.94	15	11.86	15	13.65
4. Others	--	--	--	--	--	--	--	--
Total (B)	6092	1914.91	3865	1273.60	3047	652.69	3932	973.43
Grand Total (A+B)	19734	5345.25	19009	4960.40	18523	2772.84	21977	4038.08
EXPORTS @								
A. Crude Oil	6478	1563.16	528	135.15	--	--	--	--
B. Petroleum Products								
I. Light Distillates	626	173.16	1812	455.21	2237	353.07	2637	522.94
1. Naphtha	612	167.48	1796	448.52	2220	347.07	2618	517.59
2. Others	14	5.68	16	6.69	17	6.00	19	5.35
II. Middle Distillates	132	45.99	130	48.05	154	45.77	176	46.21
1. HSD/LDO	71	23.53	66	23.19	80	23.30	89	22.20
2. Others	61	22.46	64	24.86	74	22.47	87	24.01
III. Heavy Ends	175	35.88	21	6.32	100	12.39	599	79.60
1. FO/LSHS	170	33.75	14	3.81	99	11.68	598	78.71
2. Others	5	2.13	7	2.51	1	0.71	1	0.89
Total (B)	933	255.03	1963	509.58	2491	411.23	3412	648.75
Grand Total (A+B)	7411	1818.19	2491	644.73	2491	411.23	3412	648.75
NET IMPORTS								
A. Crude Oil	7164	1867.18	14616	3551.65	15476	2120.15	18045	3064.65
B. Petroleum Prod.	5159	1659.88	1902	764.02	556	241.46	520	324.68
GRAND TOTAL NET IMPORTS	12323	3527.06	16518	4315.67	16032	2361.61	18565	3389.33

@ = 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 Preceding Year		Exports	Imports	Balance of Trade	% variation over preceding Year			
				Exports	Imports				Exports	Imports	Exports	Imports
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1970-71	1535	1634	- 99	8.6	3.3	99	126	-27	-	-	6.4	7.7
1971-72	1608	1825	-217	4.8	11.7	76	182	-106	-23.2	44.4	4.7	10.0
1972-73	1971	1867	+104	22.6	2.3	94	200	-106	23.7	9.9	4.8	10.7
1973-74	2523	2955	-432	28.0	58.3	187	532	-345	98.9	166.0	7.4	18.0
1974-75	3329	4519	-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	940	3770	-2830	26.2	7.7	12.0	27.6
1982-83	8803	14293	-5490	12.8	5.0	820	3899	-3079	-12.8	3.5	9.8	27.2
1983-84	9771	15832	-6061	11.0	10.8	882	3225	-2343	- 7.6	16.3	9.0	20.6
1984-85	11744	17134	-5390	20.2	8.2	944	3326	2282	7.0	0.6	8.0	19.0
1985-86	10895	19747	-8852	(-)7.2	15.3	835	3420	-2585	- 9.6	4.2	7.7	17.2
1986-87	12567	20063	-7496	15.3	1.6	777	1760	- 983	- 9.0	-48.3	6.2	8.8
1987-88p	15719	22342	-6624	25.1	11.4	N.A.	N.A.					

* = Provisional

Source = Ministry of Commerce/Economic survey.

INDIA'S FOREIGN EXCHANGE RESERVES.
(1970-71 TO 1987-88)

Year	S.D.R.S. Million	GOLD (Rs. Crores)	Foreign Exchange (Rs. Cror
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	270.2	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	139.4	274.28	7645.17
1987-88(P)	69.7	274.28	7287.14

SOURCE : Economic Survey/ M.O. Finance P = Provisional
Reserve Bank of India Bulletin March 1988

INDIA'S IMPORTS AS A PROPORTION TO OVERALL EXPORTS FROM THE COUNTRY 1970-71 TO 1987-88.

Rs. Crores

Y E A R	POL Imports		India's Total Exports		Gross POL Imports as % age of total gross Exports	Net POL Imports as % age of total Net Exports
	Gross	Net	Gross	Net of POL Exports		
1.	2.	3.	4.	5.	6.	7.
1970-71	137	132	1535	1530	8.9	8.6
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	1546	5408	5393	28.7	28.6
1978-79	1681	1677	5726	5722	29.4	29.3
1979-80	3270	3246	6418	6394	51.0	50.8
1980-81	5266	5258	6711	6703	78.5	78.4
1981-82	5191	4978	7806	7594	66.5	65.6
1982-83	5598	4401	8803	7606	63.6	65.6
1983-84	4812	3224	9771	8183	49.2	39.4
1984-85	5345	3527	11744	9926	45.5	35.5
1985-86	4961	4316	10895	10251	45.5	42.1
1986-87	2773	2362	12567	12156	22.1	19.4
1987-88*	4038	3389	15719	15070	25.7	22.5

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	1985	1986	1987	1988	1989
1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Exploration & Production	26051	27067	31413	48700	52041	52397	52604	55666
2. Refining	10715	12327	15334	23074	23247	23810	25437	24188
3. Marketing	20362	19072	19920	27717	27814	31180	35559	34615
4. Others :-								
1.IOC(Pipeline)	487	724	1312	1819	1848	1936	1961	1984
2.ONGC(Pipeline)	346	233	411	496	450	232	474	444
3.OIL(Pipeline)	443	431	492	586	599	543	447	591
4.I.I.P.	588	676	754	778	763	739	747	758
5.E.I.L.	N.A.	1940	2661	3702	3597	3685	3669	3604
TOTAL	1864	4004	5630	7381	7257	7135	7298	7381
GRAND TOTAL	58992	62470	72297	106872	110359	114522	122014	121840

CATEGORY-WISE DIRECT EMPLOYED IN THE PETROLUEM INDUSTRY IN INDIA

(NUMBER)

CATEGORY	1970	1975	1980	1985	1986	1987	1988	1989
1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Executive/ Managerial	4793	6461	9311	21108	23956	25458	27793	28588
2. Supervisory	6205	6659	6512	10432	10696	9691	10210	11067
3. Clerical	11457	11723	12403	15878	16549	15923	18037	16407
4. Workmen	36437	37611	44057	59313	59158	63361	64758	63617
5. TOTAL	58892	61454	72283	106731	110359	114433	120798	119679
6. Expatriates/ Foreign Experts	100	16	14	141	-	89	1216	2161
GRAND TOTAL	58992	62470	72297	106872	110359	114522	122014	121840

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	1985	1986	1987	1988	1989
1.	2.	3.	4.	5.	6.	7.	8.	9
EXPLORATION AND PRODUCTION								
1. Executive/ Managerial	1765	1967	3394	10183	12166	12831	13416	14432
2. Supervisory	2774	3538	1994	4537	4297	4133	3879	5092
3. Clerical	3764	3538	3795	5438	5000	5002	5211	4938
4. Workmen	17704	18013	22216	28401	30578	30342	29998	29423
5. TOTAL	26007	27056	31399	48559	52041	52308	52504	53885
6. Expatriates/ Foreign Experts Contract	44	11	14	141	-	89	100	1771
GRAND TOTAL	26051	27056	31413	48700	52041	52397	52604	55656
PETROLUEM REFINING*								
1. Executive/ Managerial	258	818	2055	3878	4442	4564	4857	4602
2. Supervisory	1076	1313	1050	1648	902	992	1450	1071
3. Clerical	1219	1568	1791	2728	2747	2690	4435	3265
4. Workmen	7857	8626	10438	14820	15156	15564	14695	14942
5. TOTAL	10677	12325	15334	23074	23347	23810	25437	23880
6. Expatriates/ Foreign Experts	38	2	-	-	-	-	1085	308
GRAND TOTAL	10745	12325	15334	23074	23247	24371	26522	24188
MARKETING								
1. Executive/ Managerial	2367	3519	3318	6047	6232	6972	8430	8320
2. Supervisory	2081	910	1591	1441	2816	1849	2125	2163
3. Clerical	6220	5870	5820	6533	7607	7020	7185	7106
4. Workmen	9680	8770	9191	13696	11159	15339	17819	16964
5. TOTAL	20348	19069	19920	27717	27814	31180	35559	34553
6. Expatriates/ Foreign Expert	14	3	-	-	-	-	31	62
GRAND TOTAL	20362	19069	19920	27717	27814	31180	35590	34615

@ = Data relates to the nember of person directly employed by various iol 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.

Whole Sale Average Price Indices of Petroleum Products, Energy & All Commodities in India

(1970-71 = 100)

Year	Petroleum Products								Energy Items				All Commodities
	Petroleum Crude & Natural Gas	Petrol/ Mogas	Kero-sene	Av/ Gas	H.S.D	L.D.O.	FO	Lub Oil	Coal	Coke	Lignite	Electri-city	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1971-72	130.2	116.5	105.3	121.2	103.3	106.5	111.4	98.4	102.2	113.7	114.6	102.5	105.6
1972-73	142.0	121.6	114.9	125.4	104.0	107.8	113.7	99.0	110.8	134.7	116.6	105.7	116.2
1973-74	317.1	178.6	123.1	173.9	105.2	122.0	150.7	135.8	121.7	136.4	130.5	111.3	139.7
1974-75	686.5	272.1	187.1	288.4	127.7	260.9	308.4	311.7	143.8	182.1	152.6	137.2	174.9
1975-76	700.3	282.8	209.6	296.5	160.1	267.7	377.8	316.2	184.2	205.4	115.6	158.1	173.0
1976-77	740.3	285.0	229.6	297.1	160.1	267.7	429.7	314.2	197.6	213.1	164.2	171.6	176.6
1977-78	987.6	286.4	229.9	297.8	160.3	267.9	429.7	314.2	198.8	214.0	150.2	182.5	185.8
1978-79	802.9	299.1	235.0	309.6	164.0	269.1	432.6	309.6	212.2	224.3	154.5	209.1	185.8
1979-80	1384.4	361.3	266.1	431.7	186.5	329.8	529.9	319.6	299.5	262.8	176.9	225.6	217.6
1980-81	2041.8	430.7	277.3	581.7	279.6	548.1	880.1	373.6	347.6	281.7	232.0	239.7	257.3
1981-82	2130.7	505.5	315.2	589.6	373.3	732.5	1148.5	416.1	432.1	382.8	275.4	279.6	281.3
1982-83	1984.8	517.5	328.1	593.4	389.5	760.8	1185.6	441.9	493.3	451.4	322.3	328.2	288.7
1983-84	1739.5	522.6	343.0	593.4	414.9	800.1	1228.1	464.4	542.3	489.1	370.8	387.7	316.0
1984-85	1739.2	642.6	410.4	688.8	452.2	929.3	1412.5	530.6	730.7	606.3	532.1	414.1	338.4
1985-86	1752.1	612.2	347.2	688.9	440.2	929.3	1412.5	525.8	662.2	582.3	520.5	486.1	357.8
1986-87	1577.1	642.6	410.4	688.8	452.2	929.3	1412.5	538.6	730.7	606.3	532.1	564.6	376.8
1987-88 (P)	1079.1	660.6	410.4	690.8	450.7	929.3	1412.5	550.2	765.6	606.3	531.8	620.8	405.4

(P) = Provisional

Prices of Indigenous Onshore and Offshore Crude Oil in India. 34°API Gravity

Item	Unit	Price effective from							
		14.7.75	8.9.76	16.12.77	1.4.81	11.7.81	15.2.83	1.4.84	1.3.87
				(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#	1573.00	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	192.00	61.00	61.00	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	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	9.1. 1988	1.3. 1988
1	2	3	4	5	6	7	8	9	10	11	12	13
ATF	KL	2117	3117	3537	3872	4122	4740	5240	5240	5240	5240	5240
MS 83/87		3888	4538	4908	5438	5438@	6369	6869	6769	6769	7769	7845
MS 93	"	4043	4693	5063	5593	5593	6424	6424	6824	6824	7824	7901
HSDO	"	1310	1960	2330	2650	2850	3008#	3188	3116	3116	3116	3096
SKO	"	1295	1295	1395	1545	1645	1822#	2047	1957	1957	1957	1957
LDO	"	1207	1857	2227	2506	2656	3054	3054	3054	3054	3054	3054
Furnace Oil												
For non-ferts		1209	1859	2189	2424	2524	2903	2903	2903	2903	2903	2903
For ferts *"		829	829	1039	1274	+1274	1320	1320	1320	1320	1320	1320
Bitumen St. Gr.												
Bult	MT	1176	1826	2061	2323	2196	2524	2524	2524	2524	2524	2524
Packed	"	1461	2111	2345	2608	2696	3100	3100	3100	3100	3100	3100
Naphtha												
For non-ferts.*	MT	2482	2692	2792	2792	2792	3211	3211	3211	3211	3211	3211
For ferts.*	"	596	1071	1371	1723	1723	1982	1982	1982	1982	1982	1982
JBO.*	"	989	1679	1999	2358	2358	2712	2712	2712	2712	2712	2712
SBP Spirit:												
64/69*	KL	1861	2961	3331	3629	3629	4173	4173	4173	4173	4173	4173
Hexane*		1861	2961	3331	3629	3629	4173	4173	4173	4173	4173	4173
MTO 140/205*	KL	1124	1774	2044	2348	2348	2700	2700	2700	2700	2700	2700
MTO Laws*	"	1206	1856	2126	2430	2430	2794	2794	2794	2794	2794	2794
LPG:												
Domestic	MT	1966	1966	2301	2634	2634	3029	3728	3449	3449	3449	3449
Bulk	"	2260	2260	2595	2928	2928	3978	3978	3978	5001	5001	5001
Industrial	"	--	--	--	--	--	5128	5128	5128	6151	6151	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 1.4.1988

(Rs./K.L.)

	Bombay	Madras	Delhi	Calcutta	Kanpur
	MOTOR SPIRIT 87 ON				
Ex-MI/Storage Point Price	7694.07	7694.07	7768.93	7723.94	7914.92
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	-	-	-	-	30.00
Sub-Total	7877.43	7800.43	7865.27	7828.18	8041.28
Sales Tax	1181.61	1092.06	550.57	782.82	804.13
Dealer's Commission	80.00	80.00	80.00	80.00	80.00
Total Rs./KL	9139.04	8972.49	8495.86	8691.00	8925.41
R.S.P. Rs./Litre	9.14	8.98	8.50	8.70	8.93
	HIGH SPEED DIESEL OIL				
Ex-MI/Storage Point Price	3095.55	3095.55	3172.20	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	3495.19	3588.87	3839.48
R.S.P. Rs./Litre	3.63	3.64	3.50	3.59	3.84
	LIGHT DIESEL OIL				
Ex-MI Storage/Point Price	3053.97	3053.97	3151.12	3076.57	3340.90
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	3180.94	3096.57	3395.90
Sales Tax	248.00	222.67	222.67	371.59	407.51
Total Rs./KL	3348.00	-	3403.61	3468.16	3803.41

PRICE BUILD-UP OF SELECTED PETROLEUM PRODUCTS AS ON 1.4.1988

	Bombay	Madras	Delhi	Calcutta	Kanpur
SUPERIOR KEROSENE OIL (RS/KL)					
Ex-MI/Storage Point Price	1956.93	1956.93	2033.56	1977.74	2155.95
Bombay Octroi Surcharge/ State Surcharge	58.05	35.00	25.00	-	5.00
Sales Tax	Exempted	79.68	61.76	98.89	190.16
Total	2014.98	2071.61	2120.32	2076.63	2351.11
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	2431.41
Rounding of benefit	-	-	2.61	-	-
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	2264.58	2501.41
R.S.P. Rs./Litre	2.17	2.25	2.25	2.27	2.50
LIQUIFIED PETROLEUM GAS (Rs.14.2 Kg.cylinder)					
Ex-Refinery Bottling Plant 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	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
Distributor's 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 1.4.1988.

(Rs./KL)

	Bombay	Madras	Delhi	Calcutta	Kanpur
FUEL OIL (NON-FERTILIZER)					
Ex-MI/Storage Point Price	2903.06	2903.06	3007.54	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	238.16	323.19	212.64	235.79.	
Total Rs./KL	3215.14	3261.25	3250.36	3183.16	

Note: Kanpur, we do not have storage facility.

ATF (DOMESTIC AIRLINES)					
Ex-MI/Storage Point Price	5239.85	5239.85	5317.31	5260.24	5472.63
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	5381.75	5337.53	5524.57
Sales Tax	1234.59	810.70	276.72	135.76	552.46
Total Rs./KL	6602.38	6074.99	5758.47	5473.29	6077.03

* Concessional rate of Sales Tax applicable for supplies to Vayudoot flight only in the State of Maharashtra is Rs.135.75 per KL and it is exempted in West Bengal.

ATF FOR INTERNATIONAL AIRLINES				
Ex-MI/Storage Point Price	5239.85	5239.85	5332.31	5260.24
Less Refund of Basic Excise duty	333.52	333.52	333.52	333.52
Bonded Price	4906.33	4906.33	4998.79	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	5047.83	4975.76
Adhoc Surcharge	(1503.00)	(1503.00)	(1503.00)	(1503.00)
New airfield price	3452.37	3452.37	3544.83	3472.76
Sales Tax	Exempted	531.67	Exempted	Exempted
Total Rs./KL	3452.37	3984.04	3544.83	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)				
1.1.1973	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
1.4.1988	9.14	8.70	8.50	8.98	8.93
	HIGH SPEED DIESEL OIL (Rs./Litre)				
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
1.4.1988	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)				
1.1.1973	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
1.4.1988	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
1.1.1975	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@
1.4.1987	56.15@	63.20@	57.61@	57.24@	61.56@
1.4.1988	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 1982	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 for MS in upto 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/Pool 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 1988-89 (B.E.)

(Rs./Crores)

Products	Actuals							RE	RE
	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88 (BE)	1988 -89 (BE)
1.	2	3	4	5	6	7	8	9	10
A. EXCISE DUTIES									
1. Mogas	493	518	559	528	678	749	814	930	1000
2. Kerosene Oil	124	150	168	176	164	203	233	265	265
3. Refined Diesel Oil & Vaporising Oil	280	359	380	423	425	563	596	650	655
4. Diesel Oil (Nos.)	20	19	21	21	25	23	27	29	30
5. Furnace Oil	45	39	44	43	40	39	37	45	45
6. Asphalt/Bitumen & Tar	16	19	36	27	29	32	-	-	-
7. Blended or Compounded Lubes & Greases	-	-	-	-	-	-	-	-	-
8. Petroleum Products (Nos.)	175	182	188	193	222	203	277	300	315
9. Calcined Pet. Coke	5	7	(included in item No-6 above)						
10. Petroleum Gas	-	1	12	19	22	33	50	55	60
TOTAL (A)	1158	1294	1408	1430	1605	1836	2034	2274	2370
B. CUSTOM DUTIES									
1. Petroleum Crude	16	16	17	25	138	874	857	1944	1908
2. Mogas	8	10	6	2	4	6	-	-	-
3. Kerosene Oil	83	87	79	80	116	101	218	260	365
4. Batching Lubricating & Other Mineral Oils	103	92	55	41	113	35	-	-	-
5. HSD & Vap. Oil	127	76	99	70	98	33	56	85	98
6. Indl. Fuel Oil	17	7	neg.	1	3	1	-	-	-
TOTAL (B)	354	288	256	219	472	1050	1131	2289	2371
GRAND TOTAL (A+B)	1512	1582	1664	1649	2077	2886	3165	4563	4741

Figures rounded to nearest crores.

Source: Budget Papers of the Central Government.

Note:- Budget Heads for Custom Duties have been changed from 1986-87, following the introduction of new custom tariff, hence no details.

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

Year	Net National Product at current prices	Central Excise	Central Excise on POL	Central Excise as % of NNP	Central Excise on POL as % of NNP	Central Excise on POL as % of Total Central Excise
	(..... Rs. Crores.....)					
1.	2.	3.	4.	5.	6.	7.
1960-61	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@	110484	6500	1158	5.9	1.0	17.8
1981-82@	128457	7421	1294	5.8	1.0	17.4
1982-83@	141331	8059	1408	5.7	1.0	17.5
1983-84@	166140	10222	1430	6.2	0.9	14.0
1984-85@	183051	11151	1605	6.1	0.9	14.4
1985-86@	205436	13008	1836	6.3	0.9	14.1
1986-87@	229035	14489	2034	6.3.	0.9.	14.0
1987-88(RE)	N.A.	16580	2274	N.A.	N.A.	13.7

(@) New Series Provisional

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	43662	2034	1131	3165	724.9
1987-88*	46369	2274	2289	4563	987.1

* Provisional

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 Naidu	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.
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	183	114	2109	2406	84434
1985-86	13275	12433	-	25708	12155	37863	242	96	1905	2243	86629
1986-87	8590	9395	11	17996	91192	109188	359	95	4113	4567	98916
1987-88(P)	9412	9833	26	19271	37724	56995	797	409	6594	7800	151331

NOTE:1) Figures for 1984-85 & 1985-86 have undergone revision due to increase in Royalty rate from Rs.61/ pmt to 192/- pmt.

2) Figures of Royalty in 1987-88 are purely provisional as these include payments for 1986-87 and advance payments made for 1988-89. While some paymets for 1987-88 will be made by ONGC in 1988-89. These figures also include royalty on condonsate and NGL.

(P) Provisional.

THE BASIC CEILING

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

(EX-STORAGE POINT)

(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/ 1.3.88/	w.e.f. 1.3.88
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1 Av.gas 100/130	KL	2702.43	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89	2214.89
2 Av. gasl15/145	KL	2700.50	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32	2213.32
3 Av.gas 73	KL	2701.60	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2214.21	2326.79
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	2327.50
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	2328.92
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	352.07
7 S.K.O.	KL	493.20	402.63	333.59	333.59@	333.59	333.59	333.59	333.59	333.59	333.59	330.44
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	347.49
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	160.91
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	150.71
12 Bitumen (Bulk)	MT	157.55	110.30	110.30	110.30	110.30	110.30	110.30	110.30	110.30	110.30	115.50
13 Bitumen (Packed	MT	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	157.55	168.00
14 LPG(Domes. Packed)	MT	400.00	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	273.00
15 LPG (Indust.)Bulk	MT	400.00	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	262.50	273.00
16 Naphtha*(Fert.Use	KL	4.50	4.50	4.36	4.36	4.36	4.36	-	-	4.40	4.40	4.00
17 Naphtha*(For Non-Fert. Use)	KL	26.50	26.50	26.50	26.50	26.50	26.50	-	-	26.25	26.25	26.25

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

Note: i) No Custom/Excise Duty is chargeable on FO when used as feed stock, the duty @ Rs. 63.46/KL only is chargeable when used in fertilizer industry for purposes other than feed stock.

ii) w.e.f. 1.10.1986, the supply of FO/Naphtha to fertilizers units for purposes other than feedstock will be charged at the rate applicable to General Category.

EXCISE AND CUSTOM DUTIES IN THE BASIC CEILING SELLING PRICES (BCSP) OF POL PRODUCTS EX-STORAGE POINT EFFECTIVE FROM 1.3.1988

(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.
AV Gas	KL	7595.34	2326.79	30.6
A.T.F.	KL	5239.85	352.07	6.7
Motor Spirit 87	KL	7694.07	2327.50	30.3
Motor Spirit 93	KL	7749.48	2328.92	30.1
H.S.D.O.	KL	3095.55	347.49	11.2
S.K.O.	KL	1956.93	330.44	16.9
L.D.O.	KL	3053.97	160.91	5.3
F.O. (Non-Fertilizers)	KL	2903.06	150.71	5.2
F.O. (Fertilizers) *	KL	1320.24	--	--
Bitumen St.Grade (Bulk)	MT	2524.85	115.50	4.6
Bitumen St.Grade (Packed)	MT	3099.91	168.00	5.4
Naphtha for non-Ferts.*	MT	3211.00		
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	273.00	7.9
L.P.G.(Industrial) (Bulk Essential)	MT	5001.10	273.00	5.5
L.P.G. Industrial Bulk Non-Essential	MT	6151.39	273.00	4.4

* = 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 w.e.f. 6.2.1986.

Note: Effective 1.10.1986, the supply of FO/Naptha to fertilisers units for purposes other than feedstock will be charged at the rates applicable to general category.

*SALES TAX RATES APPLICABLE ON OIL, GAS AND PETROLEUM PRODUCTS AS ON 1.4.1988.

S. No.	Products	Andhra Pradesh	Assam	Bihar	Chandi-garh	Delhi	Goa, Daman & Diu	Gujarat
A.	Crude oil & Natural Gas							
1.	Crude Oil	4.00%	4%	4%	-	4%	-	4%
2.	Natural Gas	10% +10% Addl. ST on ST+10% Surcharge on Addl. Tax.	7%	-	-	-	-	12%+20% SC of ST
B.	Petroleum Product:							
3.	Aviation Spirit	26.43	15%	16%	15PPL.	7%	12%	Bonded 30% & duty paid 9%.
4.	Aviation Turbine Fuel	26.43%	15%	16%	15PPL.	7%	12%	Bonded 30% & duty paid 23%.
5.	Motor Spirit	26.43%	15%	9%	15PPL.	7%	12%	15%
6.	H.S.D.	16.69%	11%	14%	10PPL	7%	12%	15%
7.	L.D.O.	16.69%	11%	14%	6%	7%	12%	7%
8.	M.L.O.	16.69%	7%	9%	6%	7%	6%	7%
9.	S.K.O.	5.82%	2%	6%	6%	3%	Exempt	3%
10.	I.K.O.	5.82	2%	5	6%	3%	Exempt	3%
11.	F.O.	5.82%	7%	8%	6%	7%	12%	7%
12.	M.T.O.	5.82%	7%	9%	6%	7%	6%	7%
13.	Lubes	13.77%	9%	9%	6%	7%	6%	10%
14.	Greases	13.77%	9%	9%	6%	7%	6%	10%
15.	Petroleum Naphtha	13.77%	7%	9%	6%	7%	12%	10%
16.	Bitumen	13.77%	7%	9%	6%	7%	6%	7%
17.	Petroleum Coke	4.00%	4%	4%	-	4%	4%	4%
18.	Indane (LPG)	13.77%	7%	9%	6%	5%	12%*	5%
19.	Transformer Oil	5.82%	7%	9%	6%	7%	6%	5%
20.	H.B.Fluid	13.77%	9%	9%	6%	7%	6%	11%

* = LPG for household purposes is exempted.

*SALES TAX RATES APPLICABLE ON OIL, GAS AND PETROLEUM PRODUCTS AS ON 1.4.1988

S. No.	Products	Haryana	Himachal Pradesh	Jammu & Kashmir	Kerala	Madhya Pradesh	Mahara=shtra	Karna=taka
A.	Crude Oil & Natural Gas							
1.	Crude Oil	4%	4%	-	4%	4%	4%	4%
2.	Natural Gas	-	-	-	-	-	8%+12% Addl.ST on ST	-
B.	PETROLEUM PRODUCTS:							
3.	Aviation Spirit	6%	3.5%	8%	10%	14%	Bonded 23% duty paid 9%	20%
4.	Aviation Turbine Fuel (ATF)	6%	3.5%	8%	10%	14%	Bonded 30% duty paid 23%	20%
5.	Motor Spirit	6%	3.5%	4%	15%	16%	15%	20%
6.	H.S.D.	6%	3.50%	8%	20%	16%	12%	18%
7.	L.D.O.	8%	7%	8%	20%	16%	8%	18%
8.	M.L.O.	8%	7%	8%	10%	14%	8%	7%
9.	S.K.O.	8%	7%	2%	4%	3%	Exempted	5%
10.	I.K.O.	8%	7%	2%	4%	3%	Exempted	5%
11.	F.O.	8%	7%	8%	10%	14%	8%	13%
12.	M.T.O.	8%	7%	8%	8%	16%	8%	10%
13.	Lubes	8%	7%	8%	12%	12%	8%	15%
14.	Greases	8%	7%	8%	12%	12%	8%	15%
15.	Petroleum Naphtha	8%	7%	8%	5%	14%	8%	7%
16.	Bitumen	8%	7%	5%	8%	12%	4%	10%
17.	Petroleum Coke	4%	4%	-	4%	4%	4%	4%
18.	Indane (LPG)	8%	7%	Exempted	15%	14%	4%@	15%
19.	Transformer Oil	8%	7%	8%	10%	12%	8%	13%
20.	H.B.Fluid	8%	7%	8%	12%	12%	10%	10%

@ For household purpose for others 8%

*SALES TAX RATES APPLICABLE ON OIL, GAS AND PETROLEUM PRODUCTS AS ON 1.4.1988.

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

*SALES TAX RATES APPLICABLE ON OIL, GAS AND PETROLEUM PRODUCTS AS ON 1.4.1988

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

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

1.	Haryana	: Surcharge at 10% on Sales Tax all products under Sales Tax Act is payable. This is recoverable.
2.	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.
3.	W.Bengal	: Turnover Tax @ 1.5% of the gross turnover of the bill is payable. This is non-recoverable.
4.	Kerala	: 1. Surcharge at 8% if Sales Tax is payable, but the same is not recoverable from the customers. 2. 0.5% Turnover Tax is payable but not recoverable. : 3. Addl Sales Tax @ 25% of Sales Tax is also payable which is recoverable on our Sales.
5.	J & K	: Surcharge at 5% of Sales Tax is payable and the same is recoverable from the market. This does not apply to MST products.
6.	Maharashtra	: 1. Addl. Sales Tax @ 12% of tax is payable under the Sales Tax Act but the same is not recoverable from customers. This does not apply to Kerosene and declared goods. 2. Turnover tax @ 1.25% - Non-recoverable.
7.	Karnataka	: 1.25% Turnover Tax on value of oil (is non-recoverable) between Rs.5 lakhs and Rs.250 lakhs and 1.50% if turnover is above Rs. 250 lakhs.
8.	Tamil Nadu	: Surcharge at 5.0% on tax is payable on all products which is recoverable, in specified area. Addl. turnover tax at 1.25% on taxable turnover, if turnover is between Rs. 10 lakhs & Rs. 40 lakhs & @ 1.50% if turnover is above Rs.40.00 lakhs. This is to be borne by seller. (Non-recoverable) Addl. Surcharge @ 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.
9.	Gujarat	: Addl. Sales Tax at 20% on Sales Tax in respect of products under Gujarat Sales Tax act, and on MST Act. This is recoverable.
10.	Orissa	: Addl. Sales Tax at 0.5% of Invoice value is payable on all products. This is recoverable.
11.	Goa, Daman&Dui	: Addl. Sales Tax @10% of sales Tax is payable which is not recoverable on our sales.
12.	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 Sales Tax Rates.
13.	Bihar	: 5% surcharge on Tax. This is non-recoverable. 1% addl. tax on gross turnover recoverable (Not on MS, ATF, AVN, SPIRITES, HSD, LDO, SKO, ETC.)
4.	Himachal Pradesh:	10% surcharge recoverable under GST ACT.
5.	Chandigarh	: 2% Addl. tax on tax. It is recoverable
6.	Uttar Pradesh	: 10% Addl. tax on Tax. This is recoverable
7.	Arunachal Pradesh	: No sales tax charged on petroleum products in the State.

