


# INDIAN PETROLEUM & NATURAL GAS STATISTICS

# 2010-11

GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM & NATURAL GAS
ECONOMIC DIVISION
NEW DELHI

## Government of India
## Ministry of Petroleum & Natural Gas

# Foreword

The Ministry of Petroleum & Natural Gas has been publishing its annual bulletin "***Indian Petroleum & Natural Gas Statistics***" since 1967 containing comprehensive information on the Oil & Gas Sector. The bulletin provides information in terms of both calendar year and financial year, to address the demands of the diverse users. It also includes a brief write-up on production performance of Petroleum & Natural Gas Sector - Some Key Macro-Economic Trends during 2010-11. The bulletin denotes the sustained efforts of the Economic Division of the Ministry.

We welcome suggestions to improve the bulletin.

(G.C.Chaturvedi)
Secretary to the Government of India

Shastri Bhawan
New Delhi-110001
March, 2012

**Government of India**
**Ministry of Petroleum & Natural Gas**
**Economic Division**

## Preface

The Economic Division of the Ministry of Petroleum & Natural Gas has conscientiously endeavoured to bring out its annual bulletin "***Indian Petroleum & Natural Gas Statistics***" from 1967. This has been made possible with inputs furnished by various Ministries and Departments of the Government of India, Petroleum Planning & Analysis Cell as well as the oil companies.

We express our deep sense of gratitude to all the data providers to the Ministry and record our appreciation for the efforts put in by the officials of the Economic Division viz., Shri Sukhvir Singh, Director, Shri Ramswaroop Singh, Research Officer, Shri S.S Chahal, Senior Investigator, Shri Shyam Lal, Jr. Investigator and Shri Ashutosh Sharma, Consultant.

Suggestions for improvement would be appreciated.

Archana Sahay

(Dr. Archana S Mathur)
Economic Adviser

Paryavaran Bhawan
New Delhi-110003
March, 2012

# Contents


| S.No | Subject | Page No. |
|---|---|---|
| | **I. General** | |
| I.1 | Scope & Coverage of Data Published | 1 |
| I.2 | Performance of Petroleum & Natural Gas Sector-Some Key Macro-Economic Trends | 2-8 |
| I.3 | Indian Economy-Selected Indicators | 9 |
| I.4 | Trends in Indian Petroleum Industry at a Glance(Financial Years) | 10 |
| 1.5 | International Petroleum Statistics 2006 to 2010 | 11 |
| I.6 | (a) Petroleum Energy in India: 2002-2010(Calendar Years) | 12 |
| | (b) Petroleum Energy in India: 2002-03 to 2010-11 (Financial Years) | 13 |
| | **II. Exploration-Crude Oil & Natural Gas** | |
| | **Exploration** | |
| II.1 | Area-wise deployment of deep drilling rigs , wells & metreage drilled by ONGC & OIL | 17 |
| II.2 | Exploratory and development drilling by ONGC & OIL . | 18 |
| II.3 | Status of Wells as on 1st April of each year | 19 |
| II.4 | State-wise Geological Surveys achievements upto 31.3.2011 | 20 |
| II.5 | State-wise achievements of geophysical field parties in India since inception upto 1-4-2011 | 21 |
| II.6 | Basin-wise/State-wise achievements of drilling since inception upto 1-4-2011 | 22 |
| II.7 | State-wise/Basin-wise oil and gas fields in India as on 1.4.2011 | 23 |
| | **Crude Oil** | |
| II.8 | Reserves of Crude Oil in India | 24 |
| II.9 | Company-wise production of crude oil in India (Calendar & Financial Years) | 25 |
| II.10 | State-wise production of crude oil in India (Calendar & Financial Years) | 26 |
| | **Natural Gas** | |
| II.11 | Reserves of natural gas in India | 27 |
| II.12 | State-wise gross production of natural gas in India (Calendar & Financial Years) | 28 |
| II.13 | State-wise gross and net production of natural gas in India. | 29-30 |
| II.14 | State-wise utilisation of natural gas in India (Financial Years) | 31 |
| II.15 | Industry- wise offtakec of Natural Gas in India | 31 |
| | **III. Refining, Transportation & Marketing** | |
| | **Refining** | |
| III.1 | Petroleum refining capacity in India | 35 |
| III.2 | Refinery crude throughput and production of petroleum products (Calendar & Financial Years) | 36 |
| III.3 | Refinery-wise crude Throughput and production of petroleum products during 2006-07 to 2010-11 | 37 |
| III.4 | (a) Production of Petroleum Products/Pattern of Production: 2002 to 2010 | 38 |
| | (b) Production of Petroleum Products/Pattern of Production:2002-03 to 2010-11 | 39 |
| | **Transportation** | |
| III.5 | Crude oil, natural gas and product pipelines in India | 40 |

| S.No | Subject | Page No. |
|---|---|---|
| III.6 | Tonnage of Indian tankers fleet – 2002 to 2011 | 41 |
| III.7 | Indian Tonnage as on 31.3.2011 | 42-43 |
| III.8 | Share of traffic of petroleum products in the total traffic handled at major ports | 44-45 |
| III.9 | Movement of POL traffic on Railways since 2002-03 To 2011 | 46 |
| III.10 | Rail freight rates in respect of petroleum products | 46 |
| | **Marketing Network** | |
| III.11 | Total Retail outlets in India | 47 |
| III.12 | State-wise number of retail outlets, LDO/SKO dealers and LPG distributors as on 1.4.2011 | 48 |
| III.13 | State-wise and company-wise retail outlets as on 1.4.2011 | 49 |
| III.14 | State-wise and company-wise LPG domestic consumers as on 1.4.2011 | 50 |
| III.15 | CNG activities in India as on 01.04.2011 | 51 |
| III.16 | Introduction to Green Fuels in India | 52 |
| | **IV. Prices** | |
| IV.1 | Wholesale price indices of selected petroleum products | 55 |
| IV.2 | Month & Year-wise average of International Crude Oil prices(Indian Basket) | 56 |
| IV.3 | (a) Weighted average of crude oil prices | 57 |
| | (b) Consumer and producer prices of natural gas | 58 |
| IV.4 | Subsidies provided under Budget of Government of India | 59 |
| IV.5 | Subsidies provided by the Government of India & Oil companies on PDS SKO & Domestic LPG | 60 |
| IV.6 | Price build-up of selected petroleum-products in major cities as on 01.04.2011 | 61-63 |
| IV.7 | Trends in retail selling prices of selected petroleum products in metropolitan towns in India | 64 |
| IV.8 | Rates of dealer's commission for MS, HSDO and LPG in India | 64 |
| | **V. Consumption** | |
| V.1 | (a) Product-wise consumption of petroleum products during 2003-2010 | 67 |
| | (b) Product-wise consumption of petroleum products during 2003-04 to 2010-11 | 68 |
| | (c) Product-wise consumption of petroleum products by Public and Private Sector | 69 |
| V.2 | Sector-wise consumption (end use) of selected petroleum products | 70-74 |
| V.3 | Consumption of petroleum products and market share of oil companies in India | 75 |
| V.4 | Deliveries made to international/coastal bunkers during 2003-04 to 2010-11 | 75 |
| V.5 | State-wise consumption of major petroleum products during 2010-11 | 76-77 |
| V.6 | State-wise per capita sales of petroleum products and per capita Sales of selected petroleum products | 78 |
| | **VI. Trade** | |
| VI.1 | Import/Export of crude oil and petroleum products from 2002-2010 | 81 |
| VI.2 | Import/Export of crude oil and petroleum products from 2002-03to 2010-11 | 82 |
| VI.3 | India's Pol. Imports as proportion to overall Exports from the Country: 2002-03 to 2010-11 | 83 |
| VI.4 | Import/Export of crude oil and petroleum products (product-wise) from 2006 to 2010 | 84 |
| VI.5 | Import/Export of crude oil and petroleum products (product-wise) from 2006-07 to 2011-12 | 85 |
| VI.6 | Trends in India's overall trade balance and trade balance with OPEC countries | 86 |

| S.No | Subject | Page No. |
|---|---|---|
| VI.7 | Annual Growth of Foreign Direct Investment Equity Inflows | 87 |
| | **VII. Taxes and Duties** | |
| VII.1 | Realisation of excise and custom duties from crude oil and petroleum products | 91 |
| VII.2 | Royalty and oil development cess paid by oil companies on production of crude oil and natural gas during 1975-76 to 2007-08 | 92 |
| VII.3 | Sales tax rates applicable on crude oil, natural gas and petroleum products in different States | 93-94 |
| VII.4 | Sales tax payments on crude oil, condensates, natural gas and petroleum products | 95 |
| | **VIII. Manpower** | |
| VIII.1 | Manpower employed in the petroleum industry in India 2002-2011 | 99 |
| VIII.2 | Category-wise manpower employed in the petroleum industry in India 2002-2011 | 100 |
| VIII.3 | Category-wise manpower employed in various sectors of petroleum industry in India 2002-2011 | 101 |
| | **IX. Energy** | |
| IX.1 | Gross Production of energy by various sources in India | 105 |
| IX.2 | Gross Domestic Product by Economic Activity | 106 |
| | **X. Plan Outlay & Expenditure** | |
| X.1 | Expenditure of Public Sector Undertakings of Ministry of Petroleum & Natural Gas | 109 |
| X.2 | Import availability ratios of crude oil & petroleum products | 110 |
| X.3 | Crude oil processing and import during the Eleventh Plan | 110 |
| X.4 | Eleventh Plan Demand Projections for petroleum products | 110 |
| X.5 | Crude oil and natural gas production projection profile for Eleventh Plan | 111 |
| X.6 | Availability of Petroleum Products during Eleventh Plan | 111 |
| X.7 (a) | Refinery-wise capacity addition during the Eleventh Plan | 112 |
| X.7 (b) | Projected Refinery - wise Capacity addition during the Eleventh Plan | 113 |
| X.8 | Refining capacity addition during the Eleventh Plan | 114 |
| X.9 | Estimates of demand of petroleum products during the Eleventh Plan | 114 |
| X.10 | Dividend paid by Public Sector Undertakings under the Ministry of Petroleum & Natural Gas | 115 |
| X.11 | Equity capital of Public Sector Undertakings under the Ministry of Petroleum and Natural Gas | 115 |
| X.12 | Profit earned by Public Sector Undertakings under the Ministry of Petroleum and Natural Gas | 116 |
| X.13 | Performance of Public Sector Undertakings under the Ministry of Petroleum and Natural Gas | 117 |
| | **XI. International Petroleum Statistics** | |
| XI.1 | (a) World proved reserves of crude oil at end 2010 | 121-122 |
| | (b) World proved reserves of natural gas at end 2010 | 123-124 |
| XI.2 | World crude oil production during 2004-2010 | 125-126 |
| XI.3 | Crude oil production by OPEC member countries | 127 |
| XI.4 | World production of natural gas 2004-2010 | 128-129 |
| XI.5 | World consumption of natural gas 2004-2010 | 130-131 |

| S.No | Subject | Page No. |
|---|---|---|
| XI.6 | Productivity of producing wells in OPEC Member countries during 2010 | 132 |
| XI.7 | World oil refining capacity | 133 |
| XI.8 | World refinery crude throughput 2004-2010 | 134 |
| XI.9 | Country-wise world oil consumption 2004-2010 | 135-136 |
| XI.10 | Product-wise regional consumption of main petroleum products during 2004-2010 | 137-138 |
| XI.11 | World oil production, consumption and relative deficit/surplus in each country/region | 139 |
| XI.12 | World crude oil & petroleum products imports and exports during 2010 | 140 |
| XI.13 | Exports of crude oil & refined petroleum products from OPEC | 141 |
| XI.14 | World imports of natural gas by country-2004-2010 | 142-143 |
| XI.15 | World imports of refined products by country-2004-2010 | 144 |
| XI.16 | World crude oil exports by country-2004-2010 | 145 |
| XI.17 | World exports of refined products by country-2004-2010 | 146 |
| XI.18 | International petroleum Crude price index during 2004-2010 | 147 |
| XI.19 | Spot prices of key OPEC crude since 2004. | 148 |
| XI.20 | Crude oil spot prices in US$ per barrel | 149 |
| XI.21 | Petroleum products spot prices in US$ per barrel | 149 |
| XI.22 | Natural gas prices for Industry and Household use | 150 |
| XI.23 | Crude oil import costs in US$ per barrel | 151 |
| XI.24 | Spot prices of key OPEC crude oils | 152 |
| XI.25 | Spot prices of major petroleum products in key trading centres of the world | 153 |
| XI.26 | World survey of selected petroleum products prices in 2010 | 154 |
| XI.27 | Airfield prices of Jet A-1 fuel at major international airports as on 1st April of each year | 155 |
| XI.28 | Tanker fleet development in OPEC members 2005-2010 | 156 |
| XI.29 | Inter-area total oil movements- 2004-2010 | 157 |
| XI.30 | World primary energy consumption by fuel-2010 | 158-159 |
| XI.31 | Per capita primary energy consumption during 2010 - Some international comparisons | 160-161 |
| XI.32 | Per capita consumption of main petroleum products-Some international comparisons – 2010 | 162 |
| XI.33 | Trends in world primary energy consumption-2001-2010. | 162 |
| XI.34 | Primary energy consumption in selected countries of the world-2004-2010. | 163-164 |
| XI.35 | Economic indicators of OPEC nations during 2010 | 165 |
| | **Appendix** | 169-184 |

# General

## SCOPE AND COVERAGE OF DATA PUBLISHED

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

2. **Coverage:** The Statistics presented in the current publication cover the exploration, production, refining, marketing activities etc. of Oil sector.

3. **Source:** The primary statistics in respect of petroleum and natural gas industries included in the publication are based on various returns, submitted by the oil public sector undertakings (PSUs), joint venture companies and private companies under the Ministry of Petroleum & Natural Gas.

   The sources of all the secondary data, including international statistics, incorporated in the publication, have been indicated at the bottom of relevant tables.

4. **Limitations:** The data in respect of sales/consumption of petroleum products reflect despatches of various petroleum products from the sales depots of different oil companies to the bulk consumers/retail outlets. The state-wise sales/consumption of such products show despatches to direct consumers / retail outlets meant for consumption / sales in a particular state.

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

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

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

7. **Petroleum Exports:** The data relating to export of crude oil includes Indian Crude Oil (Bombay High) consigned for processing abroad. The refined petroleum products supplied by the Indian Oil Corporation to Nepal have also been included under Indian exports from 1983-84.

8. **Petroleum Imports:** The crude oil and product import figures given in the publication includes crude oil / petroleum products imported by the oil PSUs, private and parallel marketers on behalf of Nepal for processing of crude oil in Indian refineries and arranging supplies of desired products to Nepal. Petroleum products actually brought into the country from processing of Indian and international crudes at foreign refineries for Indian oil companies, have also been included under the product import figures.

9. **Value of Import/Export:** The value data in respect of exports of petroleum included in the publication show F.O.B. value of exports whereas similar value figures for imports reflect C.I.F. value of imports.

10. **Revision / updating:** Necessary revision / updating in the past data have been made in the light of latest available figures.

11. **Abbreviations:** Details of abbreviations used have been provided in Appendix.

12. **Conversion factor:** The conversion factors generally used in the oil sector are also given in the appendix.

## 1.2 Performance of Petroleum & Natural Gas Sector– Some Key Macro-Economic Trends

### Introduction

Economic development and energy are deeply inter-related. Affordable energy is critical for sustaining economic growth and for improved living standards of its population, which in turn is driven by increasing energy consumption. Hence, it is recognized that energy security in a fast developing economy like India is of strategic importance and energy needs of the country, esp. hydrocarbons, are likely to increase in the coming decades. Against this background, the Ministry of Petroleum and Natural Gas is mandated to take measures for Exploration and exploitation of petroleum resources, including Natural gas and Coal Bed Methane (CBM), and also Distribution, Marketing and Pricing of petroleum products to ensure adequate and timely availability of the products.

There has been effort to increase exploration and production of crude oil and natural gas with the New Exploration Licensing Policy (NELP) in 1999 and also schemes for improved oil recoveries from existing fields. The crude oil production was 37.712 MMT in 2010-11 i.e. an increase of 11.94 % over 33.690 MMT in the year 2009-10. The natural gas production has shown an increase of 9.95% as it increased from 47.496 BCM in 2009-10 to 52.222 BCM in 2010-11.

In order to facilitate oil & gas security, there has been considerable increase in refining capacity over the years. Refinery production (crude throughput) during 2010-11 was 206.154 MMT, i.e. an increase of 6.94% over production of 192.768 MMT in 2009-10.

### 2. Crude Oil and Natural Gas Production

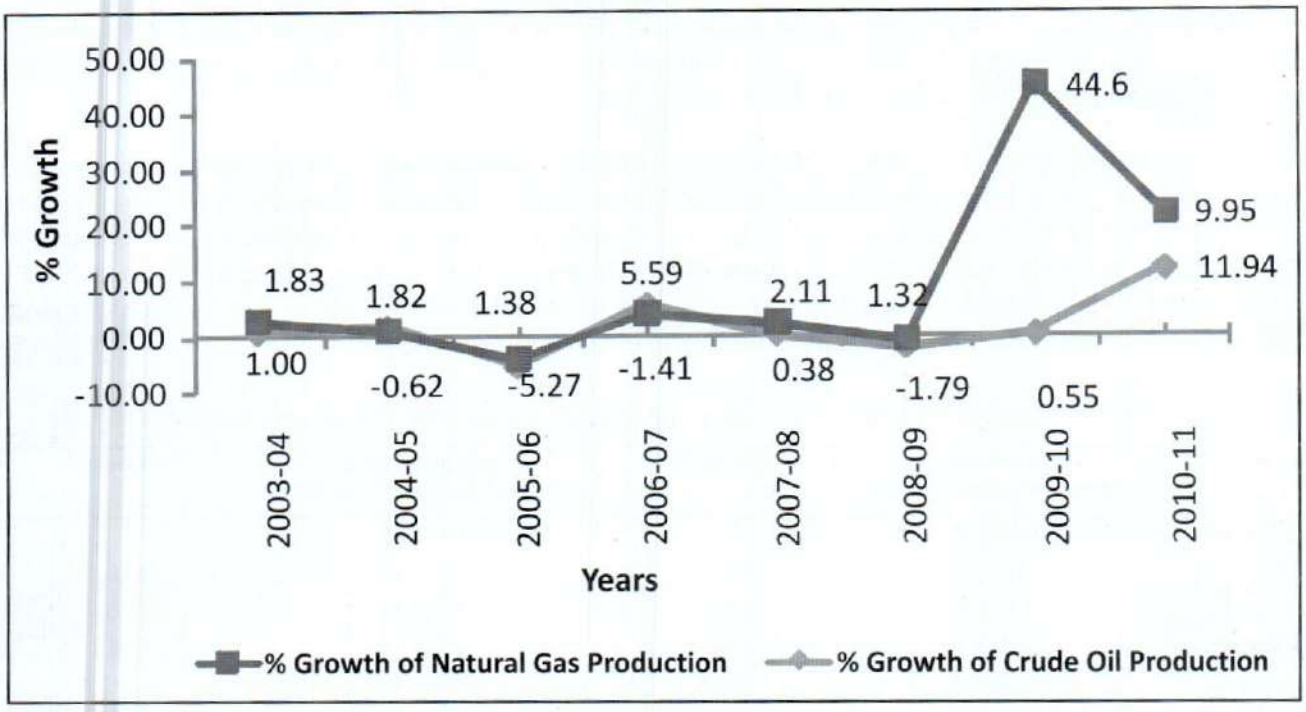
The trend in production of crude oil and natural gas during the period 2003-04 to 2010-11 is in Table-1 and Graph-1. The crude oil production has remained in the range of 33 to 34 MMT during the period 2002-03 to 2009-10. However, during 2010-11 the production of crude oil increased from 33.69 MMT during 2009-100 to 37.712 MMT due to production from Rajasthan oil fields. Natural gas production increased substantially from 31.389 BCM in 2002-03 to 52.222 BCM in 2010-11, with some major discoveries by Pvt. /JVC's in Krishna Godawari deepwater; there was an increase by 11.94% over the year 2009-10 in production of crude oil in 2010-11.

