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NEW DELHI

PREFACE

Petroleum and chemical industries occupy a position of strategic importance in the overall industrial and economic development of the country and as such there has been a growing demand for reliable and upto-date economic and statistical data dealing with various aspects of these industries, specially to meet the requirements of their planning and administration. It is in this context that since 1967, Economics & Statistics Division of this Ministry has been bringing out this folder containing economic/statistical data pertaining to petroleum and chemical industries in India and abroad.

The publication is divided into four parts. Its Part-I and Part-II respectively deal with Petroleum and Fertiliser statistics; whereas Part-III covers statistics relating to other chemical industries and relevant IV Plan statistics have been provided in Part-IV of the publication.

Earlier issues of the publication have been acknowledged as extremely useful by all concerned in India and abroad. Data contained in this folder are expected to be of interest and value not only to various Ministries of the Government of India, State Governments and the management of various petroleum & chemical industries, but also to the Universities, research organisations and research scholars etc.

Staff of E&S Division has done valuable work in the collection, tabulation and editing of the data brought-out in this publication. We shall be grateful for suggestions for the improvement of the publication in general or for elimination of any error in the data.

May, 1972.

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PETROLEUM
STATISTICS

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I. CHRONOLOGY OF SOME IMPORTANT EVENTS
IN THE PETROLEUM INDUSTRY IN INDIA

EXPLORATION & PRODUCTION

(i) ASSAM OIL COMPANY

- 1825: The earliest recorded reference of oil in Assam is found in the diaries of early explorers who penetrated into the thick jungles of Upper Assam.
- 1866: Mr. Goodenough, a member of the Calcutta firm of Mckilliop Steward & Co. took notice of oil shows and in November secured rights over a large tract of land on both sides of the Buri Dihing river and came to Upper Assam to begin systematic drilling.
- 1867: On the 26th March Mr. Goodenough struck oil at Makum near Margherita at a depth of 118 ft. (36 meters).
- 1889: In September, the Assam Railways and Trading Company began drilling for oil near their station at Borbhil and in 1890 discovered oil at a depth of 662 ft. (202 meters). This field came to be known as Digboi.
- 1899: Drilling for oil in Digboi proved to be successful and the A.R. & T. Company formed a new company to look after their oil interests which was named as the Assam Oil Company Ltd. The Burmah Oil Company, who were exploring for oil in Burma and in Assam since 1915 acquired the oil interests of the Budderpore Oil Company. This Company produced small quantities of oil from Budarpur in the Surma Valley of Assam. Maximum production was one thousand barrels per day in 1920 which dropped to 170 barrels per day (23.6 tonnes per day) in 1931. The field was abandoned in 1933.
- 1921: The Burmah Oil Company took over control of the Assam Oil Company which was then producing about 400 barrels per day (55.0 tonnes per day) of crude oil. It brought in much needed technical knowhow, financial backing and up-to-date equipment. As a result the production improved to 1000 barrels per day (138.9 tonnes per day) by 1925 and to 3000 barrels per day (416.7 tonnes per day) by 1930.
- 1938: The Burmah Oil Company carried out seismic surveys at Nahorkatiya in Upper Assam to locate the best suitable site for drilling.
- 1952: As a result of the extensive geophysical surveys over the alluvial area of the Brahmaputra Valley a site for drilling was selected on the banks of the Buri Dihing river at Nahorkatiya in upper Assam.

On the 26th of May, Well No. 1 at Nahorkatiya was spudded in, and this well reached a depth of 3573 meters in 1953 and was successful in discovering oil.

- 1956: After further geophysical surveys carried out by the Assam Oil Company further down the Valley, a site for drilling was selected near Moranhat in Sibsagar District. The well was drilled to 4190 meters which struck oil.
- 1966: A programme of formation fracturing was carried out.
- 1969: In December, drilling of wells was again started in Digboi oil-field.
- 1970: Secondary recovery techniques such as gas injection and water flooding were being used in the Digboi oilfield while the feasibility to use thermal recovery methods was being studied.
- 1971: AOC resumed drilling & completed 14 wells in Digboi oilfield.

(ii) OIL INDIA LIMITED

- 1959: In February Oil India was in-corporated (as Oil India Private Limited) as a rupee company with 66-2/3 per cent Burmah Oil Company participation and 33-1/3 per cent Government of India.
- 1961: On 27th July, the Second Supplemental Agreement was signed by which Oil India Limited, became a joint venture, in equal partnership, between the Government of India and the Burmah Oil Company.
- 1962: On 1st January, Oil India Limited set up a separate organisation with headquarters at Duliajan.
On 7th March, the 16 inch sector of oil India's pipeline system was commissioned.
On 26th April, pumping of regular supplies of crude oil to the Gauhati Refinery started.
On 13th October, a dual completion well, first of its kind in India, was completed at Nahorkatiya.
- 1963: On 8th March, Seismic Surveys in the Dum Duma Petroleum Exploration Licence area were commenced.

In February, the 14 inch sec-tor of Oil India's pipeline from Gauhati to Barauni was operation-ally rea-dy.

In April, Crude Oil conditioning plant, first of its kind in the world , was commissioned at Duliajan.

On 14th February, the first deviated well was drilled by the Company.

The first two exploratory wells in the Dum Duma petroleum exploration licence area, were spudded in.

1964: On 30th June, crude oil deliveries to the Bara-uni Refinery, Bihar, Commenced.

1965: Gas supplies to the ther-mal plant of the Assam State Electricity Board were started.

Pressure maintenance operations commenced with crestal gas injection into the gascap of a major oil pool in Nahorkatiya.

1966: Water injection was sta-rted in Nahorkatiya for pressure maintenance.

Digital computers were pressed into service for solving problems connected with under-ground reservoirs.

1967: All arrangements for starting drilling operations in NEFA were finalised.

1968: Drilling started in Ningru Petroleum Exploration Licence areas in NEFA.

The first Indian Petroleum Conference was inaugurated and deliberated at Duliajan.

1969: Kusijan well 2 was completed as an oil producer in Dum Duma Area.

Experiments commenced on sub-surface disposal of produced formation water.

1970: Kusijan well 3 was completed as a gas producer in Dum Duma. Regular oil production commenced from Kusijan well 2.

Gas Injection for pressure maintenance was started at Moran field.

One of the steam drilling outfits commissioned in 1953, crossed its million feet mark of drilling.

1971: Reservoir Enginee-ring capability of the organi-sation was increased by the acquirement of a 3 Dimension 3 phase reservoir simulation computer programme from McCord Associates Inc. of USA.

Installation of 29 gas compressors under the Integrated Gas Scheme was completed at Nahorkatiya and Moran oilfields.

Oil was struck at Jorajan in the Dum Duma Mining Lease area.

In February, the number of wells drilled in the Mining Leases and PEL areas crossed the 300 mark and the cumulative oil production since the discovery of the Oil fields exceeded 20 million tonnes. By the end of the year the cumulative oil production amounted to nearly 23 million tonnes.

The Memorandum of Association of the Company was amended to enable it to undertake extraction and sale of Liquefied Petroleum Gas (LPG) from natural gas produced from its fields.

(iii) OIL & NATURAL GAS COMMISSION

1947-

1953: Reconnaissance and detailed geological Mapping were done in parts of Punjab, Himachal Pradesh, Kutch, Andaman and Nicobar Islands and Cambay by the Geological Survey of India.

1955: A delegation visited the USSR and other countries to study the oil industry.

In October, the Oil & Natural Gas Directorate was formed under the Ministry of Natural Resources and Scientific Research.

In December, Soviet Oil experts in exploration arrived in India.

1956: A number of experts visited India which included Dr. Levorsen, an American petroleum expert and Dr. Bentz, a West German petroleum expert.

During April and May airborne magnetic surveys of parts of Western Rajasthan and the Indo-Gangetic Plains were made by the Canadian experts under the Colombo plan.

In August, the Oil & Natural Gas Commission was set up.

1957: In April, Jwalamukhi well No. I was spudded in.

1958: In May, gas was struck at Jwalamukhi.

In July, Cambay well No. I was spudded in.

In September, Oil was struck in Cambay.

1959: In October, ONGC attained the status of a statutory body.

Disangmukh well No. I in Sibsagar was spudded in.

1960: In February, Ankleshwar well No.I was spudded in.
In May, Oil was struck at Ankleshwar and drilling was commenced on the Rudrasagar structure.

1961: In January, oil was struck at Rudrasagar well No.I.
In April, the first well on the Kalol structure was spudded in.

In June oil was struck in Kalol.

In September, trial production of crude oil from the Ankleshwar oilfield started.

An agreement was signed with the French Petroleum Institute for exploration in Rajasthan.

1962: In February, an agreement was signed with the Soviet Union for the preparation of project reports and working drawing for the Gujarat Refinery.

The first special train of oil tank wagons left Ankleshwar for Bombay.

In June production from Ankleshwar oilfield was stepped up.

1963: In January, offshore seismic surveys started in the Gulf of Cambay.

The Ankleshwar crude oil production was progressively increased during the year.

In March drilling commenced on the Nawagam structure.

In July oil was struck in Nawagam and Sanand in Gujarat.

In June, a contract was concluded with the C.G.G. of France for carrying out seismic exploration in Jaisalmer.

In August, the first well on the Lakwa structure in Assam was spudded in.

In October, the E.N.I. who were drilling contractors to the ONGC, spudded its first well on the Raxaul structure in Bihar.

In December, a contract was concluded with HUDIS, a mining and industrial association of Yugoslavia for drilling wells in Assam.

1964: Oil despatches from Ankleshwar were progressively stepped up during the year.

The first well on the Teok structure in Assam was spudded in.

In February, a contract was entered into with a French Company, Forasol for carrying out structural drilling operations in Jaisalmer.

In March, ONGC completed drilling 200 wells.

In June, two contracts were signed for carrying out off-shore seismic surveys with the help of the specially equipped Soviet Ship Akademik Arkhangelskiy in the Gulf of Cambay and off the Madras coasts and other areas.

In September, the Soviet Ship started its operations.

In August, E.N.I. started drilling at Mohand in Utter Pradesh.

In October, a contract well was drilled at Janauri well No. 2 in the Punjab.

Production and supply of non-associated gas from Cambay to the Dhuwaran Thermal Power Station was commenced.

1965: In February, oil was struck at Lakwa in Assam by the Commission.

By March, the ONGC completed drilling of 300 wells.

In May drilling of the first well at Kathana structure in Gujarat commenced.

In August, Balh Well No. 1 was spudded in by E.N.I. on contract with ONGC.

In October, drilling commenced on the Baroach structure and Mehsana well No. 1. Oil was struck at Kathana well No. 1 in Gujarat.

In November, drilling commenced on the Surat, Jagadia and Jambusar structures in Gujarat.

1966: Traces of oil and gas were found in Karaikal well No. 1. During the first few months the first well on the Bakrol structure and Dholka structure in Gujarat was spudded in.

In August, the Bodra well in West Bengal was spudded in.

1967: In January, drilling at Nagapattinam in T. Nadu State was started and supplies of crude oil from the Kalol oil field in Gujarat was sent to the Gujarat Refinery.

In March, the first phase of trial production at Nawagam oilfield in Gujarat was inaugurated.

In May, "the Water Injection Scheme" for the Ankleshwar oil field in Gujarat started functioning.

In August, the ONGC completed drilling of 500 wells.

In September drilling on the Dikhumukh structure in Assam was started.

In November, the ONGC completed the drilling of one million meters and the daily rate of production from the Ankleshwar oil field was stepped up to 7600 tonnes and from the Kalol oil field to 150 tonnes.

1968: In January trial production of crude oil from Kosamba field in Gujarat, near Ankleshwar oil field was started and drilling was commenced on the Galeki structure in Assam.

In March, the National Iranian Oil Company, declared the oil find in the Rostam structure in the Persian Gulf as a commercial discovery, ONGC's share is one-sixth of the crude produced.

Drilling was started at Ratandur, North Kahl and Sobashan, in Gujarat.

In May oil was struck at Galeki, a new structure in Assam and trial production from Lakwa was started.

In June oil was struck in Kadi and Bakrol structures in Gujarat.

Drilling operation at Asjol and Palej, (new structures) in Gujarat and Tirupundi in Madras were started.

In July the 17.5 Kms. cross country crude oil pipeline of 12" diameter connecting the Lakwa oilfield of the Commission with the oil India Pipeline at Moran was commissioned and regular production from the Lakwa Oil Field was started.

The first indigenous seismic unit was commissioned and the Commission also designed and fabricated a seismic amplifier, with about 98 per cent indigenous components.

Trial production from the Kadi Oil Field in Gujarat started.

In August, the rate of production from the Kalol and Nawagam Oil Fields in Gujarat was stepped up.

Drilling operations at Sisva in Gujarat and Nagnijam in Assam were started.

Drilling operations at Naz-ira structure in Assam were started.

The ONGC completed the drilling of 600 wells.

In November, the trial production from the Kathana Oil Field in Gujarat was started, and drilling started at Haziar and Vaso, new structures in Gujarat State.

1969: In January, the first well at Becharaji Structure was spudded.

In February first well at Vasana, a new structure in Gujarat was spudded.

On 9th March, the 15 kms. Kalol-Sabarmati pipeline was commissioned.

In May the first well at the Valod structure in Gujarat was spudded in.

ONGC completed the drilling of 700 wells.

In June exploratory drilling on four new structures namely: Borholla, Duma, Tharad and Vaso-east in Gujarat was commenced.

In August, production from the Rostam field owned in partnership by NIOC, ENI, Phillips and ONGC in the Persian Gulf in Iran was commenced.

In November first well at the Mehsana city structure was spudded in.

The first of the seven blocks on which the platform for drilling India's first off-shore well would be based, was launched.

In December first exploratory well on the Kawa structure in Gujarat was spudded in.

1970: In January, three new structures i.e. 'Bagmara' in Assam, 'Mehmadabad' and 'Searu East' in Gujarat were spudded in.

In February, the first well on a new structure 'Balol' in Gujarat was spudded in.

On 14th March, the first well at the new structure 'Surinsar' in Jammu and Kashmir State was spudded in, by the Honourable Chief Minister of J & K. This will be the Asia's deepest well.

On 19th March, the first off-shore well in the shallow waters of the Gulf of Cambay (Aliabet Island) was spudded in, by the Honourable Prime Minister of India. This is the first venture of its kind in India.

Oil was struck at Borholla, a new structure in Assam.

In April, the first well on a new structure 'Dhinoj' Gujarat was spudded in.

ONGC completed the drilling of 800 wells.

In May, three new structures namely, 'Chidambaram' in the Cauvery Basin, and 'Baad', and 'Sinjiwada' in Gujarat were spudded in.

In June, the first well on a new structure 'Wataman' in Gujarat was spudded in.

In July three new structures namely, 'Amguri' in Assam and 'Dabka' and 'Varsoda' in Gujarat were spudded in.

In August, the first well on a new structure 'Santhol' in Gujarat was spudded in.

In October, gas was struck at Dabka, a new structure in Gujarat.

In November, the first well on the new structure 'Kanwara' in Gujarat was spudded in.

In December, the three new structures namely 'Deodar' and 'Baola' in Gujarat and 'Banmali' in Assam were spudded in.

1971: In January drilling started on a new structure Rakanpur in Gujarat. An agreement to supply associated gas from Kalol to M/s Mahendra Mills and M/s Navjivan Mills @ 13000 M³ and 12000 M³ per day respectively was also finalised during this month.

In February drilling was started on four new structures viz. Delvada, Daswara, Amliala and Chaklasi in Gujarat. Drilling of India's first off shore well was also completed during this instant.

Sophisticated Digital seismic equipment and data processing system was put into operation in West Bengal.

A Contract for procurement of a mobile Jack up type self elevating self propelled platform was signed.

In March drilling was started on two new structures viz. 'Kauka' in Gujarat and 'Saliyaman-glam' in Cauvery. The first off-shore well drilled at Aliabet, showed the presence of oil and an agreement to supply Gas to the IFFCO @ 750000 M³ per day was signed.

In April/May service contract with the OISA for drilling in Bombay area was signed.

On 12th May, 14" dia, 78 km. long Nawagam-Koyali sector of the Kalol-Nawagam-Koyali pipeline was commissioned. During the same month the rate of production of crude oil from Eastern Region was increased from 800 tonnes per day to 900 tonnes per day and an agreement for supply of associated gas from Kalol to M/s. Metro Woods and Engineering Works @ 1500 M³ per day was signed.