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 1987-88. 1988-89

(Rs.in lakhs)

STATE	1979-80	1980-81	1984-85	1985-86	1986-87	1987-88	1988-89
1. Crude Oil							
Assam	396	193	2723	2550	3456	3407	3637
Gujarat	471	476	2056	2248	2965	3334	3627
Arunachal Pradesh	-	1	34	32	40	21	22
Nagaland	-	-	-	31	54	45	71
Maharashtra	-	-	3795	6965	9220	10924	6835
Tamil Nadu Contd Cont	-	-	-	-	3	9	20
Total (1)	867	670	8608	11826	15738	17741	14112
2. Natural Gas							
Assam	69	56	128	114	48	366	326
Gujarat	185	214	264	341	347	4052	3280
Maharashtra (Bombay High)	-	-	1190	1356	4046	4537	4319
Arunachal Pradesh	-	-	-	-	-	Neg.	17
Tamil Nadu	-	-	-	-	-	Neg.	3
Tripura Contd Cont	-	-	-	-	3	15	18
Total (2)	254	270	1582	1811	4444	8970	7963
3. POL Products							
(a) States							
Andhra Pradesh	2831	4727	9084	10758	12764	13597	14883
Assam	720	798	1911	2688	2463	3350	3519
Bihar	2143	2992	6131	7078	7936	7328	8334
Gujarat	4798	7254	12498	15042	19045	21030	26328
Haryana	590	678	1692	2026	2341	2251	2557
Himachal Pradesh	17	20	53	81	341	179	186
Jammu & Kashmir	189	264	411	483	571	542	576
Karnataka	2711	4034	8258	10531	12311	11439	12256
Kerala	3466	4854	7965	10737	13543	11642	14304
Madhya Pradesh	1700	2760	4368	5061	6468	5488	7040
Maharashtra	6383	9342	15153	18762	24447	20556	24244
Manipur	33	29	30	44	81	163	179
Meghalaya	Neg.	1	Neg.	Neg.	Neg.	1	1
Mizoram	-	-	-	-	1	15	18
Nagaland	Neg.	Neg.	Neg.	Neg.	1	13	37
Orissa	528	748	1467	1781	2032	1559	1931
Punjab	1085	1220	2067	2345	3410	3474	3615
Rajasthan	1666	2244	4226	5768	6332	5624	7592
Tamil Nadu	8398	8407	16416	19766	21818	19083	21673
Tripura	21	38	75	107	115	203	256
Uttar Pradesh	3584	4637	11144	13373	15269	16334	17680
West Bengal	3474	4366	8716	10883	11322	10447	11524
(b) Union Territories							
Chandigarh	34	34	38	28	39	41	67
Delhi	1291	1859	3258	3923	4259	4420	4497
Goa, Daman & Diu	502	558	1144	1507	1717	1568	1373
Pondicheri/Mane	-	-	-	-	-	17	20
Total (3)	46164	61864	116105	142772	168626	160364	184685
GRAND TOTAL	47285	62804	126295	156409	188808	187075	210746

XV. TRANSPORTATION

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

Year*	Oil Tanker No.of Tankers	Oil Tanker DW Tonnage	~~Ore/Oil~~ Carrier No.of Ships	~~Ore/Oil~~ Carrier DW Tonnage	Total No.of Ships	Total DW Tonnage
1.	2.	3.	4.	5.	6.	7.
			(A) Coastal Tankers			
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
1987	18	306.1	-	-	18	306.1
1988**	18	306.1	-	-	18	306.1
1989 PP	97 @@	390.7	(B) Overseas Tankers		97	390.7
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
1987	39	2598.5	9	994.4	48	3592.9
1988**	42	2563.2	9	994.4	51	3557.6
1989 PP	56 @@	3685.6	(C) All Tankers.			
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
1987	57	2904.6	9	994.4	66	3899.0
1988 **	60	2869.3	9	994.4	69	3863.7
1989 PP	153 @@					

* = As on 31st December of each year. @ = DWT in Metric Tonnes.

**= DWT in MT as on 31.3.1988.

Source : Ministry of Transport.

Crude Carriers - 22
Product Carriers - 25

OFFSHORE SUPPLY VESSELS

INDIAN TANKER FLEET AS ON 31.3.1988. / 1989

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 16540
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~~ 4275	~~6700~~ 6618
13. m.t. Nand Kala	1972	3827	6703
14. m.t. Nand Kishore	1981	~~11153~~ 13906	19500 19602
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) 4 - Coastal Oil Tanker 13.		191077	306124
2. OVERSEAS TANKERS			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.t. Dadabhai Naoroji	1977	15045	~~24400~~ 24469
2. m.t. Aurobindo	1976	15045	24411
3. m.t. Kolandia	1976	15045	24490
4. m.t. Major Hoshiar Singh PVC	1985	28704	~~40700~~ 40848
5. m.t. Lance Naik Albert Ekka PVC	1985	28704	40848
6. m.t. Subedar Joginder Singh PVC	1985	37855	61775
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 45485
17. m.t. Lt. Arun Khetrapal PVC	1985	28704	40828 45453
18. m.t. Lt. Rama Raghoba Rane PVC	1984	37855	61865
19. m.t. Vivekananda	1974	51717	89371
20. m.t. Satymurthi	1975	51533	89351
21. m.t. Netaji Subhash Bose	1973	51526	89392
22. m.t. Lok Manya Tilak	1975	51535	89411
23. m.t. B.R. Ambedkar	1974	51718	89454
24. m.t. Chattrapati Shivaji	1974	51718	89490
25. m.t. Rajendera Prasad	1975	63460	115723
26. m.t. Zakir Hussain	1975	63460	115853
27. m.t. Kanchanjunga	1975	139820	276755
28. m.t. Koyali	1976	139820	276800
B. The Great Eastern Shipping Co. Ltd., Bombay			
29. m.t. Jag Prakash	1974	15849	25480 25080
30. m.t. Jag Palak	1985	18542	27402 26970
31. m.t. Jag Preeti	1981	21206	28679
32. m.t. Jag Pari	1982	20991	29139 28679
33. m.t. Jag Priya	1975	20415	32878 32360
34. m.t. Jag Prabhat	1985	18542	27398 26967
35. m.t. Jag Pragati	1985	18542	27400 26970
36. m.t. Jag Prabhu (Ex-Princes Alka)	1978	4075 4357	7261
C. The Ratnakar Shipping Co.Ltd.Calcutta			
37. m.t. Ranta Abha	1982	40613	60725
D. M/s.Century Shipping Bombay			
38. m.t. Aditya Vikram	1981	3905	7029
39. m.t. Aditya Vardhan(Ex-Tomoe-5)	1982	4749	7985
E. M/s.Varun Shipping Co.Ltd. Bombay			
40. m.t. Vijaydoot	1984	4462	7314
41. m.t. Vishwadoot	1982	18959	29999
F. M/S. Essar Shipping Ltd. Bombay			
42. mt. Nand Ekta	1981	4309	6643
TOTAL (Oil Tankers)		1507822	2563224
(ii) ORE OIL BULK CARRIERS			
A. The Shipping Corpn. of India Ltd., Bombay			
1. m.v. Vallabhbhai Patel	1977	62563	113926
2. m.v. Vallathol	1976	62563	114152
3. m.v. Maharshi Dayanand	1978	66926	123450
4. m.v. Maharshi Karve	1978	66926	123450
B. The Great Eastern Shipping Co. Ltd., Bombay			
5. m.v. Jag Laadki	1972	55540	103124
6. m.v. Jag Laxmi	1976	66723	121423
7. m.v. Jag Leela	1976	66733	125085
8. m.v. Jag Lata (Ex-Walchand)	1973	57793	104750
C. M/s.Essar Shipping Co. Ltd. Bombay			
9. m.v. Nand Shivchand	1982	37700	65000
TOTAL (Ore Oil Tankers)		543467	994360
TOTAL (OVERSEAS TANKERS)		2051289	3557584
GRAND TOTAL (COASTAL AND OVERSES TANKERS)		2242366	3863708

Source : Department of Surface Transport, Ministry of Transport.

SHARE OF TRAFFIC IN PETROLEUM PRODUCTS IN THE TOTAL TRAFFIC HANDLED AT MAJOR PORTS DURING 1969-70 TO 1987-88. 1988-89

(Million Tonnes)

Name of the Port	Year	Total Traffic	POL traffic	POL as % age of total traffic at the port.
1.	2.	3.	4.	5.
Calcutta/Haldia*	1969-70	6.89	1.53	22.5
	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	12.07	5.96	49.3 49.0
	1987-88	13.07	6.19	47.7
	1988-89	14.22	6.47	45.5
Bombay	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	61.0
	1987-88	28.65	19.01	66.3
	1988-89	28.70	18.41	64.2
Madras	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	19.78	10.31	52.1
	1987-88	22.90	11.97 12.23	52.3 53.66
	1988-89	23.33	10.80	45.3
Cochin	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	6.88	5.45	79.2
	1987-88	6.82	5.43 37	79.6 79.0
	1988-89	7.80	6.12	78.5
Kandla	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	16.19	11.93	74.9
	1987-88	18.08	13.44 09	74.3 72.4
	1988-89	17.81	13.08	73.4

* = 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 1987-88.

(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
	1987-88	15.37	5.57	36.2
	1988-89	16.37	6.99	34.3
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	5.4
	1987-88	13.33	1.13	8.5
	1988-89	15.39	1.30	8.5
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	-	-
	1987-88	5.19	-	-
	1988-89	6.03	-	-
Port of Tuticorin	1977-78	0.63	0.35	55.6
	1979-80	2.41	0.44	18.3
	1981-82	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	7.2
	1987-88	4.26	0.37	9.4
	1988-89	5.14	0.48	9.3
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
	1987-88	6.11	0.46	8.2
	1988-89	7.84	0.57	7.3
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	124.37	56.10	45.1
	1987-88	133.68	63.58	47.8
	1988-89	146.38	62.71	42.5

SOURCE: Ministry of Transport.

ESTIMATED FREIGHT PAID ON IMPORTS OF CRUDE OIL/POL PRODUCTS TRANSPORTED BY INDIAN/FOREIGN FLAG TANKERS DURING THE YEARS 1984 TO 1987.

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

Products/Tankers	1984 Qty.	1984 Freight	1985 Qty.	1985 Freight	1986 Qty.	1986 Freight	1987(P) Qty.	1987(P) Freight
A. Crude Oil								
Indian Tankers	13.97	86.44	17.25	106.54	11.53	79.01	18.33	135.36
Foreign Tankers	0.84	4.54	0.03	0.12	--	--	0.05	0.20
Total (A)	14.81	90.98	17.28	106.66	11.53	79.01	18.38	135.56
B. POL Products								
Indian Tankers	1.02	24.19	0.88	18.56	1.25	28.57	1.43	30.51
Foreign Tankers	4.35	26.37	2.60	20.35	1.65	0.25	2.49	20.27
Total (B)	5.37	50.56	3.48	38.91	2.90	28.82	3.92	50.78
C. Crude Oil/POL Products								
Indian Tankers	15.24	112.13	20.36	140.36	12.78	107.57	19.76	165.87
Foreign Tankers	5.19	30.91	2.63	20.47	1.65	0.25	2.54	20.47
Total (C)	20.43	143.04	22.99	160.83	14.43	107.82	22.30	186.34

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

COASTAL MOVEMENT OF PETROLEUM PRODUCTS

(Quantity moved to Indian Ports)

Year	Quantity carried (in Thousand Tonnes) By Indian Flag Vessels	Foreign Flag Vessels	Total	Freight paid(Estimated) (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	4119.40	-	4119.40	543.70
1987(P)	5465.12	-	5465.12	499.32
		B. CRUDE OIL		
1984	251.47	-	251.47	15.02
1985	2226.63	-	2226.63	152.47
1986	2626.14	-	2626.14	189.20
1987(P)	2652.25	-	2652.25	272.08

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

MOVEMENT OF POL TRAFFIC ON RAILWAYS SINCE 1970-71

Y E A R	Tonnes Originating ('000'MTS)	Earnings ('000'Rs.)	Average Lead (Kms)	Earning (Paise/ Tonnes Kms).	Average freight Col.3 divided 2 Tonnes/Rs.
1.	2.	3.	4.	5.	6
1970-71	8857	464081	594	8.8	52.40
1971-72	10063	523049	593	8.8	51.98
1972-73	10181	550982	614	8.8	54.12
1973-74	9994	555560	638	8.7	55.59
1974-75	10751	723192	642	10.5	67.27
1975-76	11663	860925	605	12.2	73.82
1976-77	12395	1038462	609	13.8	83.78
1977-78	13062	1120693	631	13.6	85.80
1978-79	14301	1324332	698	13.3	92.60
1979-80	14266	1497510	729	14.4	104.97
1980-81	14954	1835693	780	15.7	122.76
1981-82	16555	2848050	731	23.5	172.04
1982-83	17342	3588169	647	32.0	206.91
1983-84	17949	4052635	597	37.8	225.79
1984-85	18169	4157626	563	40.6	228.83
1985-86	18635	4705145	588	42.9	253.03
1986-87	19853	5395900	NA	NA	271.79

RAIL FREIGHT IN RESPECT OF PETROLEUM PRODUCTS:

RS/KL

Distance Kms.	Dangerous POL					Non-Dangerous POL					
	1.4.82	1.4.83	15.4.85	1.12.86	1.4.88	1.6.82	1.6.83	1.6.84	15.4.85	11.12.86	1.4.88
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
100	71.40	78.00	78.00	84.30	89.40	53.50	59.20	63.90	63.90	69.10	78.00
300	143.30	175.20	175.20	203.40	215.60	106.30	130.50	141.70	141.70	164.50	188.00
500	207.60	267.00	267.00	326.60	346.20	153.50	197.80	215.10	215.10	263.20	301.40
800	357.20	393.90	433.30	522.10	553.40	263.60	290.90	316.60	348.30	419.70	481.00
1000	425.50	478.50	526.40	639.60	678.00	313.50	352.90	384.30	422.70	513.60	588.90
1500	584.40	655.50	721.10	914.60	969.50	430.40	482.70	525.90	578.50	733.70	841.60
2000	729.20	796.50	876.20	1123.20	1190.60	530.50	586.10	638.70	702.60	900.60	1033.20
2500	828.00	919.50	1011.50	1284.20	1361.80	609.00	676.30	737.10	810.80	1029.80	1181.60

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

Dangerous POL : Include Motor Spirit, Benzene and other dangerous mineral Oils.

SOURCE : Ministry of Railways.

Crude Oil & Product Pipelines in India as on 1.4.1988

Pipelines	Owned by	Length in KMS	Diametre in Inches
1.	2.	3.	4.
1. 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 pipelines	ONGC	42.80	12 3/4"
Digboi oilfield-Digboi Refinery	OIL	12.50	6"
Digboi oilfield-Digboi Refinery	OIL	10.4	4"
Nahorkatiya-Digboi	OIL	35.0	8"
Nahorkatiya-Gauhati loopline	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 Tank Farm 2 lines	IOC	5.70 each	42"
Salaya-Viramgam	IOC	275.00	28"
Viramgam-Koyali	IOC	141.00	18"
Viramgam-Mathura	IOC	803.00	24"
North Kadi Kalol GGS-I to S.Kadi CTF	ONGC	5.10	12 3/4"
Santhal CTF to North Kadi	ONGC	4.52	12 3.4"
Jotana GGS-I to Santhal CTF	ONGC	2.73	4 1/2"
Viraj GGS-I to South Kadi CTF	ONGC	5.83	8 5/8"
Geleki-Dikhu Junction Point	ONGC	17.80	12 3/4"
Total Onshore		3153.18	

~~Nararabet to Salaya Tank farm IOC 5.70~~ (2 lines) 2

Contd...

Salaya - Viramgam IOC 275 28"
Viramgam - Koyali IOC 141 18"
Viramgam - Mathura IOC 803 24"

Gandhar - Sarasvani ONGC 55 12"
Nawagam - Jhalora - Kalol ONGC 55 14"
GNAG - Junction point of Gandhar - Sarasvani ONGC 15 4"

Crude Oil & Product Pipelines in India as on 1.4.1988

Nagam GNAG ONGC 25 4"

Pipelines	Owned by	Length (in KMS)	Diametre (in Inches)
1.	2.	3.	4.
II. CRUDE PIPELINES (OFFSHORE)		~~275.59~~ 425.59	
BH (platform 'F') to Uran	ONGC	203.00	30"
Uran-Trombay	ONGC	24.00	36"
Trombay-Bhutcher Island	ONGC	4.40	36"
HRA-R-12	ONGC	38.92	12"
SBM to Nararabet	IOC	5.27	42"
III. GAS PIPTELINES (ONSHORE)		~~494.62~~ ~~2299.62~~ 2445.22	
Cambay-Dhauwaran	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 Dairy	ONGC	9.20	8 5/8"
Dabka GCS Sarasvani Valve Platform	ONGC	10.50	4 1/2"
North Kadi CTF to S.Kadi CTF Kadi GIDC	ONGC	16.40	8 5/8"
Jhalora GGS-I to Sanand GGS-2	ONGC	9.27	8 5/8"
Jotna GGS-1 to Santhal CTF TO N. Kadi GGS-1	ONGC	7.17	8 5/8"
Motwan to Ajkleshwar CTF	ONGC	2.89	8 5/8"
Kalol GCS - Kadi GIDC	ONGC	19.40	8 5/8"
Ramol GCS to Nawagam CTF	ONGC	17.45	6 5/8"
Nawagam CTF to Amul Diary CTF to	ONGC	50.0	4 1/2
Uttram Mawas	ONGC	24.50	12 3/4"
Hazira-Karibhco	ONGC	4.00	16"
Uran-Hazira	ONGC	14.00	36"
ASEB Gas Pipeline	ONGC	16.15	12 3/4"
Lakwa to Maibella Dhiku Junction PT - Lakwa CTF	ONGC	23.5	12 3/4"
Narimanam-Nagapattinam	ongc	14.0	4"
Narsapur-Palakollu	ONGC	12.2	8"
Digboi-Duliajan	OIL GAIL	42.00	10"
IV. GAS PIPELINES (OFFSHORE)		476.00	
Uran to MSEB-I	ONGC	6.0	12"
BH (Platform 'F') to Uran	ONGC	203.00	26"
Uran-Trombay	ONGC	24.00	18"
Uran-MSEB-II	ONGC	6.00	12"
Uran-Thal	ONGC	21.00	26"
South Bassein to Umrat	ONGC	216.00	36"
Total Gas Pipelines (III+IV)		970.62	
Narsapur - Kaikalur	ONGC	72	8"
Narsapur - Tatipaka	ONGC	26.6	14"
Gandhar - Dabka	ONGC	47	12"

Add GAIL's pipelines

Crude Oil & Product Pipelines in India as on 1.4.1988.

V. 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"
Digboi-Tinsukia	IOC	33.71	4"
Koyali-Ahemdabad	IOC	115.70	8 5/8"
Barauni-Kanpur	IOC	668.78	12 3/4"
Haldia-Mourigram-Rajbandh	IOC	268.58	12 3/4"
Haldia-Barauni	IOC	524.83	12 3/4"
Mathura-Delhi	IOC	147.00	16"
Delhi-Ambala	IOC	202.00	14"
Ambala-Jullunder	IOC	164.00	12 3/4"
Eranakulam Ins. to FACT:Alwaya	BPCL	13.00	4"
BPCL (R) to Pir Pau Jetty	BPCL	3.50	8"
HPCL (R) to BPCL (R)	BPCL	3.00	4"
BPCL (R) to HPCL (R)	BPCL	1.50	8"
BPCL (R) to Pir Pau Jetty	BPCL	4.50	14"
Bigwasan Top to Palam . Delhi (ATF)	BPCL	4.00	8"
BPCL(R) to IOC Sewee Installtion	BPCL	4.00	12"
BPCL(R) to Pir Pau Jetty	BPCL	2.7	8"
BPCL (R) to ONGC(TT)	BPCL	2.2	6"
BPCL (R) to HPCL(R). Sewree	BPCL	1.5	12"
BPCL(R) to HPCL(R)	BPCL	1.5	10"
BPCL(R) to HPCL(R)	BPCL	1.5	10"
BPC(R) to Pir Pau Jetty	BPCL	1.0	10"
Total Product Pipeline		2710.25	

VI. LPG Pipelines (OFFSHORE)

Uran-Trombay	ONGC	24.00	8"

VII. NGL Pipelines (OFFSHORE)

Uran-Trombay	ONGC	24.00	8"
Grand Total (I to VII)		7158.04	

from box page

1. Hazira - Bijaypur	GAIL	641	36"
(R) Bijaypur - Bharari	GAIL	110	18"
Bharari - Anla	GAIL	20	12"
Bijaypur - Auraiya	GAIL	351	30"
Auraiya - Jagdishpur	GAIL	217	18"
Auraiya - Delhi	GAIL	466	18"-24"

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
1988	Nos	3690	3717		5191	1174	235	14007
	%	26.3	26.5		37.1	8.4	1.7	100

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

STATE-WISE NUMBER OF RETAIL OUTLETS, MPDC's/FFCS, LDO/SKO DEALERS AND LPG DISTRIBUTORS AS ON 1.4.1988

(Numbers)

State/Union Territores	Retail outlets	MPDC/ FFC	LDO/SKO dealers	LPG distributors
1.	2.	3.	4.	5.
STATES				
1. Andhra Pradesh	1132	41	594	306
2. Arunachal Pradesh	21	2	17	8
3. Assam	292	1	326	79
4. Bihar	840	28	334	113
5. Bhutan	3	-	1	-
6. Gujarat	914	17	427	266
7. Haryana	462	23	136	90
8. Himachal Pradesh	71	1	20	29
9. Jammu & Kashmir	110	1	30	47
10. Karnataka	885	13	291	203
11. Kerala	662	4	240	133
12. Madhya Pradesh	808	25	322	175
13. Maharashtra	1445	44	599	501
14. Manipur	19	3	31	8
15. Meghalaya	40	-	29	10
16. Mizoram	8	1	10	3
17. Nagaland	21	1	13	9
18. Orissa	303	9	172	67
19. Punjab	922	20	225	118
20. Rajasthan	799	42	217	112
21. Sikkim	8	-	7	1
22. Tamil Nadu	1349	11	444	263
23. Tripura	28	1	38	8
24. Uttar Pradesh	1723	90	611	337
25. West Bengal	956	16	410	182
UNION TERRITORIES:				
26. A.N.Islands	2	-	1	1
27. Chandigarh	18	-	9	23
28. D.N.Haveli	3	-	1	-
29. Delhi	232	1	70	184
30. Goa, Daman & Diu	64	1	20	26
31. Pondicherry	25	-	8	5
GRAND TOTAL	14165	396	5653	3307

STATE-WISE NUMBER OF LPG DOMESTIC CUSTOMERS AS ON 1.4.1988

('000' Number)

STATE/UTS	BPCL	HPCL	IOC	AOD	TOTAL
STATES					
1. Andhra Pradesh	142.0	595.3	406.9	-	1144.2
2. Assam	-	-	86.2	105.9	192.1
3. Bihar	7.6	37.6	346.1	-	391.3
4. Gujarat	285.3	254.4	866.6	-	1406.3
5. Haryana	71.0	46.6	207.3	-	324.9
6. Himachal Pradesh	0.6	10.5	62.2	-	73.3
7. Jammu & Kashmir	8.3	81.4	31.2	-	120.9
8. Karnataka	139.3	311.4	242.5	-	693.2
9. Kerala	83.2	41.0	277.7	-	401.9
10. Madhya Pradesh	109.9	241.5	444.9	-	796.3
11. Maharashtra	1336.1	1253.8	88.1	-	2678.0
12. Manipur	-	-	8.6	13.2	21.8
13. Meghalaya	-	-	7.3	9.5	16.8
14. Mizoram	-	-	5.4	6.5	11.9
15. Nagaland	-	-	6.4	6.9	13.3
16. Orissa	2.6	79.3	69.8	-	151.7
17. Punjab	98.1	60.4	312.1	-	470.6
18. Rajasthàn	102.2	130.3	222.1	-	454.6
19. Sikkim	-	-	3.8	-	3.8
20. Tamil Nadu	155.6	111.3	948.9	-	1215.8
21. Tripura	-	-	7.9	6.8	14.7
22. Uttar Pradesh	227.2	100.8	1030.9	-	1358.9
23. West Bengal	9.2	139.0	500.9	-	649.1
UNION TERRITORIES:					
24. A & N Islands	-	-	1.0	-	1.0
25 Arunachal Pradesh	-	-	2.3	2.1	4.4
26. Bhutan	-	-	-	-	-
27. Chandigarh	5.8	25.6	69.7	-	101.1
28. D.N.Haveli	-	2.7	-	-	2.7
29. Delhi	195.8	126.6	645.5	-	967.9
30. Goa, Daman & Diu	43.2	59.4	-	-	102.9
31. Lakshadeep	-	-	-	-	-
32. Pondicherry	2.5	2.5	19.9	-	24.9
TOTAL	3025.5	3711.4	6922.2	150.9	13810.0

XVII. ENERGY

GROSS PRODUCTIONS OF ENERGY BY VARIOUS SOURCES IN INDIA

Year	Coal & Lignite			Hydro-carbon			Power Million (Kwh)			
	Coal	Lignite	Total	Natural Gas	Crude Petroleum	Petroleum Products	Thermal	Hydel	Nuclearear	Total
	(Million Tonnes)			(MM3)	('000' Tonnes)					
1	2	3	4	5	6	7	8	9	10	11
1960-61	55.67	0.05	55.72	-	448	6077	9100	7837	-	16937
1965-66	67.73	2.57	70.30	507	3473	10081	19641	16734	-	36375
1970-71	72.95	3.39	76.34	1445	6822	18333	28162	25248	2417	55827
1971-72	72.42	3.72	76.14	1535	7299	19867	31713	28024	1189	60926
1972-73	77.22	2.89	80.11	1565	7321	19092	36217	27196	1133	64546
1973-74	78.17	3.32	81.49	1713	7189	20724	35321	28972	2396	66689
1974-75	88.41	2.94	91.35	2041	7684	20800	40109	27875	2206	70190
1975-76	99.68	3.03	102.71	2368	8448	22055	43303	33302	2626	79231
1976-77	104.02	4.01	105.03	2428	8898	22732	50245	34836	3252	88333
1977-78	101.00	3.59	104.59	2839	10763	24670	52495	37961	1740	92196
1978-79	101.97	3.27	105.24	2811	11633	25671	53420	47138	2770	103328
1979-80	103.90	3.05	106.95	2767	11766	27228	57155	45494	2876	105525
1980-81	114.01	4.80	118.81	2358	10507	25346	61301	46542	3001	110844
1981-82	124.23	5.88	130.11	3851	16194	29717	69392	49597	3021	122010
1982-83	130.50	6.30	136.80	4936	21063	32761	79880	48309	2022	130211
1983-84	138.22	7.30	145.52	5961	26020	34793	86535	49867	3494	139896
1984-85	147.40	7.80	155.20	7241	28990	35161	98770	53785	4078	156633
1985-86	154.20	8.05	162.25	8134	30168	41156	114119	50933	4985	170037
1986-87	165.79	9.63	175.42	9853	30480	45373	128820	53760	5020	187610
1987-88*	179.75	10.15	189.90	11467	30357	47277	149460	47400	5340	202200

* = 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 KWH)	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

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

(Rs.Lakhs)

Year	Crude Petroleum & Natural Gas	Coal & Lignite
1	2	3
1976-77	18978	51671
1977-78	27278	51504
1978-79	33148	50615
1979-80	37221	75908
1980-81 (Revised)	35852	103742
1981-82 (Revised)	171254	123911
1982-83 (Revised)	218532	146252
1983-84 (Revised)	264771	166934
1984-85 (Revised)	319546	217644

XIX. INTERNATIONAL PETROLEUM STATISTICS

World Proved reserves of Oil and Natural Gas at End 1987

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	5.2	4.6	9.4	8.1	7.5	15.0
U.S.A.	4.2	3.7	9.0	5.3	4.9	11.5
Canada	1.0	0.9	11.3	2.8	2.6	36.8
Latin America	16.1	12.9	49.3	6.5	5.9	75.0
Argentina	0.3	0.3	14.7	0.7	0.6	35.8
Brazil	0.3	0.3	11.0	0.1	0.1	*
Ecuador@	0.2	0.2	26.4	2.2	2.0	78.3
Mexico	6.8	5.4	47.9	0.3	0.3	75.7
Venezuela	3.1	6.3	91.2	2.7	2.5	*
Others	0.4	0.4	11.2	0.5	0.4	30.2
Western Europe	2.9	2.5	14.6	6.2	5.8	34.7
Norway	1.9	1.6	37.3	3.0	2.8	*
United Kingdom	0.7	0.6	5.5	0.6	0.6	14.9
Others	0.3	0.3	12.9	2.6	2.4	*
Middle East	96.5	63.0	*	30.7	28.5	*
Abu Dhabi@	12.1	10.3	*	5.2	4.8	*
Dubai	0.5	0.4	26.5	0.2	0.1	*
Iran@	12.7	10.4	*	13.9	12.9	*
Iraq@	13.4	11.2	*	0.7	0.7	*
Kuwait@	12.7	10.3	*	1.0	1.0	*
Neutral Zone	0.7	0.6	36.8	N.A.	N.A.	N.A.
Oman	0.6	0.4	19.3	N.A.	N.A.	N.A.
Qatar@	0.4	0.3	25.6	4.4	4.1	*
Saudi Arabia@	22.7	18.6	*	4.0	3.7	*
Syria	0.3	0.2	20.7	N.A.	N.A.	N.A.
Others	0.4	0.3	61.3	1.1	1.0	*
Africa	7.4	6.1	29.4	7.0	6.6	*
Algeria@	1.1	0.9	24.6	3.0	2.8	72.0
Angola	0.2	0.1	8.9	N.A.	N.A.	N.A.
Egypt	0.6	0.5	12.9	0.3	0.3	45.8
Libya@	2.8	2.3	57.8	0.7	0.7	*
Nigeria@	2.2	1.8	34.1	2.4	2.2	*
Tunisia	0.2	0.2	47.0	N.A.	N.A.	N.A.
Others	0.3	0.3	13.5	0.6	0.6	*
Asia & Australasia	2.5	2.1	15.9	6.3	5.9	56.1
Japan	+	+	12.8	+	+	13.1
Bruei	0.2	0.2	27.8	0.2	0.2	22.6
Indonesia@	1.1	1.2	17.6	2.1	1.9	63.5
Malaysia	0.4	0.4	15.3	1.5	1.4	93.7
Other S.E.Asia	+	+	19.7	0.4	0.4	*
India	0.6	0.6	18.7	0.5	0.5	49.2
Other South Asia	+	+	6.5	1.0	0.9	N.A.
Australia	0.2	0.2	7.7	0.5	0.5	35.1
New Zealand	+	+	21.9	0.1	0.1	33.1
Total NC World	110.6	91.2	51.6	64.8	60.2	62.4
Centrally Planned Economics (CPEs)	10.6	8.8	13.7	42.8	39.8	52.9
China	2.4	2.0	18.2	0.9	0.8	63.1
U.S.S.R.	8.0	6.6	12.9	41.1	38.2	56.6
Others	0.2	0.2	11.0	0.8	0.8	12.0
TOTAL WORLD	121.2	100.0	41.5	107.6	100.0	58.3
of which OPEC	91.1	74.8	98.6	41.1	38.3	*

*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 1988.