The Government of India launched the ninth bid round of New Exploration Licensing Policy (NELP-IX) and fourth round of Coal Bed Methane Policy (CBM-IV) during Oct., 2010 to enhance the country's energy security. In addition, overseas oil and gas production in 2011-12 is likely to be about 7 MMT and 2 BCM per annum respectively.

**Table-1: Crude Oil and Natural Gas Production**

| Year | Crude Oil Production (MMT) | % Growth | Natural Gas Production (BCM) | % Growth |
|---|---|---|---|---|
| 2002-03 | 33.044 | - | 31.389 | - |
| 2003-04 | 33.373 | 1.00 | 31.962 | 1.83 |
| 2004-05 | 33.981 | 1.82 | 31.763 | -0.62 |
| 2005-06 | 32.190 | -5.27 | 32.202 | 1.38 |
| 2006-07 | 33.988 | 5.59 | 31.747 | -1.41 |
| 2007-08 | 34.118 | 0.38 | 32.417 | 2.11 |
| 2008-09 | 33.508 | -1.79 | 32.845 | 1.32 |
| 2009-10 | 33.691 | 0.55 | 47.496 | 44.6 |
| 2010-11 | 37.712 | 11.94 | 52.222 | 9.95 |

**Graph-1: Percentage Growth in Crude Oil & Natural Gas Production**




### 3. Refining Capacity & Production

There has been a considerable increase in refining capacity over the years as may be seen in **Table-2**. Domestic refining capacity has increased by over 2.48% to reach 183.386 Metric Million Tonne Per Annum (MMTPA) in 2010-11 as compared to 177.968 MMTPA in 2009-10. It is expected that refinery capacity by the end of 2011-12 would reach 214.07 MMTPA.

The Refinery production (crude throughput) was 206.154 MMT during 2010-11 which marks net increase of 83.15.% over that produced during 2002-03 (112.56 MMT) and increase of 6.94% over 2009-10 (192.768 MMT) as depicted in **Table-2**.

**Table-2: Refining Capacity & Production**

| Year | Refining Capacity @(MMTPA) | % Growth | Refinery Production(Crude Throughput)(MMTPA) | % Growth |
|---|---|---|---|---|
| 2002-03 | 114.670 | - | 112.559 | - |
| 2003-04 | 116.968 | 2.00 | 121.840 | 8.25 |
| 2004-05 | 127.368 | 8.89 | 127.416 | 4.58 |
| 2005-06 | 127.368 | 0.00 | 130.109 | 2.11 |
| 2006-07 | 132.468 | 4.00 | 146.551 | 12.64 |
| 2007-08 | 148.968 | 12.46 | 156.103 | 6.52 |
| 2008-09 | 148.968 | 0.00 | 160.772 | 2.99 |
| 2009-10 | 177.968 | 19.47 | 192.768* | 19.90 |
| 2010-11 | 183.386 | 3.04 | 206.154* | 6.94 |

@= As on 1st April of the year.
*Includes other inputs by the RIL Refineries.

## 4. Production and Consumption of Petroleum Products

There was an increase of 5.78% in production of petroleum products, including fractioners, during 2010-11 compared to the year 2009-10. The indigenous consumption of petroleum products increased by 2.88% during 2010-11 compared to the previous year.

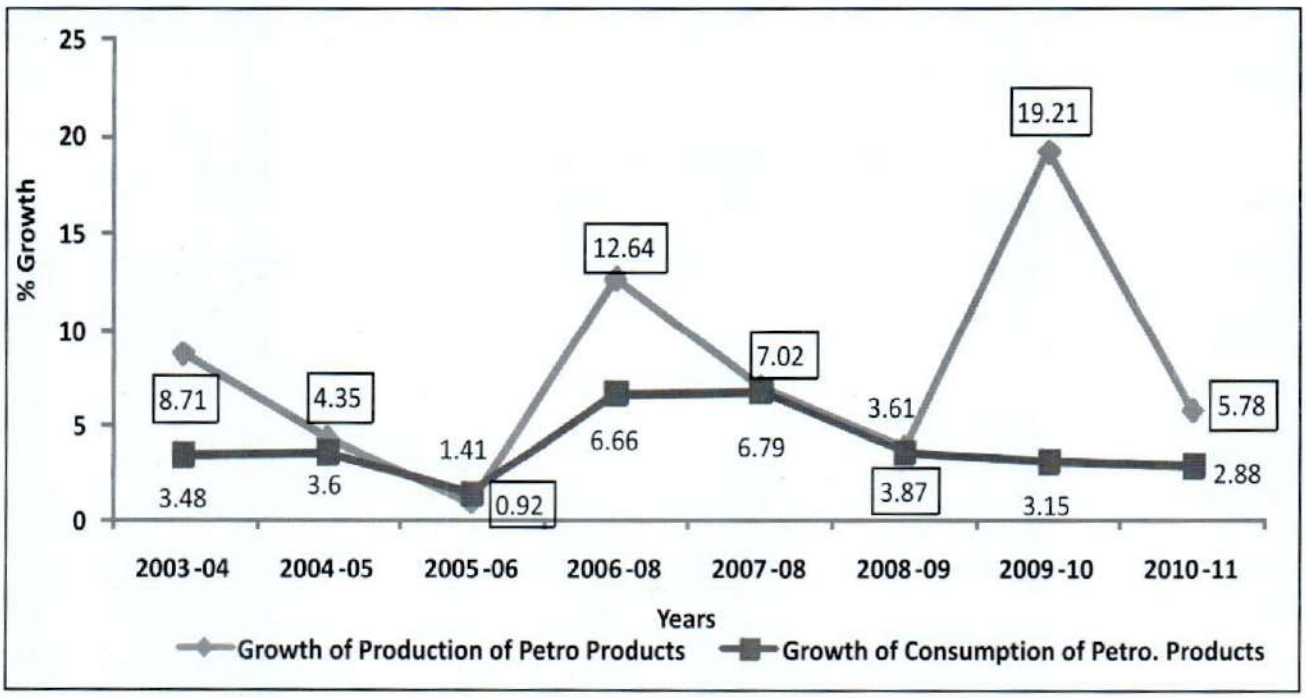
During the year 2010-11, net consumption of petroleum products was 141.785 MMT against total production of 192.532 MMT. It may be mentioned that the consumption data does not includes data in respect of RIL SEZ Refinery as it is presumed that all products have been exported and not consumed domestically. Year-wise production and consumption of petroleum products during 2003-04 to 2011-12 are depicted in **Table-3 and Graph-2** below. It is evident from Table-3 that production and consumption of petroleum products are substantially higher than 2003-04.

**Table-3: Production and Consumption (indigenous sales) of Petroleum Products**

| Year | Production of Petro-Products * (MMT) | % Growth | Consumption of Petro-Products ** (MMT) | % Growth |
|---|---|---|---|---|
| 2002-03 | 106.510 | - | 104.126 | - |
| 2003-04 | 115.783 | 8.71 | 107.751 | 3.48 |
| 2004-05 | 120.819 | 4.35 | 111.634 | 3.60 |
| 2005-06 | 121.935 | 0.92 | 113.213 | 1.41 |
| 2006-07 | 137.353 | 12.64 | 120.749 | 6.66 |
| 2007-08 | 146.990 | 7.02 | 128.946 | 6.79 |
| 2008-09 | 152.678 | 3.87 | 133.599 | 3.61 |
| 2009-10 | 182.012 | 19.21 | 137.808 | 3.15 |
| 2010-11 | 192.532 | 5.78 | 141.786 | 2.88 |

Notes: * = Includes LPG production from Natural Gas
** = Excludes refinery fuels and includes imports also.

**Graph-2: Percentage Growth in Production & Consumption of Petroleum Products**



## 5. Imports and prices of Crude Oil:

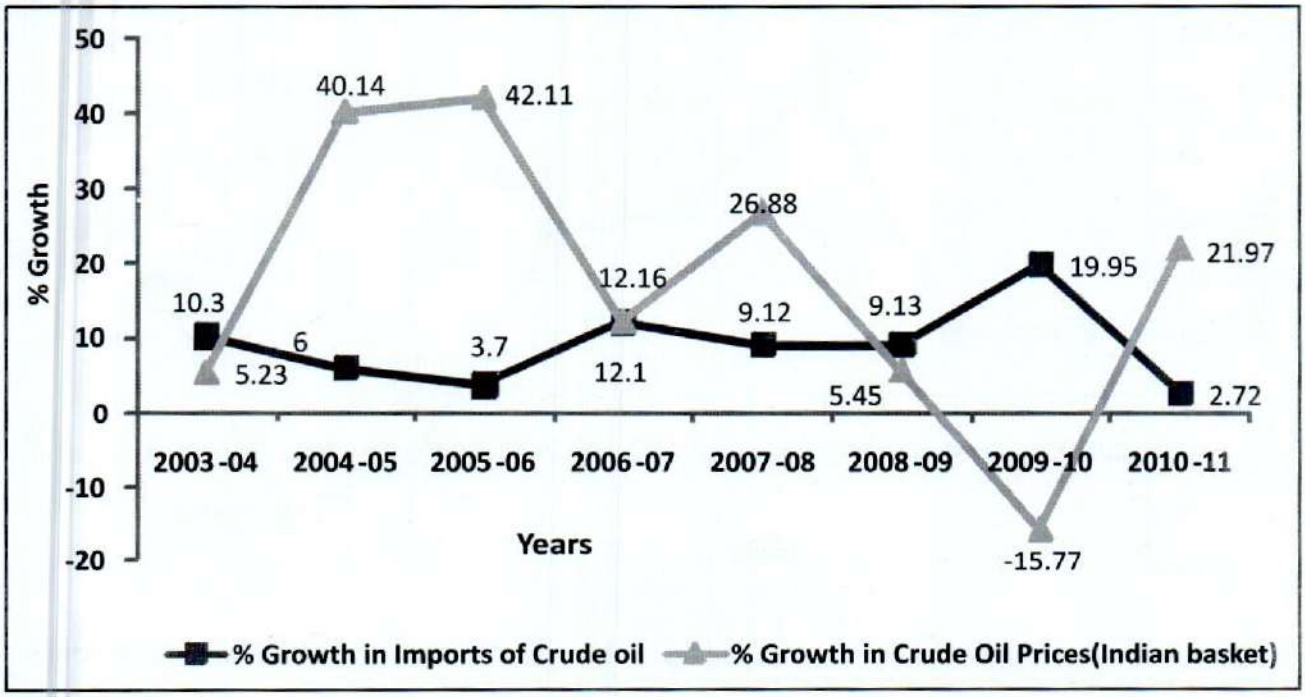
Imports of Crude Oil during 2010-11, in terms of quantity was 163.594 MMT valued at Rs.4,55,909 crore, this marked an increase by 2.72% in quantity terms w.r.t. 159.259 MMT during the year 2009-10 and an increase by 21.45% (w.r.t.Rs.3,75,378 crore) in value terms over the year of 2009-10. In terms of US$, the extent of increase in value of Crude imports was 25.73%. It may be noted that the imports of crude oil has doubled during this period when seen in relation to imports in 2002-03.

During this period, the average price of International crude oil (Indian Basket) has increased from US$ 26.59/bbl in 2002-03 to US$ 85.09/bbl in 2010-11 i.e. an increase of about 220%. The trend in growth of crude oil imports and crude oil International (Indian Basket) prices are depicted in **Table-4 and Graph-3.**

**Table-4: Imports of Crude Oil and average Crude Oil Prices**

| Year | Imports of Crude Oil (MMT) | % Growth | Average Crude oil Prices (US$/bbl.) | % Growth |
|---|---|---|---|---|
| 2002-03 | 81.989 | - | 26.59 | - |
| 2003-04 | 90.434 | 10.30 | 27.98 | 05.23 |
| 2004-05 | 95.861 | 06.00 | 39.21 | 40.14 |
| 2005-06 | 99.409 | 03.70 | 55.72 | 42.11 |
| 2006-07 | 111.502 | 12.16 | 62.46 | 12.10 |
| 2007-08 | 121.672 | 09.12 | 79.25 | 26.88 |
| 2008-09 | 132.775 | 09.13 | 83.57 | 05.45 |
| 2009-10 | 159.259 | 19.95 | 69.76 | -15.77 |
| 2010-11 | 163.594 | 02.72 | 85.09 | 21.97 |

**Graph-3: Percentage Growth in Imports of Crude Oil & average International Crude Oil Prices**



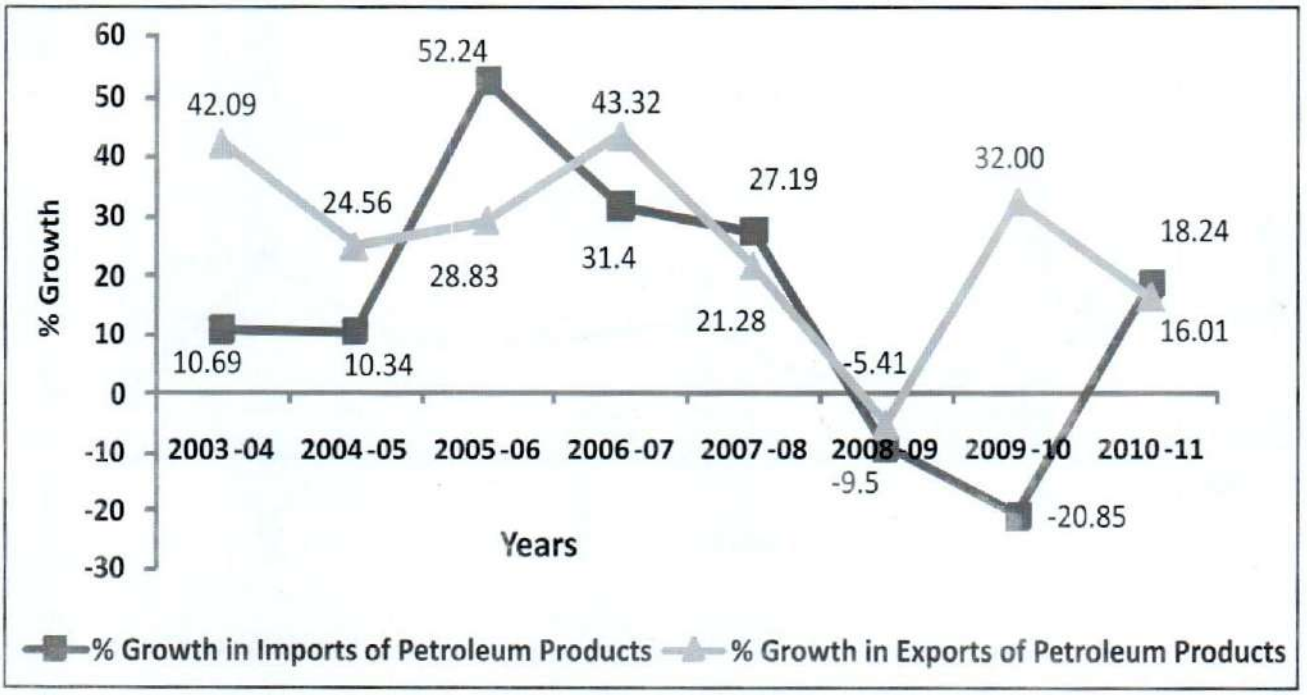
## 6. Imports & Exports of Petroleum Products:

It may be seen that despite considerable variations in International prices of crude oil, imports have followed a steady growth primarily to meet domestic demand of a burgeoning economy, apart from re-exports of petroleum products. With substantial increase in refining capacity in India, as seen earlier, exports of petroleum products have picked since 2002-03 although declined shortly in 2008-09 due to slowdown in global economy. Exports of petroleum products during 2010-11, in terms of quantity was 59.133MMT valued at Rs.1,96,112 crore, which marked an increase of 16.01% in quantity terms (w.r.t. 50.974 MMT during the year 2009-10), and an increase of 36.15% (w.r.t Rs 1,44,037 crore) in value terms in Indian rupees over the year of 2009-10.In terms of US$, the extent of increase of exports in value was 41.12%.The exports of petroleum products, it may be seen, has steeply increased by 475 % upto 2010-11. Imports of petroleum products are relatively limited with greater focus on imported crude oil to utilize domestic capacity as may be seen in **Table-5 and Graph 4** below:

**Table-5: Imports & Exports of Petroleum Products**

| Year | Imports of Petroleum Products (MMT) | % Growth | Exports of Petroleum Products (MMT) | % Growth |
|---|---|---|---|---|
| 2002-03 | 07.228 | - | 10.289 | - |
| 2003-04 | 08.001 | 10.69 | 14.620 | 42.09 |
| 2004-05 | 08.828 | 10.34 | 18.211 | 24.56 |
| 2005-06 | 13.440 | 52.24 | 23.461 | 28.83 |
| 2006-07 | 17.660 | 31.40 | 33.624 | 43.32 |
| 2007-08 | 22.462 | 27.19 | 40.779 | 21.28 |
| 2008-09 | 18.524 | -09.50 | 38.902 | -4.60 |
| 2009-10 | 14.662 | -20.85 | 50.974 | 32.15 |
| 2010-11 | 17.337 | 18.24 | 59.133 | 16.01 |

**Graph-4: Percentage Growth in Imports & Exports of Petroleum Products**



## 7. Petroleum Subsidy on SKO (PDS) and LPG (Domestic)

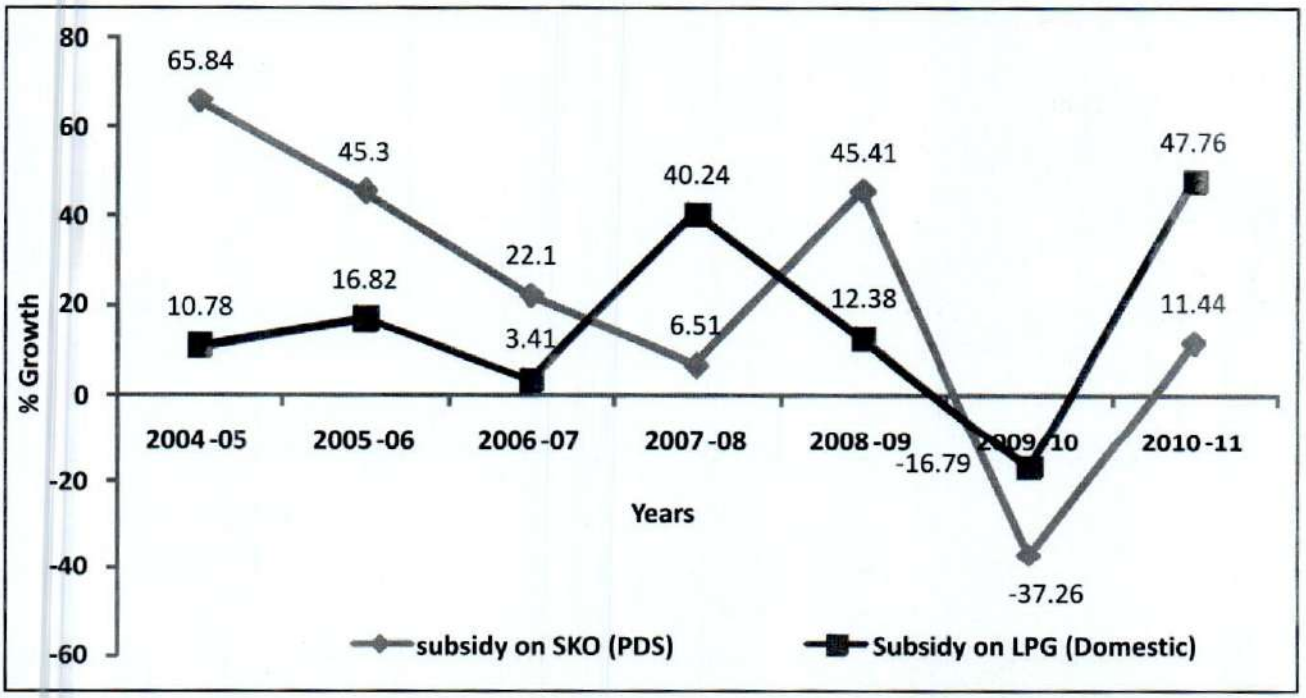
The total subsidy during 2010-11 provided by Government of India &Under recoveries by Oil companies on SKO and LPG were Rs.20,415 crore & Rs.23,746 crore respectively and these marked an increase of 11.44 % & 47.76% respectively over the 2009-10 as given below. The Total Budget Subsidy on SKO (PDS) & LPG (Domestic) increased by 28.41% over the year 2009-10. The trend in subsidies for both SKO & LPG are depicted in **Table-6 and Graph 5** below.