In June drilling was started at new structure 'Pandanallur' in Cauvery.

On 16th June supply of gas to Naharhabi Tea Estate from Lakwa field was commenced.

In July ONGC completed drilling of 900 deep wells since inception. Oil/gas was discovered in a new structure 'Amguri' in Assam. A high power committee headed by Shri K. D. Malviya, former Minister of Mines & Fuel was set up by Government of India to look into the functions and organisation of ONGC and suggest the ways and means to improve its functioning.

On 28th August 12 $\frac{3}{4}$ " dia, 49 km. long Kalol-Nawagam sector of the Kalol-Nawagam-Kayali pipeline was inaugurated.

In September drilling was started at a new structure Indrora in Gujarat and gas was discovered in a new structure Baola in Gujarat.

In November oil was discovered in the new structure Santhol in Gujarat.

In December oil was discovered in new structure Indrora in Gujarat and a new structure Kathumannar-Koil in Cauvery Basin, spudded in.

(iv) INDO- STANVAC OIL EXPLORATION PROJECT

1954: In April the Indo-STANVAC Oil Exploration project started exploration activities in partnership with the Government of India on a 75 : 25 basis covering a concession area of 10,000 sq. miles in West Bengal.

1959: The exploration project was abandoned after drilling 10 wells in the West Bengal basin all of which proved dry.

(B) REFINERY

(i) THE DIGBOI REFINERY, DIGBOI, ASSAM

1893: The Assam Railways and Trading Company erected a small refinery at Margherita, to refine the crude oil found at Makum and Digboi. This refinery was the first of its kind in the Indian Sub-Continent continued to be in operation for a few years and, had since changed its venue from Margherita to Digboi in its subsequent expansion and growth.

1900: The construction of a new Refinery at Digboi was started by the Assam Oil Company Ltd.

1901: Digboi Refinery went on stream.

1923: The entire refinery was rebuilt, and the refining capacity was also enlarged.

- 1926: Two 4" Product Pipelines were laid between Digboi and Tinsukia.
- 1932: An Edeleanu Plant - for giving Sulphur Dioxide treatment to Kerosine was installed and brought into commission.
A Dubbs plant for "Cracking" process was installed.
- 1934: Foster Wheeler Crude Oil Distillation Unit was installed.
- 1938: Bitumen plant was installed.
- 1940: Lummus - Crude Oil Distillation Unit was installed.
- 1950: A plant for fabrication of steel barrels was installed.
- 1953: Gasoline Extraction Plant was commissioned.
- 1954: Foster Wheeler, Lube Oil Distillation Unit was installed - which was the first of its kind to be installed in India.
Refinery was linked up with two pipe lines for the receipt of crude oil and gas from Nahorkatiya oilfield.
- 1956: A new 6" line for the pumping of white oils to Tinsukia was installed. One of the old 4" line was replaced by a new one.
- 1970: Improvements in process techniques were introduced for the out turn of better quality Lubricating oils.
- 1971: First phase of the project for the improvement in refrigeration capacity of wax treating plant and the rejuvenation of Edeleanu plant for increasing production of Superior Kerosine were completed.

(ii) BURMAH SHELL REFINERIES LTD., TROMBAY:

- 1951: In the end of the year 1951 the Refinery agreement was signed.
- 1953: In February site development was commenced.
- 1955: On 30th January BSR came on stream and processed 1.8 million metric tonnes of crude in the year.
In June Bitumen production was commenced.

- 1956: In January Liquefied Petroleum Gas manufacture was commenced.
In June MT-80 production was commenced.
w.e.f. 1.10.56 BSR surrendered duty protection on motor gasoline.
- 1957: In February Aviation Turbine Fuel production was started.
In September Platforming Unit was commissioned.
- 1959: w.e.f. 1.7.1959 BSR surrendered duty protection on High Speed Diesel, Light Diesel Oil, Furnace Oil and Bitumen.
- 1961: From February regular production of Jute Batching Oil was commenced.
- 1962: BSR started processing of Ankleshwar crude together with Iranian Light crude.
- 1963: BSR processed 3.75 million tonnes of crude during the year.
MT-80 Sub-zero and Inferior Kerosine were also added to the range of products.
- 1965: In March SBP unit was commissioned to produce SBP 55/115.
In August Gas supply to FCI was commenced.
In September 93 R motor spirit was manufactured for the first time.
- 1966: Annual crude throughput crossed the 4 million tonnes mark (4.01 m. mt.).
- 1967: From March production of Avgas 100/130 was started.
In August supply of chemical feedstock grade naphtha to NOCIL was commenced.
In November supply of Hot Heavy stock by pipeline to Tata Power Station was commenced.
- 1970: Total net foreign exchange saved from the start up in 1955 crossed the 200 crore mark (203 crores by end 1970). Earned Rs. 28 crores through exports from start up date.

(iii) ESSO STANDARD REFINING COMPANY OF INDIA LTD.

- 1951: In November, an agreement was signed between the Government of India and the Standard Vacuum Oil Company to set up an oil refinery at Trombay, Bombay.
- 1952: In July, the Standard Vacuum Refining Company of India Ltd. was incorporated.
- 1954: On 29th July, the Stanvac refinery went on stream.
- 1956: Stanvac exported Motor Gasoline.
- 1957: The duty protection on Motor Gasoline was given up by the company. Stanvac started HGS fuel supplies to the adjoining Tata Trombay Thermal Power Station.
- 1958: Stanvac started manufacturing LPG and JBO.
- 1959: Stanvac started manufacturing Asphalt and cooperated in setting up the Standard Barrels manufacturing factory which started supplying asphalt drums to refinery.
- 1960: In September, Stanvac started exporting Indian expertise and 4 employees were sent to Philippines as set up Advisers to new refinery. In November, duty protection on other petroleum products was also surrendered.
- 1961: Stanvac exported Asphalt.
- 1962: In April Corporate name was changed to Esso Standard Refining Co. of India Ltd. On 16th November, processing of indigenous Ankleshwar crude was commenced. Esso Started manufacturing for the first time in India SBP Spirit and Hexane.
- 1964: Esso started export of Naphtha.
- 1965: Esso started manufacturing - for first time in India - FDA grade JBO Mineral Turpentine. Esso started supplying raw material naphtha - to enable starting of new Trombay Fertilizer Plant of FCL. Lube Refinery Agreement was signed between Esso and the Government of India- on Sep., 15th.
- 1966: Esso started raw material naphtha feedstock supplies to the new petrochemical plant of Carbide Chemical Company.

- 1967: Esso started manufacturing Industrial Asphalts.
the
1968: Esso started manufacturing - for/first time in India - speciality products (CS-330 and Petroleum Ether)- to substitute imports.
1969: Esso started supplying feedstocks to the new Lube India Ltd. refinery.
the
Esso started manufacture - for/first time in India - of Propane. To date, Esso is the only company manufacturing propane.
ESRC was completely Indianized in October - after departure of the last expatriate.

(iv) CALTEX OIL REFINING (INDIA) LTD.
VISAKHAPATNAM.

- 1953: In March, an agreement was reached between the Government of India and Caltex (India) Ltd. to establish a refinery on the East Coast of Vizag.
1955: In February, the Caltex Oil Refining (India) Ltd. was incorporated.
1957: In April, the Caltex Refinery went on stream at Visakhapatnam. Exports of Mogas and Fuel Oil were undertaken in the same year.
1959: In October, the duty protection on Motor Gasoline was surrendered by the Company.
1963: In April, duty protection on other products was surrendered.
In May, manufacturing of LPG commenced.
1964: Caltex Refinery started export of Naphtha.
1969: Caltex Refinery exported Asphalt.

(V) INDIAN OIL CORPORATION (Refinery Division)

(a) BARAUNI REFINERY, BARAUNI, BIHAR.

- 1961: In June, a contract was signed with M/s. Tiajpromexport Moscow for the design and supply of equipment and the supervision, of erection and operation of the Barauni Refinery.
1964: In July, the first unit of the Barauni Refinery went on stream.
1966: In February, the second stage was commissioned.

- 1967: In November, the third stage comprising of Lube Oil Complex was completed.
- 1969: On 21st January, the third million tonnes unit for the expansion of Refinery Capacity from 2 to 3 million tonnes was commissioned. Construction work for the coke calcination plant started.
- 1971: In June Govt. approval for revamping of Barauni Refinery for processing of imported crude and expansion of refinery capacity to 3.4 million tonnes was obtained.
- In November the erection of coke calcination plant was completed and test review was conducted.

(b) GAUHATI REFINERY, GAUHATI, ASSAM.

- 1962: On 1st January, the Gauhati refinery went on stream.
- 1964: In October, Gauhati-Siliguri pipeline was commissioned.
- 1969: In November, production of ATF was commenced.
- 1971: In March, production of LPG was started.

(c) GUJARAT REFINERY, JAWAHAR NAGAR, GUJARAT

- 1963: The technical report on setting up of the Gujarat Refinery was accepted and an agreement for supply of equipment from the USSR was signed.
- 1965: In October, the first one million tonne unit was commissioned.
- 1966: In May, the second million tonne unit was commissioned.
- 1967: On 28th September, the third million tonne unit for the expansion of Refinery capacity from 2 to 3 million tonne was commissioned.
- 1968: On the 17th December, the Udex Plant was commissioned at the Gujarat Refinery for the extraction of Benzene and Toluene from reformed Naphtha.
- 1969: In July, a Pilot plant was set up and commissioned at the Gujarat Refinery by the IIP to conduct investigations for the extraction of protein from petroleum.

(d) HALDIA REFINERY PROJECT.

- 1967: In September, the decision to set up a refinery with French & Rumanian collaboration under the charge of Indian Oil Corporation was taken up by Government of India.
- 1969: Contracts for design, supplies and rendering of technical assistance were executed separately with M/s Technip/Ensa of France and M/s. Industrial export of Rumania.
- 1970: In April, production of Sulphur commissioned.

(VI) COCHIN REFINERY, COCHIN, KERALA

- 1963: On 27th April, the Formation Agreement was entered into, between the Government of India, Phillips Petroleum Company of USA and Duncan Bros. Co. Ltd., Calcutta for setting up a Refinery in the south.
- On 6th September, Cochin Refinery Ltd. was registered.
- 1966: On 23rd September, the refinery was inaugurated.
- 1968: The Formation Agreement of 27th April, 1963 was modified and expansion of the refinery capacity was agreed to.
- 1970: On 24th July, an agreement was entered into between Cochin Refineries Ltd. and Engineers India Ltd. for expansion of the Refinery from its present capacity.

(VII) MADRAS REFINERIES LTD., TAMIL NADU.

- 1965: In December, The Madras Refineries Ltd. was incorporated as a joint venture of the Government of India, The National Iranian Oil Company and AMOCO.
- 1967: In April, the construction and erection of the refinery was started.
- 1969: In April, the refinery was commissioned.
- In June, the first batch of products were delivered to IOC.
- In September, the refinery was formally inaugurated by the President of India.
- 1971: Since February 1, the company has no expatriate employee. In March/April first turn around of all 13 process units was completed in 16 days.
- For the first time Naphtha was exported.

(C) MARKETING

(i) BURMAH-SHELL

- 1903: The Asiatic Petroleum Company entered the Indian Market.
- 1921: The Burmah Oil Company entered the Indian Market.
- 1928: Burmah-Shell came into existence on 6th January.
- 1958: Burmah-Shell started the use of special tank-wagons for transportation of Bitumen.
In May, Burmah-Shell chartered Indian Flag Vessel "Desh Sewak".
- 1965: Burmah-Shell started use of special tank wagons for transportation of LPG.

(ii) ESSO EASTERN INC.

- 1882: Esso's predecessor company in India, Standard Oil Company of New York, commenced supply of Kerosine.
- 1931: Socony Vacuum Oil Company was formed with the merger of Standard Oil Company of New York and Vacuum Oil Company.
- 1933: On 7th September, Standard Vacuum Oil Company started operations in India.
- 1958: Marketing of LPG for domestic use was started in Bombay.
- 1962: On April 1, Esso came to India. Standard Vacuum Oil Company was reorganized and named Esso Standard Eastern Inc.- which is solely owned by the Standard Oil Company, New Jersey.
- 1965: On 15th September, an agreement was signed between the Government of India and Esso Standard Eastern on a 50:50 partnership for the construction of a jointly owned lubricating base oil refinery at Bombay.
- 1970: On February 11, Lube India Ltd. was formally commenced for producing lubricating oil base stocks from feed stock supplied by ESRC.
- 1971: On Jan., 1, corporate name was changed to Esso Eastern Inc.

(iii) CALTEX INDIA LTD.

- 1937: Caltex started its operations in India by taking over the business of Texas company (India) Ltd.
- 1959: In October, Caltex chartered an Indian flag tanker 'Desh Deep' for offshore movement of its products.
- 1964: In April, Caltex chartered the Indian flag tanker "Desh Bandhu" for crude service.

(iv) INDIANOIL CORPORATION LTD.
(Marketing Division)

- 1959: On the 30th of June, the Indian Oil Company Ltd. was formed. Agreements were signed with Sojusnefteexport, the Soviet Oil Export Organisation for importing Kerosine and HSD.
- 1960: During July, Indian Oil received its first import tanker from USSR at their Bombay Installation.
- 1961: During October, Indian Oil entered the Retail Market by commissioning its first Retail outlet at Cochin.
- 1962: During February, Indian Oil made its first shipment of petroleum products to Bhutan.
During May, Indian Oil commissioned its first Inland Installation at Siliguri to receive products directly from the Gauhati Refinery by product pipeline.
On 16th November, an agreement was signed with Mobil Petroleum Company Incorporated, New York forming a 50:50 venture to set up a blending plant for Lubes.
- 1963: On 25th March, The Indian Oil Blending Ltd., was formed.
During April, Indian Oil made its first shipment of petroleum products to Nepal.
- 1964: On 1st September, the Indian Oil Corporation was formed with the merger of the Indian Refineries Ltd., with the Indian Oil Company.
During October, Indian Oil entered the Aviation Market by commencing supplies to Defence.
On 29th October, the Blending Plants at Bombay and Calcutta were inaugurated.

1965: During May, Indian Oil started effecting bunker fuel oil supplies to the Indian Navy.

During November, Indian Oil entered the Civil Aviation field by supplying its first civil customer.

On 22nd October, Indian Oil introduced LPG from Barauni Refinery under the trade name of INDANE by entering the Calcutta Market.

1967: On 6th January, Indian Oil Corporation made an entry into the export market by shipping Motor Gasoline to Thailand.

During July, Indian Oil as part of its rehabilitation programme for ex-servicemen, offered its first INDANE distributorship.

1968: On 6th May, ^{the} for first time IOC exported Bitumen to Ceylon.

During September, Indian Oil (MD) established its first LPG bottling plant at Shakurbasti.

During October, Indian Oil loaded its first tanker at the new port of Haldia.

1969: On 30th April, LPG was introduced in Assam by IOC.

On 25th August, IOC began marketing LPG in Southern India.

Indian Oil entered Bulk LPG marketing for industrial use by making its first supply to an Industrial consumer at Ernakulam.

In August, Indian Oil commissioned its first LDO barrel outlet at an interior location, namely Mehmedabad, for ensuring adequate and timely supplies of fuel at controlled prices, for Diesel engines for agricultural operation. As at end of 1971, IOC increased this facility to 280 barrel outlets and 2 pump outlets spread all over the country.

Two new products viz. Benzene and Toluene were added to the Marketing list of POL products of IOC.

On 24th October, a Subsidiary Company of IOC Ltd., under the name of "Indian Oil International Ltd." was incorporated at New Delhi which will be trading in Nepal also.

Indian Oil Corporation became the largest marketing organisation in the petroleum industry by handling more than 50 per cent of the total petroleum trade of the country.

In July, Marketing of products from Madras Refinery were commenced by IOC.

1970: On 12th January, IOC acquired majority interest in IBP by purchasing 60% equity.

On 4th April, Indian Oil's new blending plant at Madras was commissioned with all modern facilities to produce quality lubricants for the entire Industry demand in the Southern Region. This is the largest blending plant in the country (140,000 tonnes/year capacity) and is entirely owned by Indian Oil.

On 5th July, the first Retail outlet was commissioned at Coimbatore under the Corporation's scheme of "Employment Unemployment Graduate".