WORLD ESTIMATED CRUDE OIL PRODUCTION 1981-1987

(Million Tonnes)

Country	1981	1983	1984	1985	1986	1987	Percentage change 1987 over 1986	Percentage share of Total1987
1	2	3	4	5	6	7	8	9
North America								
USA	482.8	486.8	500.2	500.8	486.7	469.2	- 3.6	16.0
Canada	72.9	71.7	78.2	85.0	86.1	89.3	+ 3.7	3.1
Total N. America	555.7	558.5	578.4	585.8	572.8	558.5	- 2.5	19.1
Latin America								
Argentina	25.5	24.9	24.4	24.0	22.5	22.1	- 2.1	0.8
Brazil	10.7	17.6	22.2	28.1	28.7	28.3	- 1.5	1.0
Colombia	6.8	7.8	8.6	8.9	15.3	19.5	+27.9	0.7
Ecuador	10.3	11.6	12.6	13.5	13.6	8.2	-39.8	0.3
Mexico	128.3	146.6	150.4	149.7	135.6	141.6	+ 4.4	4.8
Trinidad	10.1	8.2	8.4	8.8	8.4	8.3	- 1.2	0.3
Venezuela	112.5	97.0	97.5	87.6	92.9	88.7	- 4.5	3.0
Others	13.3	12.4	12.8	12.7	12.0	11.2	- 6.9	0.4
Total Latin America	317.5	326.1	336.9	333.3	329.0	327.9	- 0.4	11.3
Western Europe								
Austria	1.4	1.3	1.2	1.2	1.1	1.1	- 4.5	$
Denmark	0.8	2.2	2.3	2.9	3.6	4.6	+27.4	0.2
France	1.7	2.3	2.7	3.3	3.5	3.6	+ 3.9	0.1
Italy	1.5	2.2	2.3	2.4	2.8	3.3	+18.2	0.1
Norway	24.9	32.0	36.8	40.3	44.1	51.9	+17.7	1.8
Turkey	2.4	2.2	2.1	2.1	2.4	2.6	+ 8.5	0.1
United Kingdom	89.4	114.9	125.9	128.2	128.6	125.5	- 2.4	4.3
West Germany	4.5	4.1	4.1	4.1	4.0	3.8	- 6.3	0.1
Others	3.0	7.2	7.0	7.6	7.9	7.4	- 5.8	0.3
Total W.Europe	129.6	168.4	184.4	192.1	198.0	203.8	+ 2.9	7.0
Middle East								
Abu Dhabi	54.5	39.3	38.9	41.6	50.4	55.5	+10.1	1.9
Dubai	17.8	16.9	18.3	18.8	18.9	20.4	+ 7.9	0.7
Iran	65.8	122.4	109.3	110.0	94.5	114.7	+21.5	3.9
Iraq	44.0	54.1	60.3	70.6	85.5	102.4	+19.8	3.5
Kuwait	48.2	44.7	48.9	45.7	62.3	53.6	-14.0	1.8
Neutral Zone	19.4	16.2	21.1	17.0	17.9	20.2	+12.8	0.7
Oman	16.4	19.6	21.0	25.4	28.0	28.6	+ 2.2	1.0
Qatar	20.2	14.7	20.1	15.9	16.6	16.1	- 3.2	0.5
Saudi Arabia	491.3	255.8	233.0	173.1	251.2	212.4	-15.5	7.3
Others	11.6	11.9	12.3	15.2	16.2	18.1	+11.7	0.6
Total Middle East	789.2	595.6	583.2	533.3	641.5	642.0	+ 0.1	21.9
Africa								
Algeria	46.3	42.9	46.1	41.6	45.7	44.8	- 2.1	1.5
Egypt	34.1	35.7	42.5	45.3	41.7	46.1	+10.4	1.6
Libya	58.7	53.0	53.0	52.7	49.9	47.9	- 4.0	1.6
Gabon	7.6	7.8	7.6	7.7	8.1	7.8	- 3.1	0.3
Nigeria	71.0	61.0	68.6	72.9	72.2	63.7	-11.8	2.2
Other Africa	22.0	26.6	30.9	33.8	37.0	40.6	+ 9.7	1.4
Total Africa	239.7	227.0	248.7	254.0	254.6	250.9	- 1.5	8.6

WORLD ESTIMATED CRUDE OIL PRODUCTION 1981-1987

(Million Tonnes)

Country	1981	1983	1984	1985	1986	1987	Percentage.87 over 86	Percentage share of Total 1987
1	2	3	4	5	6	7	8	9
Asia & Australsia								
Japan	0.4	0.4	0.4	0.5	0.7	0.6	- 7.7	+
Brunei	8.6	8.6	7.9	7.4	8.2	6.9	-16.8	0.2
Indonesia	82.2	65.3	68.5	63.9	67.3	64.7	- 4.0	2.2
Malaysia	12.4	20.2	21.7	21.3	26.2	24.9	- 4.9	0.9
Other Asia	36.5	50.2	57.8	64.3	65.0	65.6	+ 0.9	2.2
of which India	14.9	25.1	27.9	29.9	31.2	30.1	- 3.3	1.0
Total Asia &Austra.	140.1	144.7	156.3	157.4	167.4	162.7	- 2.9	5.5
Total NCW	2171.8	2020.4	2088.1	2063.6	2166.2	2145.8	- 0.8	73.4
Centrally Planned Economics (CPEs)								
China	101.0	106.0	114.5	124.9	130.7	133.0	+1.8	4.5
USSR	609.0	616.3	612.7	595.0	615.0	624.0	+1.5	21.3
Others	21.9	23.8	23.7	22.6	23.0	22.4	-2.6	0.8
Total CPEs	731.9	746.1	750.9	742.5	768.7	779.4	+ 1.4	26.6
TOTAL WORLD	2903.7	2766.4	2838.8	2798.4	2932.0	2925.2	-0.2	100.0
of which OPEC	1150.4	903.0	904.9	836.2	950.7	924.7	-2.7	31.6

* Includes crude oil, oil sands and NGLs (natural gas liquids=the liquid content of natural gas, where this is recovered sparately). Excleudes liquid fuels from other sources as coal derivatives. $ Less than 0.05.

Note: Figures for India Inserted.

SOURCE: BP Statistical Review of World Energy June 1988.

CRUDE OIL PRODUCTION BY OPEC MEMBER COUNTRIES

(Million Tonnes)

OPEC Countries	1973	1975	1979	1980	1981	1982	1983	1984	1985	1986	1987
1	2	3	4	5	6	7	8	9	10	11	12
Algeria	51	48	59	52	46	46	43	46	42	46	45
Ecuador	10	8	11	10	10	10	12	13	14	14	8
Gabon	8	11	10	9	8	8	8	8	8	8	8
Indonesia	66	65	79	78	82	69	65	69	64	67	65
Iran	293	268	158	74	66	120	122	109	110	94	115
Iraq	99	111	171	130	44	50	54	60	71	85	102
Kuwait	140	94	113	72	48	35	45	49	46	62	54
Libya	105	71	101	88	59	55	53	53	53	50	48
Nigeria	100	89	114	102	71	64	61	69	73	72	64
Qatar	27	21	25	23	20	16	15	20	16	17	16
Saudi Arabia	368	344	470	493	491	328	256	233	173	251	212
U.A.E.	102	107	117	111	92	75	72	78	78	87	99
Venuzuela	179	125	125	116	113	101	101	98	88	93	89
Total	1548	1362	1553	1358	1150	977	903	905	836	951	925

P = Provisional. Source : BP Statistical Review of World Energy June 1988.

WORLD PRODUCTION OF NATURAL GAS 1981-1987

(Million Tonnes Oil equivalent)

Country	1981	1983	1984	1985	1986	1987	Percentage Change 1987 over 1986	Percentage Share of Total 1987
1	2	3	4	5	6	7	8	9
North America								
USA	489.3	409.0	443.7	417.5	407.6	415.3	+ 1.9	25.0
Canada	67.4	62.6	64.4	68.9	64.3	67.9	+ 5.7	4.1
Total N. America	556.7	471.6	508.1	486.4	471.9	483.2	+ 2.4	29.1
Latin America								
Argentina	7.5	9.3	12.1	12.7	16.9	16.8	- 0.3	1.0
Mexico	31.3	31.4	26.4	24.3	24.3	24.9	+ 2.1	1.5
Venezuela	15.0	14.1	15.6	15.5	15.7	17.3	+10.6	1.0
Others	11.4	14.5	15.5	15.7	17.8	18.0	+ 1.1	1.1
Total Latin America	65.2	69.3	69.6	68.2	74.7	77.0	+ 3.1	4.6
Western Europe								
France	6.6	5.5	5.3	4.5	3.5	3.2	- 9.1	0.2
Italy	11.6	11.1	11.7	12.4	14.4	14.7	+ 2.1	0.9
Netherlands	67.6	61.1	61.5	64.4	56.2	56.4	+ 0.3	3.4
Norway	23.5	22.9	24.8	22.8	24.3	26.4	+ 8.9	1.6
United Kingdom	31.9	30.6	33.3	37.1	39.0	38.9	- 0.1	2.3
West Germany	14.4	13.1	13.7	12.2	13.7	15.7	+14.7	0.9
Others	2.2	2.8	3.3	4.1	4.6	5.6	+22.6	0.3
Total W.Europe	157.8	147.1	153.6	157.5	155.7	160.9	+ 3.4	9.6
Middle East								
Abu Dhabi	5.4	5.6	5.8	5.9	6.4	6.8	+ 7.1	0.4
Iran	6.5	9.9	12.2	13.1	13.7	17.1	+25.0	1.0
Kuwait	4.8	4.3	4.4	4.6	3.7	4.0	+ 8.3	0.2
Saudi Arabia	22.9	8.4	11.7	12.2	13.6	18.9	+38.5	1.1
Others	8.4	8.3	10.3	11.2	11.3	12.7	+11.7	0.8
Total Middle East	48.0	36.5	44.4	47.0	48.7	59.5	+22.1	3.5
Africa								
Algeria	22.1	32.1	30.4	33.6	31.6	37.5	+18.9	2.3
Libya	3.6	3.3	4.1	4.7	5.7	6.0	+ 5.6	0.4
Nigeria	1.6	1.3	1.5	1.3	1.1	1.0	-11.1	0.1
Others	1.8	3.2	4.2	5.7	6.0	6.5	+ 8.5	0.4
Total Africa	29.1	39.9	40.2	45.3	44.4	51.0	+15.0	3.2
Asia & Australasia								
Japan	1.9	1.9	1.9	2.0	1.9	2.0	+ 3.6	0.1
Indonesia	17.3	19.9	26.2	27.3	28.4	29.3	+ 3.3	1.8
Other S.E.Asia	8.4	11.4	17.3	21.4	24.2	27.1	+12.2	1.6
Pakistan	6.1	8.6	9.1	9.3	9.9	10.7	+ 7.7	0.6
Other South Asia	6.6	10.3	12.6	12.9	13.5	15.6	+15.2	0.9
Of which India	3.5	5.8	6.8	7.9	9.5	10.9	+14.7	0.7
Australia	11.9	13.6	13.9	15.3	17.4	17.5	+ 0.6	1.1
Total Asia & Austra.	52.2	65.7	81.2	88.2	95.3	102.2	+ 7.2	6.1
Total NCW	909.0	830.1	896.9	892.6	890.7	933.8	+ 4.9	56.1
Centrally Planned Economies(CPEs)								
China	11.6	10.8	10.9	11.5	11.8	12.4	+ 5.3	0.8
USSR	411.8	482.4	528.4	578.7	617.4	653.1	+ 5.8	39.3
Others	53.6	55.7	59.0	59.4	59.0	62.3	+ 5.6	3.8
Total CPEs	477.0	548.9	598.3	649.6	688.2	727.8	+ 5.8	43.9
TOTAL WORLD	1386.0	1379.0	1495.2	1542.2	1578.9	1661.6	+ 5.3	100.0

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

SOURCE: BP Statistical Review of World Energy June 1988.

Note: Figures for India Inserted.

WORLD CONSUMPTION OF NATURAL GAS 1981-1986.

(Million Tonnes Oil equivalent)

Country	1981	1983	1984	1985	1986	1987 (p)	Percentage Change 1987 over 1986	Percentage Share of Total 1987
1.	2.	3.	4.	5.	6.	7.	8.	9
North America								
USA	495.1	435.5	466.4	449.4	421.1	431.9	+ 2.6	27.8
Canada	47.8	47.3	47.8	44.8	40.9	41.2	+ 0.8	2.6
Total N.America	542.9	482.8	514.2	494.2	462.0	473.1	± 2.4	30.4
Western Europe								
Austria	3.9	3.8	4.2	4.5	4.4	4.5	+ 2.4	0.3
Belgium & Luxembourg	9.5	8.2	8.5	8.4	7.6	8.5	+11.5	0.5
Denmark	-	-	0.1	0.6	1.0	1.3	+26.9	0.1
Finland	0.6	0.6	0.7	0.8	1.0	1.4	+32.6	0.1
France	24.5	22.2	23.5	23.3	24.2	24.9	+ 2.9	1.6
Greece	-	--	0.1	0.1	0.1	0.1	+12.4	$
Iceland	-	-	-	-	-	-	-	-
Republic of Ireland	0.9	1.6	1.7	1.8	1.1	1.3	+15.9	0.1
Italy	22.8	22.6	26.5	27.2	28.9	32.2	+11.4	2.1
Netherlands	30.0	29.5	31.2	32.5	32.7	33.9	+ 3.7	2.2
Norway	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	--	-	-	-
Spain	2.1	2.5	2.0	2.1	2.5	2.8	+13.1	0.2
Sweden	-	-	-	0.1	0.2	0.3	+50.0	$
Switzerland	0.8	0.9	1.0	1.0	0.9	0.9	+ 6.5	0.1
Turkey	-	-	-	-	0.3	0.2	-23.3	$
United Kingdom	42.4	44.0	45.0	48.4	49.2	50.0	+ 1.6	3.2
West Germany	41.4	39.1	41.1	41.1	40.2	44.4	+10.4	2.9
Cyprus/Gibraltar/Malta	-	-	-	-	-	-	-	-
Total W.Europe	178.9	175.0	185.6	191.9	194.3	206.7	± 6.4	13.4
Australia	10.6	11.2	11.7	12.4	13.8	14.1	+ 2.1	0.9
New Zealand	1.0	2.1	2.6	3.3	4.2	4.0	- 5.0	0.3
Total Australsia	11.6	13.3	14.3	15.7	18.0	18.1	+ 0.5	1.2
Japan	24.2	25.2	33.6	35.9	36.0	36.4	+ 0.9	2.3
Total OECD	757.6	696.3	747.7	737.7	710.3	734.3	+ 3.4	47.3
Rest of NCW								
Latin America	55.8	63.1	64.4	70.2	71.6	73.4	+ 2.5	4.7
Middle East	35.3	33.8	40.9	46.1	48.0	51.3	+ 6.9	3.3
Africa	21.3	25.2	24.9	26.7	28.5	31.2	+ 9.1	2.0
South Asia	8.9	12.7	12.8	13.8	16.8	17.6	+ 5.3	1.1
South East Asia	6.6	8.0	9.2	11.1	11.6	15.9	+37.3	1.0
Total Rest of NCW	127.9	142.8	152.2	167.9	176.5	189.4	+ 7.3	12.1
Total NCW	885.5	839.1	899.9	905.6	886.8	923.7	± 4.2	59.4
Centrally Planned Economies (CPEs)								
China	10.4	10.7	10.8	11.5	12.1	12.8	+ 5.4	0.8
USSR	337.3	389.8	423.7	465.1	491.2	520.2	+ 5.9	33.4
Others	80.8	86.1	90.8	92.5	97.1	99.1	+ 2.0	6.4
Total CPEs	428.5	486.6	525.3	569.1	600.4	632.1	± 5.3	40.6
TOTAL WORLD	1314.0	1325.7	1425.2	1474.7	1487.2	1555.8	± 4.6	100.0

$ Less than 0.05. * Grater than 300% P = Provisional.

Source : BP Statistical Review of World Energy, June 1988.

PRODUCTIVITY OF PRODUCING WELLS IN SELECTED FIELDS IN OPEC MEMBERS COUNTRIES-1986
(AS AT YEAR END)

COUNTRY	Maximum Depth (Mtrs.)	WELLS Flowing	Pumping	Total	AV-Daily Production (000'bbl)	t/w/d
1.	2.	3	4.	5.	6.	7.
Algeria	3834	640	205	845	647	102
Divided Zone	N.A.	157	280	437	N.A.	N.A.
Ecuador	3241	87	802	889	257	40
Gabon	2867	134	156	290	165	78
Indonesia	3508	676	5145	5821	1257	29
I.R.Iran	3721	205	-	205	2037	1358
Iraq	3813	N.R.	N.R.	N.R.	1877	N.A.
Kuwait	3050	380	20	400	1238	429
S.P.Libyan A.J.	4362	428	592	1020	1308	169
Nigeria	4422	310	830	1140	1467	175
Qatar	2516	165	2	167	314	249
Saudi Arabia	2849	588	-	588	4784	1111
U.A.E.	3752	678	223	901	1309	191
Venezula	4102	1538	8517	10055	1648	24
Total OPEC		5986	16772	22758	18335	109

t/w/d = Tonne/Well/Day.

N.R. = Not Reported

N.A. = Not Available.

Source = OPEC Annual Statistical Bulletin - 1986.

WORLD OIL REFINING CAPACITIES AT/END 1981 TO 1987(R)

(Million Tonnes Per Annum)

COUNTRY/AREA.	1981	1982	1983	1984	1985	1986	1987 (P)	% age Change 87 over 86	% age Share of Total 1987
1	2	3	4	5	6	7	8	9	10
North America	1018	952	891	880	873	874	884	+ 1.5	21.2
USA	911	840	790	780	770	770	782	+ 1.2	24.0
Canada	107	112	101	100	103	104	102	- 1.4	2.8
Latin America	443	435	414	395	362	365	369	+ 1.1	9.9
Argentina	34	34	34	34	33	33	34	+ 3.0	0.9
Brazil	76	76	70	65	65	66	70	+ 6.5	1.9
Mexico	76	81	81	84	89	89	89	-	2.4
Netherlands Antil	1.39	39	39	37	16	16	16	-	0.4
Trinidad	23	19	19	16	13	15	15	-	0.4
Venuzuela	70	68	61	61	61	61	60	+ 0.1	1.6
Others	125	118	110	98	85	85	85	+ 1.1	2.3
Western Europe	979	882	828	761	731	713	698	+ 2.2	19.0
Belgium	48	36	36	36	36	35	35	- 0.3	1.0
France	161	137	118	109	108	101	95	- 6.9	2.8
Italy	199	174	168	137	129	127	123	+ 3.0	3.3
Netherlands	88	79	80	71	69	69	69	-	1.9
Spain	77	77	72	72	72	71	71	-	1.9
United Kingdom	118	106	105	96	93	91	91	- 1.0	2.5
West Germany	147	126	114	105	87	84	79	- 5.6	2.1
Others	141	147	137	135	137	135	135	+ 0.4	3.7
Middle East	162	178	177	175	190	192	205	+ 6.9	5.5
Bahrain	13	13	13	13	13	13	13	-	0.3
Iran	31	31	30	26	26	26	26	-	0.7
Iraq	13	13	10	15	16	16	16	-	0.4
Kuwait	26	27	29	29	31	31	31	- 1.3	0.8
Saudi Arabia	33	43	43	43	56	56	68	+22.2	1.9
Others	46	51	52	49	48	50	51	+ 0.9	1.4
Africa	102	117	117	126	127	127	131	+ 3.1	3.5
Asia & Auustralasia	540	537	524	531	530	524	512	+ 2.4	13.9
Japan	283	274	248	248	248	234	224	- 4.3	6.1
Indonesia	26	26	38	38	39	39	39	-	1.1
Singapore	51	51	51	51	51	48	43	-10.7	1.2
Other South E.Asia	96	96	96	100	100	105	105	-	2.8
South Asia	44	50	51	50	57	61	65	+ 5.6	1.7
Of which India*	31.8	36.7	37.8	37.8	37.8	45.6	46.7	+ 2.4	1.3
Australasia	40	40	40	39	35	37	36	- 2.4	1.0
Total NCW	3244	3101	2951	2868	2812	2795	2799	+ 0.1	75.8
Total Centrally Planned Economics (CPEs)	823	843	858	863	863	881	890	+ 1.0	24.2
TOTAL WORLD	4067	3944	3809	3731	3675	3676	3689	+ 0.3	100.0

* = As on 1st April each year

SOURCE: BP Statistical review of World Energy, June 1988.

R = Revised/based on BP statestical Review conversion factor.

WORLD REFINERY CRUDE THROUGHOUT : 1976 TO 1987.

(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	1987 (P)	%age change change 1987 over 1986	% age share of total 1987
	1	2	3	4	5	6	7	8
U.S.A.	586	582	600	598	633	640	+ 1.1	22.6
Canada	82	77	78	75	73	80	+ 8.8	2.8
Latin America	303	290	285	271	273	276	+ 0.9	9.7
Western Europe	502	484	487	473	501	488	- 2.6	17.2
Middle East	112	125	133	139	147	148	+ 0.7	5.2
Africa	87	96	98	100	104	108	+ 3.6	3.8
Japan	167	162	167	155	149	145	- 2.7	5.1
South East Asia	116	118	122	132	138	137	- 0.5	4.8
South Asia	42	44	44	51	56	57	+ 2.2	2.0
Of Which India	32.1	34.5	35.2	41.2	44.9	47.4	+ 5.6	1.7
Australasia	31	30	31	29	29	28	- 3.4	1.0
Total NCW	2028	2008	2045	2023	2103	2107	+ 0.1	74.2
Centrally Planned Economies(CPEs)	676	681	692	705	722	732	+ 1.4	25.8
TOTAL WORLD:	2704	2689	2737	2728	2825	2839	+ 0.5	100.0

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

SOURCE: BP Statistical Review of the World Energy, 1988.

P = Provisional.

Country-wise World Oil Consumption 1981-87

(Million Tonnes)

COUNTRY/AREA.	1981	1983	1984	1985	1986	1987 (P)	% age Change 1987 over 1986	% age Share of Total 1987
1.	2	3	4	5	6	7	8	9
North America								
USA	746.0	704.9	726.9	721.7	751.3	763.4	+ 1.6	26.0
Canada	81.7	68.2	66.7	68.5	68.1	69.4	+ 1.8	2.4
Total N.America	827.7	773.1	793.6	790.2	819.4	832.8	+ 1.6	28.4
Latin America	212.6	211.0	210.0	209.7	215.3	220.6	+ 2.5	7.5
Western Europe								
Australia	11.0	10.1	9.8	9.8	10.4	10.7	+ 2.8	0.4
Belgium&Luxembourg	24.5	21.1	20.4	20.8	23.5	23.5	$	0.8
Denmark	12.8	10.4	10.4	10.7	10.5	10.0	- 4.8	0.3
Finland	12.3	10.5	10.6	10.8	11.3	11.2	- 0.6	0.4
France	99.0	89.4	85.9	84.3	86.0	86.1	+ 0.1	2.9
Greece	11.9	11.4	11.7	12.0	12.2	12.6	+ 3.6	0.4
Iceland	0.5	0.5	0.5	0.5	0.5	0.6	+ 8.4	$
Republic of Ireland	5.1	4.2	4.1	4.0	4.8	4.2	-12.5	0.1
Italy	95.7	89.2	84.9	84.4	86.5	89.8	+ 3.9	3.1
Netherlands	35.7	29.1	28.7	29.2	32.4	32.0	- 1.1	1.1
Norway	8.7	8.3	8.6	9.0	9.3	9.5	+ 1.6	0.3
Portugal	8.8	9.5	9.5	8.8	9.5	9.4	- 1.2	0.3
Spain	50.4	47.8	44.8	42.9	42.7	43.2	+ 1.0	1.5
Sweden	22.4	18.4	17.5	18.3	18.7	18.8	+ 0.3	0.6
Switzerland	11.9	12.3	11.8	12.0	13.2	12.4	- 5.9	0.4
Turkey	15.4	16.2	17.0	16.8	18.3	21.4	+17.0	0.7
United Kingdom	74.7	72.5	89.6	77.4	77.4	75.2	- 2.8	2.6
West Germany	117.6	110.8	110.6	112.9	119.9	114.6	- 4.4	3.9
Cyprus/Gibraltar/ Malta	1.5	1.6	1.7	1.8	2.0	2.2	+11.4	0.1
Total W.Europe	619.9	573.3	578.1	566.4	589.1	587.4	- 0.3	19.9
Middle East	89.5	115.2	108.5	108.3	108.3	109.6	+ 1.2	3.7
Africa	73.8	78.9	78.9	82.1	81.8	84.4	+ 3.2	2.9
Japan	223.9	207.2	215.1	203.4	205.3	208.1	+ 1.4	7.1
South East Asia	118.6	114.7	114.7	110.7	119.1	125.0	+ 5.0	4.2
Australasia	33.2	31.1	32.4	30.8	32.2	32.8	+ 1.9	1.1
South Asia	43.4	46.4	50.4	56.4	58.5	61.0	+ 4.2	2.1
Of Which India	34.0	37.2	39.9	43.0	45.5	48.4	+ 6.4	1.6
Total NCW	2242.6	2150.9	2181.7	2158.0	2229.0	2261.7	+ 1.5	76.9
Centrally Planned Economies (CPEs)								
China	84.8	84.7	87.5	88.9	99.2	103.9	+ 4.7	3.5
USSR	445.1	446.0	445.2	445.8	447.2	449.2	+ 0.5	15.3
Others	128.0	121.8	121.8	123.4	123.9	125.9	+ 1.6	4.3
Total CPEs	657.9	652.5	654.5	658.1	670.3	679.0	+ 1.3	23.1
TOTAL WORLD	2900.5	2803.4	2836.2	2816.1	2899.3	2940.7	+ 1.4	100.0

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

Source: BP Statistical Review of World Energy. June 1988.

Note : Figure for India Inserted.

Product-wise Consumption of Main Petroleum Products in the Non-Communist World (NCW) During 1981-87

(Million Tonnes)

COUNTRY	1981	1983	1984	1985	1986	1987 (P)	Percentage Change 1987 over 1986	Percentage Share of Total 1987
1	2	3	4	5	6	7	8	9
USA								
Gasoline	297.9	298.4	304.4	305.4	314.3	324.1	+ 3.1	42.5
Middle Distillates	199.2	189.0	200.9	204.8	213.5	216.1	+ 1.2	28.3
Fuel Oil	110.6	78.6	76.0	67.3	78.2	68.6	-12.3	9.0
Others	138.3	138.9	145.6	144.2	145.3	154.6	+ 6.4	20.2
Total USA	746.0	704.9	726.9	721.7	751.3	763.4	+ 1.6	100.0
Canada								
Gasoline	31.3	27.3	27.2	27.7	27.3	27.5	+ 0.7	39.6
Middle distillates	25.0	21.6	22.0	22.2	21.6	21.8	+ 0.8	31.5
Fuel Oil	11.2	7.7	6.8	5.6	6.2	6.7	+ 8.1	9.6
Others	14.2	11.6	10.7	13.0	13.0	13.4	+ 3.1	19.3
Total Canada	81.7	68.2	66.7	68.5	68.1	69.4	+ 1.8	100.0
Western Europe								
Gasoline	131.1	135.2	135.5	135.6	142.0	144.5	+ 1.8	24.7
Middle distillates	220.7	213.1	221.3	223.9	234.8	236.3	+ 0.6	40.4
Fuel Oil	179.3	135.2	128.5	117.9	118.5	111.5	- 5.9	19.1
Others	87.3	88.2	91.1	87.2	91.8	92.9	+ 1.2	15.8
Total W. Europe	618.4	571.7	576.4	564.6	587.1	585.2	- 0.3	100.0
Japan								
Gasoline	39.8	39.5	40.6	40.8	42.3	44.0	+ 3.9	21.1
Middle distillates	60.6	59.6	64.2	63.6	66.6	69.0	+ 3.6	33.2
Fuel Oil	91.2	76.4	75.4	62.4	59.2	57.0	- 3.6	27.4
Others	32.3	31.7	34.9	36.6	37.2	38.1	+ 2.4	18.3
Total Japan	223.9	207.2	215.1	203.4	205.3	208.1	+ 1.4	100.0
Australasia								
Gasoline	13.1	13 1	13.5	13.5	13.4	13.6	+ 1.7	41.5
Middle distillates	9.8	9.6	10.2	10.4	10.9	11.3	+ 3.7	34.4
Fuel Oil	5.6	3.8	3.8	2.9	2.6	2.4	- 9.4	7.3
Others	4.7	4.6	4.9	4.0	5.3	5.5	+ 3.8	16.8
Total Australasia	33.2	31.1	32.4	30.8	32.2	32.8	+ 1.9	100.0
Rest of NCW								
Gasoline	96.0	99.8	99.1	105.2	106.3	110.2	+ 3.7	18.3
Middle distillates	178.1	196.9	197.2	201.9	208.1	216.6	+ 4.1	35.9
Fuel Oil	190.8	190.7	185.2	181.4	184.7	188.0	+ 1.8	31.2
Others	74.5	80.4	82.7	80.5	85.9	88.0	+ 2.4	14.6
Total Rest of NCW	539.4	567.8	564.2	569.0	585.0	602.8	+ 3.0	100.0
Total NCW								
Gasoline	609.2	613.3	620.3	628.2	645.6	663.9	+ 2.8	29.4
Middle distillates	693.4	689.8	715.8	726.8	755.5	771.1	+ 2.1	34.1
Fuel Oil	588.7	492.4	475.7	437.5	449.4	434.2	- 3.4	19.2
Others	351.3	355.4	369.9	365.5	378.5	392.5	+ 3.7	17.3
Total NCW	2242.6	2150.9	2181.7	2158.0	2229.0	2261.7	+ 1.5	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 1988.

WORLD OIL PRODUCTION, CONSUMPTION AND RELATIVE DEFICIT/SURPLUS. IN EACH REGION/COUNTRY DURING 1987 & 1973.