**Table-6: Subsidies on SKO (PDS) & LPG (Domestic)**

**(Rs. Crore)**

| Years | Subsidy on SKO (PDS) | | | % | Subsidy on LPG(Domestic) | | | % |
|---|---|---|---|---|---|---|---|---|
| | Fiscal | Under recoveries by Oil Companies | Total | Growth | Fiscal | Under recoveries by Oil Companies | Total | Growth |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2003-04 | 2657 | 3751 | 6408 | | 3635 | 5523 | 9158 | |
| 2004-05 | 1147 | 9480 | 10627 | 65.84 | 1783 | 8362 | 10145 | 10.78 |
| 2005-06 | 1057 | 14384 | 15441 | 45.3 | 1605 | 10246 | 11851 | 16.82 |
| 2006-07 | 970 | 17883 | 18853 | 22.1 | 1554 | 10701 | 12255 | 3.41 |
| 2007-08 | 978 | 19102 | 20080 | 6.51 | 1663 | 15523 | 17186 | 40.24 |
| 2008-09 | 974 | 28225 | 29199 | 45.41 | 1714 | 17600 | 19314 | 12.38 |
| 2009-10 | 956 | 17364 | 18320 | -37.26 | 1814 | 14257 | 16071 | -16.79 |
| 2010-11 | 931 | 19484 | 20415 | 11.44 | 1974 | 21772 | 23746 | 47.76 |

**Graph-5: Percentage Growth in Subsidy on SKO (PDS) and LPG (Domestic)**



## 8. Foreign Direct Investment Inflows

There is a continued need for foreign investment and technical know-how particularly in the field of exploration and production of petroleum. Hence, this sector is fully open to Foreign Direct Investment (FDI) with 100 percent equity through automatic route, subject to sectoral regulation that are equally applicable to domestic and foreign players. There are some sectoral restrictions on refining by public sector companies (to the extent of 49%) and marketing services due to a vast existing network in the economy. Marketing of petroleum products is given complete market access, subject to minimum investment of Rs. 2,000 crore. Year-wise FDI inflows under Petroleum & Gas sector is given in Table-7. It may be observed that FDI in petroleum and natural gas has varied considerably over the years that could at least partly due to the bulkiness of investment in the sector. The highest FDI was received in 2007-08 at Rs. 57291 million, contributing almost 6% of total FDI in the economy. The sector has received FDI of Rs.25430 million during 2010-11.

**Table: 7 Foreign Direct Investment Inflows**

| Years | Foreign Direct Investment | | | | Annual Growth (%) | | | |
|---|---|---|---|---|---|---|---|---|
| | All Sector Million | | P&NG Sector Million | | All Sector Million | | P&NG Sector Million | |
| | Rs. | US$ | Rs. | US$ | Rs. | US$ | Rs. | US$ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2005-06 | 246130 | 5546 | 636 | 14 | 67.97 | 72.29 | -87.73 | -87.61 |
| 2006-07 | 706300 | 15726 | 4015 | 89 | 186.96 | 183.56 | 531.29 | 535.71 |
| 2007-08 | 986640 | 24579 | 5729 | 11427 | 39.69 | 56.30 | 1326.92 | 1503.37 |
| 2008-09 | 1229190 | 27329 | 19310 | 412 | 24.58 | 11.19 | -66.29 | -71.13 |
| 2009-10 | 1233780 | 25888 | 13280 | 272 | 0.37 | -5.27 | -31.23 | -33.98 |
| 2010-11 | 885200 | 19427 | 25430 | 556 | -28.10 | -24.80 | 91.49 | 104.41 |

# 1.3 Indian economy -Selected Indicators

| Indicator | Unit/base | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1. Geographical Area | M.Sq.Km. | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 | 3.29 |
| 2. Population | Million | 1056 | 1072 | 1089 | 1106 | 1122 | 1138 | 1154 | 1170 | 1210 |
| 3. Gross Domestic Product | at factor cost : | | | | | | | | | |
| (i) At current prices | Rs.Billion | 22447 | 25174 | 29714 | 33896 | 39522 | 45814 | 52820 | 61332 | 73069 |
| (ii) At constant prices+ | " | 20304 | 22032 | 29714 | 32542 | 35660 | 38989 | 41625 | 44937 | 48778 |
| 4. Net National Product | at factor cost : | | | | | | | | | |
| (i) At current prices | Rs.Billion | 19942 | 22374 | 26292 | 29998 | 35003 | 40763 | 46858 | 54395 | 65034 |
| (ii) At constant prices+ | " | 18067 | 19618 | 26292 | 28784 | 31509 | 34542 | 36698 | 39465 | 42598 |
| 5. Per Capita Net National Product : | | | | | | | | | | |
| (i) At current prices | Rupees | 18885 | 20895 | 24143 | 27123 | 31198 | 35820 | 40605 | 46492 | 54835 |
| (ii) At constant prices+ | " | 17101 | 18317 | 24143 | 26025 | 28083 | 30354 | 31801 | 33731 | 35917 |
| 6. Foreign Exchange Reserves : | | | | | | | | | | |
| (i) Gold | Rs.Billion | 167.85 | 182.16 | 196.86 | 256.74 | 295.73 | 401.24 | 487.93 | 811.88 | 1025.72 |
| (ii) SDR | USD Millon | 4.0 | 2.0 | 5.0 | 3.0 | 2.0 | 18.0 | 1.0 | 5006 | 4569 |
| (iii) Foreign currency Assets | Rs.Billion | 3414.76 | 4662.15 | 5931.21 | 6473.27 | 8365.97 | 11960.23 | 12300.66 | 11496.50 | 12248.83 |
| Foreign Exchange Rate! | Rs./US$ | 48.40 | 45.95 | 44.93 | 44.27 | 45.28 | 40.24 | 45.92 | 47.42 | 45.58 |
| 7. Foreign Trade : | | | | | | | | | | |
| (i) Import | Rs.Billion | 2972.06 | 3691.08 | 5010.65 | 6604.09 | 8405.06 | 10123.12 | 13744.36 | 13637.04 | 15968.69 |
| (ii) Export | " | 2551.37 | 2933.67 | 3753.4 | 4564.18 | 5717.79 | 6558.64 | 8407.55 | 8455.34 | 11188.23 |
| (iii) Balance of Trade | " | -420.69 | -657.41 | -1257.25 | -2039.91 | -2687.27 | -3564.48 | -5336.81 | -5181.70 | -4780.46 |
| 8. Index of Production : | | | | | | | | | | |
| (i) Agricultural | 1993-94=100 | 123.9 | 133.0 | 130.9 | 146.8 | 167.8 | 173.1 | 162.3 | 160.0 | 178.8 |
| (ii) Industrial | 2004-05=100 | 176.6 | 189.0 | 211.1 | 108.6 | 122.6 | 141.7 | 145.2 | 152.9 | 165.5 |
| 9. Wholesale Price Index : | 2004-05=100 | 166.8 | 175.9 | 187.3 | 104.5 | 111.4 | 116.6 | 126.0 | 130.8 | 143.3 |
| 10 Energy Generation (Gross) : | | | | | | | | | | |
| Coal | Mn.Tonne | 341.27 | 361.25 | 382.61 | 407.04 | 430.83 | 457.08 | 492.76 | 532.06 | 533.08 |
| Lignite | " | 26.02 | 27.96 | 30.34 | 30.06 | 31.29 | 33.98 | 32.42 | 34.07 | 37.74 |
| Natural Gas | Bn.Cub.Mtr. | 31.39 | 31.96 | 31.76 | 32.20 | 31.75 | 32.42 | 32.85 | 47.50 | 52.22 |
| Crude Oil | Mn.Tonne | 33.04 | 33.37 | 33.98 | 32.19 | 33.99 | 34.12 | 33.51 | 33.69 | 37.71 |
| Petroleum Products | " | 104.14 | 113.46 | 118.58 | 119.75 | 135.26 | 144.93 | 150.52 | 179.77 | 190.36 |
| 11. Electricity Generated (Gross) | | | | | | | | | | |
| (i) Utilities | | | | | | | | | | |
| Hydel | B.KWH | 64.0 | 75.2 | 84.6 | 101.5 | 113.5 | 120.4 | 110.1 | 104.1 | 114.2 |
| Thermal | " | 449.3 | 472.1 | 492.8 | 505.0 | 538.4 | 585.3 | 616.1 | 677.1 | 704.3 |
| Nuclear | " | 19.4 | 17.8 | 17.0 | 17.3 | 18.8 | 16.9 | 14.9 | 18.6 | 26.3 |
| Total | " | 532.7 | 565.1 | 594.4 | 623.8 | 670.7 | 722.6 | 741.1 | 799.8 | 844.8 |
| (ii) Non-utilities | " | 63.8 | 68.2 | 71.4 | 73.6 | 81.8 | 90.5 | 99.7 | 109.7 | NA |
| **Grand Total** | " | **596.5** | **633.3** | **665.8** | **698.4** | **752.5** | **813.1** | **839.8** | **905.4** | **592.0** |
| 12. POL Traffic by Rail | MMT | | | | 33.5 | 35.2 | 35.9 | 35.1 | 38.9 | 39.3 |

* : Provisional. N.A.: Not Available +: Base 2004-05 Series

**Notes:** 1. Petroleum products Excludes RBF and LPG from NG.

2. Petroleum Production during 2009-10 & 2010-11 Includes RIL Refineries which also includes other inputs.

**Source : Economic Survey, RBI, Ministry of Statistics/Industry/Finance.**

## I.4 Trends in Indian Petroleum Industry at a Glance

| Indicator | Unit/base | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1. Reserves ! | | | | | | | | | | |
| (i) Crude Oil | Mn.Tonne | 741 | 761 | 739 | 786 | 725.38 | 770.12 | 773.29 | 774.66 | 757.44 |
| (ii) Natural Gas | Bn.Cub.Mtr. | 751 | 853 | 923 | 1101 | 1054.52 | 1089.97 | 1115.26 | 1148.56 | 1241 |
| 2. Consumption | | | | | | | | | | |
| (i) Crude Oil # | Mn.Tonne | 112.56 | 121.84 | 127.42 | 130.11 | 146.55 | 156.10 | 160.77 | 192.77 | 206.15 |
| (ii) Petroleum Products | " | 104.13 | 107.75 | 111.63 | 113.21 | 120.75 | 128.95 | 133.60 | 137.81 | 141.78 |
| (iii)Natural Gas utilisation | Bn.Cub.Mtr. | 29.963 | 30.906 | 30.775 | 31.325 | 30.79 | 31.48 | 31.77 | 46.47 | 51.25 |
| 3. Production : | | | | | | | | | | |
| (i) Crude Oil | " | 33.04 | 33.37 | 33.98 | 32.19 | 33.99 | 34.12 | 33.51 | 33.69 | 37.71 |
| (ii) Petroleum Products^ | " | 104.14 | 113.46 | 118.58 | 119.75 | 135.26 | 144.93 | 150.52 | 179.77 | 190.36 |
| (iii) LPG from natural gas | " | 2.37 | 2.32 | 2.24 | 2.19 | 2.09 | 2.06 | 2.16 | 2.24 | 2.17 |
| (iv) Natural Gas | Bn.Cub.Mtr. | 31.389 | 31.962 | 31.763 | 32.202 | 31.75 | 32.42 | 32.85 | 47.50 | 52.22 |
| 4. (i) Total Refinery capacity | MMTPA | 114.67 | 116.968 | 127.368 | 127.368 | 132.47 | 148.97 | 148.97 | 177.97 | 184.39 |
| (ii) Capacity Utilisation | % | 98.16 | 104.17 | 100.04 | 102.15 | 110.63 | 104.79 | 107.92 | 108.32 | 106.09 |
| 5. Imports & Exports | | | | | | | | | | |
| (i) Gross Imports : | | | | | | | | | | |
| (a) Qty : Crude Oil | Mn.Tonne | 81.99 | 90.44 | 95.86 | 99.41 | 111.50 | 121.67 | 132.78 | 159.26 | 163.59 |
| Pol. Products | " | 7.23 | 8.00 | 8.83 | 13.44 | 17.66 | 22.46 | 18.52 | 14.28 | 17.34 |
| Total (a) | " | 89.22 | 98.44 | 104.69 | 112.85 | 129.16 | 144.13 | 151.30 | 173.54 | 180.93 |
| (b) Value:Crude Oil | Rs.Billion | 761.95 | 835.28 | 1170.03 | 1717.02 | 2190.29 | 2726.99 | 3481.49 | 3753.78 | 4559.09 |
| Pol.Products | " | 88.47 | 97.23 | 148.87 | 279.71 | 411.60 | 610.00 | 608.46 | 337.54 | 558.12 |
| Total (b) | " | 850.42 | 932.51 | 1318.9 | 1996.73 | 2601.89 | 3336.99 | 4089.95 | 4091.32 | 5117.21 |
| Pol. Imports as per DGCI&S | " | 853.67 | 945.2 | 1340.94 | 1946.4 | 2585.72 | 3206.54 | 4198.78 | 4116.49 | 4822.81 |
| (ii) Exports : | | | | | | | | | | |
| (a) Qty : | | | | | | | | | | |
| Pol. Products | Mn.Tonne | 10.29 | 14.62 | 18.21 | 23.46 | 33.62 | 40.78 | 38.90 | 50.97 | 59.13 |
| (b) Value: | | | | | | | | | | |
| Pol.Products | Rs.Billion | 108.68 | 167.81 | 299.28 | 499.74 | 810.94 | 1107.89 | 1220.64 | 1440.37 | 1961.12 |
| (iii) Net Imports : | | | | | | | | | | |
| (a) Qty : Crude Oil | Mn.Tonne | 81.99 | 90.44 | 95.86 | 99.41 | 111.50 | 121.67 | 132.78 | 159.26 | 163.59 |
| Pol. Products | " | -3.06 | -6.62 | -9.38 | -10.02 | -15.96 | -18.32 | -20.38 | -36.69 | -41.79 |
| Total (a) | " | 78.93 | 83.82 | 86.48 | 89.39 | 95.54 | 103.35 | 112.40 | 122.57 | 121.80 |
| (b) Value:Crude Oil | Rs.Billion | 761.95 | 835.28 | 1170.03 | 1717.02 | 2190.29 | 2726.99 | 3481.49 | 3753.78 | 4559.09 |
| Pol.Products | " | -20.21 | -70.58 | -150.41 | -220.03 | -399.34 | -497.89 | -612.18 | -1102.83 | -1403.00 |
| Total (b) | " | 741.74 | 764.7 | 1019.62 | 1496.99 | 1790.95 | 2229.10 | 2869.31 | 2650.95 | 3156.09 |
| (iv) Unit Value of Crude oil imports(gross) | Rs./MT | 9293.206 | 9235.736 | 12205.61 | 17272.105 | 19643.86 | 22413.00 | 26219.99 | 23570.28 | 27869.00 |
| 6. Index of self reliance | | 30 | 29 | 28 | 26 | 26.19 | 24.61 | 23.33 | 22.74 | 24.74 |
| 7. Contribution of Oil Sector to Centre/State Resources | | | | | | | | | | |
| (i) Royalty from crude oil | Rs.Billion | 30.67 | 31.74 | 42.71 | 50.67 | 58.57 | 65.44 | 71.55 | 61.55 | 91.21 |
| (ii) Royalty from gas | " | 7.78 | 8.54 | 8.29 | 8.637 | 10.75 | 14.84 | 16.24 | 18.00 | 25.27 |
| (iii)Oil Development Cess | " | 50.91 | 51.43 | 55.37 | 51.96 | 71.77 | 71.56 | 68.86 | 70.96 | 83.14 |
| (iv) Excise & Custom duties | " | 451.27 | 507.33 | 563.95 | 631.43 | 718.93 | 783.73 | 705.57 | 717.66 | 1026.17 |
| (v) Sales Tax | " | 297.41 | 328.49 | 390 | 459.34 | 530.86 | 598.90 | 629.62 | 639.49 | 807.09 |
| (vi) Dividend | " | 67.94 | 63.1 | 94.36 | 95.45 | 115.27 | 94.74 | 98.61 | 67.63 | NA |

**Note**: Production of Petroleum Products during 2009-10 & 2010-11 includes production by RIL Refinries which includes other inputs.

* : Provisional.! : Balance recoverable reserves as on 1st April of initial year.

#: in terms of refinery crude throughput

N.A.: Not Available.

^ Petroleum Production during 2009-10 & 2010-11 Includes RIL Refineries which also includes other inputs.