As part of its programme of offering employment opportunities for unemployed graduates, Indian Oil commissioned its first INDANE dealership under this scheme at Chingelput, Tamil Na-du, during October.

1971: During April, Indian Oil commissioned the largest Refueller made in the country (45 KLs. capacity) for refuelling Jumbo Jets (Boeing 747s).

Lube Oil Imports on an industry basis were channelised exclusively through Indian Oil.

Indian Oil commenced marketing of petroleum products at Port Blair by establishing a bulk storage installation for receiving products coastally by tankers. This would facilitate a reduction in consumer price by about 25% following cheaper transportation costs on tanker movements vis-a-vis earlier practice of moving in barrels.

II. GROWTH OF PETROLEUM INDUSTRY IN INDIA

-21-

Year	1	2	3	4	5	6	7	8
	Consumption (000 tonnes)	Production of crude oil (000 tonnes)	Refineries crude charged (000 tonnes)	Imports (Rs. million)	Crude Products Total	Exports (Rs. million)		

1950	3,319	259	251	Nil	581.4	518.4	22.5	
1955	4,817	347	3,335	243.1	605.3	848.4	35.5	
1960	7,784	454	6,091	405.7	410.2	815.9	46.1	
1961	8,394	513	6,440	393.1	476.1	869.2	37.6	
1962	9,521	1,078	7,003	387.3	514.6	901.9	38.5	
1963	10,347	1,652	8,138	417.8	548.1	965.9	55.0	
1964	11,361	2,212	8,932	425.9	537.8	963.7	48.4	
1965	12,279	3,022	9,754	403.8	447.3	851.1	39.2	
1966	12,968	4,647	12,031	561.0	520.2	1081.2	87.6	
1967	14,039	5,667	14,430	795.9	390.1	1186.0	142.3	
1968	15,829	5,853	16,096	938.8	467.4	1346.2	82.5	
1969	17,336	6,723	17,495	940.0	382.4	1322.4	107.7	
1970	18,734	6,809	18,459	1023.6	305.3	1328.9	57.2	
1971	20,640	7,105	19,588	1398.8	434.9	1833.7	25.5	

III. EXPLORATION AND PRODUCTION

Reserves of Crude Oil & Natural Gas[@]

Year	GUJARAT		6 ASSAM		TOTAL	
	Crude oil in (mn. tonnes)	Natural Gas in (1000' mn. Cu. Metres)	Crude oil in (mn. tonnes)	Natural gas in (1000' mn. Cu. Metres)	Crude oil in (mn. tonnes)	Natural gas in (1000' mn. Cu. Metres)
1966	62.73	23.09	90.27	40.06	153.00	63.15
1967	65.88	24.65	88.96	42.60	154.84	67.25
1968	64.92	21.80	76.08	41.54	141.00	63.34
1969	62.02	16.78	69.27	42.46	131.29	59.24
1970	59.70	23.50	70.46	42.77	130.16	66.27

@ : Proved and indicated balance recoverable reserves.

ONGC : Figures for 1st October of each year.

OIL : " " " January " "

AOC : " " 31st March " "

NUMBER OF DEEP DRILLING RIGS IN THE COUNTRY

As on 31st Dec., of	ONGC	OIL	AOC	TOTAL
1	2	3	4	5
1960	10	4	-	14
1961	28	4	-	32
1962	31	4	-	35
1963	43	4	-	47
1964	43	4	-	47
1965	46	4	-	50
1966	50	4	-	54
1967	50	4	-	54
1968	50	4	-	54
1969	50	4	1	55
1970	50	4	1	55
1971	50	4	1	55

STATUS OF WELLS

Company/Year	Oil	Gas	Dry	Under test	Injec- Others Total
					*

(Number of Wells)

I. Oil India Ltd.

1967	197	10	24	28	3	-	262
1968	206	11	28	25	3	-	273
1969	215	12	28	22	7	-	284
1970	224	13	29	23	9	-	298
1971	231	15	31	23	13	-	313

II. Oil & Natural Gas Commission

1967	265	44	115	85	18	-	527
1968	345	52	153	79	18	-	647
1969	430	63	182	68	18	-	761
1970	478	66	214	83	21	-	862
1971	504	70	252	82	22	-	930

III. Assam Oil Company

1967	379	8	-	-	8	592	987
1968	373	8	-	-	8	598	987
1969	380	9	-	-	10	588	987
1970	377	7	-	-	8	606	998
1971	381	7	-	-	4	609	1001

TOTAL (I + II + III)

1967	841	62	139	113	29	592	1776
1968	924	71	181	104	29	598	1907
1969	1025	84	210	90	35	588	2032
1970	1079	86	243	106	38	606	2158
1971	1116	92	283	105	39	609	2244

@ As in the end of each year.

* Includes abandoned and shut down wells.

COMPANY-WISE PRODUCTION OF CRUDE OIL IN INDIA

('000 ' tonnes)

Year AOC OIL ONGC Total Cumulative

1948	255	-	-	255	255
1949	258	-	-	258	513
1950	259	-	-	259	772
1951	269	-	-	269	1041
1952	263	-	-	263	1304
1953	269	3	-	272	1576
1954	278	30	-	308	1884
1955	272	75	-	347	2231
1956	307	89	-	396	2627
1957	277	163	-	440	3067
1958	214	226	-	440	3507
1959	202	248	-	450	3957
1960	179	275	-	454	4411
1961	184	319	10	513	4924
1962	188	556	334	1078	6902
1963	184	805	663	1652	7654
1964	170	1274	768	2212	9866
1965	158	1742	1122	3022	12888
1966	149	2143	2355	4647	17535
1967	134	2752	2781	5667	23202
1968	117	2771	2965	5853	29055
1969	112	3074	3537	6723	35778
1970	107	3070	3632	6809	42587
1971	98	3146	3941	7185	49772

Growth:

I Plan (1951-56) 6.0
 II Plan (1956-61) 5.5
 III Plan (1961-66) 46.1
 (1966-68) 14.1
 (1969-71) 4.2

PRODUCTION AND STATE-WISE UTILIZATION OF NATURAL GAS IN INDIA

Year	Production	UTILIZATION (Million Cu. Meters)									
		A S S A M				GUJARAT (ONGC)					
		*A.O.C.	*OIL	OTHERS @	TOTAL	U.P.H.	D.P.H.	GSFC & BI	OTHERS	TOTAL	GRAND TOTAL
1	2	3	4	5	6	7	8	9	10	11	12
1961	171.88	153.92	13.66	3.28	170.86	-	-	-	-	-	170.86
1962	209.64	165.04	17.00	4.93	187.05	-	-	-	-	-	187.05
1963	240.90	142.81	23.23	6.03	172.07	-	-	-	-	-	172.07
1964	430.71	141.20	30.04	10.13	181.37	-	0.65	-	-	0.65	182.02
1965	736.63	135.46	41.38	10.95	187.79	9.83	127.02	-	-	136.85	324.64
1966	803.16	145.31	64.19	46.09	255.59	65.79	51.21	-	-	117.00	372.59
1967	1221.50	139.94	71.40	51.24	262.58	102.08	52.48	48.36	-	202.92	465.50
1968	1316.71	146.19	66.03	104.89	317.11	106.55	69.88	110.94	-	287.37	604.48
1969	1383.55	143.50	66.86	157.23	367.59	102.37	108.04	151.83	-	362.24	729.83
1970	1424.37	133.99	54.77	171.29	360.05	84.69	57.82	173.89	-	316.40	676.45
1971	1509.00	123.66	70.25	181.06	374.97	92.41	88.09	184.31	17.52	379.07	754.04

U.P.H. = Uttaran Power House

D.P.H. = Dhuwaran Power House

GSFC = Gujarat State Fertilizer Co.

BI = Baroda Industries

* = AOC & OIL have been utilizing gas for field operations.

@ = Includes Assam Gas Company.

STATE-WISE WELLS COMPLETED AND METERAGE
DRILLED BY THE O.N.G.C. AND O.I.L.

State	1967-68		1968-69		1969-70		1970-71		1971-72	
	W	M	W	M	W	M	W	M	W	M
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Gujarat	52	99	76	154	76	133	68	111	52	87
Assam	22	96	43	127	28	94	19	51	10	36
Punjab	-	-	-	-	-	-	-	-	-	-
U.P.	-	-	-	-	-	-	-	-	-	-
Bihar	-	-	-	-	-	-	-	-	-	-
Pondichery	-	b 6	2	4	-	-	1	4	-	-
West Bengal	-	c	-	d	-	-	-	-	-	-
Madras	2	4	1	2	2	3	-	-	2	5
Rajasthan	-	-	1	1	3	1	2	2	2	1
Jammu & Kashmir	-	-	-	-	-	-	-	1	-	2
TOTAL ONGC	76	200	123	288	109	231	90	169	66	131
Contract Drilling	1	-	-	-	-	-	-	-	-	-
TOTAL	77	200	123	288	109	231	90	169	66	131
Oil India Ltd.	15	49	8	30	11	42	14	48	12	46
GRAND TOTAL	92	249	131	318	120	273	104	217	78	177

W. = Wells

M. = Meterage in '000'

b = 512 Metres

c = 516 Metres

d = 366 Metres

STATE-WISE ACHIEVEMENT OF GEOLOGICAL, GEOPHYSICAL
FIELD PARTIES AND DRILLING SINCE INCEPTION OF THE
OIL & NATURAL GAS COMMISSION UPTO DECEMBER, 1971

STATES	GEOLOGICAL SURVEYS					GEOPHYSICAL SURVEYS						DRILLING			
	Detailed (sq. km.)	Semi-detailed (sq. km.)	Traversing (line km.)	Reconnaissance (sq. km.)	Gravity Magnetic (c) (000)	Seismic Line km.						Deptt.		Contract	
						Departmental			Contract			W		M	
						On Land	Off-shore	Total	On Land (a)	Off-shore (b)	Total				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Andhra Pradesh	3116	19019	1040	15304	12	2833	-	2833	-	-	-	-	-	-	-
Andaman & Nicobar	608	1725	248	1346	-	-	-	-	-	-	-	-	-	-	-
Assam (including Tripura)	5247	11760	6660	3457	17	10076	-	10076	-	-	-	173	586	-	-
Gujarat (including Kutch/Maharashtra and M.P.)	8258	40032	2513	4680	30	32022	3358	35380	-	-	-	717	1220	-	-
Bihar	-	1259	64	-	15	1711	-	1711	-	-	-	1	3	1	5
H.P.	Included in Punjab				-	Included in Punjab				-	-	-	-	-	-
J & K	1749	6019	1336	6663	2	1756	-	1756	-	-	-	-	3	-	-
Tamil Nadu	-	Included in Andhra Pradesh				9	5961	-	5961	-	-	8	18	-	-
Crissa	-	-	-	-	8	653	-	653	-	-	-	-	-	-	-
Punjab	9710	8919	4915	4418	16	3153	-	3153	-	-	-	5	19	2	10
J.F.	4658	10577	2046	13	50	10130	-	10130	-	-	-	2	4	1	5
West Bengal	912	1062	276	2	8	7954	-	7954	-	-	-	1	4	-	-

Contd...

STATEWISE ACHIEVEMENT OF GEOLOGICAL, GEOPHYSICAL FIELD PARTIES AND
DRILLING SINCE INCEPTION OF THE ONGC UP TO DECEMBER, 1971 (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Rajasthan		3559	19094	1234	80	19	641	-	641	2108	-	2108	8	5	6	11
Nepal		194	8446	1087	-	-	-	-	-	-	-	-	-	-	-	-
Pondicherry		-	-	-	-	-	-	-	-	-	-	-	5	11	-	-
Kerala		Included in Andhra Pradesh				1	-	-	-	-	-	-	-	-	-	-
Nagaland		25	345	270	-	-	-	-	-	-	-	-	-	-	-	-
Others																
Off the Coromandal Coast Palk Strait.		-	-	-	-	-	-	-	-	-	5373	5373	-	-	-	-
Gulf of Cambay & Kutch off the Arabian Sea.		-	-	-	-	-	-	-	-	-	8070	8070	-	-	-	-
Mouth of Ganges and Mahanadi.		-	-	-	-	-	-	-	-	-	300	300	-	-	-	-
Gulf of Mannar/Off the Kerala Coast.		-	-	-	-	-	-	-	-	-	700	700	-	-	-	-
TOTAL ONGC		38036	128257	21689	35963	187	76890	3358	80248	2108	14443	16581	920	1873	10	31

Total coverage (line km.) of seismic parties * 96799

W = Wells

M = Meterage

Total Wells = 930
Total meterage = 1903936

{a} = By French CGG party
{b} = By Russian off-shore party
{c} = Stations measured

* = Excluding Reconnaissance Traversing done in the following States:
Tamil Nadu = 3300 line kms.; Himachal Pradesh = 330 line kms.; Nefra = 650 line kms.
** = In addition 29 line kms. were done for oil India Ltd. in Assam during 1969-70

IV. REFINERIES

REFINERY CRUDE THROUGHPUT AND PRODUCTION
OF PETROLEUM PRODUCTS

('000' tonnes)		
Year	Crude Throughput	Production
(1)	(2)	(3)
1948	253	185
1949	255	218
1950	251	211
1951	265	249
1952	258	235
1953	263	246
1954	699	655
1955	3335	3024
1956	4212	3890
1957	4830	4447
1958	5134	4772
1959	5436	5152
1960	6091	5747
1961	6440	6090
1962	7003	6584
1963	8138	7650
1964	8932	8428
1965	9754	9113
1966	12039	11283
1967	14430	13452
1968	16096	14923
1969	17495	16239
1970	18459	17177
1971	19588	18227
<u>% Growth</u>		
I Plan	+67.8	+70.3
II Plan	+12.8	+13.7
III Plan	+ 9.9	+ 9.7
1966-68	+15.7	+17.9
1969-71	+ 9.1	+ 6.9

PATTERN OF REFINERY PRODUCTION

('000' tonnes)

PRODUCTS	1960		1965		1970		1971	
	Prod.	%	Prod.	%	Prod.	%	Prod.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Gas	8	0.1	111	1.1	178	1.0	227	1.2
Light Distillates	1040	17.1	1546	15.9	2836	15.4	2866	14.7
Kerosines	941	15.4	1593	16.3	3677	19.9	3861	19.7
Diesels	1644	27.0	2529	25.9	4858	26.3	5507	28.1
Heavy Fuel Oils	1644	27.0	2618	26.3	4239	23.0	4098	20.9
Bitumens	399	6.6	549	5.6	765	4.1	982	5.0
Lubes	22	0.4	42	0.4	236	1.3	218	1.1
Others	49	0.8	125	1.4	388	2.1	468	2.4
Total	5747	94.4	9113	93.4	17177	93.1	18227	93.1
R.B.F. & Losses	344	5.6	641	6.6	1282	6.9	1361	6.9
Crude Run	6091	100	9754	100	18459	100	19588	100.5

REFINERY-WISE CRUDE CHARGED AND PRODUCTS PRODUCED

('000' tonnes)

	AOC	BSR	ESRC	CORIL	Gauhati	Barauni	Gujarat	Cochin	Madras	Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
<u>1965</u>										
Total Products	482.2	3789.5	2482.1	1030.4	703.4	429.2	135.8	-	-	9118.2
Total charged	493.6	3995.9	2600.0	1115.7	792.8	610.8	145.0	-	-	9753.8
<u>1967</u>										
Total Products	497.6	3541.4	2113.4	1185.0	711.7	1365.0	1575.1	2162.4	-	13451.6
Crude charged	527.7	3782.6	2522.3	1238.3	792.9	1558.4	1746.3	2261.1	-	14429.6
<u>1968</u>										
Total Products	484.7	3503.7	2423.7	1425.7	716.1	1448.0	2507.9	2412.9	-	14922.7
Crude charged	520.8	3724.4	2550.9	1543.4	813.7	1619.0	2731.5	2542.8	-	16096.1
<u>1969</u>										
Total Products	494.3	3438.4	2334.7	1235.4	716.8	1838.5	3137.3	2334.9	708.6	16238.9
Crude charged	520.9	3712.8	2441.8	1305.6	777.8	2054.7	3346.3	2468.8	866.1	17494.7
<u>1970</u>										
Total Products	463.5	3234.7	2259.0	1083.0	628.4	2009.0	3188.8	2439.1	1871.4	17176.9
Crude charged	489.5	3447.5	2350.3	1177.9	700.0	2197.4	3439.4	2592.0	2065.0	18459.0
<u>1971</u>										
Total Products	442.8	3677.0	2667.4	1142.9	683.7	2039.3	3368.4	2301.9	1903.5	18226.9
Crude charged	471.6	3900.5	2767.8	1249.9	757.4	2235.2	3621.8	2439.1	2145.1	19588.4

REFINERY PRODUCTION 1965 to 1971

ALPH ('000' tonnes)

Products	1965	1968	1970	1971	% Variation	
					1970	1971
					1969	1970
(1)	(2)	(3)	(4)	(5)	(6)	(7)
L.P.G.*	44	100	161	195	+26.8	+21.1
Mogas	1350	1431	1501	1615	+ 5.0	+ 7.6
Naphtha	143	937	1253	1181	+ 3.2	(-)5.7
Kerosenes	1576	2968	3661	3843	+14.9	+ 5.0
H.S.D.	1665	3287	3763	4356	+ 3.7	+15.8
L.D.O.	766	1003	1024	1065	(-)6.1	+ 4.0
Furnance Oil@	2352	3192	3116	2910	(-)0.5	(-)6.6
L.S.H.S.	31	654	928	1006	+ 1.0	+ 8.4
H.H.S.	235	215	194	182	(-)7.2	(-)6.2
Bitumen	549	576	765	982	+10.9	+28.4
Lube Oil@@	42	69	236	218	+136.0	(-)7.6
Petroleum Coke	81	126	149	145	(-)0.7	(-)2.7
Wax	40	40	37	39	(-)5.1	+ 5.4
Others	239	325	389	490	+20.4	+26.0
Total Products	5113	14923	17177	18227	+ 5.3	+ 6.1
Crude Run	9754	16096	18459	19588	+ 5.5	+ 6.1

* Excluding quantity supplied to M/s.Lube India Ltd.,

@ Including T.D.O.