(Million Tonnes)

COUNTRY/REGION	1987(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 Amerca (Including Canada)	558.5	832.8	- 274.3	- 32.9	621.3	901.7	-280.4	- 31.1
Latin America	327.9	220.6	+ 107.3	+ 48.6	272.0	160.3	+111.7	+ 69.7
West Europe	203.8	587.4*	- 383.6	- 65.3	22.5	737.1*	-714.6	- 96.9
Middle East	642.0	109.6	+ 532.4	+485.8	1052.5	62.2	+990.3	+1592.1
Africa	250.9	84.4	+ 166.5	+197.3	290.0	49.5	+240.5	+ 485.9
South & South East Asia (excluding India)	101.9	137.8	- 35.9	- 26.1	84.3	81.8	+ 2.5	+ 3.1
India	30.1	48.4	- 18.3	- 37.6	7.2	23.7	- 16.5	- 69.6
Japan	0.6	208.1	- 207.5	- 99.7	0.7	269.1	-268.4	- 99.7
Australasia	30.1	32.8	- 2.7	- 8.2	0.7	32.9	- 14.4	+ 43.8
U.S.S.R.	624.0	449.2	+ 174.8	+ 38.9	429.0	325.7	+103.3	+ 31.7
Eastern Europe	22.4	125.9	- 103.5	- 82.2	18.8	99.7	- 80.9	- 81.1
China	133.0	103.9	+ 29.1	+ 28.0	54.8	53.8	+ 1.0	+ 1.9
T O T A L :	2925.2	2940.7	- 15.5	- 0.5	2871.6	2797.5	+ 74.1	+ 2.6

* - Inclusive of 1.4, 2.2 million tonnes consumption of Cyprus/Gibralter/Malta in 1973 and 1987 respectively.

P = Provisional.

SOURCE: B.P.Statistical Review of World Energy - June, 1988

WORLD CRUDE OIL & PETROLEUM PRODUCTS IMPORTS/EXPORTS - 1987

(Millon Tonnes)

Country/Area	IMPORTS		EXPORTS	
	Crude	Products	Crude	Products
1.	2.	3.	4.	5.
U.S.A	229.2	77.6	7.8	28.5
Canada	13.4	3.8	30.7	0.1
Latin America	29.5	20.0	102.7	45.7
Western Europe	303.8	84.6	27.6	23.9
Middle East	4.0	1.5	430.2	80.5
North Africa	0.5	2.5	94.1	23.9
West Africa	0.4	1.4	90.1	3.4
East&Southern Africa	19.7	2.2	-	0.2
South Asia	21.2	3.1	-	2.4
South East Asia	76.7	23.0	48.1	18.4
Japan	159.0	44.2	-	1.2
Australasia	5.9	4.1	4.3	2.5
U.S.S.R., E. Europe & China	39.5	4.8	86.9	55.6
Destination not known	19.7	13.5	=	-
Total World	922.5	286.3	922.5	286.3

* 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, 1988.

EXPORTS OF CRUDE OIL REFINED PRODUCTS FROM OPEC MEMBER COUNTRIES.

(Million Tonnes)

1.	1973 2.	1975 3.	1980 4.	1982 5.	1983 6.	1984 7.	1985 8.	1986 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 Annual Statistical Bulletin 1986.

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
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
OECD 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	542.6	657.0

P = Provisional
r = Revised., based on statistical reviews conversion factor = barrels/day 49.8 tonnes/yr.
Source = OPEC Annual Statistical Bulletin 1986.

COUNTRY-WISE OPEC CRUDE OIL EXPORT BY REGIONS : 1986

(Qty.'000'Barrel/day)

Country/Region	Developed Countries (OECD)					Developing Countires							
	North America	Western Europe	Ocea-nia	Japan	Total OECD or Developed World	Latin Amer-rica	Asia & Far East (Excl. Japan)	Middle East	Africa	Total Develop-ing Countires	CPES	Un-Sp-ecified	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Algeria	10.0	138.5	-	-	148.5	9.0	-	0.5	-	9.5	9.6	-	167.6
2. Ecuador	50.4	-	-	-	50.4	56.6	66.5	-	-	123.1	-	-	173.5
3. Gabon	27.8	91.3	-	-	119.1	12.9	16.4	-	1.7	31.0	-	-	150.1
4. Indonesia	221.9	0.5	11.6	373.4	607.4	59.5	117.0	-	-	176.5	9.9	-	793.8
5. Iran, IR	117.8	621.2	-	220.6	959.6	25.0	244.4	95.0	35.0	399.4	95.0	-	1454.0
6. Iraq	81.2	762.3	-	163.0	1006.5	165.0	70.0	55.0	22.0	312.0	53.5	-	1372.0
7. Kuwait	19.4	275.3	7.1	204.5	506.3	-	205.5	25.0	1.0	231.5	4.1	-	741.9
8. S.P. Libyan,A	-	850.0	-	-	850.0	5.0	15.0	16.0	6.0	42.0	175.0	-	1067.0
9. Nigeria	454.2	663.9	-	-	1118.1	49.6	-	-	53.5	103.1	-	-	1221.2
10. Qatar	10.4	47.6	-	160.2	218.2	8.0	63.8	-	2.0	73.8	-	-	292.0
11. Saudi Arabia	657.3	1469.5	19.5	511.9	2658.2	180.0	550.0	236.0	65.0	1031.0	56.0	-	3745.2
12. U.A.E.	42.7	173.0	12.9	696.6	925.2	35.0	145.8	6.0	20.0	206.8	-	-	1132.0
13. Venezuela	414.1	173.0	-	-	587.1	287.8	-	-	-	287.8	-	7.4	882.3
TOTAL	2107.2	5266.1	51.1	2330.2	9754.6	893.4	1494.4	433.5	206.2	3027.5	403.1	7.4	13192.6
					73.9%					22.9%	3.1%	0.1%	100.0

SOURCE : OPEC Annual Statistical Bulletin- 1986

OIL REVENUES OF OPEC MEMBER COUNTRIES : 1974-1984.

(Billion US $)

OPEC MEMBER COUNTRIES	1974	1978	1979	1980	1981	1982	1983	1984
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	0.40	0.80	1.39	1.56	1.18	1.10	1.60
Gabon	0.17	0.50	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	17.60	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	16.72	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 US $)

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

SOURCE: OPEC Statistical bullettin, 1986.

OFFICIAL DEVELOPMENT ASSISTANCE FROM OECD AND OPEC MEMBERS: 1981-1986

COUNTRIES	AMOUNT (Million of US.$)						As percentage of donor G.N.P.					
	1981	1982	1983	1984	1985	1986	1981	1982	1983	1984	1985	1986
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
OECD:												
Italy	666	811	834	1133	1098	2423	.19	.23	.24	.33	.31	.40
New Zealand	68	65	61	55	54	66	.29	.28	.28	.25	.25	.27
United Kingdom	2192	1800	1610	1430	1530	1796	.43	.37	.35	.33	.33	.33
Japan	3171	3023	3761	4319	3797	5888	.28	.28	.32	.34	.29	.28
Austria	220	236	158	181	248	197	.33	.36	.24	.28	.38	.21
Finland	135	144	153	178	211	313	.28	.29	.32	.35	.40	.45
Australia	650	882	753	777	749	787	.41	.56	.49	.45	.48	.49
Canada	1189	1197	1429	1625	1631	1700	.43	.41	.45	.50	.49	.48
Netherlands	1510	1472	1195	1268	1136	1738	1.08	1.07	.91	1.02	.91	1.00
Belgium	575	499	477	442	440	542	.59	.58	.58	.57	.55	.48
France	4177	4034	3815	3788	3995	5136	.73	.74	.74	.77	.79	.72
United States	5782	8202	8081	8711	9403	9784	.20	.27	.24	.24	.24	.23
Denmark	403	415	395	449	440	695	.73	.77	.73	.85	.80	.89
Germany(FR)	3181	3152	3176	2782	2942	3879	.47	.48	.48	.45	.47	.43
Norway	467	559	584	540	575	997	.82	1.03	1.10	1.03	1.01	1.20
Sweden	919	987	754	741	840	1128	.83	1.02	.84	.80	.86	.88
Switzerland	237	252	320	286	303	429	.24	.25	.31	.30	.31	.30
T O T A L :	25542	27730	27556	28705	29392	36998						
OPEC												
Nigeria	143	58	35	51	45		.19	.08	.05	.07	.06	
Iran	-141	-193	20	-13	-171		-.13	-.15	.01	-.01	-.11	
Iraq	207	52	-30	-33	- 26		.94	.18	-.09	-.10	-.08	
Algeria	55	129	37	48	45		.13	.31	.08	.10	.08	
Venezuela	92	125	142	90	32		.14	.19	.22	.19	.07	
Libya	257	44	144	20	151		.81	.15	.51	.08	.59	
Saudi Arabia	5514	3854	3304	3212	2646		3.45	2.50	2.86	3.44	2.88	
Kuwait	1163	1161	997	1018	749		3.65	4.34	3.73	3.82	3.16	
U.A.E.	805	407	398	84	58		2.57	1.39	1.30	.32	.24	
Qatar	246	139	20	10	- 2		3.50	2.13	.39	.17	-.03	
TOTAL OAPEC	8247	5786	4820	4359	3621		2.52	1.81	1.70	1.60	1.60	
TOTAL OPEC	8341	5776	5017	4487	3527		1.45	0.98	0.86	1.13	1.06	

P = Provisional/Esimated.

SOURCE: World Development Report-1987.

LOAN ASSISTANCE FROM OPEC AND OTHER OIL SUPPLYING NATIONS : 1980-81 TO 1987-88

(Rs. Crores)

	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88 (Apr-Sept)
	1	2	3	4	5	6	7	8
U.S.S.R.:								
Authorisation	485.7	--	--	144.6	--	1134.0	2055.5	--
Utilisation	32.9	22.6	40.0	74.7	108.0	161.2	175.5	245.8
OPEC:								
Abu Dhabi Fund:								
Authorisation	--	--	--	--	--	--	--	--
Utilisation	2.0	--	--	--	--	--	--	--
OPEC Fund Loans								
Authorisation	39.8	--	29.3	23.4	--	--	9.0	--
Utilisation	3.4	9.2	37.4	6.5	6.2	4.7	7.4	49.4
U.A.E. Loans :								
Authorisation	--	--	--	--	--	--	--	--
Utilisation	--	--	--	--	--	--	--	--
Saudi Arab Fund: for Devep.								
Authorisation	--	29.2	--	30.7	--	51.6	--	--
Utilisation	13.0	6.0	12.4	2.4	3.0	0.2	7.4	36.8
Kuwait Fund: for Arab Economic Develp.								
Authorisation	--	77.5	--	52.1	--	30.8	--	--
Utilisation	8.6	10.1	25.5	18.0	80.0	53.4	23.0	10.1
Iraq-Loans:	7.0@	5.0@						
Authorisation	82.9	--	--	--	--	--	--	--
Utilisation	0.7	--	--	--	--	--	--	--
Iran-Loans:								
Authorisation	--	--	--	--	--	--	--	--
Utilisation	17.3	--	--	--	--	--	--	--
TOTAL OPEC ASSISTANCE:								
Authorisation	122.7	106.7	29.3	106.2	--	82.4	9.0	--
Utilisation	45.0	25.3	14.0	18.3	89.2	58.3	37.8	95.8
International Fund for Agricultural Develp.								
Authorisation	13.9	--	24.5	36.7	--	--	--	--
Utilisation	7.3	12.3	14.0	18.3	18.6	29.2	20.8	40.1
GRAND TOTAL								
Authorisation	622.3	106.7	53.8	287.5	--	1216.4	2064.5	--
Utilisation	85.2	60.2	129.3	119.9	215.8	248.7	234.1	382.6

* = Estimated

@ = Government account only

SOURCE = Economic Survey, 1987-88

OFFICIAL SELLING PRICE OF KEY OPEC CRUDES/SINCE 1974

($/bbl)

CRUDE	Gravity	EFFECTIVE DATES 1974 Nov.1	Jan.1	1975 Oct.1	1976 Feb.14	June 1.	July 1.	Oct.1.	1977 Jan.1	July 1	1978 Jan.1	Apr.1
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
ARABIAN/PRESIAN GULF CRUDES												
Saudia 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	10.40	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:												
Kirkukh	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. d)=Effective Oct. 1.

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES/SINCE 1974

($/bbl)

CRUDE	Grav-ity	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/PRESIAN GULF CRUDES										
Saudia 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	22.71i)		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:										
Merine	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:										
Kirkun	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
INDONESHIAN CRUDE										
Indonesia:										
Minas	34	13.90		15.65	16.15e)	18.25g)	21.12		23.50L)	25.50
VENEZULAN 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...)
($ /Barrel)

CRUDE	Grav-ity	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/PRESIAN GULF CRUDES									
Saudia Arabia:									
Arab. Ligght	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	26.360			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:									
Merine	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:									
Kirkun	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		
INDONESHIAN CRUDE									
Indonesia:									
Minas	34	27.50			31.50d)				
VENEZULAN 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	33.75a)		34.25d)	34.85			

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

(Contd...)

OFFICIAL SELLING PRICES OF KEY OPEC CRUDES SINCE 1974
(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/PRESIAN GULF CRUDES												
Saudia Arabia:												
Arab. Ligght	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:												
Merine	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:												
Kirkun	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			
INDONESHIAN CRUDE												
Indonesia:												
Minas	34	35.00										
VENEZULAN CRUDES												
Venezula:												
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

EFFECTIVE DATES

(Contd...)

CRUDE	Grav-ity	1983 Feb.1	1983 Mar.1	1984 Mar.15	1984 Apr.1	1984 Aug.10	1984 Oct.18	1984 Dec.28	1985 Jan.1	1985 Feb.1	1985 July 1.	1986 Mar.31	1986 July1	1986 Jan.1	1987 Feb.1	1987 Sept.16
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15	16	17
ARABIAN/PRESIAN GULF CRUDES																
Saudia Arabia:																
Arab. Light	34	30.00	29.00							28.00					17.52b)	
Arab. Berri	39	30.52	29.52						29.27	28.11					17.87	
Arab Medium	31	28.40	27.40						27.65	27.40	27.20				16.92b)	
Arab Heavy	27	27.00	26.00						26.50		26.00				16.27b)	
Iran:																
Iran Light	34			28.00				26.30	29.11	28.05					17.50f)	
Iran Heavy	31			26.90		27.10		26.20	27.55	27.35					16.89f)	
Kuwait:																
Kuwait	31	28.30	27.30						27.55	27.30	27.10				16.67b)	
Abu Dhabi:																
Umm Shaif	37		29.36						29.11	28.05		12.30	8.25	17.65	17.72c)	
Murban	39		29.56						29.31	28.15		12.50	8.45	17.85	17.92c)	
Zakum	40		29.46					28.96	29.21	28.10		12.25	8.35	17.75	17.82c)	
Iraq																
Basrah	35			28.46						27.96				17.30		
Qatar:																
Merine	36	30.00	29.30						29.05	28.05					17.67a)	
Dukhan	40	30.49	29.49						29.24	28.10					17.82a)	
Oman:																
Oman Blend	34			29.00												
MEDITERRANEAN & AFRICAN CRUDES.																
Iraq:																
Kirkun	36			29.18						N.A.				N.A.		
Libya																
Brega	40	30.40@													18.67d)	
Nigeria																
Bonny LIght	37	30.00*					28.00			28.65					18.92e)	
Bonny Medium	26	28.00*					27.00			27.60					17.42	
INDONESHIAN CRUDE																
Indonesia:																
Minas	34		29.53@							28.53					17.56g)	
VENEZULAN CRUDES																
Tia Zuana	26			27.88						27.60(1)		12.21(k)		16.72(m)		16.72
Tia Zuana	31			29.84						28.25(1)		13.70(k)		N.A.		17.62
Oficina	35			31.09						28.80(1)				N.A.		

@=Effective February 23. *=Harbor Fee of 2cts/bbi not included. 1) Effective February 10. (k) Effective March,27.
a),b),c),d),e),f)& As agree by the 80th Meeting of the confrence (December,1986).
FOURCE & OPEC Annual Statistics Bulletin,1987.

CRUDE PETROLEUM PRICES (FOB)
~~(Official Selling Prices)~~ FOB,

US $/bbl

Crude	Country	January-March 1985	January-March 1986	January-March 1987	1987 Apr.-June	1987 July-Sept.	1987 Oct.-Dec.	1988 Jan.-Mar.
Arab Light	Saudi Arabia	28.00	18.12	17.00	17.39	17.58	16.88	14.86
Arab Medium	Saudi Arabia	27.40	16.92	16.00	16.79	16.92	15.99	14.30
Arab Heavy	Saudi Arabia	26.50	16.22	15.33	16.20	16.49	15.72	13.53
Berri	Saudi Arabia	28.11	18.78	17.64	17.71	17.87	17.26	15.30
Iran Light	Iran	28.05	18.40	16.96	17.35	17.57	16.29	14.71
Iran Heavy	Iran	27.35	17.89	15.55	16.92	17.13	15.77	14.23
Basrah LIght	Iraq	0.00	18.64	16.70	17.15	17.52	16.32	14.56
Basrah Medium	Iraq	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Basrah Hevy	Iraq	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirkuk	Iraq	28.18	17.03	17.30	17.51	18.05	16.44	14.73
Kuwait	Kuwait	27.30	16.31	16.50	16.59	16.80	16.12	14.23
Murban	Abu Dabi	28.15	17.51	17.66	17.75	17.79	17.00	15.76
Dakhan	Qatar	28.10	17.23	17.49	17.58	17.73	16.94	15.21
Khafji	Neutralzone	26.53	17.53	15.99	16.12	16.53	15.73	13.61
Es Sider	Libya	30.15	17.45	17.36	18.09	18.43	17.14	15.12
Bonny Light	Nigeria	28.65	18.00	17.97	18.71	19.27	18.05	15.93
Bonny Medium	Nigeria	27.60	18.04	18.04	18.44	19.11	18.04	15.84
Saharan	Nigeria	30.50	18.17	18.02	18.64	19.11	17.80	15.72
Mandji	Gabon	28.00	15.33	16.67	17.37	17.87	16.05	13.57
Oriente	Ecuador	26.50	15.30	15.96	17.29	17.93	15.75	13.62
TJ Light	Venezuela	28.25	18.87	17.68	18.65	19.21	17.80	15.15
TJ Medium	Venezuela	26.80	17.87	16.72	18.24	18.43	16.53	13.92
Bachaquero	Venezuela	24.28	16.23	14.72	18.01	17.37	15.04	12.37
Mumatran	Indonesia	28.53	18.55	17.43	17.61	18.57	17.59	16.74
Attaka	Indonesia	28.65	19.68	18.27	18.50	18.94	18.28	16.93
OPEC Average		27.87	17.45	16.91	17.47	16.71	14.83	14.83
Persian Gulf		27.72	17.51	16.75	17.15	16.52	14.75	14.74
		COUNTRY EXPORT SHARES (percentages)						
Saudi Arabia		24.22	25.18	23.91	25.02	23.20	23.12	25.24
Iran		11.17	10.75	12.52	12.12	10.82	9.41	8.46
Iraq		7.50	9.93	11.45	12.34	12.27	14.34	15.79
Kuwait		5.78	7.08	6.98	6.36	7.50	6.47	6.87
UAE		6.60	7.93	7.80	8.22	9.02	9.96	7.02
Qatar		2.24	2.11	2.25	2.09	2.62	2.20	2.22
Neutralzone		3.13	2.11	2.35	2.43	3.03	2.62	1.46
Libya		6.92	7.16	6.55	6.09	6.38	6.00	6.47
Algeria		3.44	3.09	3.74	3.57	3.17	3.20	3.34
Nigeria		10.20	8.94	7.07	6.72	6.84	6.90	7.11
Gabon		0.90	0.93	0.90	1.20	0.80	0.80	0.97
Ecuador		1.25	1.34	0.65	0.02	0.37	1.37	1.44
Venezuela		9.77	8.20	8.62	8.50	8.86	8.17	8.75
Indonesia		6.88	5.25	5.20	5.32	5.14	5.43	4.85

Source: The World Bank/International Finance Corporation - OFFICE MEMORANDUM Dated April 28, 1988.

NATURAL GAS PRICES IN INDUSTRIAL/ DEVELOPED COUNTRIES OF THE WORLD

US $/10*7* K.Cal (GEC)

Country	1982	1984	1985	1986	1987
	A. FOR INDUSTRIAL USE				
Australia	65.18	89.94	75.95	77.95	90.62
Austira	226.80	183.89	191.06	201.11	N.A.
Belgium	186.91	176.71	175.96	154.98	126.27
Canada	103.75	108.11	103.60	97.70	93.14
Finland	196.16	169.69	158.81	122.10	95.21
France	187.36	167.11	179.13	157.15	NA
Germany	207.03	180.64	185.02	196.66	NA
Ireland	615.95	262.12	268.45	333.53	289.24
Italy	197.90	180.80	164.33	101.32	NA
Japan	442.25	479.55	460.14	557.69	NA
Netheralands	172.60	163.85	156.84	NA	NA
New Zealand	115.69	95.25	95.62	116.29	165.52
Spain	317.52	244.56	250.99	258.70	NA
Switzerland	424.08	321.66	318.26	354.15	278.81
United Kingdom	159.28	137.63	145.91	150.88	NA
United States	143.85	162.58	152.18	118.28	102.48 (IV QR)
	B. FOR HOUSEHOLD USE.				
Australia	190.57	209.50	175.25	177.23	NA
Austria	572.53	518.53	506.60	633.60	NA
Belgium	354.36	328.90	331.98	365.72	352.97
Canada	147.32	166.80	160.93	149.62	161.49
Denmark	NA	362.14	372.84	492.77	662.04
Finland	196.16	169.69	158.81	131.49	114.65
France	407.51	355.59	373.69	455.19	NA
Germany	355.79	301.14	299.99	373.58	NA
Ireland	688.33	408.76	428.03	553.76	564.14
Italy	289.31	314.60	320.25	347.97	NA
Japan	613.14	637.83	631.75	832.28	NA
Luxembourg	271.17	NA	NA	NA	NA
Netherlands	255.41	240.92	244.85	327.51	284.52
New Zealand	207.05	131.87	115.63	143.18	197.23
Spain	430.02	389.54	414.29	541.09	NA
Switzerland	837.81	723.92	692.20	946.05	1140.85
United Kingdom	247.69	208.45	207.98	234.27	NA
United States	199.98	235.79	235.79	241.85	209.20 (IV QR)

0.95 tonne of oil approximate 10*7 K. Calories of natural gas.
NA = Not available Gcv. = Gross calorific value.
Source = International Energy Agency's "Energy Prices and Taxes" Fourth Quarter 1987.

CIF PRICE OF CRUDE PETROLEUM AND PETROLEUM PRODUCTS
(US Dollars per Metric Ton)

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
		CARIBBEAN MARKET				
Latin America and Caribbean						
Antigua	St.Johns	Crude	205.98	130.70	124.25	11.23
		Gasoline	275.56	253.24	191.04	174.01
		Kerosene	265.14	242.92	164.09	175.11
		Gas Oil	245.50	212.16	149.16	153.36
		Fuel Oil	185.08	142.82	110.28	89.44
Argentina	La Plata	Crude	218.61	140.70	130.52	124.04
		Gasoline	295.77	269.83	203.84	192.29
		Kerosene	285.35	259.51	176.89	193.40
		Gas Oil	265.71	228.75	161.96	171.65
		Fuel Oil	205.29	159.41	123.08	107.72
Rahamas	Preeport	Crude	205.84	130.59	129.30	111.26
		Gasoline	278.88	255.99	193.12	176.97
		Kerosene	268.46	245.67	166.17	178.88
		Gas Oil	248.82	214.91	151.24	156.33
		Fuel Oil	188.40	145.57	112.36	92.41
Barbados	Bridgetown	Crude	206.21	130.89	124.37	111.47
		Gasoline	275.80	253.43	191.19	174.22
		Kerosene	265.38	243.11	164.23	175.32
		Gas Oil	245.74	212.35	149.30	153.57
		Fuel Oil	185.32	143.01	110.42	89.60
Belize	Belize	Crude	0.00	0.00	0.00	0.00
		Gasoline	278.68	255.83	192.82	176.62
		Kerosene	268.26	245.51	165.87	177.72
		Gas Oil	248.62	214.74	150.94	255.98
		Fuel Oil	188.20	145.41	112.06	92.05
Berauda	Hamilton	Crude	0.00	0.00	0.00	0.00
		Gasoline	279.56	256.51	193.44	171.66
		Kerosene	269.14	246.19	166.48	178.77
		Gas Oil	249.50	215.42	151.55	157.02
		Fuel Oil	189.08	146.09	112.68	93.09
Brazil	Santos	Crude	217.27	139.36	129.08	122.43
		Gasoline	289.86	264.64	198.93	185.96
		Kerosene	279.44	254.32	171.98	187.06
		Gas Oil	259.80	223.56	157.05	165.32
		Fuel Oil	199.38	154.22	118.17	101.39
Chile	Valparaiso	Crude	225.21	145.46	133.38	129.34
		Gasoline	296.28	270.58	204.95	191.43
		Kerosene	285.86	260.26	178.00	192.53
		Gas Oil	266.22	229.50	163.07	170.79
		Fuel Oil	205.80	160.16	124.19	106.86

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Colombia	Barranquilla	Crude	204.62	129.64	123.83	109.88
		Gasoline	275.56	253.29	191.52	173.99
		Kerosene	265.14	242.97	164.57	175.09
		Gas Oil	245.50	212.21	149.64	153.34
		Fuel Oil	185.08	142.87	110.76	89.42
Costa Rica	Puerto Limon	Crude	205.95	130.59	124.30	111.71
		Gaspline	277.99	254.94	192.51	176.95
		Kerosene	267.57	244.62	165.55	178.06
		Gas Oil	247.93	213.86	150.62	156.31
		Fuel Oil	187.51	144.52	111.74	92.38
Dominican R.	Santo Domingo	Crude	204.69	129.68	123.72	109.99
		Gasoline	275.24	252.98	190.96	173.82
		Kerosene	264.82	242.66	164.00	174.92
		Gas Oil	245.18	211.90	149.07	153.18
		Fuel Oil	184.78	142.56	110.20	89.25
El Salvador	Cutuco	Crude	207.25	131.74	124.91	112.63
		Gasoline	285.14	261.93	198.41	182.84
		Kerosene	274.71	251.61	171.45	183.94
		Gas Oil	255.08	220.85	156.52	162.20
		Fuel Oil	194.65	151.51	117.65	98.27
Guatemala	Puerto-Barrios	Crude	205.93	130.66	124.31	111.24
		Gasoline	278.83	255.96	192.93	176.76
		Kerosene	268.41	245.64	165.97	177.87
		Gas Oil	248.77	214.87	151.04	156.12
		Fuel Oil	188.35	145.54	112.17	92.20
Haiti	Port au - Prince	Crude	0.00	0.00	0.00	0.00
		Gasoline	276.30	253.84	191.50	174.65
		Kerosene	265.88	243.52	164.55	175.76
		Gas Oil	246.24	212.76	149.62	154.01
		Fuel Oil	185.82	143.42	110.74	90.09
Honduras	Puerto - cortez	Crude	206.65	131.19	124.83	112.13
		Gasoline	280.64	257.30	194.48	178.54
		Kerosene	270.22	246.98	167.52	179.64
		Gas Oil	250.58	216.22	152.59	157.90
		Fuel Oil	190.16	146.88	113.72	93.97
Jamaica	Kingston	Crude	205.42	130.28	124.08	110.78
		Gasoline	276.43	253.97	191.75	174.88
		Kerosene	266.01	243.65	164.79	175.99
		Gas Oil	246.37	212.89	149.36	154.24
		Fuel Oil	185.95	143.55	110.99	90.32
Nicaragua	Corinto	Crude	206.73	131.33	124.76	112.25
		Gasoline	285.10	262.00	198.57	183.09
		Kerosene	274.68	251.68	171.61	184.19
		Gas Oil	255.04	220.92	156.68	162.45
		Fuel Oil	194.62	151.58	117.80	98.52

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Panama	Puerto Las Minas	Crude	205.65	130.48	124.19	112.51
		Gasoline	276.83	254.32	191.96	175.24
		Kerosene	266.41	244.00	165.01	176.34
		Gas Oil	246.77	213.24	150.08	154.60
		Fuel Oil	186.35	143.90	111.20	90.67
Surinam	Paramaribo	Crude	0.00	0.00	.00	0.00
		Gasoline	278.21	255.44	192.79	176.31
		Kerosene	267.79	245.12	165.83	177.41
		Gas Oil	248.15	214.36	150.90	155.66
		Fuel Oil	187.73	145.02	112.03	91.74
Uruguay	Montevideo	Crude	213.54	136.61	128.00	118.86
		Gasoline	294.03	268.25	201.69	189.20
		Kerosene	283.61	257.92	174.74	190.30
		Gas Oil	263.97	227.16	159.81	168.56
		Fuel Oil	203.55	157.82	120.93	104.63
Africa South of Sahara						
Benin	Cotonou	Crude	0.00	0.00	0.00	0.00
		Gasoline	292.52	267.08	201.50	188.20
		Kerosene	282.10	256.76	174.54	189.30
		Gas Oil	262.46	226.00	159.62	167.56
		Fuel Oil	202.04	156.66	120.74	103.63
Cameroon	Douala	Crude	0.00	0.00	0.00	0.00
		Gasoline	293.79	269.04	203.36	190.73
		Kerosene	283.37	258.72	176.41	191.83
		Gas Oil	263.73	227.96	161.48	170.08
		Fuel Oil	203.31	158.62	122.60	106.16
Cape Verde	St. Vincent	Crude	0.00	0.00	0.00	0.00
		Gasoline	284.59	260.50	196.10	181.45
		Kerosene	274.17	250.18	169.14	182.55
		Gas Oil	254.53	219.42	154.21	160.81
		Fuel Oil	194.11	150.08	115.33	96.88
Gambia	Banjul	Crude	0.00	0.00	0.00	0.00
		Gasoline	287.56	263.05	198.26	185.21
		Kerosene	277.14	252.73	171.31	186.31
		Gas Oil	257.50	221.97	156.38	164.57
		Fuel Oil	197.08	152.63	117.50	100.64
Ghana	Takoradi	Crude	216.23	138.83	129.30	121.46
		Gasoline	291.54	266.39	200.90	187.51
		Kerosene	281.12	256.07	173.95	188.61
		Gas Oil	261.48	225.30	159.02	166.87
		Fuel Oil	201.06	155.97	120.14	102.94

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Guinea	Conakry	Crude	0.00	0.00	0.00	0.00
		Gasoline	289.43	265.03	200.51	186.71
		Kerosene	279.01	254.71	173.56	187.82
		Gas Oil	259.37	223.95	158.63	166.07
		Fuel Oil	198.95	154.61	119.75	102.14
Cote d'Ivoire	Abidjan	Crude	216.45	139.08	129.65	122.02
		Gasoline	291.11	266.22	201.34	187.84
		Kerosene	280.69	255.90	174.39	188.94
		Gas Oil	261.05	224.14	159.46	167.20
		Fuel Oil	200.63	155.80	120.58	103.27
Liberia	Monrovia	Crude	216.79	139.23	129.60	121.91
		Gasoline	288.80	264.06	199.30	185.06
		Kerosene	278.37	253.74	172.34	186.16
		Gas Oil	258.74	222.93	157.42	164.42
		Fuel Oil	198.31	153.64	118.54	100.49
Mauritania	Nouadhibou	Crude	0.00	0.00	0.00	0.00
		Gasoline	286.81	262.41	197.93	184.25
		Kerosene	276.39	252.09	170.97	185.35
		Gas Oil	256.75	221.33	156.04	163.61
		Fuel Oil	196.33	151.99	117.16	99.68
Senegal	Dakar	Crude	214.87	137.77	128.88	120.46
		Gasline	287.391	263.04	199.03	184.75
		Kerosene	276.97	252.72	172.06	185.85
		Gas Oil	257.33	221.96	157.15	164.11
		Fuel Oil	196.91	152.62	118.27	100.18
Sierra Leone	Freetown	Crude	220.56	139.66	129.88	122.43
		Gasoline	288.29	263.56	199.11	184.71
		Kerosene	277.87	253.24	172.15	185.81
		Gas Oil	258.23	222.47	157.22	164.07
		Fuel Oil	197.81	153.14	118.34	100.14
Togo	Kpeme	Crude	216.18	138.75	129.35	121.40
		Gasoline	292.40	267.00	201.60	188.20
		Kerosene	281.98	256.68	174.65	189.30
		Gas Oil	262.34	225.92	159.72	167.56
		Fuel Oil	201.92	156.58	120.84	103.63
Zaire	Banana	Crude	215.12	137.95	129.05	121.61
		Gasoline	296.86	270.70	204.90	194.36
		Kerosene	286.43	260.38	177.94	195.46
		Gas Oil	266.80	229.62	163.01	173.72
		Fuel Oil	206.37	160.28	124.13	109.79