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

## Table-1.5 International Petroleum Statistics

| Item | Unit | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **1. World Reserves :** | | | | | | |
| **Oil & Gas at year end** | | | | | | |
| (i) Crude Oil of which | Mn. Tonne | 164.5 | 168.6 | 170.8 | 181.7 | 188.8 |
| OPEC | " | 123.6 | 127.6 | 129.8 | 140.4 | 146.0 |
| (ii)Natural Gas of which | Tr.Cu.ft. | 6405 | 6263 | 6534 | 6621 | 6609 |
| OPEC | " | 2961 | 3259 | 3295 | 3335 | 3330 |
| **2. World Prodn. of Oil & Gas** | | | | | | |
| (i) Crude Oil of which | TMT | 3916.2 | 3904.3 | 3933.7 | 3831.0 | 3913.7 |
| OPEC | " | 1680.2 | 1660.0 | 1709.4 | 1583.5 | 1623.3 |
| (ii)Natural Gas Net (Marketted) | Bn.Cu.Mtr. | 2881.4 | 2934.0 | 3072.8 | 3025.5 | 3226.0 |
| of which OPEC | " | 446.6 | 467.8 | 495.5 | 544.9 | 585.3 |
| **3. World Oil Refinery** | | | | | | |
| (i) Refinery capacity at year end | Mn. Tonne/ Year | 4331 | 4378 | 4414 | 4512 | 4512 |
| (ii)Crude throughput | Mn. Tonne | 3718 | 3762 | 3744 | 3670 | 3714 |
| **4. World Oil Consumption** | | | | | | |
| (i) World Total | Mn. Tonne | 3916.2 | 3969.5 | 3959.9 | 3908.7 | 4028.1 |
| (ii)Main consuming areas | " | 2262 | 2711 | 2698 | 2160.2 | 2234.2 |
| (iii)Consumption in main areas as % of world | % | 57.8 | 68.3 | 68.1 | 55.3 | 55.5 |
| **5. World Imports/Exports** | | | | | | |
| (i) Crude Oil | Mn.Tonne | 1933 | 1984 | 1970 | 1892.5 | 1875.8 |
| (ii) Pol. Products | " | 658 | 717 | 728 | 714 | 757.7 |
| **Total** | " | **2591** | **2701** | **2698** | **2606.5** | **2633.5** |
| **6. Export of Crude Oil/Pol. from OPEC** | | | | | | |
| (i) Crude Oil | Mn. Tonne | 1198 | 1221 | 1211 | 1111 | 1151 |
| (ii)Pol. Products | " | 230 | 216 | 215 | 201 | 181 |
| **Total** | " | **1428** | **1437** | **1426** | **1312** | **1332** |
| **7. World Primary Energy** | | | | | | |
| **Consumption** | Mn. Tonne | | | | | |
| (i) Oil | Oil Eqv. | 3911 | 3939 | 3960 | 3908.7 | 4028.1 |
| (ii) Natural Gas | " | 2558 | 2652 | 2717 | 2661.4 | 2858.1 |
| (iii)Coal | " | 3039.1 | 3184 | 3286 | 3305.6 | 3555.8 |
| (iv) Hydro-Electric | " | 684.3 | 696 | 731 | 736.3 | 775.6 |
| (v) Nuclear Energy | " | 634.9 | 622 | 620 | 614.0 | 626.2 |
| **Total** | " | **10827.3** | **11094.2** | **11315.2** | **11226.0** | **11843.8** |

**Note: !** : Includes USA, Germany, France, Italy, U.K., Japan, China, Russia, India and South Korea.

**Source :** (i) BP Statistical Review of World Energy , June-2011 (ii) OPEC Annual Statistical Bulletin.

## I.6(a) Petroleum Energy in India
## (Calender Years)

| Products | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* |
| | | | | **Availability** | | | | | |
| | | | | **In Original Units (Million Tonnes)** | | | | | |
| Kerosene | 10.67 | 10.83 | 9.85 | 9.74 | 9.83 | 10.96 | 9.58 | 9.44 | 9.20 |
| ATF | 2.28 | 2.50 | 1.99 | 3.26 | 3.97 | 4.28 | 4.78 | 4.59 | 4.95 |
| HSD | 36.96 | 36.25 | 35.22 | 40.36 | 41.20 | 44.60 | 51.83 | 57.08 | 60.14 |
| LDO | 2.09 | 1.71 | 1.71 | 1.11 | 0.77 | 0.70 | 0.66 | 0.52 | 0.52 |
| Fuel Oils | 12.54 | 12.52 | 11.80 | 13.27 | 11.14 | 10.07 | 12.50 | 10.94 | 14.70 |
| Others* | 23.21 | 25.29 | 27.01 | 25.79 | 28.02 | 30.74 | 32.68 | 34.72 | 37.66 |
| **Total** | **87.75** | **89.10** | **87.58** | **93.52** | **94.92** | **101.36** | **112.03** | **117.30** | **127.16** |
| | | | | **In Million Tonnes of Coal Equivalent Unit @** | | | | | |
| Kerosene | 21.34 | 21.66 | 19.70 | 19.48 | 19.66 | 21.92 | 19.16 | 18.88 | 18.40 |
| ATF | 4.56 | 5.00 | 3.98 | 6.52 | 7.94 | 8.56 | 9.56 | 9.18 | 9.90 |
| HSD | 73.92 | 72.50 | 70.44 | 80.72 | 82.40 | 89.20 | 103.66 | 114.16 | 120.28 |
| LDO | 4.18 | 3.42 | 3.42 | 2.22 | 1.54 | 1.40 | 1.32 | 1.04 | 1.04 |
| Fuel Oils | 25.08 | 25.04 | 23.60 | 26.54 | 22.28 | 20.14 | 25.00 | 21.88 | 29.40 |
| Others* | 46.42 | 50.58 | 54.02 | 51.58 | 56.04 | 61.48 | 65.36 | 69.44 | 75.32 |
| **Total** | **175.50** | **178.20** | **175.16** | **187.06** | **189.86** | **202.70** | **224.06** | **234.58** | **254.34** |
| | | | | **In Million Tonnes of Coal Replacement Unit @** | | | | | |
| Kerosene | 85.36 | 86.64 | 78.80 | 77.92 | 78.64 | 87.68 | 76.64 | 75.52 | 73.60 |
| ATF | 17.10 | 18.75 | 14.93 | 24.45 | 29.78 | 32.10 | 35.85 | 34.43 | 37.13 |
| HSD | 332.64 | 326.25 | 316.98 | 363.24 | 370.80 | 401.40 | 466.47 | 513.72 | 541.26 |
| LDO | 18.81 | 15.39 | 15.39 | 9.99 | 6.93 | 6.30 | 5.94 | 4.68 | 4.68 |
| Fuel Oils | 25.08 | 25.04 | 23.60 | 26.54 | 22.28 | 20.14 | 25.00 | 21.88 | 29.40 |
| Others* | 88.89 | 94.58 | 99.15 | 100.22 | 105.98 | 116.81 | 126.37 | 126.37 | 126.37 |
| **Total** | **567.88** | **566.65** | **548.85** | **602.36** | **614.41** | **664.43** | **736.27** | **776.60** | **812.44** |
| | | | | **Consumption#** | | | | | |
| | | | | **In Original Units (Million Tonnes)** | | | | | |
| Kerosene | 9.80 | 9.49 | 9.30 | 9.47 | 9.41 | 9.37 | 9.31 | 9.35 | 9.00 |
| ATF | 2.26 | 2.39 | 2.72 | 3.13 | 3.83 | 4.40 | 4.49 | 4.59 | 4.82 |
| HSD | 36.61 | 36.18 | 38.31 | 36.47 | 39.41 | 44.11 | 50.80 | 53.59 | 57.61 |
| LDO | 1.35 | 1.24 | 1.13 | 0.89 | 0.74 | 0.67 | 0.61 | 0.53 | 0.44 |
| Fuel Oils | 11.80 | 11.59 | 12.16 | 12.51 | 11.49 | 11.59 | 11.18 | 10.90 | 9.81 |
| Others* | 22.96 | 24.98 | 26.88 | 27.17 | 29.34 | 32.93 | 34.71 | 35.97 | 39.70 |
| **Total** | **84.78** | **85.87** | **90.50** | **89.63** | **94.23** | **103.08** | **111.11** | **114.93** | **121.38** |
| | | | | **In Million Tonnes of Coal Equivalent Unit @** | | | | | |
| Kerosene | 19.60 | 18.98 | 18.60 | 18.94 | 18.83 | 18.74 | 18.62 | 18.70 | 18.00 |
| ATF | 4.52 | 4.78 | 5.44 | 6.25 | 7.66 | 8.80 | 8.98 | 9.18 | 9.64 |
| HSD | 73.22 | 72.36 | 76.62 | 72.93 | 78.82 | 88.22 | 101.60 | 107.17 | 115.22 |
| LDO | 2.70 | 2.48 | 2.26 | 1.78 | 1.48 | 1.34 | 1.22 | 1.06 | 0.88 |
| Fuel Oils | 23.60 | 23.18 | 24.32 | 25.02 | 22.98 | 23.19 | 22.36 | 21.81 | 19.62 |
| Others* | 45.92 | 49.96 | 53.76 | 54.34 | 58.69 | 65.86 | 69.43 | 71.95 | 79.41 |
| **Total** | **169.56** | **171.74** | **181.00** | **179.27** | **188.46** | **206.15** | **222.21** | **229.86** | **242.76** |
| | | | | **In Million Tonnes of Coal Replacement Unit @** | | | | | |
| Kerosene | 78.40 | 75.92 | 74.40 | 75.78 | 75.31 | 74.96 | 74.48 | 74.80 | 72.00 |
| ATF | 16.95 | 17.93 | 20.40 | 23.45 | 28.73 | 33.00 | 33.68 | 34.43 | 36.16 |
| HSD | 329.49 | 325.62 | 344.79 | 328.20 | 354.69 | 396.99 | 457.20 | 482.27 | 518.47 |
| LDO | 12.15 | 11.16 | 10.17 | 8.01 | 6.68 | 6.03 | 5.49 | 4.75 | 3.95 |
| Fuel Oils | 23.60 | 23.18 | 24.32 | 25.02 | 22.98 | 23.19 | 22.36 | 21.81 | 19.62 |
| Others* | 87.09 | 91.97 | 97.48 | 99.83 | 105.96 | 117.31 | 128.94 | 128.94 | 128.94 |
| **Total** | **547.68** | **545.78** | **571.56** | **560.28** | **594.34** | **651.48** | **722.15** | **746.99** | **779.14** |

**Note**: Includes production of RIL SEZ in the year 2009 & 2010
(P)=Provisional * : Includes LPG, Gasolines,Refinery Gas and Refinery Fuel.
@ : Based on conversion factors adopted by FPC, 1974
(#) : Includes Petroleum Products used for power generation.

## I.6(b) Petroleum Energy in India
## (Financial Years)

| Products | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* |
| | | | | **Availability** | | | | | |
| | | | | **In Original Units (Million Tonnes)** | | | | | |
| Kerosene | 10.73 | 10.99 | 9.50 | 9.84 | 9.76 | 10.15 | 9.57 | 9.48 | 9.03 |
| ATF | 2.36 | 2.63 | 2.78 | 3.42 | 4.16 | 4.62 | 4.37 | 4.71 | 5.09 |
| HSD | 37.14 | 37.24 | 39.75 | 39.84 | 43.06 | 46.99 | 50.99 | 57.42 | 59.70 |
| LDO | 2.08 | 1.66 | 1.55 | 0.92 | 0.80 | 0.67 | 0.61 | 0.47 | 0.58 |
| Fuel Oils | 12.30 | 13.02 | 13.76 | 13.29 | 14.92 | 9.16 | 13.20 | 13.94 | 14.52 |
| Others* | 24.02 | 25.64 | 27.10 | 26.03 | 28.75 | 19.73 | 32.15 | 35.45 | 42.41 |
| **Total** | **88.63** | **91.18** | **94.44** | **93.34** | **101.45** | **91.32** | **110.89** | **121.47** | **131.33** |
| | | | | **In Million Tonnes of Coal Equivalent Unit @** | | | | | |
| Kerosene | 21.46 | 21.98 | 19.00 | 19.68 | 19.52 | 20.30 | 19.14 | 18.96 | 18.06 |
| ATF | 4.72 | 5.26 | 5.56 | 6.84 | 8.32 | 9.24 | 8.74 | 9.42 | 10.18 |
| HSD | 74.28 | 74.48 | 79.50 | 79.68 | 86.12 | 93.98 | 101.98 | 114.84 | 119.40 |
| LDO | 4.16 | 3.32 | 3.10 | 1.84 | 1.60 | 1.34 | 1.22 | 0.94 | 1.16 |
| Fuel Oils | 24.60 | 26.04 | 27.52 | 26.58 | 29.84 | 18.32 | 26.40 | 27.88 | 29.04 |
| Others* | 48.04 | 51.28 | 54.20 | 52.06 | 57.50 | 39.46 | 64.30 | 70.90 | 84.82 |
| **Total** | **177.26** | **182.36** | **188.88** | **186.68** | **202.90** | **182.64** | **221.78** | **242.94** | **262.66** |
| | | | | **In Million Tonnes of Coal Replacement Unit @** | | | | | |
| Kerosene | 85.84 | 87.92 | 76.00 | 78.72 | 78.08 | 81.20 | 76.56 | 75.84 | 72.24 |
| ATF | 17.70 | 19.73 | 20.85 | 25.65 | 31.20 | 34.65 | 32.78 | 35.33 | 38.18 |
| HSD | 334.26 | 335.16 | 357.75 | 358.56 | 387.54 | 422.91 | 458.91 | 516.78 | 537.30 |
| LDO | 18.72 | 14.94 | 13.95 | 8.28 | 7.20 | 6.03 | 5.49 | 4.23 | 5.22 |
| Fuel Oils | 24.60 | 26.04 | 27.52 | 26.58 | 29.84 | 18.32 | 26.40 | 27.88 | 29.04 |
| Others* | 92.18 | 95.38 | 100.47 | 99.99 | 108.89 | 119.21 | 124.74 | 124.74 | 124.74 |
| **Total** | **573.30** | **579.17** | **596.54** | **597.78** | **642.75** | **682.32** | **724.88** | **784.80** | **806.72** |
| | | | | **Consumption#** | | | | | |
| | | | | **In Original Units (Million Tonnes)** | | | | | |
| Kerosene | 10.41 | 10.23 | 9.40 | 9.54 | 9.51 | 9.37 | 9.30 | 9.30 | 8.93 |
| ATF | 2.27 | 2.48 | 2.81 | 3.30 | 3.98 | 4.54 | 4.42 | 4.63 | 5.08 |
| HSD | 36.64 | 37.07 | 39.65 | 40.19 | 42.90 | 47.67 | 51.71 | 56.32 | 59.99 |
| LDO | 2.06 | 1.62 | 1.48 | 0.88 | 0.72 | 0.67 | 0.55 | 0.46 | 0.46 |
| Fuel Oils | 12.74 | 12.95 | 13.54 | 12.83 | 12.62 | 12.72 | 12.59 | 11.59 | 10.88 |
| Others* | 23.57 | 25.44 | 27.40 | 28.06 | 31.05 | 34.25 | 35.51 | 37.56 | 44.39 |
| **Total** | **87.69** | **89.79** | **94.28** | **94.80** | **100.78** | **109.22** | **114.08** | **119.86** | **129.72** |
| | | | | **In Million Tonnes of Coal Equivalent Unit @** | | | | | |
| Kerosene | 20.82 | 20.46 | 18.80 | 19.08 | 19.01 | 18.74 | 18.60 | 18.60 | 17.86 |
| ATF | 4.54 | 4.96 | 5.62 | 6.59 | 7.97 | 9.08 | 8.84 | 9.26 | 10.16 |
| HSD | 73.28 | 74.14 | 79.30 | 80.38 | 85.79 | 95.34 | 103.42 | 112.64 | 119.98 |
| LDO | 4.12 | 3.24 | 2.96 | 1.77 | 1.44 | 1.34 | 1.10 | 0.92 | 0.91 |
| Fuel Oils | 25.48 | 25.90 | 27.08 | 25.66 | 25.24 | 25.44 | 25.18 | 23.18 | 21.76 |
| Others* | 47.14 | 50.88 | 54.80 | 56.13 | 62.11 | 68.50 | 71.03 | 75.12 | 88.79 |
| **Total** | **175.38** | **179.58** | **188.56** | **189.60** | **201.55** | **218.44** | **228.17** | **239.72** | **259.45** |
| | | | | **In Million Tonnes of Coal Replacement Unit @** | | | | | |
| Kerosene | 83.28 | 81.84 | 75.20 | 76.32 | 76.04 | 74.96 | 74.40 | 74.40 | 71.42 |
| ATF | 17.03 | 18.60 | 21.08 | 24.71 | 29.87 | 34.05 | 33.15 | 34.73 | 38.09 |
| HSD | 329.76 | 333.63 | 356.85 | 361.71 | 386.06 | 429.03 | 465.39 | 506.88 | 539.91 |
| LDO | 18.54 | 14.58 | 13.32 | 7.95 | 6.48 | 6.03 | 4.95 | 4.14 | 4.10 |
| Fuel Oils | 25.48 | 25.90 | 27.08 | 25.66 | 25.24 | 25.44 | 25.18 | 23.18 | 21.76 |
| Others* | 88.77 | 94.30 | 99.45 | 104.05 | 113.18 | 125.32 | 132.95 | 132.95 | 132.95 |
| **Total** | **562.86** | **568.85** | **592.97** | **600.40** | **636.87** | **694.83** | **736.02** | **776.27** | **808.22** |

**Note**: Includes production of RIL SEZ in the year 2009-10 & 2010-11 .

@ : Based on conversion factors adopted by FPC, 1974

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

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

# Exploration-Crude Oil & Natural Gas

## II.1 Area-wise Deplopment of Deep Drilling Rigs, Wells & Metreage Drilled

| Year | Onshore | | | Offshore | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Rigs (Nos.) | Wells (Nos.) | Metreage ('000') | Rigs (Nos.) | Wells (Nos.) | Metreage ('000') | Rigs (Nos.) | Wells (Nos.) | Metreage ('000') |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* |
| | | | | **(A) Oil & Natural Gas Corporation Ltd.** | | | | | |
| 2002-03 | 73 | 275 | 580 | 23 | 65 | 194 | 96 | 340 | 774 |
| 2003-04 | 72 | 232 | 508 | 29 | 89 | 229 | 101 | 321 | 737 |
| 2004-05 | 72 | 295 | 641 | 29 | 69 | 223 | 101 | 364 | 864 |
| 2005-06 | 70 | 196 | 433 | 28 | 74 | 242 | 98 | 270 | 675 |
| 2006-07 | 70 | 199 | 426 | 25 | 66 | 201 | 95 | 265 | 627 |
| 2007-08 | 71 | 234 | 476 | 25 | 88 | 258 | 96 | 322 | 734 |
| 2008-09 | 76 | 243 | 522 | 36 | 81 | 252 | 112 | 324 | 774 |
| 2009-10 | 85 | 294 | 626 | 35 | 82 | 251 | 120 | 376 | 877 |
| 2010-11* | 88 | 308 | 659 | 36 | 73 | 225 | 124 | 381 | 884 |
| | | | | **(B) Oil India Limited** | | | | | |
| 2002-03 | 13 | 37 | 130 | - | - | - | 13 | 37 | 130 |
| 2003-04 | 13 | 33 | 109 | - | - | - | 13 | 33 | 109 |
| 2004-05 | 13 | 45 | 154 | - | - | - | 13 | 45 | 154 |
| 2005-06 | 14 | 31 | 125 | - | - | - | 14 | 31 | 125 |
| 2006-07 | 13 | 32 | 115 | - | - | - | 13 | 32 | 115 |
| 2007-08 | 13 | 37 | 138 | - | - | - | 13 | 37 | 138 |
| 2008-09 | 16 | 57 | 114 | - | - | - | 16 | 57 | 114 |
| 2009-10 | 17 | 53 | 142 | - | - | - | 17 | 53 | 142 |
| 2010-11* | 19 | 37 | 116 | - | - | - | 19 | 37 | 116 |
| | | | | **Total (A+B)** | | | | | |
| 2002-03 | 86 | 312 | 710 | 23 | 65 | 194 | 109 | 377 | 904 |
| 2003-04 | 85 | 265 | 617 | 29 | 89 | 229 | 114 | 354 | 846 |
| 2004-05 | 85 | 340 | 795 | 29 | 69 | 223 | 114 | 409 | 1018 |
| 2005-06 | 84 | 227 | 558 | 28 | 74 | 242 | 112 | 301 | 800 |
| 2006-07 | 83 | 231 | 541 | 25 | 66 | 201 | 108 | 297 | 742 |
| 2007-08 | 84 | 271 | 614 | 25 | 88 | 258 | 109 | 359 | 872 |
| 2008-09 | 92 | 300 | 636 | 36 | 81 | 252 | 128 | 381 | 888 |
| 2009-10 | 102 | 347 | 768 | 35 | 82 | 251 | 137 | 429 | 1019 |
| 2010-11* | 107 | 345 | 775 | 36 | 73 | 225 | 143 | 418 | 1000 |