@@ Excluding production of Lube Oil by M/s.Lube India Ltd., which was as follows : 1970 - 97,006 tonnes
1971 - 147,716 tonnes

V. CONSUMPTION/SALES[@]

ALL INDIA TOTAL CONSUMPTION OF PETROLEUM
PRODUCTS FROM 1948 TO 1971

(In '000' tonnes)

Year	Total Consumption	% Growth	Year	Total Consumption	% Growth
1.	2.	3.	1.	2.	3.
1948	2657	- 2.9	1961	8394	+ 7.8
1949	3125	+17.6	1962	9521	+13.4
1950	3319	+ 6.2	1963	10347	+ 8.7
1951	3888	+17.1	1964	11361	+ 9.8
1952	3741	- 3.8	1965	12279	+ 8.1
1953	3916	+ 4.7	1966	12968	+ 5.6
1954	4089	+4.4	1967	14089	+ 8.6
1955	4817	+17.8	1968	15829	+12.4
1956	5236	+ 8.7	1969	17336	+ 9.5
1957	5820	+11.2	1970	18734	+ 8.1
1958	6117	+ 5.1	1971	20640	+10.2
1959	6812	+11.4			
1960	7784	+14.3			

Compound rate of growth 1st plan 1951 to 1956 = +7.7 %

" " " " 2nd " 1956 to 1960 = +10.1 %

" " " " 3rd " 1961 to 1966 = +9.5 %

" " " " 1966 to 1968 = +8.8 %

" " " " 1969 to 1971 = +9.3 %

Note: Includes Refinery Boiler Fuel from 1962 onwards.
Prior to that R.B.F. consumption is not available.

* Includes Sales to Nepal, Sikkim, Bhutan and
International/Coastal Bunkers and International
Airlines.

@ Figures represent despatches from depots.

*
ALL INDIA CONSUMPTION OF PETROLEUM
PRODUCTS DURING THE YEARS 1969-1971

Product	('000' tonnes)			% Growth Rates	
	1969	1970	1971	$\frac{1970}{1969}$	$\frac{1971}{1970}$
Refinery Gas (sold)	20.2	19.5	27.4	- 3.5	+40.5
L.P. Gas	126.3	165.9	202.2	+31.4	+21.9
Gasolines **	2056.9	2308.3	2687.2	+12.2	+16.4
Kerosine Superior	2924.8	3169.8	3410.0	+ 8.4	+ 7.6
Kerosine Inferior	111.0	92.0	47.2	-17.1	-48.7
Total Kerosine	3035.8	3261.8	3457.2	+ 7.4	+ 6.0
Mineral Turpentine	34.6	37.8	57.3	+ 9.2	+51.6
H.S.D.	3465.1	3735.3	4221.2	+ 7.8	+13.0
L.D.O.	1029.6	1046.9	1190.4	+ 1.7	+13.7
J.B.O.	58.2	70.5	76.8	+21.1	+ 8.9
Furnace Oil @	3295.9	3494.5	3760.5	+ 6.0	+ 7.6
L.S.H.S.	906.6	964.5	1027.8	+ 6.4	+ 6.6
H.H. Stocks	226.2	191.7	185.9	-15.3	- 3.0
Total Fuel Oils	4428.7	4650.7	4974.2	+ 5.0	+ 7.0
Lube Oils	478.6	512.4	541.7	+ 7.1	+ 5.7
Lube Greases	22.8	22.9	21.8	+ 0.4	- 4.8
Total Lubes	501.4	535.3	563.5	+ 6.7	+ 5.3
Bitumen	657.7	751.1	948.4	+14.2	+26.2
Petroleum Coke	142.3	128.0	150.9	-10.0	+17.9
SBP Spirit/Hexane	62.7 ^a	63.7	54.3	+ 1.6	-14.8
Aromex/Iomex	16.6	18.5	13.0	+11.4	-29.7
Wax	34.4	34.7	36.8	+ 0.9	+ 6.0
Others	671.1	758.8	828.3	+13.1	+ 9.2
Total	16341.6	17586.8	19489.1	+ 7.6	+10.8
Refinery Boiler Fuel	994.5	1147.4	1150.5	+15.4	+ 0.2
GRAND TOTAL	17336.1	18734.2	20639.6	+ 8.1	+10.2

* Includes sales to Nepal, Sikkim, Bhutan, Bunkers and International Airlines.

@ Excludes F.O. sold to International Bunkers on KNPC account.

** Including Naphtha.

**
MARKET PARTICIPATION OF OIL COMPANIES
FROM THE YEAR 1960 TO 1971

(Percentage)

Year	IOC	B/Shell	Ess o	Caltex	Others	Total
1.	2.	3.	4.	5.	6.	7.
1960	0.2	47.4	29.0	16.1	7.3	100
1965	21.0	36.8	24.2	12.4	5.6	100
1966	30.9	33.1	22.1	9.7	4.2	100
1967	36.6	29.6	20.2	9.6	4.0	100
1968	42.5	26.7	17.6	9.5	3.7	100
1969	48.2	24.6	15.7	7.9	3.6	100
1970	50.9	23.8	14.5	7.1	3.7	100
1971	54.2	21.1	13.6	6.7	4.4	100

** Excludes Refinery Boiler Fuel consumption.

('000' tonnes)

Products	1964	1965	1966	1967	1968	1969	1970	1971
SHIPPING								
1. International Bunkers								
F.O.	421.1	357.3	394.0	440.0	379.8	260.1	217.4	204.6
H.S.D.	3.6	3.1	1.9	4.8	4.4	5.1	5.7	5.3
L.D.O.	18.6	17.4	15.4	23.1	26.4	19.9	21.4	20.5
TOTAL	443.3	377.8	411.3	467.9	410.6	285.1	244.5	230.4
2. Coastal Bunkers.								
F.O.	226.9	241.5	226.9	242.8	239.1	260.0	199.1	238.7
H.S.D.	10.6	13.1	13.9	11.2	11.2	14.9	21.4	33.9
L.D.O.	7.5	10.7	12.4	17.3	20.2	20.6	21.1	25.9
TOTAL	245.0	265.3	253.3	271.3	270.5	295.5	241.6	298.5
3. Total Bunkers								
F.O.	648.0	598.8	620.9	682.7	619.0	520.1	416.5	443.3
H.S.D.	14.2	16.2	15.8	16.1	15.5	20.0	27.1	39.2
L.D.O.	26.1	28.1	27.9	40.4	46.6	40.5	42.5	46.4
TOTAL	688.3	643.1	664.6	739.2	681.1	580.6	486.1	528.9
4. Excluded from above sales to foreign Bunkers on KNPC account by IOC.								
F.O.						32.9	43.5	46.7
L.D.O.						-	0.05	-

**ALL INDIA PER CAPITA CONSUMPTION/SALES OF
PETROLEUM PRODUCTS DURING 1967 TO 1970**

(Excluding International Bunkers)

(In Kilogrammes)

Products	1967	1968	1969	1970
<u>Total Products*</u>	<u>23.4</u>	<u>26.3</u>	<u>28.2</u>	<u>30.6</u>
of which :				
Mogas	2.3	2.4	2.5	2.6
Kerosines	5.1	5.4	5.7	6.0
H.S.D.	5.5	6.1	6.5	6.9
L.D.O.	1.7	1.9	1.9	1.9
F. O.	7.4	7.9	7.8	8.6

N.B.:-- Based on Depot/Zone-wise sales and population as on 1st March of each year.

* HSD, LDO & FO include supplies to coastal/International Bunkers.

PER CAPITA CONSUMPTION : 1950-1970

<u>Year</u>	<u>Kilogrammes</u>
1950	8.4
1955	11.7
1960	18.1
1965	25.4
1970	34.3

**STATE-WISE SALES/CONSUMPTION OF MAJOR PETROLEUM
PRODUCTS DURING THE YEAR 1970**

(0000 tonnes)							
States/U.Terr.	Mogas	Kero- sine @	HSD	LDO	FO(all grade)	Others	Total
A. STATES							
Andhra	70.3	239.4	324.0	45.0	131.2	147.7	957.6
Assam	69.0	127.5	89.1	25.3	96.7	46.9	454.5
Bihar	64.2	189.8	187.4	53.5	292.9	53.9	841.7
Gujarat	83.0	265.2	243.0	306.1	1014.0	158.7	2070.0
Haryana	22.4	46.1	92.7	25.4	17.9	52.6	257.1
J & K	9.3	16.6	33.7	5.9	neg.	8.7	74.2
Kerala	71.8	120.8	140.5	9.9	220.3	78.4	641.7
M. P.	47.6	151.1	262.6	16.8	47.1	41.6	566.8
Tamil Nadu	123.4	326.2	358.5	25.9	371.3	113.8	1319.1
Maharashtra	259.3	637.7	462.7	145.5	1515.8	776.8	3797.8
Mysore	88.6	154.6	241.3	17.4	94.9	60.8	657.6
Orissa	25.5	73.5	87.6	2.8	49.7	25.5	264.6
Punjab	57.0	129.8	237.2	63.8	16.4	64.6	568.8
Rajasthan	44.0	82.4	160.5	61.2	24.5	145.8	518.4
U.P.	97.4	293.1	376.5	84.5	163.2	325.2	1339.9
West Bengal	136.7	268.2	222.6	70.9	299.3	152.3	1150.0
TOTAL (A)	1269.5	3122.0	3519.9	959.9	4355.2	2253.3	15479.8
B. Union Territories							
Andaman & Nico.	0.4	0.4	2.5	1.2	-	0.5	5.0
Chandigarh	5.7	6.8	7.6	2.0	3.5	33.8	59.4
Delhi	97.5	68.5	109.9	55.7	44.0	186.8	562.4
Goa	11.6	17.4	40.7	5.4	33.1	8.9	117.1
H. P.	3.9	6.6	20.6	0.5	-	6.6	38.2
Manipur	4.3	6.1	4.2	0.6	-	3.9	19.1
Tripura	5.2	11.3	5.5	1.6	0.1	2.8	26.5
TOTAL (B)	128.6	117.1	191.0	67.0	80.7	243.3	827.7
C. Other Terr.							
Nepal	9.5	21.0	13.5	7.1	0.9	5.8	57.8
Sikkim	1.7	1.3	1.5	0.1	-	1.6	6.2
Bhutan	1.2	0.4	1.9	-	-	0.8	4.3
TOTAL (C)	12.4	22.7	16.9	7.2	0.9	8.2	68.3
TOTAL (A+B+C)	1410.5	3261.8	3727.8	1034.1	4436.8	2504.8	16375.8
Adjustment			+ 1.8	+ 0.3	- 0.6	- 0.2	+ 1.3
GRAND TOTAL	1410.5	3261.8	3729.6	1034.4	4436.2	2504.6	16377.1

Note:- 1) Figures represent despatches from depots situated in various States.

2) @ Includes Kerosine Superior & Inferior.

3) Sales to International Bunkers are not included.

HRC/Bsm/8.3.72.

E & S DIVISION
Min. of P & C

ESTIMATED INDUSTRYWISE CONSUMPTION OF
FURNACE OIL

Industry	1 9 6 9		1 9 70		% vari- ation 1970/69
	Consumption (000 tonnes)	% to total	Consumption (000 tonnes)	% to total	
<u>TRANSPORT</u>					
Road Transport	2	neg.	3	0.1	+50.0
Railways	64	1.4	55	1.2	-14.1
Waterways:	481	10.9	424	9.1	-11.9
i) Coastal & Inland	167	3.8	198	4.3	+18.6
ii) International Bunkers	314	7.1	226	4.8	-30.2
Total transport	547	12.3	482	10.4	-11.2
Agriculture/plantation	129	2.9	178	3.8	+38.0
Power Generation	1131	25.5	1218	26.2	+ 7.7
Iron & Steel	268	6.1	311	6.7	+16.0
Textile	560	12.7	590	12.7	+ 5.4
Cement	116	2.6	129	2.8	+11.2
Ceramics & Glass	166	3.7	155	3.3	- 6.6
Chemicals & Allied Industries	413	9.4	493	10.6	+19.4
Fertiliz-ers	88	2.0	90	1.9	+ 2.3
Aluminium	72	1.6	91	2.0	+26.4
Sugar	37	0.8	39	0.8	+ 5.4
Mining & Quarrying	39	0.9	45	1.0	+15.4
Engineering	317	7.2	318	6.8	+ 0.3
Others	544	12.3	512	11.0	- 5.9
T O T A L	4427	100	4651	100	+ 5.1

HRC/Bsm/26.11.71.

ESTIMATED INDUSTRY-WISE CONSUMPTION OF
H.S.D.

Industry	1 9 6 9		1 9 7 0		% Variation 70/69
	Consumption (000 tonnes)	% to total	Consumption (000 tonnes)	% to total	
<u>Transport</u>					
Road transport	2655	76.6	2907	77.8	+ 9.5
Railways	451	13.0	452	12.1	+ 0.2
<u>Waterways:</u>	18	0.5	33	0.9	+83.3
i) Coastal & Inland	14	0.4	27	0.7	+92.9
ii) International Bunkers	4	0.1	6	0.2	+50.0
Total Transport	3124	90.1	3392	90.8	+ 8.6
Agriculture	17	0.5	32	0.8	+88.2
Power Generation	8	0.3	15	0.4	+87.5
Iron & Steel	24	0.7	26	0.7	+ 8.3
Textile	1	neg.	2	neg.	+100
Cement	9	0.3	10	0.3	+11.1
Ceramics & Glass	neg.	-	neg.	-	-
Chemicals	9	0.3	6	0.2	-22.2
Fertilizers	2	0.1	2	neg.	-
Aluminium	neg.	-	neg.	-	-
Sugar	4	0.1	4	0.1	-
Mining & Quarrying	39	1.1	48	1.3	+23.1
Engineering	29	0.8	21	0.6	-27.6
Plantation	4	0.1	3	0.1	-25.0
Others	195	5.6	175	4.6	-10.3
T O T A L	3465	100	3736	100	+ 7.8

ESTIMATED INDUSTRY-WISE CONSUMPTION OF
L.D.O.