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Europe, Middle East, North Africa						
Gibraltar	Gibraltar	Crude	0.00	0.00	0.00	0.00
		Gasoline	289.58	264.20	198.59	185.63
		Kerosene	279.16	253.88	171.64	186.73
		Gas Oil	259.52	223.12	156.71	164.99
		Fuel Oil	199.10	153.78	117.83	101.06
Morocco	Mohammedia	Crude	212.32	135.32	126.83	117.35
		Gasoline	289.75	264.06	198.61	185.56
		Kerosene	279.33	253.74	171.66	186.67
		Gas Oil	259.69	222.98	156.73	164.92
		Fuel Oil	199.27	153.64	117.85	101.00
Portugal	Lisbon	Crude	212.32	135.48	126.90	117.37
		Gasoline	288.96	263.85	198.38	185.02
		Kerosene	278.54	253.53	171.43	186.12
		Gas Oil	258.90	222.77	156.50	164.38
		Fuel Oil	198.48	153.43	117.62	100.45
Spain	Huelva	Crude	212.02	135.19	126.79	117.29
		Gasoline	289.52	264.15	198.77	185.86
		Kerosene	279.10	253.83	171.82	186.96
		Gas Oil	259.46	223.07	156.89	165.22
		Fuel Oil	199.04	153.73	118.01	101.29
		MIDDLE EAST MARKET				
Africa South of Sahara						
Djibouti	Djibouti	Crude	205.81	130.51	123.98	110.96
		Gasoline	333.12	300.69	202.50	212.53
		Kerosene	292.44	267.22	205.10	199.60
		Gas Oil	262.18	230.55	183.16	181.27
		Fuel Oil	189.13	150.19	107.00	76.26
Ethiopia	Assab	Crude	206.21	130.85	124.28	111.51
		Gasoline	334.13	301.56	203.36	213.66
		Kerosene	293.45	268.10	205.96	200.73
		Gas Oil	263.19	231.42	184.02	182.40
		Fuel Oil	190.14	151.06	107.87	77.39
Kenya	Mombassa	Crude	207.29	131.67	124.68	112.42
		Gasoline	336.82	303.63	204.54	215.52
		Kerosene	296.14	270.17	207.14	202.59
		Gas Oil	265.88	233.49	185.20	184.26
		Fuel Oil	192.83	153.13	109.05	79.25
Madagascar	Tamatave	Crude	208.72	132.92	125.67	113.85
		Gasoline	340.37	306.77	207.44	218.42
		Kerosene	299.69	273.30	210.05	205.50
		Gas Oil	269.43	236.63	188.10	187.16
		Fuel Oil	196.39	156.27	111.95	82.15

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Mauritius	Port Louis	Crude	0.00	0.00	0.00	0.00
		Casoline	339.96	306.50	207.09	218.03
		Kerosene	299.28	273.03	206.69	205.10
		Cas Oil	269.02	236.36	189.75	186.76
		Fuel Oil	199.98	156.00	111.60	81.75
Mozambique	Maputo	Crude	209.50	199.40	125.63	114.59
		Casoline	342.32	307.98	207.32	219.93
		Kerosene	301.64	274.52	209.92	307.00
		Gas Oil	271.38	237.84	187.98	188.67
		Fuel Oil	198.33	157.48	111.83	83.66
Namibia	Walvis	Crude	0.00	0.00	0.00	0.00
		Gasoline	351.35	315.13	212.86	228.02
		Kerosene	310.67	281.66	215.47	215.09
		Gas Oil	280.41	244.99	193.52	196.75
		Fuel Oil	207.36	164.63	117.37	91.74
Reunion	Reunion	Crude	0.00	0.00	0.00	0.00
		Gasoline	340.13	307.05	207.93	219.30
		Kerosene	299.45	273.58	210.54	206.38
		Gas Oil	269.19	236.91	188.60	188.04
		Fuel Oil	196.14	156.55	112.44	83.03
Seycheller	Port Victoria	Crude	0.00	0.00	0.00	0.00
		Gasoline	335.94	303.23	204.94	215.14
		Kerosene	295.26	269.76	207.55	202.22
		Gas Oil	265.00	233.09	185.60	183.88
		Fuel Oil	191.96	152.73	109.45	78.87
Somalia	Mogadiscio	Crude	206.83	131.35	124.62	112.15
		Gasoline	335.66	302.81	204.38	214.95
		Kerosene	294.98	269.34	206.98	202.03
		Gas Oil	2634.72	232.67	185.04	183.69
		Fuel Oil	191.67	152.31	108.89	78.68
South Africa	Cape Town	Crude	215.11	134.84	126.45	116.60
		Gasoline	347.16	311.62	209.75	224.03
		Kerosine	306.48	278.16	212.35	211.10
		Gas Oil	276.22	241.48	190.41	192.76
		Fuel Oil	203.18	161.12	114.26	87.75
Sudan	Port Sudan	Crude	206.71	131.22	124.45	112.00
		Gasoline	335.36	302.49	203.80	214.66
		Kerosene	294.68	269.02	206.47	201.74
		Gas Oil	264.42	232.35	184.53	183.40
		Fuel Oil	191.38	151.99	108.38	78.39
Tanzania	Dar Es Sallam	Crude	207.60	131.92	124.85	112.77
		Gasoline	337.59	304.27	205.03	216.23
		Kerosene	296.91	270.60	207.63	203.30
		Gas Oil	266.65	234.13	185.69	184.97
		Fuel Oil	193.60	153.76	109.54	79.96

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
South Asia						
India	Bombay	Crude	205.28	130.20	124.01	110.75
		Gasoline	331.81	299.92	202.57	212.11
		Kerosene	291.13	266.45	205.17	199.19
		Gas Oil	260.87	229.78	183.23	180.85
		Fuel Oil	187.82	149.41	107.07	75.84
Pakistan	Karachi	Crude	204.40	129.42	123.46	109.66
		Gasoline	329.60	297.94	200.96	209.90
		Karosine	288.92	264.48	203.57	196.97
		Gas Oil	258.66	227.80	181.63	178.63
		Fuel Oil	185.62	147.44	105.47	73.62
Europe, Middle East, North Africa						
Cyprus	Larnace	Crude	212.28	136.35	129.51	118.47
		Gasoline	346.46	312.66	214.57	227.33
		Karosene	305.78	279.20	217.18	214.41
		Gas Oil	275.52	242.52	295.23	196.07
		Fuel OIl	202.47	162.16	119.08	90.06
Creece	Salonica	Crude	213.37	137.18	129.90	119.25
		Gasoline	349.17	314.75	215.72	228.92
		Kerosine	308.49	281.28	281.32	215.99
		Gas Oil	278.23	244.61	196.38	197.66
		Fuel Oil	205.18	164.25	120.23	92.65
Isreal	Haifa	Crude	212.38	136.42	129.43	118.28
		Gasoline	346.70	312.84	214.34	226.95
		Kerosene	306.02	279.37	216.95	214.03
		Gas Oil	275.76	242.70	195.00	195.69
		Fuel Oil	202.72	162.34	118.85	90.68
Jordan	Aqaba	Crude	207.93	132.12	124.90	113.14
		Gasoline	338.41	304.77	205.19	216.98
		Kerosene	297.73	271.30	207.79	204.06
		Gas Oil	267.47	234.63	185.85	185.72
		Fuel Oil	194.42	154.27	109.70	80.71
Lebanon	Beirut	Crude	212.29	136.33	129.32	118.12
		Gasoline	346.48	312.61	214.01	226.62
		Kerosene	305.80	279.15	216.61	213.69
		Gas Oil	275.54	242.47	194.67	195.36
		Fuel Oil	202.49	162.11	118.52	90.35
Turkey	Istanbul	Crude	214.20	237.96	130.33	120.33
		Gasoline	351.25	316.72	216.98	231.13
		Kerosene	310.57	283.26	219.59	218.21
		Gas Oil	280.31	246.58	197.64	199.87
		Fuel Oil	207.26	166.22	121.49	94.86
Yemen,A.R.	Hodeidah	Crude	0.00	0.00	0.00	0.00
		Gasoline	333.64	301.18	203.06	213.32
		Kerosene	292.96	267.71	205.66	200.40
		Gas Oil	262.70	231.04	083.72	182.06
		Fuel Oil	189.65	150.68	107.57	77.05

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Yemen PDR	Aden	Crude	209.59	130.45	123.96	110.97
		Gasoline	332.80	300.53	202.44	212.55
		Kerosene	292.12	267.06	205.05	199.63
		Gas Oil	261.86	230.39	183.10	181.29
		Fuel Oil	188.81	150.03	106.95	76.28
Yugoslavia	Rijeca	Crude	214.39	137.97	130.33	120.33
		Gasoline	351.72	316.75	216.98	231.13
		Kerosene	311.031	283.29	219.59	218.21
		Gas Oil	280.77	246.61	197.64	199.87
		Fuel Oil	207.73	166.25	121.49	94.86
		FAR EAST MARKET				
South Asia						
Bangladesh	Chittagong	Crude	208.78	133.08	125.40	114.13
		Gasoline	312.98	241.62	199.08	189.05
		Kerosene	278.31	250.14	075.03	177.63
		Gas Oil	242.54	189.62	164.31	160.69
		Fuel Oil	188.53	143.43	111.20	93.66
Burma	Rangoon	Crude	208.51	132.57	125.29	113.61
		Gasoline	310.94	239.65	197.95	187.04
		Kerosene	276.28	248.17	173.90	175.62
		Gas Oil	240.50	187.65	163.18	158.69
		Fuel Oil	186.50	141.45	110.08	91.65
India	Madras	Crude	207.43	132.03	125.04	113.02
		Gasoline	313.17	241.93	199.76	189.55
		Kerosene	278.50	250.15	175.72	178.13
		Gas Oil	242.73	189.93	164.99	161.19
		Fuel Oil	188.72	143.73	111.89	94.16
Sri Lanka	Cplombo	Crude	206.77	131.25	124.50	111.89
		Gasoline	313.84	241.93	199.48	189.26
		Kerosene	279.17	250.45	175.43	177.84
		Gas Oil	243.40	189.93	164.71	160.90
		Fuel Oil	189.39	143.73	111.61	93.87
East Asia and Pacific						
Hong Kong	Hong Kong	Crude	211.75	135.09	126.68	116.78
		Gasoline	312.70	241.07	198.94	188.51
		Kerosene	278.03	249.59	174.89	177.08
		Gas Oil	242.26	189.07	164.17	160.15
		Fuel Oil	188.25	142.88	111.06	93.12
Korea	Inchon	Crude	213.63	136.65	127.60	118.79
		Gasoline	317.34	244.82	201.54	192.44
		Kerosene	282.67	253.34	177.49	181.01
		Gas Oil	246.90	191.82	166.77	164.08
		Fuel Oil	192.89	146.63	113.67	97.04

Contd.....

Country	Discharge Port	Product	Price (*) 1985	1986	1987	1988
Phipippiens	Manila	Crude	211.60	135.01	126.99	116.35
		Gasoline	311.86	240.43	198.67	187.65
		Kerosene	277.19	248.94	174.62	176.23
		Gas Oil	241.42	188.42	163.90	159.29
		Fuel Oil	187.41	142.23	110.80	92.26
P.N.Guinea	Bougainville	Crude	0.00	0.00	0.00	0.00
		Gasoline	321.98	248.90	204.82	196.01
		Kerosene	287.31	257.42	180.77	184.59
		Gas Oil	251.54	196.89	170.05	167.65
		Fuel Oil	197.53	150.70	116.94	100.62
Thailand	Bankok	Crude	210.61	134.20	126.17	115.71
		Gasoline	309.95	238.94	197.48	186.37
		Kerosene	275.28	247.45	173.43	176.95
		Gas Oil	239.51	186.93	162.71	156.02
		Fuel Oil	185.50	140.74	109.60	90.00
Vietnam	Hochimin	Crude	0.00	0.00	0.00	0.00
		Gasoline	310.16	329.73	199.11	188.11
		Kerosene	275.49	240.25	175.06	176.69
		Gas Oil	239.72	187.73	164.34	159.75
		Fuel Oil	185.71	141.53	111.24	92.72
Fiji	Suva	Crude	0.00	0.00	0.00	0.00
		Gasoline	329.81	254.86	209.30	201.86
		Kerosene	295.14	263.38	185.26	190.44
		Gasoline	259.37	202.86	174.53	173.50
		Fuel Oil	205.36	156.67	121.43	106.47

(*) Mid-February Quotations

Product Specifications:
Product Specifications:
Gasoline : 95 Ron
Kerosene : Regular
Gas Oil : 48-52 Diesel Index. 0.5% Sulphur in Mind East & Far East Markets. Fuel Oil: Hevy, High Sulphur.

Conversion Factors:

1 Metric Ton of Gasoline = 8.6 barrels = 1,350 litres
1 Metric Ton of Kerosene = 7.9 barrels = 1,230 litres
1 Metric Ton of Fuel Oil = 6.7 barrels
1 Metric Ton of Gas Oil = 7.4 barrels = 1,160 litres

1 barrel = 42 Gallons
1 Gallon (U.S) = 3.785 litres.

SOURCE The World Bank/International Finance Corporation
Offfice Memorandum dated April 28, 1988.

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	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

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	Spot Assessment	DIFFERENCE (+) Premium (-) Discount
1	2	3	4
3.4.87	17.84	17.50	-0.34
10.4.87	17.84	17.47	-0.37
17.4.87	17.84	17.47	-0.37
24.4.87	17.87	17.31	-0.56
1.5.87	17.87	17.25	-0.62
8.5.87	17.87	17.35	-0.51
15.5.87	17.87	17.42	-0.45
22.5.87	17.87	17.42	-0.45
29.5.87	17.87	17.50	-0.37
5.6.87	17.87	17.54	-0.33
12.6.87	17.87	17.58	-0.29
19.6.87	17.87	17.64	-0.23
26.6.87	17.87	17.60	0.26
3.7.87	17.87	17.70	-0.17
10.7.87	17.87	18.40	0.53
17.7.87	17.87	18.40	0.53
24.7.87	17.87	18.19	0.33
31.7.87	17.87	18.13	0.26
7.8.87	17.87	17.87	0.01
14.8.87	17.87	17.49	-0.38
21.8.87	17.87	17.39	-0.47
28.8.87	17.87	17.39	-0.48
4.9.87	17.87	17.35	-0.52
11.9.87	17.87	17.35	-0.52
18.9.87	17.87	17.34	-0.53
25.9.87	17.87	17.34	-0.52
2.10.87	17.87	17.34	-0.53
9.10.87	17.87	17.40	-0.47
16.10.87	17.87	17.45	-0.42
23.10.87	17.87	17.57	-0.30
30.10.87	17.87	17.54	-0.32
5.11.87	17.87	17.09	-0.77
13.11.87	17.87	16.81	-1.06
20.11.87	17.87	16.84	-1.03
27.11.87	17.87	16.86	-1.01
4.12.87	17.87	16.86	-1.01
11.12.87	17.87	16.70	-1.17
18.12.87	17.88	14.48	-3.40
25.12.87	17.87	15.73	-2.14
8.1.88	17.88	15.73	-2.15
15.1.88	17.88	15.70	-2.18
22.1.88	17.88	15.81	-2.15
29.1.88	17.88	15.64	-2.24
5.2.88	NA	NA	NA
12.2.88	17.78	15.53	-2.25
19.2.88	17.61	14.94	-2.67
26.2.88	17.88	15.53	-2.17
4.3.88	17.88	13.61	-2.17
11.3.88	17.61	13.82	-3.79
18.3.88	17.88	13.82	-2.17
25.3.88	17.60	14.36	-3.24
31.3.88	17.60	14.45	-3.15

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 Dukhtar10
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
Feburary	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	NA	15.44	15.44
1987							
January	17.50	16.25	17.50	16.95	NA	17.72	17.72
February	16.69	15.69	16.69	16.19	NA	16.79	16.79
March	17.28	16.25	17.24	16.75	NA	17.41	17.41
April	17.38	16.38	17.38	16.88	NA	17.51	17.48
May	17.42	16.30	17.42	16.77	NA	17.54	17.52
June	17.44	16.15	17.44	16.61	NA	17.56	17.54
July	18.01	16.64	18.01	17.32	NA	18.18	18.18
August	17.79	16.44	17.71	17.00	NA	17.90	17.90
Sept.	17.36	16.56	17.39	16.48	NA	17.40	17.40
October	17.36	16.23	17.35	16.59	NA	17.65	17.65
November	17.35	16.15	16.26	16.55	NA	16.78	16.78
December	15.86	14.62	15.32	15.14	NA	15.66	15.66
1988							
January	15.63	14.20	15.68	15.20	NA	NR	NR
February	15.14	13.68	14.86	14.49	NA	NR	NR
March	13.70	12.53	13.70	13.04	NA	NR	NR

Source: Monthly OPEC Bulletins.

Table No. 2.24
Taken from biannual folder

DEVELOPMENT OF SPOT PRICES OF MAJOR PETROLEUM PRODUCTS IN KEY TRADING CENTRES OF THE WORLD DURING 1988.

(US Dollar/bbl)

Product/Type	Unit	As on				Change		
		9/10	15/1	15/4	15/7	9/10 -15/1	15/1 -15/4	15/4 -15/7
1	2	3	4	5	6	7	8	9
I. NAPHTHA								
1. NW Europe		18.50	16.63	17.76	15.38	-1.87	1.14	-2.38
2. Mediterranean		17.25	16.46	16.35	14.07	-0.79	-0.11	-2.27
3. Carribbean		19.53	16.17	19.74	19.32	-3.36	3.57	-0.42
4. Arabian/P.Gulf		16.12	13.62	17.99	13.34	-2.50	4.37	-4.65
5. Singapore		17.10	14.25	18.15	13.35	-2.85	3.90	-4.80
II.GASOLINE								
1. New York Reg.		22.16	19.53	22.42	23.26	-2.63	2.89	0.84
Unl.		21.63	19.01	21.89	22.42	-2.63	2.89	0.53
2. NWE Prem 0.15		22.22	19.17	21.74	21.44	-3.05	2.58	-0.30
Regm 0.15		19.26	16.43	18.61	N.R.	-2.84	2.19	
3. Med Prem 0.4		20.09	16.72	19.62	19.50	-3.37	2.90	-0.12
Regm 0.4		18.31	15.45	17.55	17.26	-2.86	2.10	-0.29
III.JET KEROSENE								
1. NW Europe		23.92	21.56	21.31	18.13	-2.35	-0.25	-3.18
2. Mediterranean		23.09	20.17	19.78	16.79	-2.93	-0.38	-2.99
3. Carribbean		22.89	22.47	20.37	17.01	-0.42	-2.10	-3.36
4. Arrabian/P.Gulf(a)		22.15	21.75	20.15	15.95	-0.40	-1.60	-4.20
5. Singapore (a)		23.70	24.15	21.30	17.45	0.45	-2.85	-3.85
IV.GAS OIL								
1. NW Europe		22.65	19.91	20.84	17.09	-2.75	0.67	-3.75
2. Mediterranean		21.45	18.83	19.37	15.68	-2.61	0.54	-3.69
3. Carribbean		22.05	21.11	19.95	15.33	-0.95	-1.16	-4.62
4. Arabian/P.Gulf		20.85	18.75	20.05	14.85	-2.10	1.80	-5.20
5. Singapore		22.65	19.75	21.65	16.35	-2.90	1.90	-5.30
V.1% RESIDUAL FUEL OIL								
1. NW Europe		17.52	14.03	14.26	12.79	-3.49	0.23	-1.47
2. Mediterranean		16.74	13.57	13.10	13.94	-3.18	-0.47	-1.16
3. Carribbean (2.8% s)		15.13	11.88	10.88	10.38	-3.25	-1.00	-0.50
4. Arabian/P.Gulf		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
5. Singapore		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

a = Kerosene. NA = Not available. NR = Not reported

SOURCE Various issues of Oil Industry Development by PEL, London.

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	41.0	40.0	53.0	N.R.	48.0	N.R.	12.40
1.1.88	38.5	52.2	46.2	42.2	57.5	N.R.	53.0	N.R.	15.50
1.1.89	39.0	52.2	46.2	42.2	64.0	NR	48.0	NR	13.50

* = Ex-Ras Tanura
** = Ex-Kuwait
N.R.= Not reported
Source: Platt,s Oil Grams.

WORLD SURVEY OF SELECTED PETROLEUM PRODUCTS PRICES-1987

Country	US $ Exchange Rates in National Currencies	Gasoline (US $/litre)	Automotive Oil (US $/litre)	Heavy Fuel Oil for Industry (US $/tonnes)	Light Fuel Oil for Household (US $/1000 litres)	Light Fuel Oil for Industry use (US $/1000 litres)
1.	2.	3.	4.	5.	6.	7.
Australia	1.43	0.381	0.346	N.A.	N.A.	N.A.
Austria	12.64	0.734	0.544	N.A.	338.21	N.A.
Bengium	37.34	0.666	0.361	122.47	202.33	172.92
Canada	1.33	0.373	0.350	103.32	215.31	167.85
Denmark	6.84	0.970	0.255	142.00	586.43	216.44
Finland	4.40	0.732	0.428	129.06	226.31	190.10
France	6.01	0.806	0.508	148.28	322.31	313.16
Germany	1.80	0.583	0.454	126.89	206.32	180.98
Greece	135.18	0.570	0.277	178.57	277.41	261.70
Ireland	0.67	0.876	0.613	184.49	324.06	284.57
Italy	1297.00	1.002	0.426	124.56	454.24	384.95
Japan	144.60	0.837	0.498	173.80	315.47	N.A.
Luxembourg	37.34	0.542	0.331	133.10	209.91	198.02
Netherlands	2.03	0.786	0.368	157.06	306.07	N.A.
Newzeeland	1.69	0.530	0.392	225.96	399.26	227.49
Norway	6.74	0.759	0.262	179.57	273.64	227.85
Portugal	140.79	0.819	0.479	144.68	497.19	478.78
Spain	123.52	0.631	0.419	115.65	275.26	245.77
Sweden	6.34	0.661	0.405	262.46	290.73	282.65
Switzerland	1.49	0.662	0.671	139.52	193.70	175.49
UK	0.61	0.621	0.492	148.74	215.09	N.A.
USA	1.00	N.A.	N.A.	117.30 *	227.20 *	158.5 *

*= Provisional.

CONSUMER/RETALL PRICES OF PETROLEUM PRODUCTS IN SELECTED DEVELOPED & DEVELOPING COUNTRIES DURING JANUARY-OCTOBER 1988

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COUNTRY	Motor Spirit	Kero-sene	HSDO	LDO	F.O.	ATF	LPG (Domestic) (Kg.)	Exchange Rate adopted used
	(----------Rs./Litre--------)							
1.	2.	3.	4.	5.	6.	7.	8.	9.
A. DEVELOPED COUNTRIES								
1. Japan (Tokyo)	11.89	4.67	6.94	NA	2.38	NA	25.17	1 Re = 10.09 Yen
2. New Zealand (Wllington)	5.80	0.07	4.70				2.35	1 NZ $ = Rs. 6.67
3. Yugoslaviya (Belgrade)	9.20		7.77	7.98	4.16	5.98	9.59	1 Re = 144.03 Dinar
4. Switzerland (Berne)	9.26		9.85	3.06	1.72			1 SF = Rs. 9.75
B. DEVELOPING COUNTRIES								
1. Argentina (Buneus Aires)	7.05	3.20	4.45	2.20		3.14	3.45	1 Re = 1 Austral
2. Afghanistan (Kabul)	6.60	2.80	2.80	2.80		4.30	8.00	1 Re = 5 Afs.
3. Bangla Desh (Dakha)	5.90	3.10	3.10	2.85	2.10	3.90	4.30	1 Re = 2.23 TK
4. Brazil (Brasila)	15.11	7.94	7.63			5.22	5.31	1 Re = 13.10 Cruzados
5. Indonesia (Jakarta)	2.94	1.26	1.52	1.52	1.52		3.48	1 Re = 131 RP
6. India (New Delhi)	8.50	2.25	3.50	3.40			4.06	
7. Korea (Pyongyang)	6.92		4.86	3.92			5.88	
8. Rep. of Korea (Seaul)	7.29	3.30	3.18	3.23	1.72		7.77	1 Re = 57.30 Won
9. Malaysia (Kuala Lumput)	4.34	2.64	2.34	3.24		1.69	5.88	1 Re = 0.226 M $
10. Tanzania (Dareslam)	8.15	3.15	3.65	3.45	2.60		5.30	1 Re = 5.3958 Tshs.
11. Thailand (Bangkok)	4.51	3.36	3.46	3.35	1.71		5.41	1 Re = 1.82 Baht.
12. Pakistan (Islambad)	5.33	2.23	2.87	2.08	1.38		3.19	1 Re =1.34 Pak Re.
13. Srilanka (Colombo)	13.50	6.58	9.28	8.13			11.92	
14. Vietnam (Hanoi)	9.17		10.08	6.38				

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

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

Countries/ Port	Prices of Jet A.I.Fuel as on 1st April						
	1980	1983	1984	1985	1986	1987	1988@
1.	2.	3.	4.	5.	6.	7.	8.
Australia							
Perth	114.88	127.53	140.50	114.02	87.02	100.94	105.11
Sydney	114.88	127.53	140.50	114.02	82.02	100.94	105.11
Bahrain	153.40	148.42	148.46	148.46	120.00	120.00	120.00
Belgium							
Brussels	159.00	164.00	135.00	128.00	105.00	115.00	115.00
Egypt							
Cairo	155.20	121.13	121.13	121.13	105.00	87.00	93.00
Ethopia							
Addisababa	156.06	176.38	151.45	150.32	146.66	115.29	96.09
France							
Paris	147.90	145.00	128.00	117.24	138.29	100.59	124.89
Germany							
Frankfurt	147.32	146.50	135.00	107.69	112.84	110.90	119.10
Holland							
Amsterdam	142.60	126.00	124.13	115.00	120.00	120.00	120.00
Italy							
Rome	165.00	153.00	135.00	135.00	135.00	125.24	138.71
Kenya							
Nairobi	144.00	168.10	168.10	168.10	157.61	163.00	160.00
Lebanon							
Beirut	185.00	185.00	165.00	165.00	165.00	100.00	100.00
Malaysia							
Kualalumpur	137.00	145.00	135.00	135.00	135.00	135.00	135.00
Mauritius							
Plaisance	140.00	145.00	145.00	126.00	125.00	60.00	74.46
Singapore							
Paya Iebar /Changi	137.00	141.00	128.50	128.50	128.50	90.00	90.00
Switzerland							
Geneva	155.73	132.40	129.76	105.58	118.94	118.93	118.15
U.A.E.							
Abu Dhabi	154.88	110.00	106.61	100.45	73.28	65.44	69.11
Sharjah/Dubai	154.88	147.64	147.60	147.58	119.93	99.98	109.95
UNITED KINGDOM							
London (H)	154.76	151.66	150.14	129.89	132.14	136.41	182.17
Karachi	123.28	175.80	175.50	175.50	175.50	175.50	154.50
Kuwait	113.96	112.76	106.07	98.15	82.44	70.59	72.73
New York(2)	112.00	87.25	83.50	77.75	59.87	49.10	60.80
Tehran(1)	100.96	122.13	122.13	122.13	116.23	135.44	NA
Tokyo							
Narita	118.96	114.45	97.00	95.00	86.76	60.00	100.00
Bombay	145.22	131.87	121.92	106.07	105.75	101.39	101.84
Delhi							
Palam	150.22	134.09	124.71	108.92	108.75	104.10	104.57

* = Less rebate 2.00 $/USG. (1) Monopoly Price (2) Air India Contract Price.
@ = As on Ist January, 1988.

Wholesale Prices of OPEC's Representative 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	130.4	21.83	23.12	20.73
1985	27.28*	30.15	26.44	136.0	20.06	22.17	19.44
1986	13.65(s)	30.15	11.60	139.2	9.81	21.66	8.33
1987	17.52*	18.52*	N.A.	143.2	12.23	12.93	N.A.
1988							

* 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 representative crudes in current ($/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 *	30.15	26.44	0.98489	26.87	29.69	26.04
1986	13.65(s)	30.15 *	11.60	0.85239	11.64(s)	25.70	9.89
1987	17.52*	18.52	N.A.	0.77335	13.55	14.32	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 1986 over 1985	Percentages share of total 1986
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 1987

(Million Tonnes)

From \ To	U.S.A.	Canada	Latin America	W.Europe	Africa	South East Asia
1.	2.	3.	4.	5.	6.	7.
USA	-	4.3	14.6	8.8	0.1	3.5
Canada	30.0	-	-	0.1	-	-
Latin America	106.0	2.6	-	12.1	-	1.0
Western Europe	28.8	7.4	1.3	-	5.8	-
Middle East	55.5	1.6	12.7	167.3	16.4	76.9
North Africa	16.4	-	0.5	77.7	-	1.7
West Africa	42.5	1.3	3.1	41.6	3.0	0.1
East & Southern Africa	-	-	-	0.2	-	-
South Asia	1.3	-	-	-	-	0.3
South East Asia	16.3	-	0.5	-	-	-
Japan	-	-	-	-	-	0.9
Australasia	2.7	-	-	-	-	2.6
USSR, E.Europe & China	7.3	-	16.8	80.6	1.4	12.7
Total Imports	306.8	17.2	49.5	388.4	26.7	99.7

(Million Tonnes)

From \ To	Japan	Australasia	Rest of World	Destination not known*	Total
	8.	9.	10.	11.	12.
USA	1.5	0.6	0.3	2.6	36.3
Canada	0.7	-	-	-	30.8
Latin America	9.3	-	-	17.4	148.4
Western Europe	-	-	2.7	5.5	51.5
Middle East	134.0	5.4	40.9	-	510.7
North Africa	1.9	-	19.8	-	118.0
West Africa	0.1	-	1.8	-	93.5
East & Southern Africa	-	-	-	-	0.2
South Asia	0.8	-	-	-	2.4
South East Asia	40.6	4.0	2.4	2.7	66.5
Japan	-	-	0.3	-	1.2
Australasia	1.5	-	-	-	6.8
USSR, E.Europe & China	12.8	-	83.7	5.0	220.3
Total Imports	203.2	10.0	151.9	33.2	1286.6

* 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 1988.