**Note:** *: Provisional.

**Source:** Oil & Natural Gas Corpn. Ltd. and Oil India Ltd.

## II.2 Exploratory & Development Drilling by ONGC & OIL

| Year | Exploratory | | Development | | Total | |
|---|---|---|---|---|---|---|
| | Wells (Nos.) | Metreage ('000') | Wells (Nos.) | Metreage ('000') | Wells (Nos.) | Metreage ('000') |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | **(A) Onshore** | | | |
| 2002-03 | 139 | 332 | 173 | 378 | 312 | 710 |
| 2003-04 | 107 | 287 | 158 | 330 | 265 | 617 |
| 2004-05 | 84 | 217 | 180 | 399 | 264 | 616 |
| 2005-06 | 82 | 236 | 145 | 323 | 227 | 559 |
| 2006-07 | 74 | 187 | 157 | 354 | 231 | 541 |
| 2007-08 | 79 | 209 | 192 | 404 | 271 | 613 |
| 2008-09 | 90 | 243 | 210 | 393 | 300 | 636 |
| 2009-10 | 110 | 298 | 236 | 470 | 346 | 768 |
| 2010-11* | 107 | 302 | 240 | 479 | 347 | 781 |
| | | | **(B) Offshore** | | | |
| 2002-03 | 20 | 58 | 45 | 136 | 65 | 194 |
| 2003-04 | 30 | 87 | 59 | 142 | 89 | 229 |
| 2004-05 | 33 | 112 | 36 | 111 | 69 | 223 |
| 2005-06 | 32 | 106 | 42 | 137 | 74 | 243 |
| 2006-07 | 22 | 76 | 44 | 125 | 66 | 201 |
| 2007-08 | 27 | 84 | 61 | 174 | 38 | 258 |
| 2008-09 | 32 | 97 | 49 | 155 | 81 | 252 |
| 2009-10 | 34 | 128 | 48 | 123 | 82 | 251 |
| 2010-11* | 40 | 145 | 33 | 80 | 73 | 225 |
| | | | **Total (A+B)** | | | |
| 2002-03 | 159 | 390 | 218 | 514 | 377 | 904 |
| 2003-04 | 137 | 374 | 217 | 472 | 354 | 846 |
| 2004-05 | 117 | 329 | 216 | 510 | 333 | 839 |
| 2005-06 | 114 | 342 | 187 | 460 | 301 | 802 |
| 2006-07 | 96 | 263 | 201 | 479 | 297 | 742 |
| 2007-08 | 106 | 293 | 253 | 578 | 359 | 871 |
| 2008-09 | 122 | 340 | 259 | 548 | 381 | 888 |
| 2009-10 | 144 | 426 | 284 | 593 | 428 | 1019 |
| 2010-11* | 147 | 447 | 273 | 559 | 420 | 1006 |

**Note**:*: Provisional

**Source:** Oil & Natural Gas Corpn. Ltd. and Oil India Ltd.

## II.3 Status of Wells

(Numbers)

| Company / Year # | Oil | Gas | Dry | Under Test | Injection | Others | Total |
|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| | | | **(A) Oil India Ltd.** | | | | |
| 2002 | 659 | 95 | 151 | 52 | 47 | 52 | 1056 |
| 2003 | 684 | 95 | 151 | 52 | 47 | 59 | 1088 |
| 2004 | 485 | 118 | 417 | 52 | 102 | 934 | 2108 |
| 2005 | 476 | 125 | 418 | 57 | 103 | 960 | 2139 |
| 2006 | 476 | 125 | 417 | 55 | 103 | 959 | 2135 |
| 2007 | 468 | 129 | 428 | 57 | 104 | 976 | 2162 |
| 2008 | 428 | 114 | 428 | 41 | 100 | 1089 | 2200 |
| 2009 | 438 | 103 | 432 | 65 | 102 | 1094 | 2234 |
| 2010 | 459 | 90 | 434 | 78 | 106 | 1097 | 2264 |
| 2011* | 469 | 102 | 440 | 76 | 105 | 1110 | 2302 |
| | | | **(B) Oil & Natural Gas Corporation Ltd.** | | | | |
| 2002 | 4265 | 575 | 2390 | 70 | 852 | 734 | 8885 |
| 2003 | 4465 | 596 | 2450 | 92 | 867 | 737 | 9207 |
| 2004 | 4620 | 620 | 2514 | 115 | 885 | 741 | 9495 |
| 2005 | 4769 | 649 | 2571 | 133 | 899 | 744 | 9765 |
| 2006 | 4918 | 678 | 2628 | 151 | 913 | 747 | 10035 |
| 2007 | 5055 | 711 | 2680 | 161 | 936 | 757 | 10300 |
| 2008 | 5244 | 746 | 2720 | 185 | 962 | 765 | 10622 |
| 2009 | 5425 | 778 | 2781 | 203 | 976 | 783 | 10946 |
| 2010 | 5652 | 811 | 2858 | 203 | 1008 | 791 | 11323 |
| 2011* | 5877 | 852 | 2919 | 230 | 1022 | 804 | 11704 |
| | | | **Total (A+B)** | | | | |
| 2002 | 5617 | 670 | 2846 | 122 | 899 | 789 | 10942 |
| 2003 | 5842 | 691 | 2906 | 144 | 914 | 799 | 11296 |
| 2004 | 5105 | 718 | 2931 | 167 | 932 | 1675 | 11603 |
| 2005 | 5245 | 774 | 2989 | 190 | 1002 | 1704 | 11904 |
| 2006 | 5394 | 803 | 3045 | 206 | 1016 | 1706 | 12170 |
| 2007 | 5523 | 840 | 3108 | 218 | 1040 | 1733 | 12462 |
| 2008 | 5672 | 860 | 3148 | 226 | 1062 | 1854 | 12822 |
| 2009 | 5863 | 881 | 3213 | 268 | 1078 | 1877 | 13180 |
| 2010 | 6111 | 901 | 3292 | 281 | 1114 | 1888 | 13587 |
| 2011* | 6346 | 954 | 3359 | 306 | 1127 | 1914 | 14006 |

**Note:** *: Provisional. #: As on 1st April of each Year

**Source:** Oil & Natural Gas Corpn. Ltd. and Oil India Ltd.

## II. 4 State-wise Geological Surveys Achievements upto 31.3.2011

| States | Geological Surveys | | |
|---|---|---|---|
| | By ONGC | By OIL | Total |
| *1* | *2* | 3 | 4 |
| Andhra Pradesh | 53427 | 141 | 53568 |
| A.N. Islands | 6860 | 14043 | 20903 |
| Arunachal Pradesh | 3692 | – | 3692 |
| Assam | 48073 | 33725 | 81798 |
| Bihar (incl. Jharkhand) | 4035 | – | 4035 |
| Gujarat (Gulf Of Cambay) | 60625 | 8767 | 69392 |
| Himachal Pradesh | 9948 | – | 9948 |
| Jammu & Kashmir | 22970 | – | 22970 |
| Kerala-Karnataka (incl. Goa) | 4000 | – | 4000 |
| Madhya Pradesh | 39221 | – | 39221 |
| Chhattisgarh | 5920 | – | 5920 |
| Manipur | 2781 | – | 2781 |
| Meghalaya | 1911 | – | 1911 |
| Mizoram | 6194 | 1298 | 7492 |
| Nagaland | 6971 | – | 6971 |
| Orissa | – | 4278 | 4278 |
| Rajasthan | 46501 | 15458 | 61959 |
| Sikkim | 720 | – | 720 |
| Tamil Nadu (Incl. Pondicherry) | 20003 | – | 20003 |
| Tripura | 21263 | – | 21263 |
| Uttar Pradesh (incl. Uttarakhand) | 29797 | 6223 | 36020 |
| West Bengal | 8808 | – | 8808 |
| **Total** | **403720** | **50208** | **453928** |

**Source:** Oil & Natural Gas Corpn. Ltd. and Oil India Ltd.

## II. 5 State-wise Achievements of Geophysical Field Parties in India since Inception upto 01.04.2011

| Area / State | 2D | | 3D |
|---|---|---|---|
| | LK | GLK | SqK |
| 1 | 2 | 3 | 4 |
| | | **Oil India Ltd.** | |
| **(A) Onshore** | | | |
| Assam / Arunachal Pradesh | | 26048 | 7676.523 |
| Rajasthan | | 12973.00 | 2485.41 |
| Mizoram | | 1298.00 | 0.00 |
| Orissa | | 4277.68 | 0.00 |
| UP & Uttaranchal | | 6222.50 | 0.00 |
| Andhra Pradesh | | 0.00 | 141.36 |
| **Total(A)** | | **50819.18** | **10303.289** |
| **(B) Offshore** | | | |
| Orissa | 13842 | | 0 |
| Andaman | 201 | | 0 |
| Saurashtra | 8767 | | 332 |
| **Total(B)** | **22810** | | **332** |
| | | **Oil & Natural Gas Corporation Ltd.** | |
| | | **Seismic** | |
| **(A) Onshore** | | **2D** | **3D-SqK** |
| Andhra Pradesh | | 39231.80 | 6783.91 |
| Assam | | 30713.45 | 4030.54 |
| Bihar | | 8903.09 | 895.42 |
| Gujarat | | 106007.18 | 10010.73 |
| Himachal Pradesh | | 4249.58 | 0.00 |
| Haryana | | 1038.00 | 0.00 |
| Jammu & Kashmir | | 2563.00 | 0.00 |
| Madhya Pradesh | | 10021.12 | 0.00 |
| Chhattisgarh | | 202.00 | 0.00 |
| Meghalaya | | 204.55 | 0.00 |
| Mizoram | | 209.05 | 0.00 |
| Nagaland | | 602.18 | 5.75 |
| Orissa | | 313.00 | 0.00 |
| Punjab | | 4078.00 | 0.00 |
| Rajasthan | | 22915.17 | 1235.36 |
| Tamil Nadu | | 41423.46 | 8490.03 |
| Tripura | | 6253.44 | 906.10 |
| Uttar Pradesh | | 28739.17 | 190.62 |
| Uttaranchal | | 1522.00 | 0.00 |
| West Bengal | | 33196.85 | 2604.20 |
| **Total(A)** | | **342386.09** | **35152.66** |
| **(B) Offshore** | | | |
| West Coast | | 476965.16 | 90376.44 |
| East Coast | | 241403.84 | 86928.81 |
| **Total(B)** | | **718369.00** | **177305.25** |
| **Total ONGC** | | **1060755.09** | **212457.91** |

**Note**: 'LK: Line Kilometre. GLK: Ground Line Kilometre. SqK: Square Kilometre

## II.6 Basin-wise / State-wise Achievements of Drilling since Inception upto 01.04.2011

| Basin | State / Region | Wells Numbers | Metreage ('000') |
|---|---|---|---|
| *1* | *2* | *3* | *4* |
| **(A) Onshore** | | | |
| Cambay | Gujarat | 2464 | 4342.49 |
| Rajasthan | Rajasthan | 142 | 289.45 |
| | **Total WRBC** | **2606** | **4631.94** |
| | Nagaland | 25 | 90.94 |
| Upper Assam | Assam | 1862 | 6676.05 |
| | Meghalaya | 4 | 5.92 |
| | Orissa | 5 | 10.71 |
| Fold Belt | Mizoram under ERBC | 2 | 7.81 |
| | **Total ERBC** | **1898** | **6791.44** |
| Assam-Arakan | Tripura | 138 | 405.97 |
| Foot hills & | West Bengal | 32 | 132.27 |
| Ganga Valley | Bihar | 6 | 29.82 |
| | **Total CRBC** | **176** | **568.06** |
| Himalayan Foot-hills, | Himachal Pradesh | 13 | 51.76 |
| Ganga Valley & | Punjab | 4 | 15.54 |
| Vindhyan/Gondwana | Uttar Pradesh | 9 | 28.15 |
| | Madhya Pradesh | 7 | 29.20 |
| | Jammu & Kashmir | 4 | 12.02 |
| | **Total NRBC** | **37** | **136.67** |
| Krishna-Godavari | Andhra Pradesh | 422 | 1266.25 |
| Cauvery | Tamil Nadu | 484 | 1263.98 |
| | **Total SRBC** | **906** | **2530.24** |
| | Arunachal Pradesh# | 60 | 1474.00 |
| **Total(A)** | | **5683** | **16132.35** |
| **(B) Offshore** | | | |
| East Coast(SW+DW) | East Coast including KG, Cauvery | 865 | 2241.82 |
| West Coast(SW+DW) | West Coast including drilling in Orissa, Andaman & Saurashtra | 295 | 973.78 |
| **Total(B)** | | **1160** | **3215.60** |
| **Total (A+B)** | | **6843** | **19347.95** |

**Source:** Oil & Natural Gas Corpn. Ltd., Oil India Ltd. and Directorate General of Hydrocarbons.

## II.7 State-wise/ Basin -wise Oil Fields in India As on 01.04.2011

(Number)

| Company / State | Basin | Oil Fields | Gas Fields | Oil and Gas Fields | Total Fields |
|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* |
| **A. Oil & Natural Gas Corporation Ltd.** | | **30** | **130** | **197** | **357** |
| **a) Onshore** | | | | | |
| Gujarat | Cambay | 4 | 7 | 74 | 85 |
| Assam | Upper Assam | 4 | 1 | 30 | 35 |
| A&AA | | 0 | 4 | 2 | 6 |
| Rajasthan | Jodhpur | 0 | 7 | 0 | 7 |
| Andhra Pradesh | K.G. Basin | 2 | 40 | 12 | 54 |
| Tamil Nadu | Cauvery | 8 | 10 | 10 | 28 |
| Tripura | A&AA | 0 | 11 | 0 | 11 |
| Nagaland | A&AA | 2 | 0 | 1 | 3 |
| **b) Offshore** | | | | | |
| East Coast | Cauvery Offshore | 0 | 0 | 0 | 0 |
| | KG Offshore(Shallow) | 1 | 6 | 6 | 13 |
| | KG Offshore(Deep) | 2 | 13 | 2 | 17 |
| | Mahanadi | 0 | 4 | 0 | 4 |
| | Andaman | 0 | 0 | 0 | 0 |
| West Coast | Cambay | 0 | 1 | 2 | 3 |
| | Mumbai Offshore | 6 | 24 | 57 | 87 |
| | Kutch | 1 | 2 | 1 | 4 |
| **B. Oil India Ltd.** | | **1** | **3** | **15** | **19** |
| Assam | Upper Assam | 0 | 0 | 14 | 14 |
| Arunachal Pradesh | Upper Assam | 0 | 0 | 1 | 1 |
| Rajasthan | Jaisalmer | 0 | 3 | 0 | 3 |
| | Bikaner Nagaur | 1 | 0 | 0 | 1 |
| **C. Private/JVCs** | | **32** | **18** | **0** | **50** |
| **a) Onshore** | | | | | |
| Gujarat | Cambay | 20 | 4 | 0 | 24 |
| Arunachal Pradesh | Kharsang | 1 | 0 | 0 | 1 |
| Assam | Amguri | 0 | 1 | 0 | 1 |
| Madhya Pradesh* | Sohagpur West | 0 | 1 | 0 | 1 |
| | Sohagpur East | 0 | 1 | 0 | 1 |
| Jharkhand* | Jharia | 0 | 1 | 0 | 1 |
| | Bokaro | 0 | 1 | 0 | 1 |
| Rajasthan | Rajsthan | 5 | 2 | 0 | 7 |
| West Bengal* | Ranigunj (East) | 0 | 1 | 0 | 1 |
| | Ranigunj (West) | 0 | 1 | 0 | 1 |
| **b) Offshore** | | | | | 0 |
| East Coast | Cauvery | 1 | 1 | 0 | 2 |
| | KG Basin | 2 | 2 | 0 | 4 |
| West Coast | Mumbai | 2 | 1 | 0 | 3 |
| | Cambay | 1 | 1 | 0 | 2 |
| **Grand Total** | | **63** | **151** | **212** | **426** |

Notes: A&AA : Assam & Assam Arakan. * CBM Fields

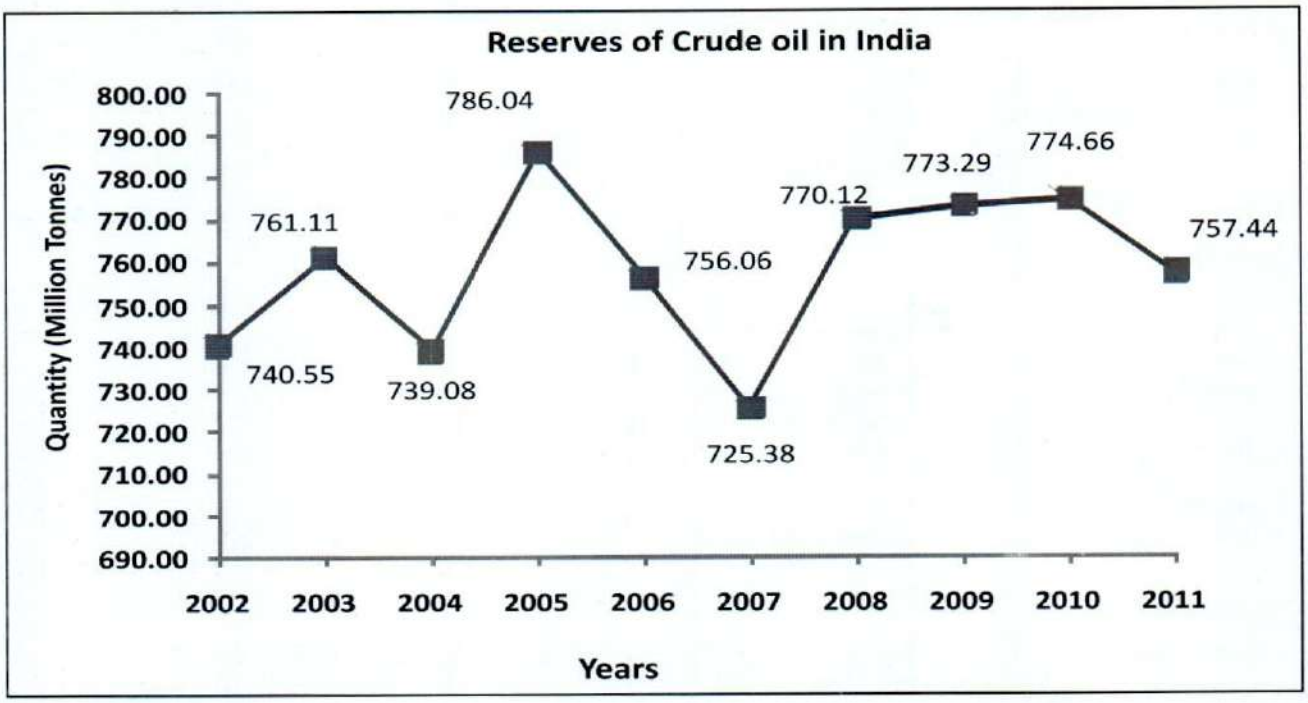
**Source:** ONGC, OIL and DGH.