Industry	1969		1970		% Variation
	Consumption (000 tonnes)	% to total	Consumption (000 tonnes)	% to total	
<u>Transport</u>					
Road transport	1	0.1	1	0.1	-
Railways	6	0.6	6	0.6	-
Waterways:	40	3.9	42	4.0	+5.0
i) Coastal & Inland	21	2.0	20	1.9	-4.8
ii) International Bunkers	19	1.9	22	2.1	+15.8
Total transport	47	4.6	49	4.7	+4.3
Agriculture	440	42.7	419	40.0	-4.8
Power Generation	55	5.3	72	6.9	+30.9
Iron & Steel	5	0.5	5	0.5	-
Textile	3	0.3	1	0.1	-66.7
Cement	2	neg.	2	0.2	-
Ceramics & Glass	12	1.2	11	1.0	-3.3
Chemicals	7	0.7	9	0.8	+28.6
Fertilizers	neg.	neg.	2	0.2	-
Aluminium	1	0.1	neg.	-	-
Sugar	4	0.4	5	0.5	+25.0
Mining & Quarrying	5	0.5	7	0.7	+40.0
Engineering	37	3.6	45	4.3	+21.6
Plantation	13	1.3	13	1.2	-
Others	399	38.6	407	38.9	+2.0
T O T A L	1030	100	1047	100	+1.7

E & S DIVISION
Min. of P & C

ESTIMATED CONSUMPTION OF PARAFFIN WAX
DURING 1970

('000 ' tonnes)

Industry	Estimated consumption	% to total	% Variation ~~70/69~~
Candle manufacturing	14.52	41.8	
Water proofing	8.04	23.2	
Match industries	5.07	14.6	
Wax paper	2.31	6.7	
Polish industries	0.16	0.5	
Hard Board industry	0.15	0.4	
Misc. users	4.45	12.8	
T O T A L	34.70	100	

HRC/Bsm/27.11.71.

SUMMARY OF SALES OF LUBE OILS IN INDIA

Industry	1969		1970		% Variation
	Consumption (000 tonnes)	% to total	Consumption (000 tonnes)	% to total	
Automotive oils	169	35.3	179	35.0	+ 5.9
of which:					
Additives	138	28.8	144	28.1	+ 4.3
Non-additives	31	6.5	35	6.9	+12.9
Industrial Oils	310	64.7	333	65.0	+ 7.4
<u>T O T A L</u>	<u>479</u>	<u>100</u>	<u>512</u>	<u>100</u>	<u>+ 6.9</u>

SALES OF INDUSTRIAL LUBE OILS IN INDIA

Spindle Oil	22	7.1	23	6.9	+ 4.5
Transformer Oil	11	3.5	12	3.6	+ 9.1
Railway axle oil	20	6.6	19	5.7	-13.4
Other axle oil	2	0.5			
Cylinder oil	15	4.9	15	4.5	-
Turbine oil	9	2.8	6	1.8	-33.3
Hydraulic oil	4	1.3	5	1.5	+25.0
Other Oils	173	55.9	182	54.7	+ 5.2
Misc. grades	54	17.3	71	21.3	+31.5
<u>T O T A L</u>	<u>310</u>	<u>100</u>	<u>333</u>	<u>100</u>	<u>+ 7.4</u>

HRC/Bsm/27.11.71.

E & S DIVISION
Min. of P & C

ESTIMATED SECTOR-WISE CONSUMPTION OF
KEROSES - 1969 & 1970

Sector	1 9 6 9		1 9 7 0		% varia- tion 1970 1969
	Consump- tion (000 tonnes)	% to total	Consump- tion (000 tonnes)	% to total	
Domestic	2915	96.0	3139	96.2	+7.7
Commercial	4	0.2	8	0.3	+100
Industry	22	0.7	20	0.6	-9.1
Others	95	3.1	95	2.9	-
T O T A L	<u>3036</u>	<u>100</u>	<u>3262</u>	<u>100</u>	+7.4

ESTIMATED SECTOR-WISE CONSUMPTION OF L.P.G.

Domestic	99	79.0	131	78.9	+32.3
Commercial	4	3.1	4	2.4	-
Industry	22	17.2	30	18.1	+36.4
Others	1	0.7	1	0.6	-
T O T A L	<u>126</u>	<u>100</u>	<u>166</u>	<u>100</u>	+31.7

HRC/Bsm/27.11.71.

VI. IMPORTS & EXPORTS

CRUDE OIL AND PETROLEUM PRODUCTS IMPORTED
DURING 1948 TO 1971

(1000 tonnes)

Year	Products	Crude	Total
1948	2269	-	2269
1949	2833	-	2833
1950	2986	-	2986
1951	3492	-	3492
1952	3513	-	3513
1953	3610	-	3610
1954	3635	504	4139
1955	2071	3026	5097
1956	1807	3769	5576
1957	1869	4438	6307
1958	1824	4682	6506
1959	1984	5006	6990
1960	2032	5723	7755
1961	2481	5968	8449
1962	2984	6022	9006
1963	2900	6519	9419
1964	2956	6791	9747
1965	2880	6811	9691
1966	2207	7457	9664
1967	951	8704	9655
1968	933	10450	11383
1969	1052	10702	11754
1970	970	11665	12635
1971	1932	12688	14620

N.B: Imports of ATF from 1952 to 1955, Bitumen from 1948 to 1953 and Lubricants from 1951 to 1955 are not available and have not been included in the total imports.

IMPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS
DURING 1968 - 1971

Qty. '000 tonnes
Value: Million Rupee

Groups	1968		1969		1970		1971	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1. Crude Oil	10450	938.76	10702	940.06	11665	1023.63	12688	1398.79
2. Petroleum Products								
Light Distillates	57	28.25	50	22.07	23	9.99	72	37.35
Middle Distillates	418	96.13	575	124.43	327	76.34	877 983	210.50
Others	458	283.10	427	235.93	620	218.93	"	187.05
TOTAL (Petroleum Products)	933	407.48	1052	382.43	970	305.26	1932	434.90
GRAND TOTAL	11383	1346.24	11754	1322.49	12635	1328.89	14620	1833.69

TOTAL EXPORTS OF PETROLEUM PRODUCTS
SINCE 1954

Year	Quantity in tonnes	Value in Rs. million
1954	17586	12.73
1955	215967	35.49
1956	375654	51.24
1957	444821	69.37
1958	400952	63.24
1959	196371	43.20
1960	225061	46.13
1961	211254	37.64
1962	227169	38.50
1963	376249	54.99
1964	375158	48.37
1965	344680	39.16
1966	729703	87.56
1967	1057000	142.26
1968	558166	82.53
1969	738867	107.72
1970	412209	57.22
1971	151631	25.54

EXPORTS OF PETROLEUM PRODUCTS FOR THE
YEARS 1968 TO 1971

Qty. In tonnes
Value: In Rs. million

Products	1968		1969		1970		1971	
	Q	V	Q	V	Q	V	Q	V
Light Distillates	493122	72.53	636045	87.86	353147	46.40	140683	21.23
Middle Distillates	23574	3.44	67064	9.93	45817	5.91	6537	1.67
Others	41470	6.56	35758	9.93	13245	4.91	4411	2.64
TOTAL	558166	82.53	738867	107.72	412209	57.22	151631	25.54
Foreign exchange earned on sale of supplies to:								
i) Bunkers *	253942	33.57	156808	20.38	124731	20.64	141775	27.70
ii) Airlines	57186	23.84	81312	34.93	118712	51.42	133688	58.84
TOTAL	311128	57.41	238120	55.31	243443	72.06	275463	86.54

* Excludes IOC sales to foreign Bunkers on KNPC account as the value for the same is not available.

VII. M A N P O W E R

MANPOWER EMPLOYED IN THE PETROLEUM INDUSTRY IN INDIA

Category	(Numbers)		
	1969	1970	1971
1. Exploration & Production	25489	26051	25850
2. Refining	10688	10715	11283
3. Marketing	21204	20362	19739
4. <u>Others</u>			
i) IOC (Pipeline)	484	487	523
ii) ONGC (Pipeline)	177	346	324
iii) OIL (Pipeline)	443	443	439
iv) I.I.P.	545	588	602
v) E.I.L.	NA	NA	813
TOTAL	1649	1864	2701
GRAND TOTAL	59030	58992	59573

Note:- (i) Staff employed as on 1st April of each year.

(ii) Total does not include staff employed on contract basis.

CATEGORY-WISE MANPOWER EMPLOYED IN THE PETROLEUM
INDUSTRY IN INDIA

(Numbers)			
Category	1969	1970	1971
1. Executive/Managerial	4497	4657	4799
2. Supervisory	6111	5931	6033
3. Clerical	11328	11203	10753
4. Workmen	35257	35241	35226
5. Total	57193	57032	56811
6. Others			
i) IOC (Pipeline)	484	487	523
ii) ONGC (")	177	346	324
iii) OIL (")	443	443	439
iv) I.I.P.	540	584	601
v) E.I.L.	NA	NA	813
TOTAL	1644	1860	2700
7. Expatriate/foreign experts	193	100	62
GRAND TOTAL	59030	58992	59573

Note:- (i) Staff employed as on 1st April of each year.

(ii) Total does not include staff employed on contract basis.

MANPOWER EMPLOYED IN EXPLORATION AND PRODUCTION
OF PETROLEUM INDUSTRY IN INDIA

(Numbers)			
Category	1969	1970	1971
1. Executive/Managerial	1719	1765	1813
2. Supervisory	2958	2774	2969
3. Clerical	3624	3764	3463
4. Workmen	17108	17704	17571
5. Total	25409	26007	25816
6. Expatriate/ Foreign experts	80	44	34
GRAND TOTAL	<u>25489</u>	<u>26051</u>	<u>25850</u>

MANPOWER EMPLOYED IN THE PETROLEUM
REFINING IN INDIA

1. Executive/Managerial	495	525	536
2. Supervisory	993	1076	1106
3. Clerical	1237	1219	1187
4. Workmen	7878	7857	8438
5. Total	10603	10677	11267
6. Expatriate/ Foreign experts	85	38	16
GRAND TOTAL	<u>10688</u>	<u>10715</u>	<u>11283</u>

MANPOWER EMPLOYED IN MARKETING @
COMPANIES IN INDIA

1. Executive/Managerial	2283	2367	2450
2. Supervisory	2160	2081	1958
3. Clerical	6467	6220	6103
4. Workmen	10271	9680	9217
5. Total	21181	20348	19728
6. Expatriate/ Foreign experts	23	14	11
GRAND TOTAL	<u>21204</u>	<u>20362</u>	<u>19739</u>

@ = Manpower employed by Companies directly.

VIII. GENERAL
RETAIL OUTLETS IN INDIA

(NUMBERS)

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Company	1967		1968		1969		1970		1971	
	No.	%	No.	%	No.	%	No.	%	No.	%
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
B/shell	3456	43.3	3683	41.5	3700	38.8	3577	36.1	3583	35.0
Esso	1786	22.3	1955	22.0	1948	20.5	1922	19.3	1908	18.7
Caltex	1362	17.0	1437	16.2	1396	14.7	1392	14.0	1384	13.5
I O C	1046	13.1	1449	16.3	2131	22.4	2656	26.8	2967	29.0
IBPC	220	2.8	229	2.6	223	2.3	233	2.4	249	2.4
A O C	118	1.5	119	1.4	124	1.3	129	1.4	144	1.4
T O T A L	7988	100	8872	100	9522	100	9909	100	10235	100

Note : 1. Retail outlets as on, 1st January of each year.

2. Excluding consumer's retail outlets.

3. % Percentage.

INDIAN TANKER FLEET AS ON
31.12.1970

OWNERS	Name of Vessel	D.W. tonnes	Year Build
1	2	3	4
1. Shipping Corporation of India Ltd.	Desh Deep	11226	1959
	Desh Sewak	16070	1950
	Desh Alok	16730	1952
	Lajpat Rai	48484	1965
	Desh Bandhu	36232	1964
	Jawahar Lal Nehru	87612	1969
	Lal Bahadur Shastri	87649	1970
2. Great Eastern Co. Ltd.	Jag Jwala	16010	1952
3. M/s Cosmosteels Pvt. Ltd.	Cosmos Pioneer	14054	1951
4. Jayanti shipping Co. Ltd.	Adi-Jayanti	33099	1956
	Vikram Jayanti	57588	1964
5. Ratnakar shipping Co. Ltd.	Ratna Jaya shree	59284	1966

PIPELINES IN INDIA

Pipelines	Owned by	Length in Kms.	Diameter
1.	2.	3.	4.
1. Crude Pipelines			
i) Nahorkatiya-Gauhati/Barauni	O.I.L.	1,152	16 $\frac{1}{4}$ "
ii) Ankleshwar-Koyali	O.N.G.C.	98	16"
iii) Lakwa-Moran	O.N.G.C.	17	12 $\frac{3}{4}$ "
iv) Kalol-Nawagam	O.N.G.C.	55	12 $\frac{3}{4}$ "
v) Nawagam-Koyali	O.N.G.C.	80	14"
vi) Nahorkatiya-Digboi	O.I.L.	31	8"
<u>TOTAL CRUDE PIPELINE</u>		437	
2. Product Pipelines			
i) Gauhati-Siliguri	I.O.C.	425	8 $\frac{5}{8}$ "
ii) Haldia-Barauni	I.O.C.	524	12 $\frac{3}{4}$ "
iii) Barauni-Kanpur	I.O.C.	668	12 $\frac{3}{4}$ "
iv) Koyali-Ahmedabad	I.O.C.	114	8 $\frac{5}{8}$ "
v) Baradabar-Maurigram	I.O.C.	58	12 $\frac{3}{4}$ "
<u>TOTAL PRODUCT PIPELINES</u>		1,789	
3. Gas Pipelines			
i) Combay Dhuwaran	O.N.G.C.	25	14"
ii) Ankleshwar Uttarān	O.N.G.C.	42	16"
iii) Ankleshwar-Baroda	O.N.G.C.	98	14"
<u>TOTAL GAS PIPELINE</u>		165	
Total 1+2+3		3,391	

COASTAL MOVEMENT OF PETROLEUM PRODUCTS
• DURING 1971

(Quantity moved to Indian Ports)

('000' tonnes)

Products	1 9 7 1		
	I/F	F/F	Total
Naphtha	17.21	69.12	86.33
Kerosenes	258.11	390.17	648.28
H.S.D.	194.34	633.56	827.90
L.D.O.	127.95	97.18	225.13
F.O.	530.05	217.57	747.62
J.B.O./RDO	6.87	69.90	76.77
M.T.O.	16.57	-	16.57
SBP Solvent/Hexane	1.76	12.07	13.83
Lubricants/Base oil	18.13	77.35	95.48
Others	19.05	89.58	108.63
Total Quantity moved	1190.04	1656.50	2846.54
Freight paid (Rs. mn.)	38.77	44.02*	82.79

N.B: I/F = Indian Flag Vessels

F/F = Foreign Flag Vessels.

* = Including Freight paid on Demurrage and Dead Freight paid.

CAPITAL EMPLOYED AND PROFITABILITY OF PETROLEUM COMPANIES

Item	Exploration & Production				Refinery		
	1968	1969	1970	(1)	1968	1969	1970
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1. Average capital employed (Rs. in million)	2454.90	2643.26	2795.65	1924.89	2204.08	2358.29	
2. Sales Turnover @	"	"	"	"	"	"	"
3. Net worth	611.82	656.97	681.48	2767.28	3163.74	3419.14	
4. Gross profit	1966.28	2156.64	2222.28	1277.60	1426.26	1495.42	
5. Net profit	281.35	266.47	249.55	241.24	280.57	374.95	
	200.17	150.29	120.08	138.36	162.13	247.06	
6. Return of Gross profit on:							
(i) Average capital employed	11.46%	10.08%	8.93%	12.53%	12.73%	15.90%	
(ii) Sales turnover	45.99%	40.56%	36.62%	8.72%	8.87%	10.97%	
7. Return of net profit on:							
(i) Average capital employed	8.15%	5.69%	4.30%	7.19%	7.36%	10.48%	
(ii) Sales turnover	32.72%	22.88%	17.62%	5.00%	5.12%	7.23%	
(iii) Net worth	10.18%	6.97%	5.40%	10.83%	11.37%	16.52%	
8. Growth:							
(i) Gross fixed assets	9.64%	6.54%	5.11%	3.65%	4.53%	2.67%	
(ii) Sales turnover	(-) 0.25%	7.38%	3.73%	12.96%	3.86%	8.07%	
9. % of Foreign share capital and loan to average capital employed	9.88%	8.88%	8.07%	32.74%	27.65%	23.37%	

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	Marketing			Total		
	1968	1969	1970	1968	1969	1970
(1)	(8)	(9)	(10)	(11)	(12)	(13)
1. Average capital employed (Rs. million) *	1658.92	1649.31	1564.86	6038.71	6496.65	6718.80
2. Sales turnover @	11108.71	12376.64	13742.32	-	-	-
3. Net worth	704.96	768.03	727.18	3948.84	4350.93	4444.88
4. Gross profit	277.42	231.72	254.00	800.01	778.76	878.50
5. Net profit	163.10	126.35	131.36	501.63	438.77	498.50
6. Return of gross profit on:						
(i). Average capital employed	16.72%	14.05%	16.85%	13.25%	11.99%	13.08%
(ii) Sales turnover	2.50%	1.87%	1.85%	-	-	-
7. Return of net profit on:						
(i) Average capital employed	9.83%	7.66%	8.39%	8.31%	6.75%	7.42%
(ii) Sales turnover	1.47%	1.02%	0.96%	-	-	-
(iii) Net worth	23.14%	16.45%	18.06%	12.70%	10.08%	11.22%
8. Growth:						
(i) Gross fixed assets	4.14%	2.10%	3.59%	8.51%	3.84%	3.59%
(ii) Sales turnover	13.92%	11.41%	11.03%	-	-	-
9. % of Foreign share capital and loans to average capital employed	34.03%	31.22%	33.66%	22.55%	19.65%	19.40%

* Average capital employed is the average of the capital employed at the beginning and end of the year.