WORLD PRIMARY ENERGY CONSUMPTION BY FUEL - 1987*.

(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	763.4	431.9	452.9	76.8	124.3	1849.3
Canada	69.4	41.2	33.4	72.1	15.8	231.9
Total North America	832.8	473.1	486.3	148.9	140.1	2081.2
Latin America	220.6	73.4	22.7	85.3	1.4	403.4
WESTERN EUROPE:						
Austria	10.7	4.5	3.3	7.8	-	26.3
Belgium & Luxembourg	23.5	8.5	8.7	0.1	9.7	50.5
Denmark	10.0	1.3	7.0	-	-	18.3
Finland	11.2	1.4	3.7	3.4	4.6	24.3
France	86.1	24.9	17.5	14.7	53.4	196.6
Greece	12.6	0.1	6.6	1.0	-	20.3
Iceland	0.6	-	0.1	0.9	-	1.8
Republic of Ireland	4.2	1.3	3.1	0.2	-	8.8
Italy	89.8	32.2	15.3	10.6	+	147.9
Netherlands	32.0	33.9	7.2	-	1.0	74.1
Norway	9.5	-	0.4	23.0	-	32.9
Portugal	9.4	-	1.8	0.9	-	12.1
Spain	43.2	2.8	18.5	5.8	8.6	78.9
Sweden	18.8	0.3	2.9	17.4	16.2	55.6
Switzerland	12.4	0.9	0.4	9.1	5.6	28.4
Turkey	21.4	0.2	22.1	4.2	-	47.9
United Kingdom	75.2	50.0	67.3	1.2	11.7	205.4
West Germany	114.6	44.4	73.1	5.3	29.0	266.4
Cyrus/Gibraltar/Malta	2.2	-	0.2	-	-	2.4
Total Western Europe	587.4	206.7	259.2	105.6	139.8	1296.3
Middle East	109.6	51.3	2.3	2.6	-	165.8
Africa	84.4	31.2	69.1	16.0	1.0	201.7
Japan	208.1	36.4	68.5	18.7	46.1	377.8
South East Asia	125.0	15.9	45.8	10.0	20.3	217.0
South Asia	61.0	17.6	124.2	20.7	1.5	225.0
Of which India@	48.2	6.8	108.2	9.6	0.4	173.2
Australasia	32.8	18.1	41.8	7.3	-	100.0
Total NCW	2261.7	923.7	1119.9	415.1	350.2	5070.6
Centrally-Planned Economies (CPEs):						
China	103.9	12.8	553.4	30.0	-	700.1
USSR	449.2	520.2	378.9	55.5	40.6	1444.4
Others	125.9	99.1	334.3	23.3	13.3	595.9
Total CPEs	679.0	632.1	1266.6	108.8	53.9	2740.4
Total World	2940.7	1555.8	2386.5	523.9	404.1	7811.0

@ = Estimated on the basis of financial year (despatches of coal, and Natural Gas) + =less than 0.05.

* = 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 1988.

NOTE: Figures for India inserted.

ESTIMATED PER CAPITA PRIMARY ENERGY CONSUMPTION-SOME INTERNATIONAL COMPARISONS (1987).

(Kgm.Oil Equivalent)

Country/Area	Oil	Natural Gas	Coal	WATER POWER	Neclear Energy	Total
1.	2.	3.	4.	5.	6.	7.
1. WESTERN HEMISPHERE:						
Of whcih	1543	800	746	343	207	3639
NORTH AMERICA	3117	1771	1820	557	524	7689
U.S.A.	3162	1789	1876	318	515	7660
Canada	2690	1597	1294	2795	612	8988
EASTERN HEMISPHERE:						
a) Western Europe						
Of which						
Austria	1408	592	434	1026	-	3460
Belgium &Luxembourg	2304	833	853	10	951	4951
Italy	1564	561	267	185	NA	2577
Netherlands	2192	2322	493	-	68	5075
Norway	2262	-	95	5476	-	7833
Portugal	904	-	173	87	-	1164
Spain	1105	72	473	148	220	2018
Sweden	2238	36	345	2071	1929	6619
Switzerlands	1938	141	62	1422	875	4438
Turkey	417	4	431	82	-	934
U.K.	1338	890	1198	21	208	3655
Germany West	1916	473	1222	89	485	4455
b) Middle East	962	450	20	23	-	1455
c) Africa	145	54	119	28	2	348
d) South Asia of	57	16	116	19	2	210
which India	61	9	137	12	.5	219.5
e) South East Asia	274	35	100	22	45	476
f) Japan	1706	298	562	153	378	3097
g) Australasia	1000	552	1274	223	-	3049
3.Centrally Planned Economies (CPEs)	474	441	884	76	38	1913
h) U.S.S.R.	1619	1875	1366	200	147	5207
i) China	100	12	532	29	-	673
j) Others	1095	862	2907	202	116	5182
4. WORLD (Excl.CPEs):	633	258	313	116	98	1418
5. WORLD (Incl.CPEs):	587	311	476	105	81	1560

SOURCE: i) BP Statistical Review of the World June,1988.Figures for India inserted.

ii) World Development Report June, 1988 and International Financial Statistics, May, 1986 for population projections.

ESTIMATED PER CAPITA CONSUMPTION OF MAIN PETROLEUM PRODUCTS-SOME INTERNATIONAL COMPARISONS (1987)

Kg./per capita

Country/Area	Gasoline	Middle Distillates	Fuel	Others*	Total
1.	2.	3.	4.	5.	6.
U.S.A.	1343	895	284	640	3162
Canada	1066	845	260	519	2690
W.Europe	337	551	260	216	1364
Japan	361	566	467	312	1706
Australasia	415	344	73	168	1000
India	3	35	10	13	61
Rest of New	58	103	98	42	301
Total NCW	190	221	125	113	649

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

SOURCES: 1. BP Statistical Review of World Energy June, 1988.
2. World Development Report, 1988 for population.

NOTE: Figures for India Inserted.

TRENDS IN WORLD PRIMARY ENERGY/CONSUMPTION

(Million/Tonnes Oil Equivalent)

YEAR	Oil	Natural Gas	Solid Fuels	Hydro-Electricity	Nuclear 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	1632.6	317.6	28.0	5387.1
1972	2591.8	1045.0	1629.7	323.3	38.4	5628.2
1973	2797.5	1068.1	1667.9	331.5	49.4	5914.4
1974	2759.3	1088.1	1701.1	343.7	62.4	5954.6
1975	2724.0	1084.5	1715.1	353.4	86.1	5963.1
1976	2894.0	1145.7	1786.4	364.0	106.5	6296.6
1977	2985.8	1167.7	1829.9	373.3	132.1	6488.8
1978	3082.8	1212.5	1860.4	405.8	151.4	6712.9
1979	3124.5	1281.7	1968.0	424.5	154.6	6953.3
1980	3011.7	1297.2	2001.5	434.7	171.2	6916.3
1981	2900.5	1314.0	1998.9	445.0	201.7	6860.1
1982	2825.4	1330.1	2044.8	465.8	223.9	6890.0
1983	2803.4	1325.7	2099.1	487.0	248.5	6963.7
1984	2836.2	1425.2	2178.2	499.0	296.5	7235.1
1985	2816.1	1474.7	2272.7	510.4	351.4	7425.3
1986	2899.3	1487.2	2318.3	516.7	376.7	7598.2
1987(P)	2948.4	1557.8	2341.9	534.3	406.3	7788.7
1988	3038.5	1631.0	2498.0	537.2	438.8	8073.5

SOURCE: Various issues of B.P.Statistical Review of World Energy. JULY 1989

P = Provisional.

PRIMARY ENERGY/CONSUMPTION IN SELECTED COUNTIRES/AREAS OF THE WORLD - 1975, 1980, 1983, 1985, 1986 and 1987

(Million Tonnes Oil eqvt.)

COUNTRY/AREA	1975	1980	1983	1985	1986	1987 (P)	% Share of total 1987
1.	2.	3.	4.	5.	6.	7.	8.
NORTH AMERICA							
USA	1711.8	1842.0	1719.2	1800.9	1806.0	1849.3	23.7
Canada	195.0	226.1	212.0	222.8	227.0	231.9	3.0
Total North America	1905.8	2068.1	1931.2	2023.7	2033,0	2081.2	26.7
Latin America	253.3	338.8	361.0	382.0	390.9	403.4	5.2
WESTERN EUROPE:							
Austria	23.4	26.5	24.2	25.2	25.4	26.3	0.3
Belgium & Luxembourg	46.7	50.4	44.1	48.1	49.6	50.5	0.6
Denmark	18.2	19.5	15.8	18.4	18.8	18.3	0.2
Finland	17.4	21.6	21.4	22.6	22.9	24.3	0.3
France	171.1	189.3	181.9	188.6	195.0	196.6	2.5
Greece	17.0	17.4	17.4	19.0	19.3	20.3	0.3
Iceland	2.0	1.9	1.5	1.5	1.5	1.6	+
Republic of Ireland	7.1	8.5	8.2	8.5	8.8	8.8	0.1
Italy	132.9	145.8	138.5	139.6	143.5	147.9	1.9
Netherlands	71.3	73.8	64.8	69.7	73.1	74.1	1.0
Norway	28.8	30.4	30.9	32.0	31.7	32.9	0.4
Portugal	8.8	11.4	12.0	10.7	11.9	12.1	0.2
Spain	61.9	76.5	79.2	77.9	78.6	78.9	1.0
Sweden	45.6	48.0	48.1	53.5	53.6	55.6	0.7
Switzerland	23.5	26.5	26.6	28.6	28.8	28.4	0.4
Turkey	19.7	24.5	28.2	31.1	42.2	47.9	0.6
United Kingdom	204.3	203.8	194.2	202.1	207.8	205.4	2.6
West Germany	242.6	270.5	251.0	267.7	267.8	266.4	3.4
Cyprus/Gibraltar/Malta	1.1	1.5	1.6	2.0	2.1	2.4	+
Total Western Europe	1143.4	1247.8	1189.6	1246.8	1282.4	1298.7	16.5
Middel East	94.4	118.5	152.9	159.2	161.1	165.8	2.1
Africa	106.2	157.7	183.4	191.1	193.6	201.7	2.6
Japan	330.5	359.6	342.4	371.4	372.5	377.8	4.8
South East Asia	99.9	153.4	166.0	181.6	198.3	217.0	2.8
South Asia	105.7	139.1	172.6	178.5	212.3	225.0	2.9
Of which India*/R	86.6	106.6	134.5	153.9	160.5		
Australasia	69.1	83.2	86.1	92.2	96.5	100.0	1.3
Total NCW	4109.3	4666.2	4585.2	4846.5	4940.6	5070.6	64.9
Centrally-Planned Economics (CPEs):							
China	410.4	518.0	552.9	635.6	670.7	700.1	9.0
USSR	969.8	1172.1	1269.0	1362.9	1402.8	1444.4	18.5
Others	473.6	560.0	556.6	580.3	584.1	595.9	7.6
Total CPEs	1853.8	2250.1	2378.5	2578.8	2657.6	2740.4	35.1
Total World	5963.1	6916.3	6963.7	7425.3	7598.2	7811.0	100.0

*/R = Estimated on the basis of Financial year data)despatches offtake for coal, oil products and Natural Gas) and using energy petroleum productivity and conversion factors as given in "BP Statistical Review of World Energy, June 1988. Figures for earlier years have been revised.

+ = Less than 0.05. P = Provisional.

SOURCE: BP Statistical Review of World Energy June 1988.

NOTE : Figures for India Inserted.

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

(Million b/d of oil Equivalent)

C O U N T R Y	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 OUTLAYS (1985-90) AND ACTUAL EXPENDITURE FOR 1985-86, 1986-87 & ANNUAL PLAN OUTLAYS FOR 1987-88 (R.E.) (B.E.) FOR 1988-89 FOR MINISTRY OF PETROLEUM AND NATURAL GAS

(Rs./Crores)

Undertaking	Seventh Plan Outlay 1985-90	Actual Expenditure 1985-86	1986-87	1987-88 R.E.	1988-89 B.E.
1.	2.	3.	4.	5.	6.
A) Exploration & Production					
1. ONGC	8753	2123	2214	2056	2350
2. OIL	950	182	191	195	225
3. GAIL	950	253	593	670	270
4. M/o Petroleum & Natural Gas	--	18	11	53	24
SUB TOTAL (A)	10653	2576	3009	2974	2869
B) Refining & Marketing					
1. IOC	958	119	110	138	250
2. BPCL	366	65	89	99	98
3. HPCL	299	84	82	66	82
4. MRL	33	13	16	35	8
5. CRL	28	12	11	9	10
6. BRPL	252	Neg.	Neg.	Neg.	Neg.
7. Lubrizol India Ltd.	18	4	3	4	5
8. Engineers India Ltd.	21	5	4	13	4
9. M/o.Petroleum & N. Gas	--	--	--	--	1
SUB TOTAL (B)	1975	302	315	364	458
C. Petrochemicals					
1. BRPL	105	42	31	28	18
2. BPCL	17	4	3	4	Neg
3. CRL	57	7	5	24	26
4. MRL	24	6	7	4	1
5. HPCL	15	--	--	1	4
6. Others	25	--	--	Neg.	Neg.
SUB TOTAL (C)	243	89	46	61	49
D. Engineering					
1. IBP Co.Ltd. & Others**	50	6	10	16	18
GRAND TOTAL (A+B+C+D)	12921	2943	3380	3415	3395

**Excluding Bridge & Roof. Neg. = Negligible

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 cubic metres)

	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	2.28
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 (free)	-	-	7.30	7.30	7.67	22.27
Sub-Total(1)	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 (1985-90)

	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 (1985-90)

	Unit	1984-85 (Actual)	1989-90 (Plan Target)
	2.	3.	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) Onshore	Billion Cu.Metres	2.83	3.19
(ii) Offshore	" " "	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 throughout	" "	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	176.0
7. Compound Annual Growth Rates During 7th Plan Period	%age per annum		
(i) Production of Crude Oil			3.6
- Natural Gas	" " "		15.5
- POL Products	" " "		6.3-6.5
(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

(Million Tonnes)

	1979-80	1983-84	1984-85	1989-90
A. CRUDE OIL				
1. Production	11.77	29.0	30.17	34.53
2. Imports*	16.12	7.16	14.62	13.51 - 14.36
3. Availability (net)	27.89	36.15	44.78	48.04 - 48.89
4. (2) as per cent of (3)	57.81	19.82	32.64	28.12 - 29.37
B. POL PRODUCTS				
1. Production	25.79	33.24	39.88	45.06 - 45.47
2. Imports	4.72	6.09	3.87	6.94 - 7.20
3. Availability (gross)	30.52	39.33	43.75	52.0 - 52.67@
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 1986-87, AND QUICK FINANCIAL REVIEW 1987-88.

FINANCIAL STRUCTURE/REVIEW 1986-87.

The financial structure of the Public Sector Undertakings as per their Annual published Accounts/data submitted by them for three years ending 1986-87 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 (4) 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., 1984-85, 1985-86, and 1986-87 is provided in the tables 1 to 3. The following is the summary of the results.

(Rs./Crores)

Share Capital	1984-85	1985-86	1986-87
1. Ordinary	825.32	918.64	931.71
1.1.Preference	0.50	0.50	0.50
Total paid up Capital	825.82	919.14	932.21
2. Reserves & Surplus	4269.85	5773.93	7860.79
3. Loans	4008.23	4184.85	4618.85
4. Net Worth	4959.71	6640.13	8647.65
5. Capital employed	6643.37	8983.18	10785.35
5.1.Net Fixed Assets	4732.56	6235.63	7195.80
5.2.Working Capital	1910.81	2747.55	3589.55
6.1.Sales turnover	22119.51	24314.87	27379.86
6.2.Other Income	64.53	170.11	565.72
Total	22184.04	24484.98	27945.58
7. Adjusted gross profit	2496.14	2986.47	3746.55
8. Adjusted net profit	1199.51	1768.64	2348.45
9. Dividend Paid	74.34	81.86	88.70
10. Corporate Tax	920.13	740.22	931.24

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

CAPITAL INVESTMENT:

The Capital investment defined as the sum total of paid-up capital and loans has registered an increase of 8.8% from Rs. 5103.99 Crores in 1985-86 to Rs. 5551.06 crores in 1986-87. The increase in the capital investment in 1985-86 over 1984-85 was 5.5%. The increase in the Capital investment in 1986-87 over 1985-86 was on account of increases in paid up capital from Rs. 919.14 Crores to Rs. 932.21 Crores and in the loans from Rs. 4184.85 Crores to Rs. 4618.85 Crores, the increase in loans, being 10.3%. The break-up of increase in the paid up capital and loans in 1986-87 over 1985-86 is as under :-

A PAID-UP CAPITAL

(Rs. Crores)

Name of the undertaking	1985-86	1986-87	% Increase
1. I.B.P. Co. Ltd.	2.40	3.84	60.0
2. Bongaigaon Refinery & Petro-Chemicals Ltd.	190.82	199.82	4.7
3. Engineers India Limited	0.50	1.00	100.0
4. Balmer Lawrie Ltd.	1.89	4.02	112.7

(B) LOANS

1. Oil & Natural Gas Commission	2516.78	2957.93	17.5
2. Oil India Ltd.	65.17	65.71	0.8
3. Indian Oil Crop. Ltd.	377.08	595.23	57.8
4. Bharat Petroleum Corp.Ltd.	106.34	106.95	0.6
5. Lubizol India Ltd.	6.36	7.10	11.6
6. Engineers India Ltd.	2.00	6.00	200.0
7. Balmer Lawrie Ltd.	3.76	5.47	45.4
8. Biecco Lawrie Ltd.	20.57	25.91	26.0

The position of the foreign loans during three years viz., 1984-85, 1985-86 & 1986-87 is given below:-

	1984-85	1985-86	1986-87
a) Foreign Loans	1532.55	1735.25	2190.53
b) Total Loans	4008.23	4184.85	4618.85
c) % of Foreign loans to Total loans	38.2	41.5	47.5

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

With the change in the loans, and paid up capital, the paid up capital / loans ratio decreased from 0.22 in 1985-86 to 0.20 in 1986-87.

GAIL's paid up capital and loans also went up from Rs. 181.00 Crores and 87.00 Crores in 1985-86 to Rs. 610.79 Crores and Rs. 260.57 Crores in 1986-87 respectively.

CAPITAL EMPLOYED:

Capital employed defined as the sum total of net fixed assets (net block) and working capital (excluding Capital Work in progress and Capital Goods) of the 15 Public Sector Undertakings went up by 20% from Rs. 8983.18 Crores in 1985-86 to Rs. 10785.35 Crores in 1986-87. The break-up of the figures has revealed that the major increase in the Capital employed occured on account of increase in the net fixed assets and working capital in respect of the undertakings noted below :-

(A) NET FIXED ASSETS

(Rs./Crores)

Name of the Undertakings	1985-86	1986-87	% Increase
1. ONGC	4120.07	5010.02	21.6
2. Oil India Ltd.	143.81	156.29	8.7
3. Indian Oil Corporation Ltd.	706.54	728.41	3.0
4. Bharat Petroleum Corpn. Ltd.	252.48	270.69	7.2
5. Hindustan Petroleum Corpn.	451.95	488.35	8.0
6. Cochin Refineries Ltd.	141.59	145.70	2.9
7. IBP Co. Ltd.	13.70	16.23	18.4
8. Lubrizol India Ltd.	11.37	15.18	33.5
9. Indian Oil Blending Ltd.	2.93	3.14	7.1
10. Engineers India Ltd.	19.70	23.82	20.9
11. Balmer Lawrie Ltd.	8.46	10.92	29.0

(B) WORKING CAPITAL

1. ONGC	989.25	1563.93	58.0
2. Hydro Carbons India Ltd.	49.94	52.66	5.4
3. Oil India Ltd.	144.75	153.38	6.0
4. Indian Oil Corpn. Ltd.	707.75	1037.27	46.6
5. Bharat Petroleum Corpn. Ltd.	217.18	225.45	3.8
6. Indian Oil Blending Ltd.	1.07	1.67	56.0
7. Bongaigaon Refinery & Petrochemicals Ltd.	62.79	82.14	30.8
8. Engineers India Ltd.	26.10	37.74	44.6
9. Balmer Lawrie Ltd.	21.99	27.12	23.3

SALES TURNOVER :

Sales turnover of all the Undertakings put together increased by 12.6 % from Rs. 24314.87 Crores in 1985-86 to Rs. 27379.86 Crores in 1986-87. The corresponding increase in the preceeding year was 9.9%. The higher Sales Turnover have contributed to an increase in the adjusted Gross Profit. The gross profit expressed as a percentage of sales turnover went-up from 12.3% in 1985-86 to 13.6% in 1986-87. The companies having the largest share of sales in total sales are as under :-

1.	ONGC	18.9%
2.	IOC	45.6%
3.	BPCL	9.0%
4.	HPCL	12.7%
5.	Others	13.8%
	Total	100.0%

PROFITABILITY :

A rising trend is perceptible in the over-all profitability of the Public Sector Undertakings under the purview of the Ministry of Petroleum and Natural Gas. The adjusted gross profits have shown an improvement of 25.5% from Rs. 2986.47 Crores in 1985-86 to Rs. 3746.55 Crores in 1986-87. The adjusted net profits expressed as a percentage of paid-up capital and net worth stood at 251.9% and 27.2%, in 1986-87 as against 192.4% and 26.6% in 1985-86. The return on Capital employed measured in terms of ratio of gross profit before interest and taxes to Capital employed went up from 33.2% in 1985-86 to 34.7% in 1986-87.

DIVIDENDS :

There has been an increase in the quantum of dividends paid by the Public Sector Undertakings over the three years. The dividend which stood at Rs. 74.34 Crores paid in 1984-85 went up to Rs. 81.86 crores in 1985-86 and then to Rs. 88.70 Crores in 1986-87. The highest amount of dividend declared in absolute terms was in respect of ONGC which paid out a sum of Rs. 36.00 Crores in 1986-87, followed by Indian Oil Corporations Ltd. with a dividend of Rs. 19.72 Crores. BRPL and Biecco Lawrie Ltd., did not declare any dividend during 1986-87.

CORPORATE TAX :

The contribution made to the national Exchequer by the Public Sector Undertakings by way of taxes was Rs. 931.24 Crores in 1986-87. The amounts of taxes paid in 1984-85 & 1985-86 were Rs. 920.13 Crores and Rs. 740.22 Crores respectively.

(A) EXPLORATION & PRODUCTION :

This category includes the following four enterprises and the data in respect of the individual undertakings is given in table nos. 5 to 8, 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)

In the case of GAIL there were no operations in the years under review. However, some data has been furnished by GAIL and the same is in table No. 8.

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

Rs./Crores

	1984-85	1985-86	1986-87
1. Piad up Capital	395.85	395.85	395.85
2. Loans	2346.25	2581.95	3023.64
3. Net Worth	3462.02	4876.63	6304.89
4. Capital Employed	4194.79	5447.85	6936.28
4.1.Net Fixed Assets	3322.23	4263.91	5166.31
4.2.Working Capital	872.56	1183.94	1769.97
5. Sales turnover	4446.65	4727.63	5625.84
6. Adjusted Gross Profit	2067.18	2381.39	2625.54
7. Adjusted Net Profit	1043.64	1502.49	1732.26
8. Dividends	36.77	38.49	40.20
9. Corporate Tax	818.31	648.32	657.49

The sailent points of the analysis are given as under:

(1) CAPITAL INVESTMENT

There has been in increase in the investment of capital from Rs. 2977.80 Crores in 1985-86 to Rs. 3419.49 Crores in 1986-87, the increase being of the order of 14.8%. The corresponding increase in the preceeding year was at 8.5%. The increase in the Capital investment was on account of increase in the loans of ONGC from Rs. 2516.78 Crores in 1985-86 to Rs. 2957.93 Crores in 1986-87. There was a small increase in the loans of Oil India Ltd. in this period. As a result of increase in the loans in 1986-87, the overall paid-up capital/loans ratio came dorn from 0.15 in 1985-86 to 0.13 in 1986-87. There is, thus, a declining trend in the paid-up /loans ratio.

(2) CAPITAL EMPLOYED

The capital employed registered in increase of 27.3% from Rs. 5447.85 Crores in 1985-86 to Rs. 6936.28 Crores in 1986-87. The corresponding increase in the preceeding year was 29.8%. The increase in capital employed comprised of the increase of Fixed Assets (Net Block) and working capital as detailed below.

(Rs./Crores)

A. Net Fixed Assets

	1985-86	1986-87	% Increase
1. Oil & Natural GAS Commission	4120.07	5010.02	21.6
2. Oil India Limited	143.81	156.29	8.6
Total	4263.88	5166.31	21.1

B . Working Capital

1. ONGC	989.25	1563.93	58.0
2. Hydro Carbons India Ltd.	49.94	52.66	5.4
3. Oil India Ltd.	144.75	153.38	5.9
Total	1183.94	1769.97	49.5

(3) SALES TURNOVER

The sales trunover under this category increased from Rs.4727.63 Crores in 1985-86 to Rs. 5625.84 Crores showing thereby an increase of 19.0%. The corresponding increase in the preceding Year was 6.3%. The Gross Profits expressed as a percentage of Sales trunover decreased from 50.3% in 1985-86 to 46.6% in 1986-87. The sales of Oil & Natural Gas Commission increased by 19.7% while those of Oil India Ltd. went up by 10.9%.

(4) PROFITABILITY

The adjusted gross profit increased by 10.2% from Rs.2381.39 Crores in 1985-86 to Rs. 2625.54 Crores in 1986-87. The ratio of gross profit to Capital Employed has declined from 43.7% to 37.8%. The adjusted net profits increased from Rs.1502.49 Crores in 1985-86 to Rs. 1732.26 Crores in 1986-87. The ratio of Net Profit to paid up Capital and Net Worth stood at 437.6% & 27.4% in 1986-87 as against 379.6% and 30.8% in 1985-86.

(5) DIVIDEND

The total dividend declared by ONGC and OIL has been Consistently rising from 36.77 Crores in 1984-85 to Rs. 38.49 Crores in 1985-86 and then to Rs. 40.20 Crores at the close of 1986-87 accounts.

(6) CORPORATE TAX

The contribution made by the undertakings under this category to National Exchequer amounted to Rs. 657.49 Crores in 1986-87 as against Rs. 648.32 Crores in 1985-86. The amount paid in 1984-85 was Rs 818.31 Crores.

(B) REFINING AND MARKETING :

Financial structure and performance of the individual undertakings have been provided in the table Nos. 10 to 17, while the consolidated summary of refining and marketing has been given in the table No. 9. Summary of the results of the undertakings for three years is as under:-

(Rs./Crores)

	1984-85	1985-86	1986-87
1. Paid up Capital	293.39	328.31	329.75
2. Loans	1476.55	1421.48	1415.86
3. Net Worth	1314.25	1517.22	2051.68
4. Capital Employed	2258.96	3206.32	3495.88
4.1. Net Fixed Assets	1304.50	1756.09	1825.37
4.2. Working Capital	954.46	1450.23	1670.51
5. Sales turnover	17368.68	19209.45	21296.47
Other Income	48.83	85.49	100.10
Total	17417.51	18294.94	21396.57
6. Asjusted Gross Profit	402.51	558.83	1057.63
7. Adjusted Net Profit	147.30	254.68	584.02
8. Dividends	37.13	42.89	47.50
9. Corporate Tax	91.13	74.42	262.41

An analysis of the salient features is as under :

(1) CAPITAL INVESTMENT

The capital Investment under this category decreased by Rs. 4.18 Crores (0.2%) from Rs. 1749.79 Crores in 1985-86 to Rs. 1745.61 Crores in 1986-87. The corresponding decrease in the preceeding year was 1.1%. There has been small increase in the paid up capital but decrease in loans in 1986-87 as compared with 1985-86 as indicated below:

(Rs./Crores)

	1985-86	1986-87	(+)% Increase (-)Decrease
1. Paid up Capital	328.31	329.75	(+) 0.4
2. Loans	1421.48	1415.86	(-) 0.4

Since the small increase in the paid up capital has been offset by a decrease in the loans, the paid up capital / loans ratio has remained static in 1986-87 as compared with 1985-86 figures.

CAPITAL EMPLOYED

The Capital employed by the Refining and Marketing category increased by 9% from Rs. 3206.32 Crores in 1985-86 to Rs. 3495.88 Crores in 1986-87. The corresponding increase in the preceeding year was 41.9%. 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.	Indian Oil Corpn. Ltd.	1414.29	1765.68	24.8
2.	Bharat Petroleum Corpn. Ltd.	469.66	496.14	5.6
3.	IBP Co. Ltd.	27.00	28.95	7.2
4.	Lubrizol India Ltd.	33.21	35.95	8.2
5.	Indian Oil Blending Ltd.	4.00	4.81	20.2

(3) SALES TURNOVER.

The sales turnover of the Companies under this category has increased by 10.8% from Rs. 19209.45 Crores in 1985-86 to Rs. 21296.47 Crores in 1986-87. The Corresponding increase in the preceeding year was 10.5%. The increased Sales Turnover has resulted in increased gross Profit which when expressed as a %age thereof, has gone up from 2.9% in 1985-86 to 5.0% in 1986-87.

(4) PROFITABILITY.

The adjusted gross profits and Net Profits increased from Rs. 558.83 crores & 254.68 crores in 1985-86 to Rs. 1057.63 crores & 584.02 Crores in 1986-87 respectively. The return on capital employed which stood at 17.3% in 1985-86 increased to 30.1% in 1986-87. The ratio of net profit to paid up capital and net worth increased from 77.5% and 16.6% in 1985-86 to 177.1% and 28.4% in 1986-87 respectively.

(5) DIVIDEND.

During 1986-87, the companies under Refining and marketing paid out Rs. 47.50 crores as divided against Rs. 42.89 Crores paid in 1985-86. In 1984-85, the amount of dividend paid was Rs. 37.13 Crores.

(6) CORPORATE TAX.

The taxes paid by the marketing and refining companies by way of taxes to National Exchequer amounted to 262.41 Crores as against Rs. 74.42 Crores and Rs. 91.13 Crores paid in 1985-86 and 1984-85 respectively.

(C) PETROCHEMICAL

There is only one company in this category viz., Bongaigoan Refinery & Petrochemicals Ltd. The financial structure and performance of BRPL for three years has been given in table no. 18.