## II.8 Reserves of Crude Oil in India@

(Million Tonnes)

| Year | Gujarat | Assam($) | Andhra Pradesh | Tamil Nadu | Western(#) Offshore | Eastern(&) Offshore | Grand Total |
|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| 2002 | 148.09 | 173.79 | 3.77 | 5.97 | 348.11 | 60.82 | 740.55 |
| 2003 | 146.08 | 180.85 | 4.45 | 7.38 | 336.69 | 85.66 | 761.11 |
| 2004 | 174.83 | 170.22 | 4.28 | 8.01 | 321.20 | 60.54 | 739.08 |
| 2005 | 191.98 | 171.59 | 4.71 | 8.18 | 366.51 | 43.07 | 786.04 |
| 2006 | 204.42 | 170.59 | 4.52 | 7.98 | 336.44 | 32.11 | 756.06 |
| 2007 | 131.62 | 133.76 | 4.40 | 8.09 | 420.65 | 26.86 | 725.38 |
| 2008 | 135.37 | 173.12 | 4.37 | 7.98 | 424.62 | 24.66 | 770.12 |
| 2009 | 134.97 | 173.74 | 4.21 | 7.92 | 429.96 | 22.50 | 773.29 |
| 2010 | 136.67 | 174.36 | 3.94 | 7.84 | 425.33 | 26.52 | 774.66 |
| 2011 | 137.42 | 176.50 | 5.23 | 8.49 | 403.60 | 26.19 | 757.44 |

Note:
@ : Proved and indicated Balance Recoverable Reserves as on 1st April.
$: Includes Tripura,Nagaland and Arunachal Pradesh reserves of crude oil.
#: Includes Bombay High offshore, Rajasthan and JVC.
&.: Includes JVC/Pvt. Parties.
**Source:** Oil & Natural Gas Corporation/Oil India Limited and Directorate General of Hydrocarbons.



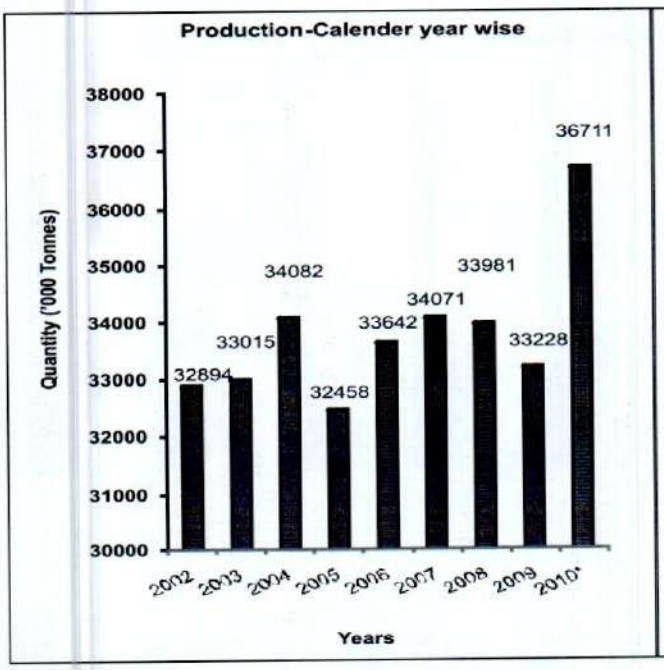
## II. 9 Company-wise Production of Crude Oil in India

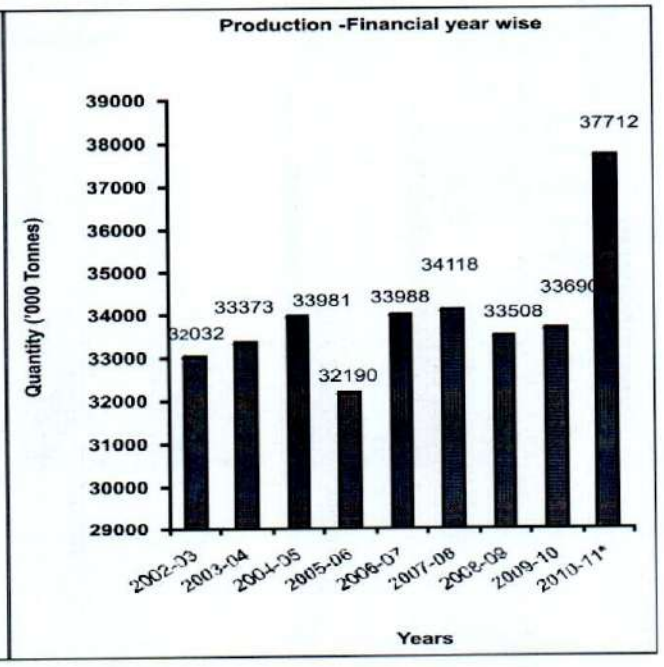
('000 Tonnes)

| Year | On Shore | | | | Off Shore | | | Grand |
|---|---|---|---|---|---|---|---|---|
| | OIL | JVC | ONGC | Total | ONGC | JVC | Total | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **A.Calender Years** | | | | | | | | |
| 2002 | 2987 | 73 | 8535 | 11595 | 17203 | 4096 | 21299 | 32894 |
| 2003 | 2946 | 73 | 8374 | 11393 | 17523 | 4099 | 21622 | 33015 |
| 2004 | 3144 | 74 | 8326 | 11544 | 18267 | 4271 | 22538 | 34082 |
| 2005 | 3280 | 90 | 8100 | 11470 | 16652 | 4336 | 20988 | 32458 |
| 2006 | 3123 | 151 | 8135 | 11409 | 17553 | 4680 | 22233 | 33642 |
| 2007 | 3028 | 185 | 7929 | 11142 | 18117 | 4812 | 22929 | 34071 |
| 2008 | 3450 | 224 | 7745 | 11419 | 18040 | 4522 | 22562 | 33981 |
| 2009 | 3525 | 508 | 7442 | 11475 | 17226 | 4528 | 21753 | 33228 |
| 2010* | 3538 | 4151 | 7430 | 15119 | 17222 | 4371 | 21593 | 36711 |
| **B.Financial Years** | | | | | | | | |
| 2002-03 | 2951 | 75 | 8445 | 11471 | 17560 | 4013 | 21573 | 33044 |
| 2003-04 | 3002 | 74 | 8380 | 11456 | 17677 | 4240 | 21917 | 33373 |
| 2004-05 | 3196 | 74 | 8321 | 11591 | 18164 | 4226 | 22390 | 33981 |
| 2005-06 | 3234 | 101 | 8095 | 11430 | 16309 | 4451 | 20760 | 32190 |
| 2006-07 | 3107 | 161 | 8058 | 11326 | 17993 | 4669 | 22662 | 33988 |
| 2007-08 | 3100 | 192 | 7921 | 11213 | 18020 | 4885 | 22905 | 34118 |
| 2008-09 | 3468 | 243 | 7565 | 11276 | 17801 | 4431 | 22232 | 33508 |
| 2009-10 | 3572 | 734 | 7515 | 11821 | 17340 | 4529 | 21869 | 33690 |
| 2010-11* | 3582 | 5400 | 7446 | 16428 | 17002 | 4282 | 21284 | 37712 |

*Provisional

**Source:** Public Sector Undertakings/Joint Venture Companies



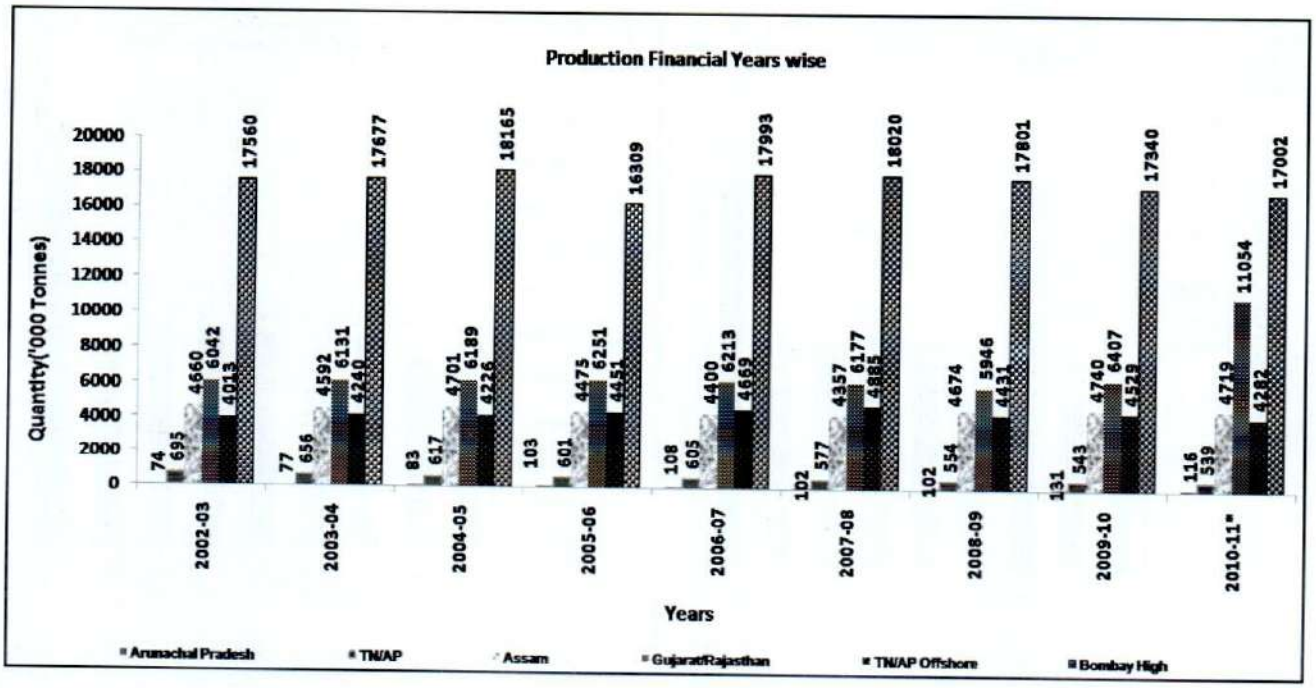



## II.10 State-wise Production of Crude Oil in India

('000 Tonnes)

| Year | Onshore | | | | | Offshore | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|
| | Arunachal Pradesh | T. Nadu/ Andhra Pradesh | Assam | Gujarat/ Rajasthan | Total | T. Nadu/ Andhra Pradesh | Bombay High | Total | |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* |
| | | | | **A. Calender Years** | | | | | |
| 2002 | 72 | 705 | 4787 | 6031 | 11595 | 4096 | 17203 | 21299 | 32894 |
| 2003 | 75 | 662 | 4535 | 6121 | 11393 | 4099 | 17523 | 21622 | 33015 |
| 2004 | 82 | 617 | 4679 | 6166 | 11544 | 4271 | 18267 | 22538 | 34082 |
| 2005 | 97 | 609 | 4565 | 6199 | 11470 | 4336 | 16652 | 20988 | 32458 |
| 2006 | 110 | 606 | 4413 | 6280 | 11409 | 4680 | 17553 | 22233 | 33642 |
| 2007 | 105 | 582 | 4287 | 6168 | 11142 | 4812 | 18117 | 22929 | 34071 |
| 2008 | 96 | 568 | 4686 | 6069 | 11419 | 4522 | 18040 | 22562 | 33981 |
| 2009 | 127 | 546 | 4697 | 6105 | 11475 | 4528 | 17225 | 21753 | 33228 |
| 2010* | 122 | 526 | 4659 | 9812 | 15119 | 4371 | 17222 | 21593 | 36711 |
| | | | | **B. Financial Years** | | | | | |
| 2002-03 | 74 | 695 | 4660 | 6042 | 11471 | 4013 | 17560 | 21573 | 33044 |
| 2003-04 | 77 | 656 | 4592 | 6131 | 11456 | 4240 | 17677 | 21917 | 33373 |
| 2004-05 | 83 | 617 | 4701 | 6189 | 11590 | 4226 | 18165 | 22391 | 33981 |
| 2005-06 | 103 | 601 | 4475 | 6251 | 11430 | 4451 | 16309 | 20760 | 32190 |
| 2006-07 | 108 | 605 | 4400 | 6213 | 11326 | 4669 | 17993 | 22662 | 33988 |
| 2007-08 | 102 | 577 | 4357 | 6177 | 11213 | 4885 | 18020 | 22905 | 34118 |
| 2008-09 | 102 | 554 | 4674 | 5946 | 11276 | 4431 | 17801 | 22232 | 33508 |
| 2009-10 | 131 | 543 | 4740 | 6407 | 11821 | 4529 | 17340 | 21869 | 33690 |
| 2010-11* | 116 | 539 | 4719 | 11054 | 16428 | 4282 | 17002 | 21284 | 37712 |

*Provisional



## II.11 Reserves of Natural Gas in India@

(Billion Cubic Metres)

| Year | Gujarat | Assam(1) | Andhra Pradesh | Tamil Nadu | Western(2) Offshore | Eastern(3) Offshore | Grand Total |
|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| 2002 | 91.79 | 160.96 | 40.36 | 22.05 | 410.37 | 25.18 | 750.71 |
| 2003 | 96.22 | 164.37 | 42.07 | 24.76 | 392.66 | 133.40 | 853.48 |
| 2004 | 95.87 | 172.95 | 41.75 | 28.00 | 394.13 | 190.10 | 922.80 |
| 2005 | 93.11 | 174.94 | 42.28 | 29.57 | 374.69 | 386.40 | 1100.99 |
| 2006 | 84.96 | 174.68 | 41.46 | 28.78 | 344.44 | 400.83 | 1075.15 |
| 2007 | 76.72 | 119.74 | 40.92 | 28.72 | 369.36 | 419.12 | 1054.58 |
| 2008 | 73.75 | 112.34 | 40.33 | 27.77 | 392.95 | 442.83 | 1089.97 |
| 2009 | 77.22 | 131.45 | 39.55 | 26.95 | 414.65 | 425.44 | 1115.27 |
| 2010 | 76.57 | 129.20 | 41.24 | 34.27 | 446.85 | 420.44 | 1148.57 |
| 2011 | 78.97 | 127.93 | 40.58 | 36.88 | 420.91 | 535.66 | 1240.92 |

**Note:**

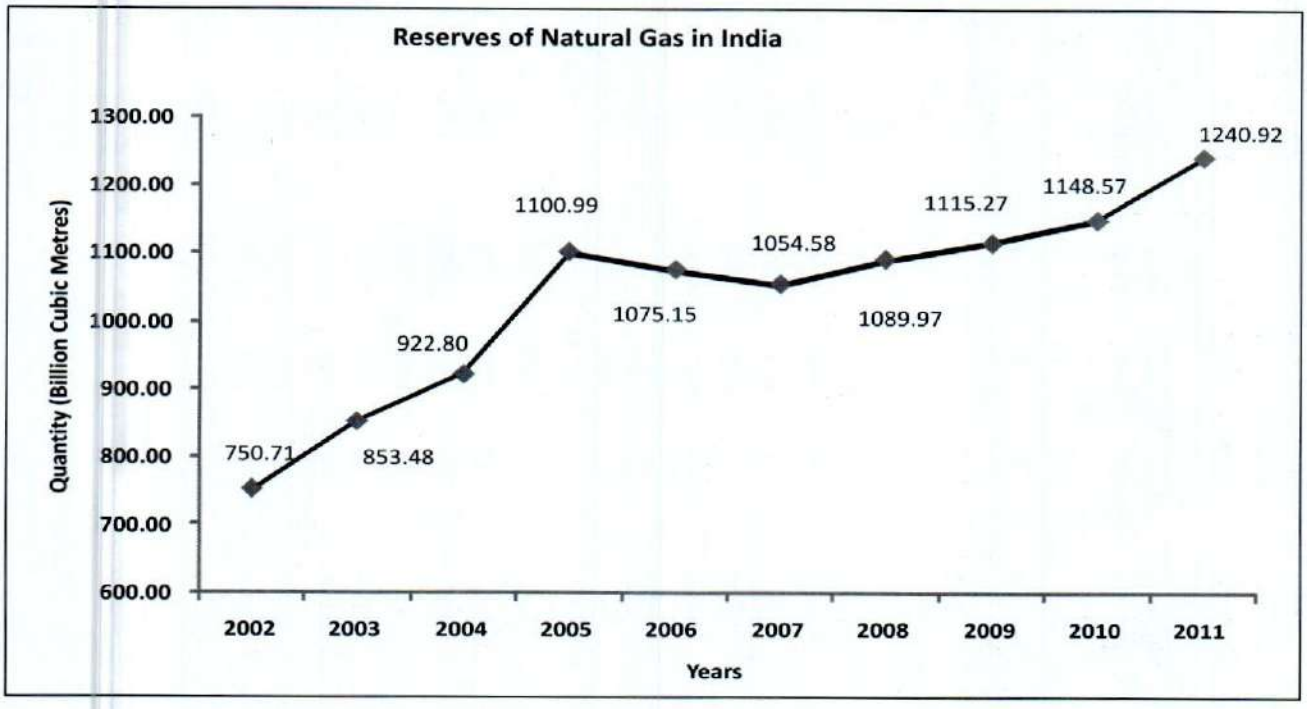
@ : Proved and indicated Balance Recoverable Reserves as on 1st April.

1: Includes Nagaland, Tripura and Arunachal Pradesh reserves of natural gas.