@ Sales turnover are inclusive of excise duty.

IX. P R I C E SPRICE BUILD-UP OF PETROLEUM PRODUCTS
AS ON 1.1.1972

	(Rs./K.L.)				
	BOMBAY	MADRAS	DELHI	KANPUR	CALCUTTA
(1)	(2)	(3)	(4)	(5)	(6)
<u>1. MOTOR SPIRIT</u>					
Ex. MI Rate	1195.83	1204.70	1195.83	1195.83	1218.62
State Surcharge	-	-	-	14.00	10.00
Railway Freight	-	-	86.55	92.82	-
Delivery charges within FDZ	11.36	11.36	11.36	11.36	11.36
Transportation charges for Mean distance	-	-	-	-	2.88
Octroi/Local/Entry Tax	20.00	-	-	0.89	20.00
Nett delivered rate exclusive of sales tax & Dealer's commission	1227.19	1216.06	1292.74	1314.90	1262.86
Sales Tax inclusive of surcharge	134.99	126.00	92.37	100.00	150.00
Dealers Commission	41.80	41.80	41.80	41.80	41.80
Selling price to consumers	1403.98	1383.86	1427.91	1456.70	1454.66
Retail selling price per litre	1.42	1.39	1.43	1.46	1.46
<u>2. HIGH SPEED DIESEL</u>					
Ex. MI Rate	708.47	719.89	708.47	708.47	720.66
State Surcharge	-	-	-	-	5.00
Railway Freight	-	-	61.97	66.19	-
Delivery charges within FDZ.	7.27	7.27	7.27	7.27	7.27
Transportation charges for Mean Distance	-	-	-	-	2.88
Octroi/Local/Entry/SSBT Tax	10.00	-	4.68	1.05	20.00
Nett delivered rate exclusive of Sales Tax & Dealer's commission	725.74	727.16	782.39	782.98	755.81
Sales tax inclusive of surcharge	65.32	105.00	55.86	70.00	100.00
Dealers Commission	17.60	17.60	17.60	17.60	17.60
Service charges	-	-	-	-	20.00
Selling price to consumers	808.66	849.76	855.85	870.58	893.41
Retail selling price per litre	0.83	0.87	0.86	0.88	0.90

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BOMBAY MADRAS DELHI KANPUR CALCUTTA

3. LIGHT DIESEL OIL

Ex. MI Rate	345.66	360.15	345.66	345.66	358.27
State Surcharge	-	-	-	-	4.00
Railway Freight	-	-	63.86	68.24	-
Delivery charges within FDZ	7.00	4.50	7.00	7.00	-
Octroi/Local/Entry/SSBT Tax	10.00	-	4.82	1.09	20.00
Nett delivered rate exclusive of sales tax & dealer's commission	362.66	364.65	421.34	421.99	382.27
Sales tax inclusive of surcharge	17.78	105.00	21.49	70.00	100.00
Dealers commission	6.60	6.60	6.60	6.60	6.60
Transportation charges	-	-	-	-	12.00
Selling price to consumers	387.04	476.25	449.43	498.59	500.87
Retail selling price per litre	*	*	0.53	0.51	*

* Retail price not given/fixed.

4. FURNACE OIL

Ex. MI Rate	232.78	247.50	232.78	232.78	246.53
Railway Freight	-	-	68.68	73.46	-
Delivery charges within FDZ	10.00	10.00	10.00	10.00	10.00
Octroi/local/entry/SSBT Tax	9.97	-	5.18	1.16	20.00
Net delivered rate exclusive of sales tax & dealer's commission	252.75	257.50	316.64	317.40	276.53
Sales tax inclusive of surcharge	12.64	18.19	16.15	10.11	16.59
Service charges fixed by dealers	-	-	-	-	9.00
Selling price to consumers	265.39	275.69	332.79	327.51	302.12
Retail selling price per litre	*	*	0.39	*	*

* Retail price not given.

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From pre-page

BOMBAY MADRAS DELHI KANPUR CALCUTTA

5. SUPERIOR KEROSENE

Ex. MI Rate	501.30	511.72	501.30	501.30	515.88
Railway freight	-	-	54.36	58.00	-
Delivery charges within FDZ	18.00*	4.50	6.88	6.88	-
Octroi/local/entry/SSBT Tax	10.00	-	12.50	0.29	-
Nett delivered rate exclusive of sales tax & dealers commission	529.30	516.22	575.04	567.17	515.88
Sales tax inclusive of surcharge	15.34	29.55	-	42.54	25.79
Dealer's commission	7.70	7.70	7.70	7.70	7.70
B.D.A.	-	-	-	-	3.30
Godown charges	-	-	-	-	6.60
Transportation charges	-	-	-	-	7.99
Dealers' price to retailers	552.34	553.47	582.74	617.41	567.26
Retailer's margin	17.66*	-	-	-	-
Godown charges	-	-	-	-	16.67
Transportation charges	-	-	-	-	24.64
Selling price to consumers	570.00	553.47	582.74	617.41	608.57
Selling price per litre	0.57	0.57	0.61	0.69	0.61

* As permitted by State Government.

6. AVIATION TURBINE FUEL

Ex. MI Rate	476.74	496.10	476.74	476.74	494.93
Railway freight	-	-	58.19	63.40	-
Airfield charges	24.44	24.44	24.44	41.94	24.44
Octroi/local/entry/SSBT Tax	10.00	-	12.50	-	20.00
Nett delivered rate exclusive of sales tax	511.18	520.54	571.87	582.08	539.37
Sales tax inclusive of surcharge	76.68	126.00	40.83	100.00	120.00
Retail selling price to consumers	587.86	646.54	612.70	682.08	659.37

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LOWEST POSTED PRICE OF PETROLEUM PRODUCTS AT BANDAR MAHSAHR

Date (w.e.f. :)	Avgas 100/130 ¢/AG	Avgas 115/145 ¢/AG	Avgas 73 ¢/AG	Turbine Fuel 1 (-58F) ¢/AG	M.S. 93 ¢/AG	M.S. 79 ¢/AG	Tractor Vap. Oil ¢/AG
1	2	3	4	5	6	7	8
25.7.67	14.7	16.0	12.7	9.5	9.3	6.9	8.6
5.5.68	"	"	"	"	"	"	"
29.3.69	"	"	"	"	9.0	"	"
27.10.70	"	"	"	"	"	7.6a	"
19.2.71	"	"	13.6	"	"	7.6	9.3
25.2.71	15.4	16.7	"	10.2	9.7	"	"
14.5.71	"	"	"	"	"	"	9.5
4.6.71	15.6	16.9	"	10.4	9.9	"	"
11.6.71	"	"	13.7	"	"	7.7	"
15.12.71	"	"	"	"	"	"	"

Kerosene ¢/AG	No. 2 Fuel ¢/AG	Diesel Index ¢/AG	48-52 Diesel Index ¢/AG	Industrial Diesel \$/bbl	Masine Diesel \$/bbl	Light Fuel \$/bbl
1	2	3	4	5	6	7
25.7.67	8.9	6.4	6.8	6.6	2.7	2.65
5.9.68	"	"	"	"	"	"
28.3.69	"	6.2	6.6	6.4	2.62	2.57
27.10.70	"	"	"	"	2.70	2.65
19.2.71	"	"	"	"	2.72	2.67
25.2.71	9.6	6.9	7.3	7.1	3.02	2.97
14.5.71	"	"	"	"	3.10	3.05
4.6.71	9.8	7.1	7.5	7.3	"	"
11.6.71	"	"	"	"	3.20	3.15
15.12.71	"	"	"	"	3.20	3.15

Note: No change upto 15.3.71 (a) Effective Feb., 15, 1971 ** = Effective on and since June 1st

No. 2 Fuel = Inferior Kerosene 53-57 = H.S.D. Industrial Diesel = L.D.O.

Light Fuel = Furnace Oil.

INTA SCALE FREIGHT RATES (AFRA Rates)

(Percentage)

Period	General Purpose 16500-24999 SDW ton for Vessels	Medium Range 25000-44999 SDW ton for Vessels	Large Range I 45000-79999 SDW ton for Vessels	Large Range 2 80000-159999 SDW ton for Vessels
1.	2.	3.	4.	5.
1.1.1965	(-) 20.9	(-) 31.3	(-) 39.1*	
1.1.1966	(-) 20.2	(-) 31.4	(-) 41.8*	
1.1.1967	(-) 24.1	(-) 36.5	(-) 46.4*	
1.1.1968	(+) 13.4	(+) 9.2	(-) 14.9*	
1.1.1969	(+) 6.2	(-) 9.6	(-) 28.6	(-) 37.5

WORLD SCALE RATE

January, 1970	110.6	97.4	75.3	67.5
February	115.4	102.2	78.6	68.9
March	111.7	102.2	78.0	69.4
April	111.3	100.2	78.0	69.6
May	113.5	105.2	82.0	72.2
June	117.2	107.4	82.2	73.0
July	118.4	105.0	80.9	72.4
August	124.1	110.4	82.0	73.5
September	136.4	125.9	92.1	79.6
October	146.6	139.3	99.8	85.4
November	157.5	148.1	103.9	90.3
December	170.4	156.8	109.7	95.2
January, 1971	168.5	152.4	114.7	97.9
February	158.8	142.8	111.2	94.7
March	143.0	133.5	107.8	90.7
April	133.8	130.3	109.6	91.2
May	130.3	125.7	106.3	89.5
June	123.6	119.1	103.2	90.2
July	118.8	114.7	101.4	88.8
August	114.6	110.5	99.3	86.1
September	116.1	111.2	97.0	83.4
October	117.6	109.3	95.6	81.3
November	116.3	107.8	91.4	80.9
December	118.4	107.6	87.9	79.4

* = Freight rates are for large range tankers of 45000/69999 SDW.

REALIZATION OF EXCISE & CUSTOM DUTIES
FROM CRUDE OIL & PETROLEUM PRODUCTS

(In million Rs.)

Products	1970-71 Actual	1971-72 Budget	1971-72 Revised	1972-73 Budget
1.	2.	3.	4.	5.
A. CUSTOM DUTIES				
1. Petroleum Crude	-	-	12.5	60.0
2. Motor Gasoline	45.8	54.4	96.0	97.5
3. Kerosine Oil	98.7	155.0	187.0	210.0
4. Batching, Lubricating & other Mineral Oils	94.6	113.0	142.5	160.0
5. H.S.D. & Vap. Oil	13.8	0.3	60.0	220.0
6. Ind. Fuel Oil	44.4	54.0	110.0	145.0
TOTAL	297.3	376.7	608.0	892.5
B. EXCISE DUTIES				
1. Motor Gasoline	1731.0	2225.2	2225.2	2400.0
2. Kerosine Oil	1209.7	1365.0	1345.0	1420.0
3. Refined Diesel Oil & Vap. Oil	2319.9	2650.0	2630.0	2760.0
4. Diesel Oil N.O.S.	225.6	240.0	230.0	233.0
5. Furnace Oil	332.5	350.0	320.0	300.0
6. Asphalt/Tar	92.2	110.0	120.0	140.0
7. Pet-Products (others)	170.9	296.1	322.5	332.0
TOTAL	6081.8	7236.3	7192.7	7640.0

Source : Explanatory Memorandum on the Budget
of Central Government for 1972-73.

CENTRAL EXCISE DUTY ON MOTOR SPIRIT/AVGAS
AT 15°C

(Figures in Rs.)

With effect from	Unit	Basic duty	Portion of additional duty merged	Regulatory duty	Additional duty	Total duty
1.	2.	3.	4.	5.	6.	7.
1.10.60 K.L.		280.30	44.80	-	6.75	331.85
16.8.61	"	"	"	-	20.20	345.30
28.9.61	"	"	"	-	56.05	381.15
13.4.62	"	"	"	-	43.85	368.95
1.3.63	"	406.20	"	-	"	494.85
6.10.64	"	"	"	-	56.05	507.05
18.11.64	"	"	"	-	93.00	544.00
17.2.65	"	"	"	10.00	"	554.00
26.6.65	"	"	"	"	43.60	504.60
20.8.65	"	455.70	"	"	"	554.10
1.2.66	"	"	"	"	28.60	539.10
1.5.66	"	"	"	"	43.30	553.80
6.6.66	"	453.95	-	-	86.60	540.55
22.11.66	"	451.05	-	-	93.85	544.90
7.3.67	"	"	-	-	88.15	539.20
26.5.67	"	550.00	-	-	"	638.15
1.3.68	"	"	-	-	89.05	639.05
1.3.69	"	620.00	-	-	89.05	709.05
30.8.69	"	620.00	-	-	94.75	714.75
1.3.70	"	720.00	-	-	94.75	814.75
1.6.70	"	"	-	-	99.50	819.50
29.5.71	"	920.00	-	-	99.50	1019.50
13.12.71	"	"	-	@	"	
17.3.72	"	"	-	-	81.55	1001.55

W.e.f. 13.12.71 a regulatory duty of customs @ 2½% Ad-valorem was imposed which was abolished w.e.f. 29.1.72.

CENTRAL EXCISE DUTY ON KEROSENE SUPERIOR/ATF
AT 15°C

(Figures in Rs.)

With effect from	Unit	Basic duty	Portion of additional duty merged	Regulatory duty	Additional duty	Total duty
1.	2.	3.	4.	5.	6.	7.
1.10.60 K.L.		41.90	22.30	-	4.45	68.65
1.3.61	"	73.25	"	-	"	100.00
18.3.61	"	57.58	"	-	"	84.33
15.4.61	"	"	"	-	12.62	92.50
16.8.61	"	"	"	-	"	92.50
26.9.61	"	"	"	-	26.80	106.68
13.4.62	"	"	"	-	21.27	101.15
1.3.63	"	187.70	"	-	"	231.27
17.4.63	"	160.70	"	-	"	204.27
6.10.64	"	"	"	-	26.80	209.80
18.11.64	"	"	"	-	43.00	226.00
26.6.65	"	"	"	-	38.80	221.80
20.8.65	"	212.70	"	-	"	273.80
1.2.66	"	"	"	-	16.80	251.80
1.5.66	"	"	"	-	25.50	260.50
6.6.66	"	169.35	-	-	51.00	220.35
7.3.66	"	165.25	-	-	51.95	217.20
16.12.66	"	"	-	-	55.30	220.55
7.3.67	"	"	-	-	51.95	217.20
27.4.67	"	"	-	-	55.40	220.65
1.3.68	"	"	-	-	53.00	218.25
1.3.69	"	205.25	-	-	"	258.25
30.8.69	"	"	-	-	56.35	261.60
1.3.70	"	225.25	-	-	56.35	281.60
1.6.70	"	"	-	-	58.40	283.65
29.5.71	"	"	-	-	"	"
13.12.71	"	"	-	-	@	"
17.3.72	"	285.00	-	-	68.45	353.45

W.e.f. 13.12.71 a regulatory duty of customs @ 2 1/2%
Ad-valorem was imposed which was abolished w.e.f. 29.1.72

CENTRAL EXCISE DUTY ON HIGH SPEED DIESEL OIL
AT 15°C

(Figures in Rs.)