Rs./Crores

	1984-85	1985-86	1986-87
1. Paid-up Capital	132.42	190.82	199.82
2. Loans	164.74	155.09	141.97
3. Net Worth	145.61	199.69	234.42
4. Capital Employed	121.87	249.47	250.84
4.1.Net Fixed Assets	78.94	186.68	168.70
4.2.Working Capital	42.93	62.79	82.14
5. Sales turnover	163.00	202.09	267.31
6. Adjusted gross Profit	5.23	13.40	36.64
7. Adjusted net profit	2.81	2.18	23.27

As analysis of the salient features is as under :

(1) CAPITAL INVESTMENT:

The total capital investment decreased by 1.2% from Rs. 345.91 Crores in 1985-86 to Rs. 341.79 Crores in 1986-87. But there was any increase of 16.4% in the previous year. The increase of Rs. 9.00 Crores in paid up capital has been offset by a reduction in the loans from Rs. 155.09 Crores in 1985-86 to Rs. 141.97 Crores in 1986-87. With the decrease in loans, the paid up capital/loans ratio increased from 1.23 in 1985-86 to 1.41 in 1986-87.

(2) CAPITAL EMPLOYED:

The capital employed increased from Rs. 249.47 Crores in 1985-86 to Rs. 250.84 Crores in 1986-87, the increase being of the order of 0.5% only. The corresponding increase in the preceding year was 104.7%. The minor increase in capital employed was on account of increase in working capital from Rs. 62.79 Crores to Rs. 82.14 Crores in the period under review.

(3) SALES TURNOVER:

The Sales Turnover increased by 32.3% from Rs. 202.09 Crores in 1985-86 to Rs. 267.31 Crores in 1986-87. The corresponding increase in the preceeding year.

was 23.9%. The increase in sales turnover has resulted in an increase in gross profit and it was 13.7% of the sale for the year 1986-87.

(4) PROFITABILITY:

The % age of gross profits to Capital Employed increased from 5.3% in 1985-86 to 14.6% in 1986-87. The ratio of Net profit to paid-up Capital and Net worth which stood at 1.1% and 1.00% in 1985-86 increased to 11.6% & 9.9% in 1986-87 respectively.

(D) ENGINEERING UNITS

There are at present 3 undertakings under this category. Which are :

i. Engineers India Ltd. (EIL)

ii. Balmer Lawrie Ltd. (BLL)

iii. Biecco Lawrie Ltd. (BLL)

The consolidated position of the three companies has been given in Tabel No.19 where as those of the individual undertakings have been provided in table Nos. 20 to 23.

Summary of the results for these companies is as under :

(Rs./Crores)

		1984-85	1985-86	1986-87
1.	Paid-up Capital	4.16	4.16	4.79
2.	Loans	20.69	26.33	37.38
3.	Net Worth	37.83	46.59	56.66
4.	Capital Employed	67.75	79.54	102.35
4.1	Net Fixed Assets	26.89	28.95	35.42
4.2	Working Capital	40.86	50.59	66.93
5.	Sales turnover	141.18	175.70	190.24
	Other Income	4.66	5.87	6.66
	Total	145.84	181.57	196.90
6.	Adjusted gross Profit	21.22	32.86	26.74
7.	Adjusted net Profit	5.76	9.29	8.90
8.	Dividend	0.44	0.48	1.00
9.	Corporate Tax	10.89	17.48	11.34

The salient features of the analysis are as under:

CAPITAL INVESTMENT

The Capital Investment under this category increased by 44.8% from Rs. 30.49 Crores in 1985-86 to Rs. 44.17 Crores in 1986-87. The corresponding increase in the preceding year was 22.6%. The increase in the capital Investment was on account of increase in the paid-up capital and loans of the Engineering Units as under:

A. PAID-UP CAPITAL

(Rs. in Crores)

	1985-86	1986-87	% Increase
1. Engineers India Ltd.	0.50	1.00	100.0
2. Balmer Lawrie Ltd.	1.89	4.02	112.6
Total	2.39	5.02	110.0

B. LOANS

1. Engineers India Ltd.	2.00	6.00	200.0
2. Balmer Lawrie Ltd.	3.76	5.47	45.4
3. Bieceo Lawrie Ltd.	20.57	25.91	26.0
Total	26.33	37.38	42.0

(2) CAPITAL EMPLOYED

The capital employed by the engineering units has increased by 28.6% from Rs. 79.54 Crores in 1985-86 to Rs.102.35 Crores in 1986-87. The corresponding increase in the preceding year was 17.4%. The net fixed assets and working capital under this category are as under:

(A) NET FIXED ASSETS

		1985-86	1986-87	(Rs./Crores) % Increase - decrease
1.	Engineers India Ltd.	19.70	23.82	+20.9
2.	Balmer Lawrie Ltd.	8.46	10.92	+29.0
3.	Biecco Lawrie Ltd.	0.79	0.68	-13.9
	TOTAL:	28.95	35.42	+22.3

(B) WORKING CAPITAL

1.	Engineers India Ltd.	26.10	37.74	44.6
2.	Balmer Lawrie Ltd.	21.99	27.12	23.3
3.	Biecco Lawrie Ltd.	2.50	2.07	-17.2
	TOTAL:	50.59	66.93	+32.2

(3) SALES TURNOVER

The sales turnover of the undertakings under this category increased by 8.2% from Rs. 175.70 Crores in 1985-86 to Rs. 190.24 Crores in 1986-87. The correspondings increase in the preceding year was 24.4% . The ratio of gross profit to sales turnover declined from 18.6% in 1985-86 to 14.0% in 1986-87.

(4) PROFITABILITY

The adjusted gross profits have gone down from Rs. 32.86 Crores in 1985-88 to Rs.26.74 Crores in 1986-87.. Similarly the adjusted net profit have show a downward trend from Rs. 9.29 Crores to Rs. 8.90 Crores. The ratio of net profits to paid up capital and net worth which stood at 222.5% and 19.7% in 1985-86 came down to 130.0% and 15.5% respectively in 1986-87.

(5) DIVIDEND

The dividend declared and paid out by EIL & Balmer Lawrie Ltd. amounted to Rs. 100 Lakhs in 1986-87 as against Rs. 48 lakhs in 1985-86. The amount paid Out in 1984-85 was Rs. 44 lakhs.

(6) CORPORATE TAX

The contribution made by the companies in this category to National Exchequer by way of taxes was Rs. 11.34 Crores in 1986-87 as against Rs. 17.48 Crores in 1985-86. The amount paid in 1984-85 was Rs. 10.89 Crores.

QUICK REVIEW OF FINANCIAL STRUCTURE 1987-88

During 1987-88, there were altogether 16 enterprises under the purview of Ministry of Petroleum and Natural Gas, four under the "Exploration and Production", eight under "Refining and Marketing" one under "Petrochemical" and three under "Engineering Services" as per information available in Annexure . Gas Authority of India has been included in the Financial Review for the First time. According to provisional figures on the financial position/performance of these Enterprises available, the 16 Enterprises together employed a total capital of Rs. 13786.78 Crores and had a paid up capital of Rs. 1775.53 Crores as per Enterprises-wise detailes in Annexure I. During 1987-88, these Enterprises achieved an annual Sales Turnover of Rs. 31158.56 Crores and they earned a gross profit of Rs. 3225.82 Crores, the corresponding figures in the year 1986-87 being Rs. 27379.86 Crores and Rs. 3548.63 Crores. Thus, while the Sales Turnover increased by 13.8%, the Gross Profit before interest and taxes went down by 9.1%. The net profit after tax and interest amounted to Rs. 2054.12 Crores during 1987-88 as against Rs. 2150.62 Crores in 1986-87. The ratio of net profit to paid up capital and net worth stood at 115.7% and 17.9% in 1987-88 as compared with the figures of 230.7% and 24.8% achieved during 1986-87.

The over all financial position/results for the year 1987-88 under each of the above mentioned categories are summariesed below:

(Rs./Crores)

	Exploration and production	Refining and Marketing	Petro-Chemical.	Engg. Units.	Total
1. Paid-up Capital	1236.17	332.75	199.82	6.79	1775.53
2. Loan	3406.16	2033.15	105.09	46.01	5590.41
3. Net Worth	8624.28	2522.16	257.58	63.57	11467.59
4. Capital Employed	8827.62	4632.29	214.16	112.71	13786.78
5. Sales turnover	6562.50	24036.72	334.79	224.55	31158.56
6. Gross profit before Interest & Tax	2267.90	899.15	33.10	25.47	3225.62
7. Net profit after Interest & Tax	1530.25	495.32	20.72	7.83	2054.12
8. Dividend	40.20	47.51	--	1.01	88.72
9. Corporate Tax	597.76	163.53	3.87	9.24	774.40
% age of					
1. Net profit to paid-up Capital	123.8	148.8	10.3	115.3	115.7
2. Net profit to net worth	17.7	19.6	8.0	12.3	17.9
3. Gross Profit to Capital Employed	25.7	19.4	15.4	22.6	23.4

It will be seen from the Annexure-I that with the exception of Biecco Lawrie Ltd., and G.A.I.L. all the undertakings under the Ministry of Petroleum and Natural Gas have made gross profits. ONGC has made the highest gross profit of Rs. 2322.18 Crores with IOC standing as second with Rs. 610.93 Crores. Likewise ONGC has earned the highest net profit after tax and interest amounting to Rs. 1628.99 Crores followed by IOC, with a net profit of Rs. 383.26 Crores. The third in order of net profit was Bharat Petroleum Corpn. Ltd. with a profit of Rs. 35.05 Crores.

PROVISIONAL

FINANCIAL STRUCTURE OF THE PUBLIC/JOINT SECTOR UNDERTAKINGS UNDER THE PURVIEW OF MINISTRY OF PETROLEUM & NATURAL GAS DURING THE YEAR 1987-88.

Annexure-I

Rs./Lakhs

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	Divid-end	Corp-rate Tax	Net Profit to paid up-cap.	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	123617	340616	862428	882762	656250	226790	153025	4020	59776	123.8	17.7	25.7
1.ONGC	34285	289571	752816	748061	599699	232218	162899	3600	57278	475.1	21.6	31.0
2.HIL	2500	NIL	5270	5270	510	487	244	NIL	243	9.7	4.6	9.2
3.OIL	2800	6974	37490	35404	52459	5826	3059	420	2255	109.3	8.2	16.4
4.GAIL	84032	44071	66852	94027	3582	-11741	-13177	--	--	Neg.	Neg.	Neg.
B.Refining & Marketing	33275	203315	252216	463229	2403672	89915	49532	4751	16353	148.8	19.6	19.4
5.IOC	12327	98693	171016	259949	1410653	61093	38326	1972	13684	310.9	22.4	23.5
6.BPCL	2785	11928	28953	57721	283406	7825	3505	390	620	125.8	12.0	13.6
7.HPCL	6384	51884	25057	87054	387708	10086	3021	639	565	47.3	12.0	11.6
8.CRL	1000	22053	3498	21821	106410	2700	212	84	36	21.2	6.0	12.3
9.MRL	9825	17980	16453	29378	119898	5749	3040	1474	552	30.9	18.5	19.6
10.LIL	480	609	3446	3811	13720	1468	906	108	454	188.7	26.3	38.5
11.IBP CO.LTD	434	28	3403	3021	81201	880	476	80	389	109.7	13.9	29.1
12.IOBL	40	140	390	474	676	114	46	4	51	115.0	11.8	24.0
C.Petro-chemicals	19982	10509	25758	21416	33479	3310	2072	--	387	10.3	8.0	15.4
13.BRPL	19982	10509	25758	21416	33479	3310	2072	--	387	10.3	8.0	15.4
D.Engineering services	679	4601	6357	11271	22455	2547	783	101	924	115.3	12.3	22.6
14.EIL	100	575	7278	6380	5450	1642	1050	20	600	1050.0	14.4	25.7
15.Balmer Lawrie Ltd.	402	727	2200	4665	16441	1176	447	81	324	118.6	21.6	25.2
16.Biecco Lawrie Ltd.	177	3299	-3121	226	564	-271	-744	--	--	Neg.	Neg.	NEG
GRAND TOTAL (A+B+C+D)	177553	559041	1146759	1378678	3115856	322562	205412	8872	77440	115.7	17.9	23.4

Note: Paid-up capital of IBP Co. Ltd. includes Rs. 50 lakhs as preference share capital.

TABLE NO. 1

CONSOLIDATED FINANCIAL STRUCTURE. 1986-87

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	46020	20000	950	74970
2. i) Paid-up Capital	39585	32925	19982	679	93171
ii) Preference Capital	--	50	--	--	50
iii) Reserve & Surpluses	601410	173228	3886	7555	786079
3. i) Total Loans	302364	141586	14197	3738	461885
ii) Of which Foreign	210513	8149	391	--	219053
4. Cash Credits/Advances from Banks/Others	368	65912	1267	1856	69403
5. Net Worth	630489	205168	23442	5666	864765
6. i) Gross Block	909503	396069	24051	5403	1335026
ii) Less Depreciation	392872	213532	7181	1861	615446
iii) Net Fixed Assets	516631	182537	16870	3542	719580
iv) Working Capital	176997	167051	8214	6693	358955
v) Capital Empl(iii+iv)	693628	349588	25084	10235	1078535
7. i) Sales	562584	2129647	26731	19024	2737986
ii) Other Income	45769	10010	127	666	56572
Total	608353	2139657	26858	19690	2794558
8. i) Total Emoluments (incl. perks)	23317	24000	511	2994	50822
ii) Of which Bonus	4245	2610	17	131	7003
iii) Average Emolument per person p.a.	0.48	0.45	0.34	0.36	0.43
9. Inventories	118359	289849	8649	2066	418923
10. Gross Profit					
a) Gross Profit before Interest & Tax (Actual)	243079	105456	3662	2666	354863
b) Adjusted Gross Profit	262554	105763	3664	2674	374655
11. Net Profit					
a) Net Profit after Tax & Interest	153751	58103	2325	883	215062
b) Adjusted Net Profit	173226	58402	2327	890	234845
12. Dividends Declared	4020	4750	--	100	8870
13. Corporate Tax	65749	26241	--	1134	93124
% age of:-					
a) N.P./Adjusted NP to Paid -up capital	388.4/437.6	176.2/177.1	11.6	130.0	230.7/251.9
b) N.P./Adjusted N.P.to Net Worth	24.3/27.4	28.4	9.9	15.5	24.8/27.2
c) GP/Adjusted GP to Capital Emp.	35.0/37.8	30.1	14.6	26.0	32.9/34.7
d) Sales to Capital Emp.	81.1	609.1	106.6	185.9	253.8
e) G.P/Adjusted GP to Sale	43.2/46.6	5.0	13.7	14.0	12.9/13.6
f) Paid-up Capital/ Loans Ratio	0.13	0.23	1.41	0.18	0.28

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

TABLE NO.2

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	--	50	--	--	50
iii) Reserve & Surpluses	451595	120008	1560	6230	577393
3. i) Total Loans	258195	142148	15509	2633	418485
ii) Of which Foreign	169256	3782	487	--	173525
4. Cash Credits/Advances from Banks/Others	10386	79407	662	1676	92131
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	8549	33	587	17011
Total	480605	1929494	20242	18157	2448498
8. i) Total Emoluments (incl. perks)	19674	19660	411	2756	42501
ii) Of which Bonus	2008	2191	--	189	4388
iii) Average Emoluments per person p.a.	0.39	0.35	0.31	0.34	0.35
9. Inventories	98414	311639	6466	1820	418339
10. Gross Profit					
a) Gross Profit before Int.& Tax (actual)	218545	55616	1337	3278	278776
b) Adjusted Gross Profit	238139	55883	1340	3286	298647
11. Net Profit					
a) Net Profit after Tax & Interest(actual)	137266	25192	215	920	163593
b) Adjusted Net Profit	150249	25468	218	929	176864
12. Dividends Declared	3849	4289	--	48	8186
13. Corporate Tax.	64832	7442	--	1748	74022
% age of:-					
a) N.P./Adjusted NP to paid up 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 G.P.to Capial 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) GP/Adjusted GP to Sales	40.2/50.3	2.9	6.6	18.6	11.4/12.3
f) Paid -up Capital/Loans 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 and production category.
3. Adjusted/Gross Profits & Net Profits are as defined in the glossary of terms.

TABLE NO.3

CONSOLIDATED FINANCIAL STRUCTURE. 1984-85

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	29289	13242	416	82532
ii) Preference Capital	--	50	--	--	50
iii) Reserve & Surplus	318109	102597	1345	4934	426985
3. i) Total Loans	234625	147655	16474	2069	400823
ii) Of which Foreign	149526	3172	557	--	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	4080	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	--	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 Intt.& Tax (actual)	193216	38978	521	2104	234819
b) Adjusted Gross Profit	206718	40251	523	2122	249614
11. Net Profit					
a) Net profit after Tax and Int.(actual)	97380	13990	279	559	112208
b) Adjusted Gr.Profit	104364	14730	281	576	119951
12. Dividends Declared	3677	3713	--	44	7334
13. Corporate Tax.	81831	9113	--	1069	92013
% age of:-					
a) N.P./Adjusted NP to Paid-up 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 toSale	43.4/46.5	2.2	3.2	14.9	10.6/11.2
f) Paid-up Capital/Loan Ratio.	0.16	0.20	0.80	0.20	0.20

Source: 1. Annual Reports of the undertakings & data supplied by them.
2. There is no authorised Capital in respect of ONGC in exploration and production 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)

	I T E M	1984-85	1985-86	1986-87
	(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	318109	451595	610410
3.	i) Total Loans	234625	258195	302364
	ii) Of which Foreign	149526	169256	210513
4.	Cash Credits/Advances from Banks/Others	1714	10386	368
5.	Net Worth	346202	487663	630489
6.	i) Gross Block	565573	733350	909503
	ii) Less Depreciation	233350	306959	392872
	iii) Net Fixed Assets	332223	426391	516631
	iv) Working Capital	87256	118394	176997
	v) Capital Empl.(iii+iv)	419479	544785	693628
7.	i) Sales	444665	472763	562584
	ii) Other Income	1084	7842	45769
	Total	445749	480605	608353
8.	i) Total Emoluments (incl. perks)	16477	19674	23317
	ii) Of which Bonus	982	2008	4245
	iii) Average Emoluments per person p.a.	0.34	0.39	0.48
9.	Inventories	65717	98414	118359
10.	Gross Profit			
	a) Gross Profit before Interest & Tax	193216	218545	243079
	b) Adjusted Gross Profit	206718	238139	262554
11.	Net Profit			
	a) Net profit after Tax & Interest	97380	137266	153751
	b) Adjusted Net Profit	104364	150249	173226
12.	Dividends Declared	3677	3849	4020
13.	Corporate Tax.	81831	64832	65749
	% age of:			
a)	N.P./Adjusted NP to paidup Capital	246.0/236.6	346.7/379.6	388.4/347.6
b)	N.P./Adjusted N.P.to Net Worth	28.1/30.1	28.1/30.8	24.3/27.4
c)	GP/Adjusted GP to Capital Emp.	46.0/49.2	40.1/43.7	35.8/37.8
d)	Sales to Capital Emp.	106.0	86.7	81.1
e)	G.P/Adjusted GP to Sales	43.4/46.5	46.2/50.3	43.2/46.6
f)	Paid-up Capital/Loan Ratio.	0.16	0.15	0.13

Source: 1. Data as submitted by ONGC & annual reports of the companies.
2. There is no authorised Capital in respect of ONGC.
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)

ITEM	1984-85	1985-86	1986-87
(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	289323	416150	561053
3. i) Total Loans	228032	251678	295793
ii) Of which Foreign	146779	165976	209682
4. Cash Credits/Advances from Banks/Others	1714	10386	368
5. Net Worth	312116	446918	591284
6. i) Gross Block	528262	686574	855368
ii) Less Depreciation	206528	274567	354366
iii) Net Fixed Assets	321734	412007	501002
iv) Working Capital	69952	90925	156393
v) Capital Empl.(iii+iv)	391686	510932	657395
7. i) Sales	403438	432618	518060
ii) Other Income	60	6174	44679
Total	403498	438792	562739
8. i) Total Emoluments (incl. perks)	14532	17278	20786
ii) Of which Bonus	792	1708	1721
iii) Average Emoluments per person p.a.	0.35	0.39	0.48
9. Inventories	58728	88218	107520
10. a) Gross Profit before Interest & Tax	176122	205620	233468
b) Adjusted Gross Profit	189628	225211	252962
11. Net Profit after Interest & Tax	88241	130221	148446
a) Adjusted Net Profit After Interest & Tax	95220	143201	167940
12. Dividends Declared	3257	3429	3600
13. Corporate Tax.	74500	59600	62050
% age of:			
a) N.P./Adjusted NP to paid-up Capital	257.4/277.7	379.8/417.6	432.9/489.8
b) N.P./Adjusted N.P.to Net Worth	28.3/30.5	29.1/32.0	25.1/ 28.4
c) GP/Adjusted GP to Capital Emp.	44.1/48.4	40.2/44.0	35.5/38.4
d) Sales to Capital Emp.	103.0	84.6	78.8
e) G.P Adjusted GP to Sales	43.6/47.0	47.5/52.0	45.0/48.8
f) Paid-up Capital/Loan Ratio.	0.15	0.13	0.12

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

TABLE NO.6

FINANCIAL STRUCTURE

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

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	3000	3000	3000
2. i) Paid-up Capital	2500	2500	2500
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	2239	2495	2767
3. i) Total Loans	-NIL-	-NIL-	--
ii) Of which Foreign	-NIL-	-NIL-	--
4. Cash Credits/Advances from Banks/Others	-NIL-	-NIL-	--
5. Net Worth	4739	4995	5266
6. i) Gross Block	1	1	2
ii) Less Depreciation	--	-NIL-	2
iii) Net Fixed Assets	1	1	--
iv) Working Capital	4738	4994	5266
v) Capital Empl.(iii+iv)	4739	4995	5266
7. i) Sales	--	--	--
ii) Other Income	496	453	505
Total	496	453	505
8. i) Total Emoluments (incl. perks)	4	5	7
ii) Of which Bonus	-NIL-	-NIL-	--
iii) Average Emoluments per person p.a.	0.44	0.50	0.68
9. Inventories	-NIL-	-NIL-	--
10. Gross Profit			
a) Gross Profit before Interest & Tax	486	443	491
b) Adjusted Gross Profit			
11. Net Profit			
a) Net Profit after Tax & Interest	216	222	245
b) Adjusted net Profit	--	--	--
12. Dividends Declared	-NIL-	-NIL-	NIL
13. Corporate Tax.	270	221	246
% age of:			
a) N.P./Adjusted NP to paidup Capital	8.6	8.8	9.8
b) N.P./Adjusted N.P.to Net Worth	4.6	4.4	4.6
c) GP/Adjusted GP toCapital Emp.	10.2	8.8	9.3
d) Sales to Capital Emp.	-NIL-	-NIL-	-NIL-
e) G.P/Adjusted GP to Sales	-NIL-	-NIL-	-NIL-
f) Paid-up Capital/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)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	5000	5000	5000
2. i) Paid-up Capital	2800	2800	2800
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	26547	32950	37590
3. i) Total Loans	6593	6517	6571
ii) Of which Foreign	2747	3280	831
4. Cash Credits/Advances from Banks/Others	--	--	--
5. Net Worth	29347	35750	40390
6. i) Gross Block	37310	46773	54133
ii) Less Depreciation	26822	32392	38504
iii) Net Fixed Assets	10488	14381	15629
iv) Working Capital	12566	14475	15338
v) Capital Empl.(iii+iv)	23054	28856	30967
7. i) Sales	41227	40145	44524
ii) Other Income	538	1185	585
Total	41765	41330	45109
8. i) Total Emoluments (incl. perks)	1941	2391	2524
ii) Of which Bonus	190	300	251
iii) Average Emoluments per person p.a.	0.24	0.29	0.29
9. Inventories	6989	1096	10839
10. Gross Profit			
a) Gross Profit before Tax & Intt.(Actual)	16608	12842	9120
b) Adjusted Gross Profit	16604	12485	9101
11. Net Profit			
a) Net Profit after Tax & Intt.(actual)	8923	6823	5041
b) Adjusted Net Profit	8928	6826	5060
12.Dividends Declared	420	420	420
13. Corporate Tax.	7061	5011	3453
% age of:			
a) N.P./Adjusted NP to Paid-up Capital	318.6	243.6	180.0/180.7
b) N.P./Adjusted N.P.to Net Worth	30.4	19.0	12.4
c) GP/Adjusted GP to Capital Emp.	72.0	43.2	29.4
d) Sales to Capital Emp.	178.8	139.2	143.7
e) G.P/Adjusted GP to Sales	40.3	31.3	20.5
f) Paid-up Capital/Loan Ratio.	0.42	0.43	0.42

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

TABLE NO.8

FINANCIAL STRUCTURE

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

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	50000	50000	100000
2. i) Paid-up Capital	100	18100	61079
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	--	--	--
3. i) Total Loans	4800	8700	26057
ii) Of which Foreign	--	--	2014
4. Cash Credits/Advances from Banks/Others	--	--	--
5. Net Worth	--	--	--
6. i) Gross Block	--	--	1455
ii) Less Depreciation	--	--	71
iii) Net Fixed Assets	--	--	1384
iv) Working Capital	--	--	--
v) Capital Empl.(iii+iv)	--	--	1384
7. i) Sales	--	--	--
ii) Other Income	--	--	--
Total	--	--	--
8. i) Total Emoluments (incl. perks)	--	--	--
ii) Of which Bonus	--	--	--
iii) Average Emoluments per person p.a.	--	--	--
9. Inventories	--	--	--
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	--	--	--
b) Adjusted Gross Profit	--	--	--
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	--	--	--
b) Adjusted Net Profit	--	--	--
12. Dividends Declared	--	--	--
13. Corporate Tax.	--	--	--
% age of:-			
a) N.P./Adjusted HP to paidup Capital	--	--	--
b) N.P./Adjusted N.P.to Net Worth	--	--	--
c) GP/Adjusted Capital Emp.	--	--	--
d) Sales to Capital Emp.	--	--	--
e) G.P Adjusted GP to Sales	--	--	--
f) Paid-up Capital/Loan Ratio.	0.02	0.21	2.34

Source: 1. The data supplied by the undertaking has been exhibited in the statement as no final accounts have been prepared & received in the ministry. Moreover, the above figures have not taken in the consolidated statement as there were no operations during the year 1986-87.

TABLE NO.9

FINANCIAL STRUCTURE

REFINING AND MARKETING (Rs./Lakhs)

ITEM	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	43320	45820	46020
2. i) Paid-up Capital	29289	32781	32925
ii) Preference Capital	50	50	50
iii) Reserve & Surpluses	102597	120008	173228
3. i) Total Loans	147655	142148	141586
ii) Of which Foreign	3172	3782	8149
4. Cash Credits/Advances from Banks/Others	32435	79407	65912
5. Net Worth	131425	151722	205168
6. i) Gross Block	259201	345468	396069
ii) Less Depreciation	128751	169859	213532
iii) Net Fixed Assets	130450	175609	182537
iv) Working Capital	95446	145023	167051
v) Capital Empl.(iii+iv)	225896	320632	349588
7. i) Sales	1736868	1920945	2129647
ii) Other Income	4883	8549	10010
Total	1741751	1929494	2139657
8. i) Total Emoluments (incl. perks)	17277	19621	24000
ii) Of which Bonus	1225	2191	2610
iii) Average Emoluments per person p.a.	0.32	0.35	0.45
9. Inventories	234114	311639	289849
10. Gross Profit			
a) Gross Profit before Interest & Tax (actual)	38978	55616	105456
b) Adjusted Gross Profit	40251	55883	105763
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	13990	25192	58103
b) Adjusted Net Profit	14730	25468	58402
12. Dividends Declared	3713	4289	4750
13. Corporate Tax.	9113	7442	26241
% age of:			
a) NP/Adjusted NP to paidup Capital	47.6/50.2	76.8/77.5	176.2/177.1
b) N.P./Adjusted N.P.to Not Worth	10.6/11.2	16.6	28.4
c) GP/Adjusted Capital Emp.	17.2/17.8	17.3	30.1
d) Sales to Capital Emp.	768,8	599.1	609.1
e) G.P Adjusted GP to Sales	2.2	2.9	5.0
f) Paid-up Capital/Loan Ratio.	0.20	0.23	0.23

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

TABLE NO.10

FINANCIAL STRUCTURE

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

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	15000	15000	15000
2. i) Paid-up Capital	12327	12327	12327
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	70314	81485	122336
3. i) Total Loans	50245	37708	59523
ii) Of which Foreign	673	700	515
4. Cash Credits/Advances from Banks/Others	140	34424	12144
5. Net Worth	82641	93812	134662
6. i) Gross Block	149181	175807	197360
ii) Less Depreciation	83340	105153	124519
iii) Net Fixed Assets	65841	70654	72841
iv) Working Capital	39403	70775	103727
v) Capital Empl.(iii+iv)	105244	141429	176568
7. i) Sales	1105506	1129864	1250756
ii) Other Income	1989	5450	7077
Total	1107495	1135314	1257833
8. i) Total Emoluments (incl. perks)	11010	12686	14319
ii) Of which Bonus	740	1604	1652
iii) Average Emoluments per person p.a.	0.36	0.40	0.45
9. Inventories	146567	207818	182318
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	24087	26568	72749
b) Adjusted Gross Profit	25191	26781	72861
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	8351	12897	42822
b) Adjusted Net Profit	8922	13110	42934
12. Dividends Declared	1726	1726	1972
13. Corporate Tax.	7884	6518	24300
% age of:-			
a) NP/Adjusted NP to paidup Capital	67.8/72.3	104.6/106.4	347.3/348.2
b) N.P./Adjusted N.P.to Net Worth	10.1	13.8	31.8
c) GP/Adjusted Capital Emp.	22.8/23.9	18.8	41.2
d) Sales to Capital Emp.	1050.4	790.8	708.4
e) G.P Adjusted GP to Sales	2.2	2.4	5.8
f) Paid-up Capital/Loan Ratio.	0.25	0.33	0.20

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

TABLE NO.11

FINANCIAL STRUCTURE

NAME OF THE COMPANY : BHARAT PETROLEUM CORNN.LTD. (Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	2500	5000	5000
2. i) Paid-up Capital	1657	2785	2785
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	10355	14967	20624
3. i) Total Loans	10852	10634	10695
ii) Of which Foreign	2499	3082	4154
4. Cash Credits/Advances from Banks/Others	23302	29195	31150
5. Net Worth	12012	17753	23409
i) Gross Block	35617	49336	59488
ii) Less Depreciation	16647	24088	32419
iii) Net Fixed Assets	18970	25248	27069
iv) Working Capital	13329	21718	22545
v) Capital Empl.(iii+iv)	32299	46966	49614
7. i) Sales	212765	233778	249968
ii) Other Income	1077	1369	1573
Total	213842	235147	251541
8. i) Total Emoluments (incl. perks)	2785	2953	3852
ii) Of which Bonus	215	352	428
iii) Average Emoluments per person p.a.	0.30	0.30	0.40
9. Inventories	16628	19565	23910
10. Gross Profit			
a) Gross Profit before Interest & Tax (actual)	3965	9966	10234
b) Adjusted Gross Profit	4140	10030	10248
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	1380	6132	6032
b) Adjusted Net Profit	1555	6197	6046
12. Dividends Declared	232	390	390
13. Corporate Tax.	700	760	820
% age of:-			
a) N.P./Adjusted NP to paidup Capital	83.3/93.8	220.2/222.5	216.6/217.0
b) N.P./Adjusted N.P.to Net Worth	11.5/12.9	34.5/34.9	25.7
c) GP/Adjusted Capital Emp.	12.3/12.8	21.2/21.4	20.6
d) Sales to Capital Emp.	658.7	497.8	503.8
e) G.P Adjusted GP to Sales	1.9	4.3	4.0
f) Paid-up Capital/Loan Ratio.	0.15	0.26	0.26

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

FINANCIAL STRUCTURE

Table No.12

NAME OF THE COMPANY : HINDUSTAN PETROLEUM CORPORATION LTD.

(Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	10000	10000	10000
2. i) Paid-up Capital	4020	6384	6384
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	13598	13024	17191
3. i) Total Loans	42405	49336	35476
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	5923	11256	15306
5. Net Worth	17170	18383	22684
6. i) Gross Block	43561	71742	84610
ii) Less Depreciation	18050	26547	35775
iii) Net Fixed Assets	25311	45195	48835
iv) Working Capital	15392	23869	14636
v) Capital Empl.(iii+iv)	40703	69064	63471
7. i) Sales	268746	321859	349310
ii) Other Income	505	738	748
Total	269251	332597	350058
8. i) Total Emoluments (incl. perks)	2161	2515	3698
ii) Of which Bonus	192	85	380
iii) Average Emoluments per person p.a.	0.28	0.30	0.44
9. Inventories	30847	40448	49026
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	5287	9652	12038
b) Adjusted Gross Profit	5288	9625	12043
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	1188	2333	4805
b) Adjusted Net Profit	1189	2314	4811
12. Dividends Declared	402	543	638
13. Corporate Tax.	56	9	130
% age of:-			
a) N.P./Adjusted NP to paidup Capital	29.6	36.5/36.2	75.2
b) N.P./Adjusted N.P.to Net Worth	6.9	12.7	21.2
c) GP/Adjusted GP to Capital Emp.	13.0	13.9	19.0
d) Sales to Capital Emp.	660.2	466.0	550.3
e) G.P Adjusted GP to Sales	2.0	3.0	3.4
f) Paid-up Capital/Loan Ratio.	0.09	0.13	0.18

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

FINANCIAL STRUCTURE

Table No.13

NAME OF THE COMPANY : COCHIN REFINERIES LIMITED

(Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	1500	1500	1500
2. i) Paid-up Capital	700	700	700
ii) Preference Capital	--	---	--
iii) Reserve & Surpluses	1964	1988	2370
3. i) Total Loans	20220	24584	21222
ii) Of which Foreign	--	3065	3480
4. Cash Credits/Advances from Banks/Others	12	35	352
5. Net Worth	2664	2689	3069
6. i) Gross Block	6695	18621	21688
ii) Less Depreciation	3314	4462	7118
iii) Net Fixed Assets	3381	14159	14570
iv) Working Capital	5864	8501	7391
v) Capital Empl.(iii+iv)	9245	22660	21961
7. i) Sales	15903	54860	80313
ii) Other Income	858	64	114
Total	16761	54924	80427
8. i) Total Emoluments (incl. perks)	183	173	368
ii) Of which Bonus	8	18	8
iii) Average Emoluments per person p.a.	0.22	0.19	0.38
9. Inventories	5741	7461	10920
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	898	2223	2954
b) Adjusted Gross Profit	909	2227	2944
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	258	25	465
b) Adjusted Net Profit	268	29	455
12. Dividends Declared	105	--	84
13. Corporate Tax.	--	--	--
% age of:-			
a) NP/Adjusted NP to paidup Capital	36.8/38.3	3.4/4.1	66.4/65.0
b) N.P./Adjusted N.P.to Net Worth	9.8/10.0	0.9/1.1	15.1/14.8
c) GP/Adjusted GP to Capital Emp.	9.7	9.8	13.4
d) Sales to Capital Emp.	172.0	242.1	365.7
e) G.P Adjusted GP to Sales	5.6	4.0	3.6
f) paid-up Capital/Loan Ratio.	0.03	0.03	0.03

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

FINANCIAL STRUCTURE

Table No.14

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

ITEM	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	13500	13500	13500
2. i) Paid-up Capital	9825	9825	9825
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	3354	4686	5852
3. i) Total Loans	22399	19107	13817
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	2112	2906	5998
5. Net Worth	13176	14418	15535
6. i) Gross Block	20728	25410	27328
ii) Less Depreciation	5751	7857	11561
iii) Net Fixed Assets	14977	17553	15767
iv) Working Capital	19293	16539	15236
v) Capital Empl.(iii+iv)	34270	34092	31003
7. i) Sales	67305	102317	110900
ii) Other Income	224	548	130
Total	67529	102865	111030
8. i) Total Emoluments (incl. perks)	296	332	453
ii) Of which Bonus	19	37	44
iii) Average Emoluments per person p.a.	0.25	0.34	0.42
9. Inventories	31634	33254	20558
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	3468	5600	5153
b) Adjusted Gross Profit	3468	5600	5300
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	2161	2805	2640
b) Adjusted Net Profit	2161	2805	2778
12. Dividends Declared	1102	1474	1474
13. Corporate Tax.	63	191	205
% age of:-			
a) N.P./Adjusted NP to paidup Capital	22.0	28.6	26.9/28.3
b) N.P./Adjusted N.P.to Net Worth	16.4	19.5	17.0/17.8
c) GP/Adjusted GP to Capital Emp.	10.1	16.4	16.6/17.6
d) Sales to Capital Emp.	196.3	300.0	357.7
e) G.P Adjusted GP to Sales	5.2	5.4	4.6
f) Paid-up Capital/Loan Ratio.	0.42	0.51	0.71

Source: 1. Annexure Reports of the Company.
2. Adjusted/Gross Profit & net Profit are as defined in the glossary of terms.

FINANCIAL STRUCTURE

Table No.15

NAME OF THE COMPANY : IBP COMPANY LIMITED

(Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	300	300	500
2. i) Paid-up Capital	240	240	384
ii) Preference Capital	50	50	50
iii) Reserve & Surpluses	1457	1889	2490
3. i) Total Loans	28	28	28
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	325	723	516
5. Net Worth	1747	2179	2924
6. i) Gross Block	1726	2230	2671
ii) Less Depreciation	709	860	1048
iii) Net Fixed Assets	1017	1370	1623
iv) Working Capital	386	1330	1272
v) Capital Empl.(iii+iv)	1403	2700	2895
7. i) Sales	57182	66554	75230
ii) Other Income	149	258	242
Total	57331	66812	75472
8. i) Total Emoluments (incl. perks)	426	502	738
ii) Of which Bonus	26	53	54
iii) Average Emoluments per person p.a.	0.25	0.29	0.40
9. Inventories	687	675	837
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	632	772	1286
b) Adjusted Gross Profit	614	783	1302
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	307	480	833
b) Adjusted Net Profit	289	491	849
12. Dividends Declared	46	51	80
13. Corporate Tax.	311	248	450
% age of:-			
a) NP/Adjusted NP to paidup Capital	105.9/99.7	165.5	191.9/195.6
b) N.P./Adjusted N.P.to Net Worth	17.6/16.5	22.0	28.4/29.0
c) GP/Adjusted GP to Capital Emp.	45.0/43.8	28.6/29.0	44.4/44.9
d) Sales to Capital Emp.	4075.7	2464.9	2598.6
e) G.P Adjusted GP to Sales	1.2	1.2	1.7
f) Paid-up Capital/Loan Ratio.	10.36	10.36	15.5

Source: 1. Annexure Reports of the Company.
2. Adjusted/Gross Profit & net Profit are as defined in the glossary of terms.

FINANCIAL STRUCTURE

Table No.16

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

ITEM	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	480	480	480
2. i) Paid-up Capital	480	480	480
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	1332	1716	2060
3. i) Total Loans	506	636	710
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	598	841	421
5. Net Worth	1812	2196	2540
6. i) Gross Block	1272	1730	2269
ii) Less Depreciation	478	593	751
iii) Net Fixed Assets	794	1137	1518
iv) Working Capital	1676	2184	2077
v) Capital Empl.(iii+iv)	2470	3321	3595
7. i) Sales	9053	11256	12605
ii) Other Income	70	103	114
Total	9123	11359	12719
8. i) Total Emoluments (incl. perks)	204	254	294
ii) Of which Bonus	11	13	13
iii) Average Emoluments per person p.a.	0.51	0.59	0.64
9. Inventories	1996	2402	2267
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	563	758	932
b) Adjusted Gross Profit	564	762	956
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	312	486	451
b) Adjusted Net Profit	314	409	475
12. Dividends Declared	96	101	108
13. Corporate Tax.	183	88	301
% age of:-			
a) NP/Adjusted NP to paidup Capital	65.0/65.4	101.1/101.8	94.0/98.9
b) N.P./Adjusted N.P.to Net Worth	17.2	22.1/22.3	17.8/18.7
c) GP/Adjusted GP to Capital Emp.	22.8	22.8	25.9/26.5
d) Sales to Capital Emp.	366.5	338.9	350.6
e) G.P Adjusted GP to Sales	6.2	6.7	7.4
f) Paid-up Capital to Loan Ratio	0.95	0.75	0.67

Source: 1. Annexure Reports of the Company.
2. Adjusted/Gross Profit & net Profit are as defined in the glossary of terms.

FINANCIAL STRUCTURE

Table No.17

NAME OF THE COMPANY : INDIAN OIL BLEADING LIMITED

(Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	40	40	40
2. i) Paid-up Capital	40	40	40
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	223	253	305
3. i) Total Loans	--	115	115
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	23	27	25
5. Net Worth	263	293	345
6. i) Gross Block	421	592	655
ii) Less Depreciation	262	299	341
iii) Net Fixed Assets	159	293	314
iv) Working Capital	103	107	167
v) Capital Empl.(iii+iv)	262	400	481
7. i) Sales	408	480	565
ii) Other Income	11	19	12
Total	419	499	577
8. i) Total Emoluments (incl. perks)	212	245	278
ii) Of which Bonus	14	29	31
iii) Average Emoluments per person p.a.	0.40	0.42	0.48
9. Inventories	14	16	13
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	78	77	110
b) Adjusted Gross Profit	77	75	109
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	33	34	55
b) Adjusted Net Profit	32	33	54
12. Dividends Declared	4	4	4
13. Corporate Tax.	42	28	35
% age of:-			
a) N.P./Adjusted NP to paidup Capital	82.5/80.0	85.0/82.5	137.5/135.0
b) N.P./Adjusted N.P.to Net Worth	12.6	11.6/11.3	15.9/15.6
c) GP/Adjusted GP to Capital Emp.	29.7	19.2/18.7	22.8
d) Sales to Capital Emp.	155.7	120.0	117.4
e) G.P Adjusted GP to Sales	19.1	16.0/15.6	19.4
f) Paid-up Capital/Loan Ratio.	--	0.35	0.34

Source: 1. Annexure Reports of the Company.
2. Adjusted/Gross Profit & net Profit are as defined in the glossary of terms.

FINANCIAL STRUCTURE

Table No.18

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

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	20000	20000	20000
2. i) Paid-up Capital	13242	19082	19982
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	1345	1560	3886
3. i) Total Loans	16474	15509	14197
ii) Of which Foreign	557	487	391
4. Cash Credits/Advances from Banks/Others	1633	662	1267
5. Net Worth	14561	19969	23442
6. i) Gross Block	11376	23863	24051
ii) Less Depreciation	3482	5195	7181
iii) Net Fixed Assets	7894	18668	16870
iv) Working Capital	4293	6279	8214
v) Capital Empl.(iii+iv)	12187	24947	25084
7. i) Sales	16300	20209	26731
ii) Other Income	20	33	127
Total	16320	20242	26858
8. i) Total Emoluments (incl. perks)	343	411	511
ii) Of which Bonus	--	--	17
iii) Average Emoluments per person p.a.	0.27	0.32	0.34
9. Inventories	5081	6466	8649
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	521	1337	3662
b) Adjusted Gross Profit	523	1340	3664
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	279	215	2325
b) Adjusted Net Profit	281	218	2327
12. Dividends Declared	--	--	--
13. Corporate Tax.	--	--	--
% age of:-			
a) NP/Adjusted NP to paidup Capital	2.1	1.1	11.6
b) N.P./Adjusted N.P.to Net Worth	1.9	1.0	9.9
c) GP/Adjusted GP to Capital Emp.	4.3	5.3	14.6
d) Sales to Capital Emp.	133.7	81.0	106.6
e) G.P Adjusted GP to Sales	3.2	6.6	13.7
f) Paid-up Capital/Loan Ratio.	0.80	1.23	1.41

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

FINANCIAL STRUCTURE

Table No.19

CONSOLIDATED:ENGINEERING SERVICES AND OTHER UNITS

(Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	750	900	950
2. i) Paid-up Capital	416	416	679
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	4934	6230	7555
3. i) Total Loans	2069	2633	3738
ii) Of which Foreign	--	--	---
4. Cash Credits/Advances from Banks/Others	1591	1676	1856
5. Net Worth	3783	4659	5666
6. i) Gross Block	3927	4393	5403
ii) Less Depreciation	1238	1498	1861
iii) Net Fixed Assets	2689	2895	3542
iv) Working Capital	4086	5059	6693
v) Capital Empl.(iii+iv)	6775	7954	10235
7. i) Sales	14118	17570	19024
ii) Other Income	466	587	666
Total	14584	18157	19690
8. i) Total Emoluments (incl. perks)	2434	2756	2994
ii) Of which Bonus	82	189	131
iii) Average Emoluments per person p.a.	0.30	0.34	0.36
9. Inventories	1851	1820	2066
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	2104	3278	2666
b) Adjusted Gross Profit	2122	3286	2674
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	559	920	883
b) Adjusted Net Profit	576	929	890
12. Dividends Declared	44	48	100
13. Corporate Tax.	1089	1748	1134
% age of:-			
a) NP/Adjusted NP to paidup Capital	134.3/138.4	221.2/222.5	130.0
b) N.P./Adjusted N.P.to Net Worth	14.8/ 15.2	19.7	15.5
c) GP/Adjusted GP to Capital Emp.	31.0/31.3	41.2	126.0
d) Sales to Capital Emp.	208.3	220.8	185.9
e) G.P Adjusted GP to Sales	14.9	18.6	14.0
f) Paid up Capital to Loan Ratio	0.20	0.15	0.18

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

FINANCIAL STRUCTURE

Table No.20

NAME OF THE COMPANY : ENGINEERS INDIA LIMITED

(Rs./Lakhs)

ITEM	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	200	200	200
2. i) Paid-up Capital	50	50	100
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	4095	5121	6148
3. i) Total Loans	--	200	600
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	--	--	--
5. Net Worth	4145	5171	6248
6. i) Gross Block	2297	2548	3099
ii) Less Depreciation	479	578	717
iii) Net Fixed Assets	1818	1970	2382
iv) Working Capital	1878	2610	3774
v) Capital Empl.(iii+iv)	3696	4580	6156
7. i) Sales	4618	5803	5422
ii) Other Income	327	376	581
Total	4945	6179	6003
8. i) Total Emoluments (incl. perks)	1658	1812	1935
ii) Of which Bonus	45	106	61
iii) Average Emoluments per person p.a.	0.45	0.50	0.53
9. Inventories	32	45	34
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	1598	2458	1916
b) Adjusted Gross Profit	1594	2451	1916
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	698	1034	1093
b) Adjusted Net Profit	694	1027	1093
12. Dividends Declared	8	10	20
13. Corporate Tax.	900	1424	797
% age of:-			
a) NP/Adjusted NP to paidup Capital	1396.0/1398.0	2068.0/2054.0	1093.0
b) N.P./Adjusted N.P.to Net Worth	16.8	20.0	17.4
c) GP/Adjusted GP to Capital Emp.	43.2	53.6	31.1
d) Sales to Capital Emp.	125.0	126.7	88.0
e) G.P Adjusted GP to Sales	34.6	42.4	35.3
f) Paid-up Capital to Loan Ratio	--	0.25	0.17

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

FINANCIAL STRUCTURE — Table No.21

NAME OF THE COMPANY :BELMER LAWRIE & COMPANY LIMITED (Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	300	500	500
2. i) Paid-up Capital	189	189	402
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	836	1104	1402
3. i) Total Loans	428	376	547
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	1491	1596	1713
5. Net Worth	1025	1293	1804
6. i) Gross Block	1336	1558	2015
ii) Less Depreciation	565	712	923
iii) Net Fixed Assets	771	846	1092
iv) Working Capital	1957	2199	2712
v) Capital Empl.(iii+iv)	2728	3045	3804
7. i) Sales	8839	11137	13058
ii) Other Income	134	207	81
Total	8973	11344	13139
8. i) Total Emoluments (incl. perks)	507	654	748
ii) Of which Bonus	27	69	56
iii) Average Emoluments per person p.a.	0.25	0.31	0.33
9. Inventories	1538	1506	1781
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	584	937	965
b) Adjusted Gross Profit	607	949	971
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	167	306	370
b) Adjusted Net Profit	190	319	376
12. Dividends Declared	36	38	80
13. Corporate Tax.	169	324	337
% age of:-			
a) NP/Adjusted NP to paidup Capital	88.4/100.5	161.7/168.8	92.0/93.5
b) N.P./Adjusted N.P.to Net Worth	16.3/18.5	23.6/24.7	20.5/20.0
c) GP/Adjusted GP to Capital Emp.	21.4/22.5	30.8/31.2	25.3
d) Sales to Capital Emp.	324.0	365.8	343.2
e) G.P Adjusted GP to Sales	6.6/6.9	8.4	7.3
f) Paid-up Capital to Loan Ratio	0.44	0.50	0.74

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

FINANCIAL STRUCTURE

Table No.22

NAME OF THE COMPANY :BIECCO LAWRIE & CO. LTD. (Rs./Lakhs)

I T E M	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)
1. Authorised Capital	250	250	250
2. i) Paid-up Capital	177	177	177
ii) Preference Capital	--	--	--
iii) Reserve & Surpluses	3	5	5
3. i) Total Loans	1641	2057	2591
ii) Of which Foreign	--	--	--
4. Cash Credits/Advances from Banks/Others	100	86	81
5. Net Worth	(-)1387	(-)1805	(-)2386
6. i) Gross Block	294	287	289
ii) Less Depreciation	194	208	221
iii) Net Fixed Assets	100	79	68
iv) Working Capital	251	250	207
v) Capital Empl.(iii+iv)	351	329	275
7. i) Sales	661	630	544
ii) Other Income	5	4	4
Total	666	634	548
8. i) Total Emoluments (incl. perks)	269	294	311
ii) Of which Bonus	10	15	14
iii) Average Emoluments per person p.a.	0.19	0.22	0.23
9. Inventories	281	269	251
10. Gross Profit			
a) Gross Profit after Interest & Tax (actual)	(-)78	(-)117	(-)215
b) Adjusted Gross Profit	(-)79	(-)114	(-)213
11. Net Profit			
a) Net Profit after Tax & Interest (actual)	(-)306	(-)420	(-)580
b) Adjusted Net Profit	(-)308	(-)420	(-)579
12. Dividends Declared	--	--	--
13. Corporate Tax.	--	--	--
% age of:-			
a) NP/Adjusted NP to paidup Capital	Neg.	Neg.	Neg.
b) N.P./Adjusted to N.P.Net Worth	Neg.	Neg.	Neg.
c) GP/Adjusted GP to Capital Emp.	Neg.	Neg.	Neg.
d) Sales to Capital Emp.	188.3	191.5	197.1
e) G.P Adjusted GP to Sales	Neg.	Neg.	Neg.
f) Paid-up Capital to Loan Ratio	0.11	0.09	0.06

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

CAPITAL INVESTMENT OF THE PUBLIC/JOINT SECTOR UNDERTAKINGS AS ON 1-4-86 1-4-87 and 1-4-88

(Rs./Crores)

Name of the Undertaking	As on 1-4-1986				As on 1-4-1987				As on 1-4-1988			
	Paid-up Capital	Loans	Total	Govt. Share	Paid-up Capital	Loans	Total	Govt. Share	Paid-up Capital	Loans	Total/ Crores	Govt. Share
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
A. Exploration & Production	576.9	2634.9	3211.8	584.2	1006.7	3282.4	4289.1	1577.1	1236.2	3969.8	5206.0	2261.3
1. ONGC	342.9	2515.5	2858.4	344.8	342.9	2956.8	3299.7	721.3	342.9	3453.1	3796.0	1181.7
2. HIL	25.0	--	25.0	--	25.0	--	25.0	--	25.0	--	25.0	--
3. OIL	28.0	32.4	60.4	58.4	28.0	65.2	93.2	52.6	28.0	63.5	91.5	46.8
4. GAIL	181.0	87.0	268.0	181.0	610.8	260.4	871.2	803.2	840.3	453.2	1293.5	1032.8
B. Refining and Marketing	328.4	1264.8	1593.2	519.6	329.8	1368.9	1698.7	532.2	332.8	1815.5	2148.3	559.2
5. IOC	123.3	378.7	502.0	162.4	123.3	551.1	674.4	147.5	123.3	986.9	1110.2	136.9
6. BPCL	27.9	136.5	164.4	58.9	27.9	167.6	195.5	67.6	27.9	177.9	205.8	91.9
7. HPCL	63.8	284.0	347.8	122.7	63.8	298.4	362.2	131.2	63.8	293.1	356.9	137.5
8. CRL	7.0	238.4	245.4	39.6	7.0	205.0	212.0	42.6	10.0	170.0	180.0	41.7
9. MRL	98.3	219.0	317.3	131.5	98.3	138.2	236.5	137.8	98.3	179.8	278.1	145.6
10. IBP Co. Ltd.	2.9	0.3	3.2	1.6	4.3	0.3	4.6	2.7	4.3	0.3	4.6	2.7
11. Lubrizol India Ltd.	4.8	6.4	11.2	2.9	4.8	7.1	11.9	2.9	4.8	6.1	10.9	2.9
12. IOB	0.4	1.5	1.9	--	0.4	1.2	1.6	--	0.4	1.4	1.8	--
C. Petro Chemicals	190.8	139.3	330.1	190.8	199.8	136.3	336.1	199.8	199.8	105.1	304.9	199.8
13. BRPL	190.8	139.3	330.1	190.8	199.8	136.3	336.1	199.8	199.8	105.1	304.9	199.8
D. Engineering Unit	4.2	19.0	23.2	17.1	6.8	32.1	38.9	19.1	6.8	36.4	43.2	22.3
14. EIL	0.5	--	0.5	0.5	1.0	6.0	7.0	0.5	1.0	5.8	6.8	1.0
15. Balmer Lawrie Ltd.	1.9	3.8	5.7	--	4.0	8.9	12.9	--	4.0	10.7	14.7	--
16. Biecco Lawrie Ltd.	1.8	15.2	17.0	16.6	1.8	17.2	19.0	18.6	1.8	19.9	21.7	21.3
TOTAL (A+B+C+D)	1100.3	4058.0	5158.3	1311.7 (25.4%)	1543.1	4819.7	6362.8	2328.3 (36.6%)	1775.6	5926.8	7702.4	3042.6 (39.5%)

Note : 1. Figures in brackets indicate the %age share of the Government.
2. Paid-up Capital of IBP Co. Ltd include 0.50 Crores as preference share Capital.

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 overdrafts and provision for gratuiry.

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 previos 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

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.
GAIL	: Gas Authority of India Ltd.
HPCL	: Hindustan Petroleum Corporation Limited.
HIL	: Hydrocarbons India Limited.
IBP Co. Ltd.	: IBP Co. Limited.
INDROL	: INDROL Lubricants & 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.
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.
NGL	: Natural Gas Liquid

LIGHT DISTILLATES: (including Gases): Gasolines, Naphtha, SBP Spirit, Solvent Oils, Hexane, Benzene, Toluene, L.P.G., Refinery Gas and W.D. Mixtures.

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

(iii) PREFIXES USED IN METRIC TABLES

Prefix	: Meaning	
Milli	: One Thousandth	(1/1000 = .001).
Centi	: One Hundredth	(1/100 = .01).
Deci	: One Tenth	(1/10 = .1).
Unit	: One	(1).
Deka	: Ten	(10).
Hecto	: One Hundred	(100).
Kilo	: One Thousand	(1,000).
Mega	: One Million	(1000,000).

(iv) Others

API	: American Petroleum Institute.
AFRA	: Average Freight Rate Assessment.
CIF	: Cost, Insurance and Freight.
Crores	: 10 million/100 Lakhs.
DWT	: Dead Weight Tonnage.
FOB	: Free on Board.
GP	: General Purpose (16, 500-24, 999 dwt).
LV	: Low Viscosity.
HV	: High Viscosity.
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).
LVI	: Medium Range (25,000-49, 999 dwt).
MT	: Metric Ton.
MTPA	: Million Tonnes Per Annum.
MV	: Medium Viscosity.
MVI	: Medium Viscosity Index.
R&D	: Research & Development.
ULCC	: Ultra Large Crude Carrier (320,000-549,999 dwt).
VLCC	: Very Large Crude Carrier (160,000 dwt and more).
NA	: Not available.
-	: Nil.
Neg	: Negligible.
Billion	: 10/9 or one thousand Million.
Trillion	: 10/12 or one million million.
P	: Provisional.

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.

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).

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 pounds 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 Litres.
	=	42 American Gallons.
	=	34.9726 Imperial Gallons.
	=	5.6146 Cubic Feet.
	=	0.158987 Cubic Metre (m3).
1 Cubic Metre	=	1000 Litres.
	=	264.172 American Gallons.
	=	219.969 Imperial Gallons.
	=	35.3147 Cubic Feet.
	=	6.28981 American Barrels.
1 Kilolitre	=	1000 Cubic Decimetres (dm3) or Litres.
	=	6.28981 American Barrels.
1 Gross Ton (Shipping)	=	2.83168 Cubic Metres or 100 cubic. Feet of Permanently Enclosed Space.
1 Ton of Liquified Methane	=	Approx. 16 Barrels.
	=	Approx. 1400 Cubic Metres of Natural Gas Depending Upon Methane Content.

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 Petroleum Gas	1785	0.5602	11.23
Superior Kerosene	1285	0.7782	8.08
Inferior Kerosene	1265	0.7905	7.96
Power Kerosene (Vap. Oil)	1251	0.7994	7.87
High Speed Diesel	1210	0.8263	7.61
Light Diesel Oil	1172	0.8532	7.37
Malarial Oil	1172	0.8532	7.37
Special Larvicides	1175	0.8511	7.39
Furnace Oil	1071	0.9337	6.74
Tea Drier Oil	1071	0.9337	6.74
Hot Heavy Stock/LSHS	1017	0.9833	6.40
Refinery Gas/Ref. Boiler Fuel	1071	0.9337	6.74
Lubricants/Greases	1114	0.8977	7.01
Jute Batching Oil/ Wash Oils	1167	0.8569	7.34
Bitumen	1002	0.9980	6.30
SBP/Alcohol Mixture	1414	0.7072	8.89
Methanol Mixture	1106	0.9042	6.96
Carbon Black Feed Stock	1134	0.8818	7.13
Carburetter Testing Fluid	1388	0.7205	8.73
Benzene	1131	0.8812	7.05
Toluene	1148	0.8711	7.19
Demineralised Water	1002	0.9930	6.30
S. Glass Kleanzit	1003	0.9970	6.31
Miscellaneous	1114	0.8977	7.01
Wax/P.Cock/Chemicals	1114	0.8977	7.01
Aromex	1221	0.8190	7.68
Linear Alkyl Benzen Feed Stock	1205	0.8239	7.58

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
Avitation Spirit	1.3699	301.332	361.873	8.613
Natural Gasoline	1.3514	297.265	356.990	8.496
Motor Spirit	1.3514	297.265	356.990	8.496
Kerosene	1.2346	271.569	326.137	7.764
Jet Fuel	1.2346	271.569	326.137	7.764
Distillate Fuel Oil	1.1494	252.415	293.522	6.988
Lubricating Oil	1.1111	252.845	303.647	7.231
Fuel Oil N.O.S.	1.0939	241.727	290.301	6.911
Residuel Fuel Oils	1.0526	231.551	278.071	6.623
Asphalt and Bitumen	0.9615	211.515	254.013	6.050
Crude Oil	1.1856	260.910	313.340	7.441

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

Product	Conversion Factor
1. 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

PETROLEUM SPECIFIC GRAVITIES.

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

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

PRODUCT SPECIFIC GRAVITY RANGES

PRODUCTS	Specific Gravity	Barrels per tonne
Crude Oils	0.80-0.97	8.0-6.6
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 EQUIVALENT 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

Average International Calorific Value of different Fuels

	Kcals/Kg. Mcals/Tonne	BTUS/Kg.
1.	2.	3.
A. Oil Equivalence:		
Average Crude Oil/NGLS(a)	10,300	40,870
United Nations	10,175	40,375
B. Oils Products		
NGL	12,135	48,150
Motor Gasoline	11,135	44,190
Kerosene	10,638	42,210
Jet Fuel	11,790	46,790
Gas Oil	10,790	42,820
Fuel Oil	10,440	41,430
C. Coal 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 conversion factor may have to be used.

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

(c) Calorific value of 1 kwh of electricity.

(d) Represents 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.

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

Products	Hard Coal	Lignite Brown Coal	Fuel wood
1.	2.	3.	4.
A. PRIMARY SOLIDS			
1. Standard Factor	1.000	0.385	0.333
2. India	0.714	0.330	
B. OTHERS			Hydrocarbons
1. Petroleum Crude			1.454
2. Natural Gas Liquids (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 kW			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.

COAL REPLACEMENT AND EQUIVALENTS OF DIFFERENT FUELS

Fuels	Original Unit	Unit coal Equivalent 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 Equivalent

mtcr = Million Tonnes of Coal Replacement.

Approximate Calorific Equivalents
(Oil = [illegible]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 teracalories	1.00
2. Solid Fuels	
1 million tonnes of coal	0.67
1 million tonnes of lignite approximates to	0.33
3. Natural Gas	
1 thousand million cub. metres (BCM)	0.90
4. Town Gas	
1 thousand million cub. metres (BCM)	0.42
5. Electricity	
12 thousand million KWH	0.86

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

EXCHANGE 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	3.30852	1946-47	n.a.
1947	3.30852	3.30852	3.30852	3.30852	3.30852	1947-48	3.30852
1948	3.30852	3.30852	3.30852	3.30852	3.30852	1948-49	3.30852
1949	3.30852	3.30852	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

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.
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	9.455	1982-83	9.62850
1983	9.888	10.008	10.148	10.352	10.099	1983-84	10.31225
1984	10.741	10.972	11.579	12.158	11.363	1984-85	11.88675
1985	12.838	12.498	12.048	12.091	12.369	1985-86	12.23725
1986	12.312	12.500	12.592	13.039	12.611	1986-87	12.78650
1987	13.015	12.781	13.049	13.000	12.962	1987-88	12.99000
1988	13.043	13.429	14.276	14.920	13.917	1988-89	14.47650

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.