2. Includes Bombay High offshore, Rajasthan and Madhya Pradesh(Coal Bed Methane).

3. Includes West Bengal (CBM).

**Source:** Oil & Natural Gas Corpn. Ltd., Oil India Ltd. and Directorate General of Hydrocarbons.



## II.12 State-wise Gross Production of Natural Gas in India

(Million Cubic Metres)

| Year | Onshore | | | | | | | | | Offshore | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Assam | Gujarat | West Bengal | Rajas-than | Tamil Nadu | Andhra Pradesh | Tripura | Arunachal Pradesh | Total | Eastern Offshore | Bombay High/ Western Offshore | Total | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| **Calender Years** | | | | | | | | | | | | | |
| 2002 | 2032 | 3486 | 0 | 116 | 390 | 2023 | 418 | 6 | 8471 | 829 | 21442 | 22271 | 30742 |
| 2003 | 2210 | 3537 | 0 | 171 | 593 | 1959 | 506 | 9 | 8985 | 892 | 22329 | 23221 | 32206 |
| 2004 | 2231 | 3521 | 0 | 191 | 661 | 1747 | 493 | 40 | 8884 | 1041 | 21750 | 22791 | 31675 |
| 2005 | 2392 | 3802 | 0 | 239 | 841 | 1679 | 502 | 44 | 9499 | 1008 | 21492 | 22500 | 31999 |
| 2006 | 2483 | 3547 | 0 | 244 | 1091 | 1560 | 500 | 41 | 9466 | 878 | 21444 | 22322 | 31788 |
| 2007 | 2581 | 2968 | 9 | 253 | 1165 | 1548 | 530 | 31 | 9085 | 892 | 22430 | 23322 | 32407 |
| 2008 | 2616 | 2679 | 13 | 227 | 1236 | 1555 | 556 | 29 | 8911 | 897 | 23252 | 24150 | 33060 |
| 2009 | 2653 | 2500 | 36 | 230 | 1203 | 1488 | 553 | 36 | 8699 | 10144 | 22861 | 33005 | 41704 |
| 2010* | 2659 | 2295 | 37 | 380 | 1115 | 1409 | 596 | 46 | 8536 | 22412 | 22384 | 44796 | 53332 |
| **Financial Years** | | | | | | | | | | | | | |
| 2002-03 | 2047 | 3531 | 0 | 162 | 466 | 2038 | 446 | 36 | 8726 | 831 | 21832 | 22663 | 31389 |
| 2003-04 | 2204 | 3517 | 0 | 168 | 605 | 1927 | 508 | 44 | 8973 | 923 | 22066 | 22989 | 31962 |
| 2004-05 | 2248 | 3711 | 0 | 213 | 678 | 1707 | 496 | 40 | 9093 | 1062 | 21608 | 22670 | 31763 |
| 2005-06 | 2408 | 3831 | 0 | 242 | 906 | 1663 | 480 | 48 | 9578 | 980 | 21644 | 22624 | 32202 |
| 2006-07 | 2526 | 3294 | 0 | 242 | 1130 | 1525 | 520 | 35 | 9272 | 857 | 21618 | 22475 | 31747 |
| 2007-08 | 2598 | 2931 | 15 | 255 | 1169 | 1567 | 534 | 30 | 9099 | 892 | 22426 | 23318 | 32417 |
| 2008-09 | 2573 | 2605 | 20 | 216 | 1242 | 1524 | 553 | 30 | 8763 | 866 | 23216 | 24082 | 32845 |
| 2009-10 | 2703 | 2444 | 38 | 239 | 1178 | 1479 | 564 | 40 | 8685 | 15787 | 23024 | 38811 | 47496 |
| 2010-11* | 2682 | 2263 | 41 | 432 | 1119 | 1384 | 610 | 44 | 8577 | 21422 | 22223 | 43645 | 52222 |

*:Provisional.
$: Oil India Ltd.'s share is included in Assam
**Source:** Oil & Natural Gas Corpn. Ltd., Oil India Ltd. and Directorate General of Hydrocarbons.

## II.13 State-wise Gross and Net Production of Natural Gas in India

(Million cubic metres)

| Period | Gross Prodn. | Sales | Flarred | Net availability$ |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | | Onshore | | |
| **Gujarat** | | | | |
| 2002-03 | 3531 | 2829 | 322 | 3209 |
| 2003-04 | 3517 | 2945 | 128 | 3389 |
| 2004-05 | 3711 | 3071 | 48 | 3663 |
| 2005-06 | 3831 | 3056 | 21 | 3810 |
| 2006-07 | 3294 | 2713 | 17 | 3277 |
| 2007-08 | 2931 | 2352 | 18 | 2913 |
| 2008-09 | 2605 | 1984 | 32 | 2573 |
| 2009-10 | 2444 | 1792 | 38 | 2406 |
| 2010-11* | 2263 | 1604 | 31 | 2233 |
| **Rajasthan** | | | | |
| 2002-03 | 162 | 158 | 0 | 162 |
| 2003-04 | 168 | 163 | 2 | 166 |
| 2004-05 | 213 | 208 | 2 | 211 |
| 2005-06 | 242 | 238 | 0 | 242 |
| 2006-07 | 242 | 237 | 1 | 241 |
| 2007-08 | 255 | 248 | 3 | 252 |
| 2008-09 | 216 | 210 | 2 | 214 |
| 2009-10 | 239 | 213 | 18 | 221 |
| 2010-11* | 432 | 186 | 49 | 384 |
| **Assam / Arunachal Pradesh** | | | | |
| 2002-03 | 2083 | 1363 | 185 | 1898 |
| 2003-04 | 2248 | 1506 | 201 | 2047 |
| 2004-05 | 2288 | 1521 | 229 | 2059 |
| 2005-06 | 2455 | 1714 | 205 | 2250 |
| 2006-07 | 2561 | 1808 | 232 | 2329 |
| 2007-08 | 2628 | 1875 | 214 | 2414 |
| 2008-09 | 2603 | 1860 | 194 | 2409 |
| 2009-10 | 2743 | 1963 | 228 | 2515 |
| 2010-11* | 2726 | 1657 | 205 | 2521 |
| **Tripura** | | | | |
| 2002-03 | 446 | 445 | 0 | 446 |
| 2003-04 | 508 | 507 | 0 | 508 |
| 2004-05 | 496 | 496 | 0 | 496 |
| 2005-06 | 480 | 479 | 0 | 480 |
| 2006-07 | 520 | 519 | 0 | 520 |
| 2007-08 | 534 | 533 | 0 | 534 |
| 2008-09 | 553 | 552 | 0 | 553 |
| 2009-10 | 564 | 561 | 0 | 564 |
| 2010-11* | 610 | 608 | 0 | 610 |
| **Tamil Nadu** | | | | |
| 2002-03 | 466 | 377 | 88 | 378 |
| 2003-04 | 605 | 535 | 68 | 537 |
| 2004-05 | 678 | 627 | 49 | 629 |
| 2005-06 | 906 | 866 | 39 | 867 |
| 2006-07 | 1130 | 1111 | 17 | 1113 |
| 2007-08 | 1169 | 1151 | 17 | 1152 |

| Period | Gross Prodn. | Sales | Flarred | Net availability$ |
|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* |
| 2008-09 | 1242 | 1230 | 10 | 1232 |
| 2009-10 | 1178 | 1161 | 2 | 1176 |
| 2010-11* | 1119 | 1104 | 13 | 1106 |
| **Andhra Pradesh** | | | | |
| 2002-03 | 2038 | 2009 | 18 | 2020 |
| 2003-04 | 1927 | 1903 | 13 | 1914 |
| 2004-05 | 1707 | 1686 | 10 | 1697 |
| 2005-06 | 1663 | 1646 | 8 | 1655 |
| 2006-07 | 1525 | 1507 | 9 | 1516 |
| 2007-08 | 1567 | 1548 | 10 | 1557 |
| 2008-09 | 1524 | 1508 | 7 | 1517 |
| 2009-10 | 1479 | 1468 | 10 | 1469 |
| 2010-11* | 1384 | 1372 | 2 | 1383 |
| **West Bengal** | | | | |
| 2007-08 | 15 | 0 | 14 | 1 |
| 2008-09 | 20 | 2 | 17 | 3 |
| 2009-10 | 38 | 6 | 30 | 8 |
| 2010-11* | 41 | 31 | 5 | 36 |
| **Total Onshore** | | | | |
| 2002-03 | 8726 | 7181 | 613 | 8113 |
| 2003-04 | 8973 | 7559 | 412 | 8561 |
| 2004-05 | 9093 | 7609 | 338 | 8755 |
| 2005-06 | 9578 | 7999 | 273 | 9305 |
| 2006-07 | 9272 | 7895 | 276 | 8996 |
| 2007-08 | 9099 | 7707 | 276 | 8823 |
| 2008-09 | 8763 | 7345 | 262 | 8501 |
| 2009-10 | 8685 | 7164 | 326 | 8359 |
| 2010-11* | 8577 | 6562 | 305 | 8272 |
| | | **Offshore** | | |
| 2002-03 | 22663 | 18690 | 812 | 21851 |
| 2003-04 | 22989 | 19151 | 644 | 22345 |
| 2004-05 | 22670 | 18896 | 650 | 22020 |
| 2005-06 | 22624 | 18859 | 604 | 22020 |
| 2006-07 | 22475 | 18521 | 680 | 21795 |
| 2007-08 | 23318 | 19267 | 662 | 22656 |
| 2008-09 | 24082 | 19721 | 837 | 23245 |
| 2009-10 | 38811 | 33710 | 664 | 38147 |
| 2010-11* | 43645 | 39155 | 663 | 42982 |
| **Grand Total** | | | | |
| 2002-03 | 31389 | 25871 | 1425 | 29964 |
| 2003-04 | 31962 | 26710 | 1056 | 30906 |
| 2004-05 | 31763 | 26505 | 988 | 30775 |
| 2005-06 | 32202 | 26858 | 877 | 31325 |
| 2006-07 | 31747 | 26416 | 956 | 30791 |
| 2007-08 | 32417 | 26974 | 938 | 31479 |
| 2008-09 | 32845 | 27066 | 1099 | 31746 |
| 2009-10 | 47496 | 40874 | 990 | 46506 |
| 2010-11* | 52222 | 45717 | 968 | 51254 |

$: Includes internal consumption
*: Provisional.
**Source:** Oil & Natural Gas Corpn. Ltd., Oil India Ltd. and Directorate General of Hydrocarbons.

## II.14 State-wise Utilisation of Natural Gas in India

(Million Cubic Metres)

| State/Area | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|
| **Onshore** | | | | | | | | | |
| Gujarat/Rajasthan | 3371 | 3555 | 3873 | 4052 | 3518 | 3165 | 2787 | 2627 | 2617 |
| Assam / Arunachal Pradesh | 1898 | 2047 | 2059 | 2251 | 2329 | 2414 | 2409 | 2515 | 2521 |
| Tripura / West Bengal | 446 | 508 | 497 | 480 | 520 | 535 | 556 | 572 | 646 |
| Andhra Pradesh | 2020 | 1914 | 1697 | 1655 | 1516 | 1557 | 1517 | 1469 | 1383 |
| Tamil Nadu | 378 | 537 | 629 | 867 | 1113 | 1152 | 1232 | 1176 | 1106 |
| **Total Onshore** | **8113** | **8561** | **8755** | **9305** | **8996** | **8823** | **8501** | **8358** | **8272** |
| **Offshore** | | | | | | | | | |
| Mumbai High | 17643 | 17235 | 16769 | 16351 | 16011 | 15879 | 16023 | 16887 | 17035 |
| JVC | 4208 | 5110 | 5251 | 5669 | 5784 | 6777 | 7222 | 21261 | 25947 |
| **Total Offshore** | **21851** | **22345** | **22020** | **22020** | **21795** | **22656** | **23245** | **38148** | **42982** |
| **Grand Total** | **29964** | **30906** | **30775** | **31325** | **30791** | **31479** | **31746** | **46506** | **51254** |

*: Provisional.

## II.15 Industry-wise Offtakes of Natural Gas in India

(Million Cubic Metres)

| Industry | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|
| **Energy Purposes** | | | | | | | | | |
| Power Generation | 10510 | 11478 | 12099 | 11878 | 11963 | 12037 | 12603 | 21365 | 27415 |
| Industrial Fuel | 2939 | 3099 | 3569 | 3780 | 3205 | 3323 | 5912 | 2322 | 2317 |
| Tea Plantation | 119 | 142 | 142 | 151 | 170 | 160 | 154 | 167 | 193 |
| Domestic Fuel | 654 | 93 | 343 | 75 | 443 | 38 | 102 | 246 | 29 |
| Captive Use / LPG Shrinkages | 5409 | 4865 | 4944 | 5048 | 5034 | 1804 | 1885 | 5433 | 4543 |
| Others | 136 | 1263 | 231 | 1120 | 40 | 1324 | 1535 | 1838 | 1222 |
| **Total** | **19767** | **20940** | **21328** | **22052** | **20855** | **18686** | **22191** | **31371** | **35719** |
| **Non-Energy Purposes** | | | | | | | | | |
| Fertilisers | 7955 | 7889 | 8173 | 7762 | 8497 | 9823 | 9082 | 13168 | 13429 |
| Petro-Chemicals | 1027 | 1128 | 1236 | 1175 | 1377 | 1432 | 1105 | 1264 | 1183 |
| Others | 1215 | 949 | 38 | 36 | 639 | 638 | 611 | 703 | 1098 |
| **Total** | **10197** | **9966** | **9447** | **8973** | **10513** | **11893** | **10798** | **15135** | **15710** |
| **Grand Total** | **29964** | **30906** | **30775** | **31025** | **31368** | **30579** | **32989** | **46506** | **51429** |

*: Provisional.

# Refining, Transportation and Marketing

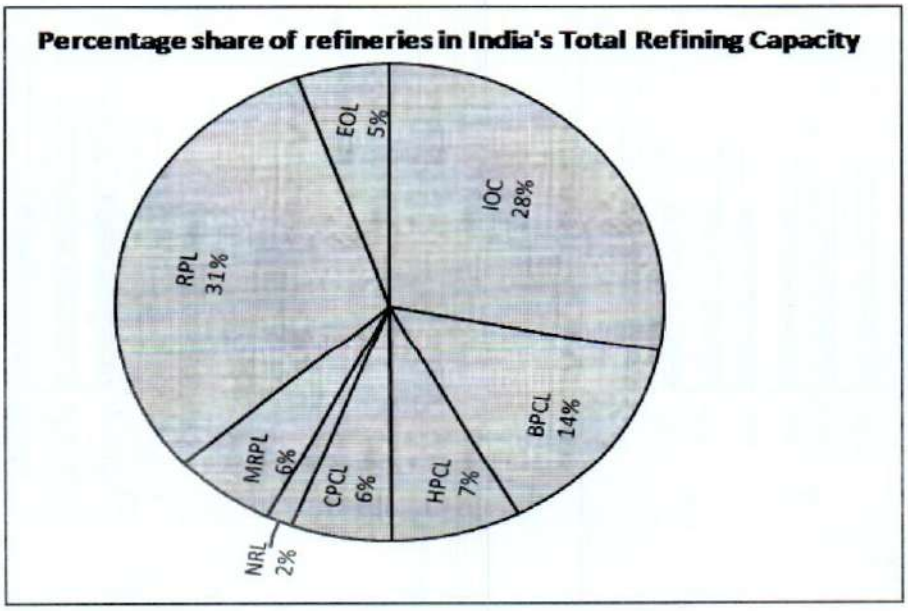
## III.1 Petroleum Refining Capacity in India

(Million Tonnes per annum)

| Refinery | Year of Commissioning | Installed Capacity as on 1.4.2011 |
|---|---|---|
| *1* | *2* | *3* |
| **(a) Public Sector Refineries** | | **122.89** |
| **I. IOC Refineries** | | **54.20** |
| IOC, Digboi | 1901 | 0.65 |
| IOC, Guwahati | 1962 | 1.00 |
| IOC, Barauni | 1964 | 6.00 |
| IOC, Koyali | 1965 | 13.70 |
| IOC, Haldia | 1974 | 7.50 |
| IOC, Mathura | 1982 | 8.00 |
| IOC, Panipat | 1998 | 15.00 |
| IOC, Bongaigaon | 1979 | 2.35 |
| **II. BPCL Refineries** | | **27.50** |
| BPCL, Mumbai | 1955 | 12.00 |
| BPCL, Kochi | 1966 | 9.50 |
| BPCL, BORL-Bina^ | 2011 | 6.00 |
| **III. HPCL Refineries** | | **14.80** |
| HPCL, Mumbai | 1954 | 6.50 |
| HPCL, Visakh | 1957 | 8.30 |
| **IV. CPCL Refineries** | | **11.50** |
| CPCL, Manali | 1969 | 10.50 |
| CPCL, Narimanam | 1993 | 1.00 |
| V. NRL, Numaligarh | 1999 | 3.00 |
| VI. ONGC, Tatipaka | 2002 | 0.07 |
| VII. MRPL, Mangalore | 1996 | 11.82 |
| **(b) Private Refineries** | | **70.50** |
| I. **RPL Refineries** | | **60.00** |
| RPL, Jamnagar | 1999 | 33.00 |
| RPL(SEZ), Jamnagar * | 2008 | 27.00 |
| II. Essar Oil Ltd., Vadinar | 2006 | 10.50 |
| **Total (a+b)** | | **193.39** |

*: RPL(SEZ), Jamnagar commissioned on 25.12.2008 & started production from January, 2009.