With effect from	Unit	Basic duty	Portion of additional duty merged	Regulatory duty	Additional duty	Total DUTY
1.	2.	3.	4.	5.	6.	7.
1.10.60	K.L.	278.55	26.70	-	6.70	311.95
16.8.61	"	"	"	-	19.70	321.95
28.9.61	"	"	"	-	33.55	338.80
13.4.62	"	"	"	-	26.90	332.15
1.3.63	"	402.30	"	-	"	455.90
6.10.64	"	"	"	-	33.55	462.55
18.11.64	"	"	"	-	55.00	484.00
17.2.65	"	"	"	17.20	"	494.50
26.6.65	"	"	"	"	17.20	456.70
20.8.65	"	462.30	"	"	"	516.70
1.2.66	"	"	"	"	8.10	507.60
1.5.66	"	"	"	"	19.00	518.50
6.6.66	"	444.85	-	-	38.00	482.85
16.12.66	"	441.05	-	-	41.20	482.25
7.3.67	"	"	-	-	38.70	479.75
27.4.67	"	"	-	-	42.15	483.20
26.5.67	"	461.05	-	-	"	503.20
1.3.68	"	"	-	-	47.10	508.15
30.8.69	"	"	-	-	49.60	510.65
1.6.70	"	"	-	-	50.45	511.50
29.5.71	"	"	-	-	50.45	511.50
13.12.71	"	"	-	@	50.45	
17.3.72	"	"	-	-	57.45	518.50

W.e.f. 13.12.71 a regulatory duty of customs
@ 2½% Ad-valorem was imposed which was abolished
w.e.f. 29.1.72.

CENTRAL EXCISE DUTY ON LIGHT DIESEL OIL
AT 15°C

(Figures in Rs.)						
With effect from	Unit	Basic duty	Portion of additional duty merged	Regulatory duty	Additional duty	Total duty
1.	2.	3.	4.	5.	6.	7.
1.10.60 M.T.		77.17	14.78	-	4.90	96.85
1.3.61	"	105.32	"	-	"	125.00
16.8.61	"	"	"	-	19.65	139.75
1.9.61	"	106.12	"	-	"	140.55
28.9.61	"	"	"	-	19.70	140.60
13.4.62	"	"	"	-	16.04	136.94
1.9.62	"	102.92	"	-	"	133.74
1.3.63	"	199.72	"	-	"	230.54
6.10.64	"	"	"	-	19.70	234.20
18.11.64	"	"	"	-	31.00	245.50
17.2.65	"	"	"	11.00	"	256.50
26.6.65	"	"	"	"	53.30	278.80
20.8.65	"	75.22	"	"	"	154.30
1.2.66	"	"	"	"	49.90	150.90
1.3.66	"	145.54	"	"	"	221.22
1.5.66	"	"	"	"	54.20	225.52
6.6.66	"	108.90	-	-	60.00	168.90
16.12.66	"	106.10	-	-	116.20	222.30
7.3.67	"	"	-	-	109.10	215.20
27.4.67	"	"	-	-	91.70	197.80
1.3.68 K.L.		91.55	-	-	87.35	178.90
18.10.68	"	95.55	-	-	"	182.90
30.8.69	"	"	-	-	93.50	189.05
1.6.70	"	"	-	-	94.30	189.85
29.5.71	"	"	-	-	94.30	189.85
13.12.71	"	"	-	@	"	
17.3.72	"	95.55	-	-	84.60	180.15

W.e.f. 13.12.71 a regulatory duty of customs @ 2½% Ad-valorem was imposed which was abolished w.e.f. 29.1.72.

CENTRAL EXCISE DUTY ON FURNANCE OIL AT 15°C

(Figures in Rs.)

With effect from	Unit	Basic duty	Portion of additional duty merged	Regulatory duty	Additional duty	Total DUTY
1.	2.	3.	4.	5.	6.	7.
1.10.60 M.T.		28.95	14.78	-	4.90	48.63
16.8.61	"	"	"	-	13.85	57.58
1.9.61	"	29.17	"	-	"	57.80
28.9.61	"	"	"	-	19.70	63.65
13.4.62	"	"	"	-	16.04	59.99
1.9.62	"	27.57	"	-	"	58.39
6.10.64	"	"	"	-	19.70	59.81
18.11.64	"	"	"	-	31.00	71.11
17.2.65	"	"	"	6.50	"	77.61
26.6.65	"	"	"	"	13.00	59.61
20.8.65	"	65.22	"	"	"	99.50
1.2.66	"	"	"	"	16.80	103.30
1.5.66	"	"	"	"	18.30	104.80
6.6.66	"	52.00	-	-	36.60	88.60
22.11.66	"	49.55	-	-	39.70	89.25
7.3.67	"	"	-	-	37.30	86.85
1.3.68 K.L.		46.75	-	-	43.00	89.75
18.10.68	"	50.75	-	-	"	93.75
30.8.69	"	"	-	-	42.20	92.95
1.3.70	"	70.75	-	-	42.20	112.95
1.6.70	"	"	-	-	"	112.95
29.5.71	"	"	-	-	"	112.95
13.12.71	"	"	-	@	"	@
17.3.72	"	"	-	-	38.75	109.50

W.e.f. 13.12.71 a regulatory duty of customs @ 2½% Ad-valorem was imposed which was abolished w.e.f. 29.1.72.

XI. STATEMENT SHOWING SALES TAX RATES APPLICABLE ON
MAJOR PETROLEUM PRODUCTS IN DIFFERENT STATES AS
ON 1.1.1972

States/U.T.	Aviation Gasoline	A.T.F.	Motor Gasoline	H.S.D.	L.D.O.
1	2	3	4	5	6
Andhra Pradesh	11.43 %	6.67 %	12.68 %	11.43%	11.43 %
Assam	15 P/Ltr.	15 P/ltr.	15 P/ltr.	11 P/ltr.	11 P/ltr.
Bihar	12 Ps/ltr.	12Ps/ltr.	12Ps/ltr.	9 Ps/ltr.	5 Ps/ltr.
Chandigarh	9 Ps/ltr.	9 PPL	9 Ps/ltr.	7 Ps/ltr.	6 %
Delhi	7 %	7 %	7 %	7 %	5 %
Goa, Daman & Diu	10%	10%	10%	10%	10%
Gujarat	7 Ps/ltr.	7 Ps/ltr.	15Ps/ltr.	8Ps/ltr.	5%
Haryana	6 Ps/ltr.	7%	6Ps/ltr.	6Ps/ltr.	7%
Himachal Pradesh	7 Ps/ltr.	6%	7Ps/ltr.	7Ps/ltr.	6%
Jammu & Kashmir	7%	7%	10Ps/ltr.	10Ps/ltr.	7%
Kerala	12%	6%	15%	20%	20%
Madhya Pradesh	5 Ps/ltr.	5Ps/ltr.	12Ps/ltr.	7Ps/ltr.	7Ps/ltr.
Maharashtra	15%(Bonded) 6%(only paid)	25%(Bonded) 15%(only paid)	11%	9%	5%
Mysore	10%	12%	10%	12%	12%
Manipur	12 PPL	3%	12Ps/ltr.	7Ps/ltr.	7Ps/ltr.
Orissa	8 Ps/ltr.	5%	15Ps/ltr.	12Ps/ltr.	12Ps/ltr.
Punjab	9 Ps/ltr.	6%	9Ps/ltr.	7Ps/ltr.	6%
Rajasthan	12%	12%	15%	12½ %	20%
Sikkim	12Ps/ltr.	10Ps/ltr.	15Ps/ltr.	10Ps/ltr.	10Ps/ltr.
Tamil Nadu	12Ps/ltr.	12Ps/ltr.	12Ps/ltr.	10Ps/ltr.	10Ps/ltr.
Uttar Pradesh ⁹	10Ps/ltr.	10Ps/ltr.	10Ps/ltr.	7Ps/ltr.	7Ps/ltr.
West Bengal ¹⁰	12Ps/ltr.	12Ps/ltr.	15Ps/ltr.	10Ps/ltr.	10Ps/ltr.

9. Delhi: Surcharge at 2% of tax payable on all products (except Kerosine) effective 1.1.1972.

10. W.Bengal: Surcharge at 2% of tax payable on products falling under Bengal Finance (Sales Tax) Act 1941 and W.Bengal General Sales Tax Act, 1954 effective 1.2.1972.

..../-

From pre-page]

States/U.T.	Superior Kerosine	Inferior Kerosine	M.T.O.	Lubricating oils	Naphtha	Bitumen
1	7	8	9	10	11	12
Andhra Pradesh	3.36%	3.36%	3.36%	5.56%	3.36%	3.36%
Assam ¹	3Ps/ltr.	2Ps/ltr	7%	10Ps/ltr.	7%	7%
Bihar ²	5%	5%	6%	7%	6%	6%
Chandigarh	6%	6%	6%	6%	6%	6%
Delhi	Exempted	Exempted	5%	5%	5%	5%
Goa, Daman & Diu ³	3%	3%	5%	5%	-	5%
Gujarat ⁴	3%	3%	5%	3%	5%	5%
Haryana ⁵	7%	7%	7%	7%	7%	7%
Himachal Pradesh ⁶	Exempted	Exempted	6%	6%	6%	6%
Jammu & Kashmir	2%	2%	7%	7%	7%	7%
Kerala	4%	4%	3%	7%	5%	3%
Madhya Pradesh	7.53%	7.53%	7.53%	7.53%	7.53%	7.53%
Maharashtra	3%	3%	5%	5%	5%	5%
Mysore ⁷	4%	4%	3%	6%	3%	3%
Manipur	3%	3%	3%	9 Ps/ltr.	3%	3%
Orissa	5%	2%	5%	8%	5%	5%
Punjab ⁸	6%	6%	6%	6%	6%	6%
Rajasthan	7%	7%	12%	7%	7%	7%
Sikkim	Exempted	Exempted	6%	6%	6%	6%
Tamil Nadu	5% %	5½ %	7%	7%	7%	7%
Uttar Pradesh	7%+¼%	7% + ¼%	3% + ¼%	7% + ¼%	3% + ¼%	6%+¼%
West Bengal	5%	Exempted	6%	6%	6%	6%

In addition to the S. Tax payable, the following tax amount are also payable (for refugee relief): / products falling Assam Motor Spirit T. Act.

1. Assam: 1% surcharge on sales tax payable for products falling under Assam Sales Tax Act effective 4.12.71 & effective 13.12.71 for /
2. Bihar: Additional tax at 25 paise for every Rs. 100/- of the value of the bill eff. 1.12.71 (on products under sales tax Act).
3. Goa Daman & Deu: Surcharge at 2% of the S. Tax eff. 1.1.72 (all Prod.)
4. Gujarat: Surcharge at 2% on sales tax eff. 1.12.71 (on products under S. Tax Act).
5. Haryana: Surcharge at 2% on sales tax for a period of one year ending 30.11.72 eff. 1.12.71 (on products under S. Tax Act).
6. Madhya: Turn over tax at 0.2% of the value of the bill eff. 15.11.71 (on all products).
7. Mysore: Additional tax at 2% of the sales tax eff. 1.12.71 (on all products).
8. Punjab: Additional tax at 2% of the sales tax eff. 15.11.72 (on products under General Sales Tax Act).

XI. INTERNATIONAL PETROLEUM STATISTICSESTIMATED WORLD CRUDE OIL & GAS RESERVES
AS ON 1.1.1972

Country	O I L		G A S	
	('000' million bbls.)	% of total	('000' Cu.ft.)	% of total
1. <u>Total Western Hemisphere</u> of which:	10.4	12.2	396.7	23.0
1.1 U.S.A.	5.0	5.9	269.6	15.6
1.2 Venezuela	1.9	2.2	25.4	1.5
1.3 Canada	1.1	1.3	54.4	3.2
1.4 Ecuador	0.8	0.9	6.0	0.3
1.5 Mexico	0.6	0.7	11.5	0.7
1.6 Argentina	0.3	0.4	7.6	0.4
2. <u>Total Africa</u> of which:	8.0	9.4	193.0	11.2
2.1 Libya	3.4	4.0	29.5	1.7
2.2 Algeria	1.7	2.0	106.5	6.2
2.3 Nigeria	1.6	1.9	40.0	2.3
2.4 Egypt	0.5	0.6	7.5	0.4
3. <u>Total Middle East</u> of which:	49.7	58.2	343.9	19.9
3.1 Saudi Arabia	19.6	23.0	52.0	3.0
3.2 Kuwait	8.9	10.4	35.0	2.0
3.3 Iran	7.5	8.8	200.0	11.6
3.4 Iraq	4.9	5.7	22.0	1.3
3.5 Neutral Zone	3.3	3.9	8.0	0.5
3.6 Abu Dhabi	2.6	3.0	10.0	0.6
4. <u>Total Europe</u> of which:	1.9	2.2	163.3	9.5
4.1 West Germany	0.9	1.1	10.0	0.6
4.2 U.K.	0.7	0.8	40.0	2.3
4.3 Netherlands	0.1	0.1	14.0	0.8
4.4 Italy	0.04	neg.	83.0	4.8
4.5 Norway	0.03	neg.	6.0	0.3
5. <u>Total Asia & Pacific</u> of which:	2.1	2.4	69.8	4.0
5.1 Indonesia	1.4	1.6	4.5	0.3
5.2 Australia	0.4	0.5	24.8	1.4
5.3 India	0.1	0.1	1.5	0.1
5.4 Pakistan	neg.	neg.	19.5	1.1
6. <u>Total Free World</u>	72.1	84.4	1166.7	57.6
7. <u>Total Communist World</u> of which:	13.3	15.6	558.0	32.4
7.1 Russia	10.1	11.8	546.0	31.7
7.2 Red China	2.7	3.2	4.0	0.2
7.3 Hungry	0.1	0.1	3.0	0.2
7.4 Others	0.3	0.4	5.0	0.3
TOTAL WORLD	85.4	100	1724.7	100

Source:- Oil & Gas Journal Dec., 27, 1971.

WORLD ESTIMATED CRUDE OIL PRODUCTION (a)

Country	ACTUAL PRODUCTION				(Million tonnes)		
	1959	1964	1970	1971	% increase over previous year		Proportion of total 71
					1970	1971	
<u>North America</u> (b)	404	458	604	607	+ 5.6	+ 0.5	24.6
of which: USA	379	417	534	532	+ 4.7	- 0.4	21.6
Canada	25	41	70	76	+12.9	+ 8.6	3.1
<u>Caribbean Area</u>	160	193	211	202	+ 2.4	- 4.3	8.2
of which: Venezuela	146	177	193	184	+ 3.2	- 4.7	7.5
<u>Other Latin America</u>	27	41	56	58	+ 1.8	+ 3.6	2.4
of which: Mexico	14	16	22	22	+ 4.8	-	0.9
Argentina	6	14	20	22	+11.1	+10.0	0.9
<u>Middle East</u>	231	387	714	824	+12.8	+15.4	33.4
of which: Iran	46	84	192	227	+14.3	+18.2	9.2
S. Arabia	54	86	177	222	+18.8	+25.4	9.0
Kuwait	70	107	137	145	+ 5.4	+ 5.8	5.9
Iraq	42	61	77	83	+ 2.7	+ 7.8	3.4
Abu Dhabi	-	2	33	44	+13.8	+33.3	1.8
Kuwait Neutral Zone	4	20	27	26	+12.5	- 3.7	1.1
Egypt	3	6	16	16	+33.3	-	0.6
<u>Africa (excl. Egypt)</u>	3	76	275	259	+19.0	- 5.8	10.5
of which: Libya	-	42	159	132	+ 6.7	-17.0	5.4
Algeria	1	26	47	36	+ 6.8	-23.4	1.5
Nigeria	1	6	53	74	+96.3	+39.6	3.0
<u>Western Europe</u>	13	18	16	15	- 5.9	- 6.2	0.6
of which: W. Germany	5	8	8	7	-	-12.5	0.3
<u>Far East</u>	26	31	67	78	+24.1	+16.4	3.2
of which: Indonesia	18	23	42	44	+13.5	+ 4.8	1.8
Brunei/Sarawak	5	4	7	7	+16.7	-	0.3
India	0.5	2	7	7	-	-	0.3
Burma	0.5	0.6	0.8	0.9	-	+12.5	neg.
Pakistan	0.3	0.5	0.5	0.5	-	-	neg.
<u>Eastern Europe & China</u>	147	249	393	422	+ 8.3	+ 7.4	17.1
of which: USSR	130	224	353	378	+ 7.3	+ 7.3	15.3
Rumania	11	12	13	14	-	+ 7.7	0.6
China (c)	4	9	23	23	+42.9	+15.0	0.9
WORLD TOTAL	1011	1453	2336	2465	+ 9.6	+ 5.5	100

(a) Excluding small scale production in Cuba, Thailand, Mongolia and Newzealand.

(b) Including natural gas liquids, also Canadian synthetic oil.

(c) Including oil from Shale and Coal.

Source:- Petroleum Press Service - May, 1972.

PRODUCTIVITY OF PRODUCING WELLS IN SELECTED
FIELDS IN THE WORLD -1971

Country	Field & Discovery date	Depth (Meters)	WELLS		Daily Av. (000 bbl)	Gravity (API)	t/w/d 1971
			F	P			
Algeria	Edjelah (1959)	580-915	101	-	18.9	36.0	25.1
	Zarzaitine/ N.Zarzaitine (1958)	976-1403	12	-	44.2	42.0	476.1
Libya	Zelten (1959)	1678-2318	144	1	357.9	39.0	325.0
	Gialo (1961)	671-1922	-	127	359	35.7	378.9
	Sarir (1961)	2745	68	-	440	37.8	857.0
Iran	Agha Jari (1938)	1982	39	-	848	33.9	2949.1
	Gach Saran (1928)	2135	29	-	882	31.3	4197.3
	Darius (1961)	3355	11	-	100	34.0	1232.2
	Sasson (1966)	1220-2074	10	-	137	31-34	1803.8
	Rostom (1966)	1220-2074	27	-	55	28-42	282.8
	Kirkuk (1927)	854-1281	47	-	1097	36.0	3128.7
Iraq	Rumaila (1953)	3294	26	-	480	35.0	2489.1
	Kkaji (offshore) (1961)	1549-1635	72	-	322	28.5	627.9
Saudi Arabia	Abqaiq (1940)	2034	74	-	892	38.0	1596.6
	Safaniya-offshore (1951)	1556	37	-	791	27.0	1283.8
	Ghawar (1948)	2044	171	-	2058	35.0	1622.6
Burma	Chanklanywa (1902)	1068	-	20	14	36.0	93.8
	Yenangyuang (1902)	1525	-	29	5	36.0	23.1
India	Nahorkatiya-Assam (1953)	2898	150	-	44	22-48	39.5
	Ankleshwar-Gujarat (1960)	1201	183	-	66	22-48	48.6
Indonesia	Bekasap (1955)	763	-	18	106	32.6	807.8
	Minas (1944)	732	-	139	408	35.5	394.6

t/w/d = Tonnes/wells/day

F = Flowing

P = Pumping

WORLD OIL REFINING CAPACITY AT END 1971 & 1970

Country/area	Mn. tonnes per annum		Percentage		
	1971	1970	1971 share of total	Change	
				1971 over 1970	Annual average 1966/1971
<u>North America</u>					
U.S.A.	669	635	23.7	+ 5.3	+ 4.9
Canada	80	68	2.8	+18.7	+ 7.8
Mexico	29	27	1.1	+ 7.6	+ 6.2
TOTAL NORTH AMERICA	778	730	27.6	+ 6.6	+ 5.3
<u>Caribbean</u>					
Venezuela	69	68	2.5	+ 0.8	+ 2.5
Trinidad	23	23	0.8	+ 0.7	+ 2.5
N.W.I.	43	43	1.5	-	+ 1.7
Other Caribbean	70	68	2.5	+21.3	+22.0
TOTAL CARIBBEAN	205	192	7.3	+ 6.8	+ 6.9
<u>South America</u>					
Argentina	32	25	1.1	+30.2	+ 7.4
Brazil	29	26	1.0	+12.0	+ 8.6
Other South America	16	15	0.6	+ 7.5	+ 9.9
TOTAL SOUTH AMERICA	77	66	2.7	+17.7	+ 8.4
TOTAL WESTERN HEMISPHERE	1060	988	37.6	+ 7.4	+ 5.8
<u>Western Europe</u>					
Belgium	43	36	1.5	+19.6	+19.7
France	129	116	4.6	+10.9	+ 9.8
W. Germany	128	122	4.5	+ 5.0	+ 7.0
Netherlands	78	68	2.8	+14.6	+17.2
Italy	174	149	6.2	+16.7	+ 9.3
U.K.	121	116	4.3	+ 4.4	+ 6.6
Spain	31	29	1.1	+ 7.1	+20.9
Other Western Europe	98	94	3.5	+ 4.5	+12.9
TOTAL WESTERN EUROPE	802	730	28.5	+ 9.8	+10.4
<u>Middle East</u>					
Aden	8	8	0.3	-	-
Bahrain	10	10	0.4	-	-
Iran	31	31	1.1	-	+ 3.0
Saudi Arabia	21	21	0.8	-	+ 8.7
Kuwait	28	25	1.0	+15.4	+ 8.5
Neutral Zone	4	4	0.1	-	+ 0.3
Other Middle East	18	17	0.6	+ 7.4	+ 7.6
TOTAL MIDDLE EAST	120	116	4.3	+ 4.3	+ 5.1
Africa	45	37	1.6	+20.1	+ 9.1
South Asia	32	31	1.1	+ 2.1	+ 8.5
South East Asia	86	70	3.1	+23.3	+20.6
Japan	193	169	6.8	+14.1	+13.2
Australia	36	34	1.3	+ 7.1	+ 6.1
USSR, E. Europe & China	442	409	15.7	+ 7.9	+10.0
TOTAL EASTERN HEMISPHERE	1756	1596	62.4	+10.0	+10.4
WORLD (excl. USSR, E. Europe and China)	2374	2175	84.3	+ 9.2	+ 8.2
World	2816	2584	100.0	+ 9.0	+ 8.5

Source:- British Petroleum Statistical review of the
World oil industry - 1971.

WORLD OIL CONSUMPTION 1971 AND 1970

Country/Area	Oil Consumption Million Tonnes		1971 share of Total	PERCENTAGE Change	
	1971	1970		1971 over 1970	Annual average 1966/1971
U.S.A.	726	706	30%	+ 3.0	+ 4.5
Canada	78	74	3	+ 5.6	+ 5.9
Mexico	26	24	1	+ 6.5	+ 7.0
Caribbean	57	54	2	+ 5.7	+ 5.8
South America	67	63	3	+ 5.7	+ 6.9
TOTAL WESTERN HEMISPHERE	<u>954</u>	<u>921</u>	<u>39</u>	<u>+ 3.6</u>	<u>+ 4.9</u>
Belgium & Luxembourg	29	28	1	+ 2.4	+10.3
Netherlands	37	38	1	- 1.8	+ 5.5
France	105	96	4	+ 9.2	+12.3
Italy	93	88	4	+ 5.7	+ 9.9
West Germany	135	131	6	+ 3.3	+ 8.3
U.K.	105	104	5	+ 0.9	+ 5.4
Scandinavia	55	58	2	- 3.9	+ 6.9
Spain	27	24	1	+11.5	+15.3
Other Western Europe	76	69	3	+10.1	+10.9
TOTAL WESTERN EUROPE	<u>662</u>	<u>636</u>	<u>27</u>	<u>+ 4.2</u>	<u>+ 8.9</u>
Middle East	55	51	2	+ 8.2	+ 6.4
Africa	46	43	2	+ 8.1	+ 7.6
South Asia	29	28	1	+ 7.5	+ 9.2
South East Asia	63	59	3	+ 6.4	+17.0
Japan	224	202	9	+10.5	+17.1
Australia	34	29	1	+ 4.0	+ 6.6
USSR, East Europe & China	370	340	16	+ 8.7	+ 8.7
TOTAL EASTERN HEMISPHERE	<u>1480</u>	<u>1388</u>	<u>61</u>	<u>+ 6.6</u>	<u>+10.0</u>
TOTAL WORLD (excluding USSR, E. Europe & China)	<u>2064</u>	<u>1969</u>	<u>84</u>	<u>+ 4.9</u>	<u>+ 7.6</u>
WORLD	2134	2309	100	+ 5.4	+ 7.8

Source: British Petroleum Statistical Review of the World Oil Industry-71

PRIMARY ENERGY CONSUMPTION IN MAIN AREAS

(Million tonnes oil equivalent)

Country/Area	1 9 7 1					1 9 7 0				
	Oil	Natural Gas	Solid fuels	Water power	Nuclear	Total	Oil	Natural Gas	Solid fuels	Water power
U.S.A.	726.8	566.8	342.2	21.3	3.1	1660.2	705.7	545.0	335.5	20.7
Canada	78.2	24.9	20.5	13.6	0.3	147.5	74.2	32.7	19.4	13.0
<u>WESTERN EUROPE</u>										
Belgium & Luxembourg	29.1	4.9	11.9	0.2	-	46.1	28.3	3.8	12.2	0.2
Netherlands	36.5	20.0	3.6	-	-	66.1	37.1	16.5	4.5	-
France	104.6	10.4	36.1	4.5	0.6	156.2	95.8	9.4	39.2	4.7
W. Germany	134.9	16.3	84.8	1.8	0.6	238.4	130.7	13.1	87.8	1.9
Italy	93.8	11.0	10.6	4.2	0.3	119.9	88.7	9.9	10.5	4.0
U.K.	164.4	16.3	84.5	0.4	1.8	207.4	103.4	12.0	95.3	0.4
Scandinavia	55.5	-	5.4	9.6	0.2	70.7	57.7	-	6.0	8.5
Spain	27.3	0.9	10.9	2.9	0.2	42.2	24.5	0.1	10.8	2.5
Other Western Europe	76.4	3.8	37.3	7.7	0.2	125.4	69.5	3.5	37.5	7.0
TOTAL WESTERN EUROPE	662.5	83.6	285.1	31.3	3.9	1066.4	635.7	68.3	300.8	29.2
Japan	223.5	3.0	62.7	7.2	0.5	296.5	202.3	2.7	61.7	7.2
Australasia	30.5	1.7	24.6	1.9	-	58.7	29.3	1.2	23.6	1.8

Source:- British Petroleum Statistical review of the world oil industry - 1971.

WORLD TANKER FLEET AT END 1971

(Excluding 20.3 million D.W.T. combined carriers)
(2,000 D.W.T. tonnes and over)

By Flag and Ownership

Flag	OWNERSHIP				Total 1971	Total 1970	Change 1971 over 1970	Share of Total 1971
	Oil Cos.	Pvt.	Govt.	Other				
	Million Tonnes Deadweight							
Liberia	8.3	35.2	-	0.2	43.7	38.4	+ 5.3	25
Norway	0.2	19.2	-	-	19.4	17.5	+ 1.9	11
U.K.	17.9	7.4	0.2	0.1	25.6	22.3	+ 3.3	14
Japan	3.1	15.9	-	-	19.0	15.8	+ 3.2	11
U.S.A.	4.1	4.1	1.7	-	9.9	9.7	+ 0.2	5
Panama	3.4	2.4	-	-	5.8	5.7	+ 0.1	3
France	4.8	2.8	0.1	-	7.7	5.9	+ 1.8	4
Greece	-	8.6	-	-	8.6	7.9	+ 0.7	5
Other Western Europe	10.6	13.4	0.1	-	24.1	21.7	+ 2.4	14
Other Western Hemisphere	2.7	0.3	0.3	-	3.3	3.4	- 0.1	2
USSR, E. Europe & China	-	-	6.3	-	6.3	6.2	+ 0.1	4
Other Eastern Hemisphere	1.0	3.3	0.1	-	4.4	3.7	+ 0.7	2
TOTAL	56.1	112.6	8.8	0.3	177.8	158.2	+19.6	100
Fleet as at end 70	50.0	99.2	8.8	0.2	158.2			
Net increase 1971	6.1	13.4	-	0.1	19.6			

Source:- British Petroleum Statistical Review of the World
Oil Industry- 1971.

INTERNATIONAL PRICES OF PETROLEUM PRODUCTS

I. U.K. (Prices include tax in effect May 5, 1970)

1. <u>Motor Gasoline:</u> (Inner Zone prices inclusive of tax (22.5 p/gal.)	Retail schedule Bulk price/I.G.	Rs./K.L.	Bulk wholesale price per I.G.	Rs./K.L.
Two standard	30.50 p	1208	31.75 p	1325
Three "	30.92 p	1224	32.69 p	1364
Four "	31.75 p	1257	33.63 p	1404
Five "	32.48 p	1286	34.35 p	1433
* prices to resellers per gallon by grade & zone generally in 2000 gal. loads.				

2. <u>DERV FUELS</u> (Inclusive of tax 22.5 p/gal.)	Bulk schedule price per I.G.	Rs./K.L.	Bulk wholesale price per I.G.	Rs./K.L.
Inner zone	31.02 p	1228	31.44 p	1312

** price to resellers per gallon by zone.

3. <u>Kerosine</u> (Bulk wholesale inner zone price/including tax 1.0 p/gal.)	Price per I.G.	Rs. per K.L.
SG Burning oil	10.67 p	445
PG Burning oil	11.92 p	497

4. <u>Fuel Oils</u> (tax 1.0 p per gal.-- inner zone)	Price per I.G.	Rs./K.L.
Sec. 220	8.74 p	365
Red wood 950	8.17 p	340
Max 3500	7.90 p	332

Above prices, all products, effective February 21, 1971.

II. France (Retail prices including tax)

1. <u>Motor Gasoline</u>	Tax	Francs/Hecto litre	Rs./K.L.
Standard Grade	80.20	111.00	1499
Premium "	84.63	121.00	1634
2. <u>DERV FUELS</u>	48.15	78.90	1065
3. <u>Kerosine</u> (at pump)	45.80	78.30	1057
4. <u>Domestic Heating Oil</u> (to consumers tank in 2.5/5 hectolitre lots)	6.82	32.10	433
5. <u>Fuel Oils</u> (in rail tank car lots)	Tax	Francs/tonne	Rs./tonne
Light	41.25	253.90	343
Heavy No.1	33.22	220.30	298
Heavy No.2	30.47	201.90	285

Effective dates: Motor spirit- May 5, 71, Derv, Domestic Heating oil, Fuel Oil - November 1, 1971, Kerosine - August, 1971.

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III. West Germany (current retail prices)

<u>Motor Spirit</u>	<u>DM/100 litre</u>	<u>Rs./K.L.</u>
BP Regular lowest	57.9	1308
BP Supper "	63.9	1443

Effective date: 5 May, 1971.

IV. Italy (Official max. retail prices including tax.)

<u>1. Motor Spirit</u>	<u>Tax</u>	<u>Lira/litre</u>	<u>Rs./K.L.</u>
Standard grade	118.62	152	1903
Primum grade	121.37	162	2028
<u>2. Kerosine</u> (shell quotation)	56.47	84	1052
<u>3. H.S.D.</u>	50.34	75	939
<u>4. Fuel Oils</u>	<u>Tax</u>	<u>Lira/tonne</u>	<u>Rs./tonne</u>
Light	2530	17300	217
Medium	1970	16050	201
Heavy	1184	14250	178

Effective dates: Motor Spirit: BP price - October 26, 1970;
 Taxes - May 13, 1971, Kerosine: Tax and price - May 13, 71,
 HSD: Price- Feb., 1971; Tax- May 13, 1971, Fuel Oil: Price-
 Dec. 18, 1970; Tax- May 13, 1971.

Conversion factors used

£	=	Rs. 18.9677
\$	=	Rs. 7.279
F	=	Rs. 1.3503
DM	=	Rs. 2.25887
Lira	=	Rs. 0.12518

Posted Airport Price of ATF at major international airports

Airport	Price as on	Posted Airport Price	Rebate off PAP Rates granted to major international airlines	Non-refundable duties and Taxes
London	31.12.71/1.1.72	18.35	1.50	0.13
Paris	"	19.73	-	-
Frankfurt	"	28.78	2.00	0.17
Cairo	"	20.00	2.00	0.17
Tokyo	"	17.20	-	-
Hongkong	"	20.50	Nil	Nil
Singapore	"	20.00	-	-
New York	Firm Contract price	9.97	0.87	-
				See Note 2

Note 1: Non-refundable British Airport Authority Gallonage charge, currently 0.125 USC/USG is applicable to all deliveries in the Cargo area and Jumbo (747 Aircraft) area whether deliveries are made by Hydrant dispenses or refueller.

Note 2: There is no Posted Airport Price at J.F.K. Airport, New York where all aviation fuelling operations are carried out by Allied New York Services Inc. as the sub contractor of Port of New York Authority.

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