^: BPCL,BORL-Bina Commissioned on 01.04.2011

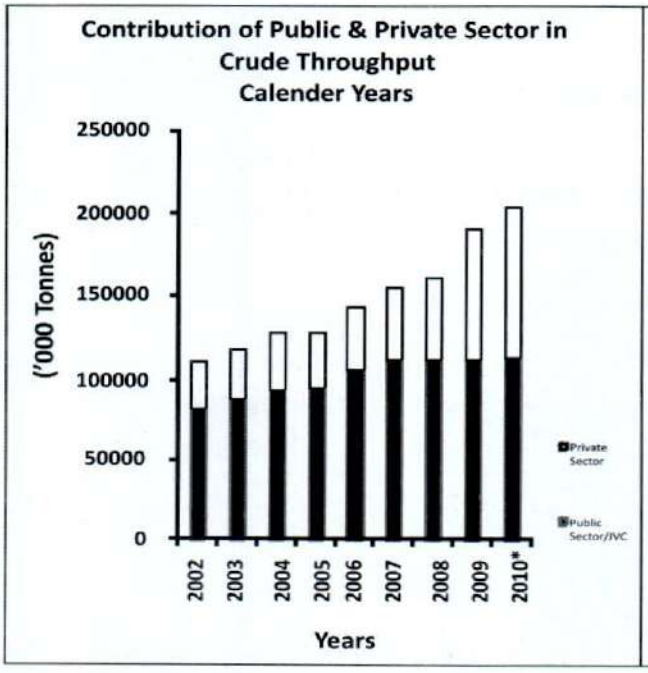


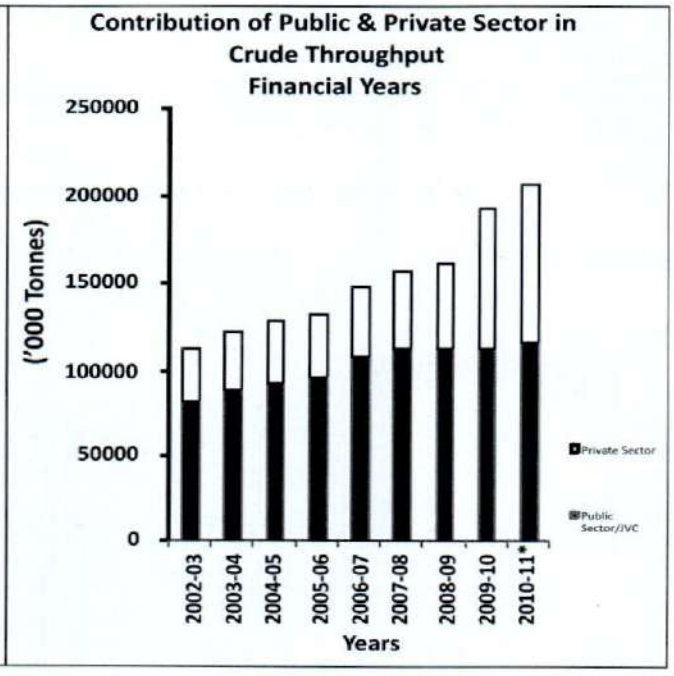
## III.2 Refinery Crude Throughput and Production of Petroleum Products

(000 Tonnes)

| Year | Crude Throughput | | | Production of Petroleum Products | | |
|---|---|---|---|---|---|---|
| | Public Sector/JVC | Private Sector | Total | Public Sector/JVC | Private Sector | Total |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| | | | (Calendar Years) | | | |
| 2002 | 80469 | 29679 | 110148 | 74914 | 26926 | 101840 |
| 2003 | 86350 | 32161 | 118511 | 80405 | 29694 | 110099 |
| 2004 | 93619 | 34136 | 127755 | 87008 | 31835 | 118843 |
| 2005 | 94489 | 33061 | 127550 | 87551 | 29694 | 117245 |
| 2006 | 105690 | 36727 | 142417 | 97477 | 34172 | 131649 |
| 2007 | 112179 | 42516 | 154695 | 103701 | 39699 | 143400 |
| 2008 | 112120 | 48327 | 160447 | 103748 | 46501 | 150249 |
| 2009 | 112365 | 78218 | 190583 | 104026 | 75343 | 179369 |
| 2010* | 112976 | 90126 | 203102 | 104030 | 84080 | 188110 |
| | | | (Financial Years) | | | |
| 2002-03 | 82015 | 30544 | 112559 | 76236 | 27904 | 104140 |
| 2003-04 | 89495 | 32345 | 121840 | 83397 | 30066 | 113463 |
| 2004-05 | 93107 | 34309 | 127416 | 86674 | 31905 | 118579 |
| 2005-06 | 96946 | 33163 | 130109 | 89793 | 29957 | 119750 |
| 2006-07 | 108173 | 38378 | 146551 | 99714 | 35546 | 135260 |
| 2007-08 | 112541 | 43562 | 156103 | 104008 | 40922 | 144930 |
| 2008-09 | 112222 | 48550 | 160772 | 103933 | 46583 | 150516 |
| 2009-10 | 112116 | 80652 | 192768 | 103641 | 76127 | 179768 |
| 2010-11* | 115461 | 90693 | 206154 | 106478 | 83887 | 190364 |

**Note**: Crude throughput and Petroleum production by Ril SEZ refinery includes during 2009-10 & 2010-11 which includes other Inputs
*Provisional



## III.3 Refinery-wise Crude Thoughput and Production of Petroleum Products

(000 Tonnes)

| Refinery | Crude Throughout | | | | | | | | | Production of Petroleum Products | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
| IOC, Digbol | 581 | 602 | 651 | 615 | 586 | 564 | 623 | 600 | 651 | 577 | 584 | 636 | 605 | 567 | 537 | 605 | 578 | 633 |
| IOC, Guwahati | 458 | 891 | 1002 | 864 | 839 | 920 | 1076 | 1078 | 1118 | 390 | 739 | 868 | 750 | 726 | 789 | 914 | 952 | 997 |
| IOC, Barauni | 2994 | 4304 | 5082 | 5553 | 5469 | 5634 | 5940 | 6184 | 6207 | 2637 | 3815 | 4562 | 5016 | 4931 | 5083 | 5362 | 5651 | 5654 |
| IOC, Koyali | 12434 | 12758 | 11698 | 11543 | 12953 | 13714 | 13852 | 13206 | 13561 | 11734 | 12029 | 11041 | 10839 | 12142 | 12886 | 13059 | 12472 | 12687 |
| IOC, Haldia | 4513 | 4518 | 5418 | 5502 | 5836 | 5715 | 6042 | 5686 | 6878 | 4031 | 4112 | 4964 | 4988 | 5282 | 5199 | 5531 | 5053 | 6242 |
| IOC, Mathura | 8207 | 8248 | 6387 | 7938 | 8883 | 8033 | 8601 | 8107 | 8880 | 7880 | 7932 | 6145 | 7463 | 8425 | 7616 | 8164 | 7672 | 8561 |
| IOC, Panipat | 6101 | 6338 | 6390 | 6507 | 9435 | 12821 | 13070 | 13615 | 13660 | 5561 | 5818 | 5826 | 5780 | 8016 | 11272 | 11680 | 11959 | 12026 |
| IOC,Bongaigaon, Assam | 1463 | 2126 | 2311 | 2356 | 2067 | 2020 | 2163 | 2220 | 2008 | 1352 | 1963 | 2171 | 2246 | 1932 | 1888 | 2022 | 2100 | 1841 |
| BPCL, Mumbai | 8711 | 8757 | 9138 | 10298 | 12030 | 12746 | 12262 | 12516 | 13020 | 8221 | 8259 | 8598 | 9627 | 11234 | 11884 | 11437 | 11810 | 12406 |
| BPCL(KRL), Kochi | 7580 | 7854 | 7924 | 6939 | 7742 | 8134 | 7739 | 7875 | 8732 | 7063 | 7419 | 7387 | 6456 | 7237 | 7687 | 7192 | 7389 | 8094 |
| HPCL, Mumbai | 6078 | 6108 | 6118 | 6249 | 7419 | 7409 | 6652 | 6965 | 6752 | 5660 | 5707 | 5725 | 5817 | 6981 | 6908 | 6210 | 6594 | 6079 |
| HPCL, Vishakhapatnam | 6851 | 7591 | 8121 | 7980 | 9377 | 9409 | 9155 | 8796 | 8200 | 6386 | 7145 | 7636 | 7515 | 8782 | 8896 | 8654 | 8117 | 7626 |
| CPCL(MRL), Manali | 6176 | 6387 | 8181 | 9680 | 9784 | 9802 | 9718 | 9580 | 10104 | 5658 | 5827 | 7397 | 8742 | 8841 | 8869 | 8853 | 8718 | 9098 |
| CPCL(MRL), Narimanam | 643 | 653 | 742 | 682 | 618 | 464 | 418 | 517 | 703 | 631 | 645 | 733 | 671 | 609 | 449 | 398 | 503 | 696 |
| NRL, Numaligarh | 1879 | 2200 | 2042 | 2133 | 2504 | 2568 | 2251 | 2619 | 2255 | 1665 | 1961 | 1834 | 1918 | 2227 | 2278 | 1992 | 2336 | 1996 |
| MRPL, Mangalore | 7253 | 10069 | 11809 | 12014 | 12536 | 12525 | 12577 | 12498 | 12662 | 6699 | 9352 | 11059 | 11268 | 11689 | 11706 | 11778 | 11683 | 11773 |
| ONGC, Tatipaka | 93 | 91 | 93 | 93 | 94 | 63 | 84 | 55 | 69 | 91 | 90 | 92 | 92 | 93 | 62 | 82 | 54 | 68 |
| RPL, Jamnagar | 30544 | 32345 | 34309 | 33163 | 36616 | 36931 | 35636 | 34415 | 34517 | 27904 | 30066 | 31905 | 29957 | 34174 | 34307 | 33010 | 31768 | 31514 |
| RPL,SEZ | - | - | - | - | - | - | - | 32735 | 41303 | | | | | - | - | - | 30113 | 37871 |
| EOL, Vadinar | - | - | - | - | 1763 | 6631 | 12913 | 13502 | 14873 | - | - | - | - | 1372 | 6614 | 13573 | 14246 | 14502 |
| **Total** | **112559** | **121840** | **127416** | **130109** | **146551** | **156103** | **160772** | **192768** | **206154** | **104140** | **113463** | **118579** | **119750** | **135260** | **144930** | **150516** | **179768** | **190364** |

**Note**: RIL Refineries Crude throughput and Petroleum production includes during 2009-10 & 2010-11 which includes other Inputs

*Provisional

## III.4(a) Production of Petroleum Products
## Calender Years

('000' Tonne)

| PRODUCTS | Production | | | | | | | | % Variation | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2002 | 2003 | 2004 | 2006 | 2007 | 2008 | 2009 | 2010* | 2009/2008 | 2010/2009 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| **(a) From Crude Oil** | | | | | | | | | | |
| **1. Light Distillates** | **27642** | **31098** | **32790** | **37443** | **39658** | **40599** | **50003** | **55454** | **23.2** | **10.9** |
| LPG | 4831 | 5185 | 5585 | 6355 | 6578 | 7072 | 8189 | 7459 | 15.8 | -8.9 |
| Motor Spirit | 10133 | 10906 | 11062 | 12137 | 13634 | 16002 | 21718 | 25881 | 35.7 | 19.2 |
| Naphtha | 9363 | 10782 | 13592 | 16568 | 16714 | 15063 | 16992 | 17712 | 12.8 | 4.2 |
| SBPS / Hexane | 87 | 77 | 98 | 82 | 72 | 73 | 67 | 76 | -8.2 | 13.6 |
| Others | 3315 | 4225 | 2551 | 2383 | 2732 | 2462 | 3037 | 4327 | **23.4** | **42.5** |
| **2. Middle Distillates** | **54872** | **58315** | **63169** | **69317** | **75901** | **79795** | **94917** | **97211** | **5.1** | **2.4** |
| Kerosene | 10062 | 9906 | 9854 | 8721 | 8022 | 7902 | 8554 | 7927 | -1.5 | -7.3 |
| ATF | 2702 | 4180 | 4890 | 7305 | 9104 | 8440 | 9160 | 9195 | -7.3 | 0.4 |
| HSD | 39490 | 41966 | 46244 | 51908 | 57311 | 62293 | 72972 | 76732 | 8.7 | 5.2 |
| LDO | 2090 | 1705 | 1621 | 767 | 704 | 659 | 521 | 516 | -6.4 | -1.0 |
| Others | 528 | 558 | 560 | 616 | 760 | 501 | 3710 | 2840 | -34.1 | -23.4 |
| **3. Heavy Ends** | **19326** | **20686** | **22884** | **24889** | **27841** | **29855** | **34449** | **35445** | **7.2** | **2.9** |
| Furnace Oil | 7602 | 8107 | 10297 | 11951 | 12519 | 14428 | 15350 | 18294 | 15.2 | 19.2 |
| LSHS/HHS/RFO | 4644 | 4661 | 4245 | 3365 | 3244 | 3090 | 2681 | 1872 | -4.7 | -30.2 |
| Total Fuel Oils | 12246 | 12768 | 14542 | 15316 | 15763 | 17518 | 18031 | 20167 | 11.1 | 11.8 |
| Lube Oils | 645 | 667 | 663 | 811 | 865 | 908 | 911 | 802 | 5.0 | -12.0 |
| Bitumen | 2847 | 3268 | 3404 | 3783 | 4358 | 4577 | 4938 | 4510 | 5.0 | -8.7 |
| Petroleum Coke | 2522 | 2696 | 3130 | 3590 | 4092 | 4252 | 4043 | 2578 | 3.9 | -36.2 |
| Paraffin Wax | 42 | 51 | 64 | 60 | 63 | 70 | 63 | 92 | 11.1 | 45.8 |
| Other Waxes | 6 | 3 | 4 | 3 | 4 | 2 | 4 | 4 | -50.0 | 5.0 |
| Total Waxes | 48 | 54 | 68 | 63 | 67 | 72 | 67 | 96 | 7.5 | 43.4 |
| Others | 1018 | 1233 | 1077 | 1326 | 2696 | 2528 | 6459 | 7293 | -6.2 | 12.9 |
| **4. Total Production** | **101840** | **110099** | **118843** | **131649** | **143400** | **150249** | **179369** | **188110** | **4.8** | **4.9** |
| **5. Crude Throughput** | **110148** | **118511** | **127755** | **142417** | **154695** | **160447** | **190583** | **203102** | **3.7** | **6.6** |
| **(b) From Natural Gas** | | | | | | | | | | |
| LPG | 2350 | 2366 | 2256 | 2134 | 2066 | 2154 | 2206 | 2189 | 4.3 | -0.8 |

**Note**: Include production of RIL SEZ in the year 2009-10 & 2010-11 which includes other Inputs.

**Pattern of Production (Percentage)**

| PRODUCTS | 2002 | 2003 | 2004 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|---|
| Light Distillates | 25.1 | 26.2 | 25.7 | 26.3 | 25.6 | 25.3 | 26.2 | 27.3 |
| Middle Distillates | 49.8 | 49.2 | 49.4 | 48.7 | 49.1 | 49.7 | 49.8 | 47.9 |
| Total Fuel Oils | 11.1 | 10.8 | 11.4 | 10.8 | 10.2 | 10.9 | 9.5 | 9.9 |
| Lubes | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.4 |
| Bitumen | 2.6 | 2.8 | 2.7 | 2.7 | 2.8 | 2.9 | 2.6 | 2.2 |
| Others | 3.3 | 3.4 | 3.3 | 3.5 | 4.4 | 4.3 | 5.5 | 4.9 |
| **Total Production** | **92.5** | **92.9** | **93.0** | **92.4** | **92.7** | **93.6** | **94.1** | **92.6** |
| RBF & Losses / inventories | 7.5 | 7.1 | 7.0 | 7.6 | 7.3 | 6.4 | 5.9 | 7.4 |
| **Crude Throughput** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*: Provisional.

## III.4(b) Production of Petroleum Products
## Financial Years

('000' Tonne)

| Products | Production | | | | | | | | | % Variation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* | 2009-10 2008-09 | 2010-11 2009-10 |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | 11 | 12 |
| | | | | | (a) From Crude Oil | | | | | | |
| **1. Light Distillates** | **28619** | **31971** | **32865** | **32427** | **38104** | **40111** | **40222** | **51197** | **55197** | **27.3** | **7.8** |
| LPG | 4903 | 5348 | 5570 | 5525 | 6315 | 6732 | 6996 | 8091 | 7538 | 15.7 | -6.8 |
| Motor Spirit | 10361 | 10999 | 11057 | 10502 | 12539 | 14167 | 16020 | 22537 | 26135 | 40.7 | 16.0 |
| Naphtha | 9650 | 11317 | 14100 | 14509 | 16660 | 16440 | 14826 | 17105 | 17531 | 15.4 | 2.5 |
| SBPS / Hexane | 82 | 89 | 81 | 98 | 79 | 82 | 81 | 67 | 78 | -17.3 | 16.6 |
| Others | 3705 | 4307 | 2138 | 1891 | 2590 | 2772 | 2380 | 3397 | 3916 | 42.7 | 15.3 |
| **2. Middle Distillates** | **55937** | **60018** | **62509** | **64432** | **71225** | **76649** | **80309** | **93790** | **99776** | **16.8** | **6.4** |
| Kerosene | 10028 | 10187 | 9298 | 9078 | 8491 | 7794 | 8223 | 8545 | 7702 | 3.9 | -9.9 |
| ATF | 3053 | 4289 | 5201 | 6196 | 7805 | 9107 | 8071 | 9296 | 9570 | 15.2 | 2.9 |
| HSD | 40207 | 43316 | 45903 | 47572 | 53465 | 58361 | 62889 | 73281 | 78053 | 16.5 | 6.5 |
| LDO | 2079 | 1659 | 1546 | 923 | 803 | 671 | 606 | 472 | 578 | -22.1 | 22.4 |
| Others | 570 | 567 | 561 | 663 | 661 | 716 | 520 | 2195 | 3874 | 322.2 | 76.5 |
| **3. Heavy Ends** | **19584** | **21474** | **23205** | **22891** | **25931** | **28170** | **29985** | **34782** | **35391** | **16.0** | **1.8** |
| Furnace Oil | 7529 | 8737 | 10560 | 10320 | 12325 | 12638 | 14749 | 15828 | 18659 | 7.3 | 17.9 |
| LSHS/HHS/RFO | 4638 | 4635 | 4410 | 3985 | 3372 | 3166 | 2935 | 2518 | 1860 | -14.2 | -26.1 |
| Total Fuel Oils | 12167 | 13372 | 14970 | 14305 | 15697 | 15804 | 17684 | 18346 | 20519 | 3.7 | 11.8 |
| Lube Oils | 684 | 666 | 646 | 677 | 825 | 881 | 874 | 950 | 737 | 8.7 | -22.5 |
| Bitumen | 2941 | 3397 | 3349 | 3576 | 3891 | 4507 | 4713 | 4889 | 4478 | 3.7 | -8.4 |
| Petroleum Coke | 2659 | 2743 | 3162 | 3182 | 3779 | 4129 | 4241 | 3709 | 2632 | -12.5 | -29.0 |
| Paraffin Wax | 42 | 53 | 64 | 63 | 63 | 64 | 69 | 64 | 179 | -7.5 | 181.0 |
| Other Waxes | 3 | 0 | 4 | 3 | 5 | 7 | 5 | 3 | 6 | -38.7 | 100.6 |
| Total Waxes | 45 | 53 | 68 | 66 | 68 | 71 | 74 | 67 | 185 | -9.6 | 177.3 |
| Others | 1088 | 1243 | 1010 | 1085 | 1671 | 2778 | 2399 | 6753 | 6840 | 181.5 | 1.3 |
| **4. Total Production** | **104140** | **113463** | **118579** | **119750** | **135260** | **144930** | **150516** | **179768** | **190364** | **19.4** | **5.9** |
| **5. Crude Throughput** | **112559** | **121840** | **127416** | **130109** | **146551** | **156103** | **160772** | **192768** | **206154** | **19.9** | **6.9** |
| | | | | | (b) From Natural Gas | | | | | | |
| LPG | 2370 | 2320 | 2240 | 2185 | 2093 | 2060 | 2162 | 2243 | 2168 | 3.7 | -3.3 |

**Note**: Include production of RIL SEZ in the year 2009-10 & 2010-11 which includes other Inputs.

### Pattern of Production (Percentage)s

| PRODUCTS | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|
| Light Distillates | 25.4 | 26.2 | 25.8 | 24.9 | 26.0 | 25.7 | 25.0 | 26.6 | 26.8 |
| Middle Distillates | 49.7 | 49.3 | 49.1 | 49.5 | 48.6 | 49.1 | 50.0 | 48.7 | 48.4 |
| Total Fuel Oils | 10.8 | 11.0 | 11.7 | 11.0 | 10.7 | 10.1 | 11.0 | 9.5 | 10.0 |
| Lubes | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.4 |
| Bitumen | 2.6 | 2.8 | 2.6 | 2.7 | 2.7 | 2.9 | 2.9 | 2.5 | 2.2 |
| Others | 3.4 | 3.3 | 3.3 | 3.3 | 3.8 | 4.5 | 4.2 | 5.5 | 4.7 |
| **Total Production** | **92.5** | **93.1** | **93.1** | **92.0** | **92.3** | **92.8** | **93.6** | **93.3** | **92.3** |
| RBF & Losses / inventories | 7.5 | 6.9 | 6.9 | 8.0 | 7.7 | 7.2 | 6.4 | 6.7 | 7.7 |
| **Crude Throughput** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*: Provisional.

## III.5 Crude Oil, Natural Gas and Product Pipelines in India

| Type of pipeline / Owner | Length (in Kms.) as on 1st April | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011* |
| **Crude Pipelines (Onshore)** | | | | | | | | | | |
| ONGC # | 9210 | 9593 | 10022 | 10297 | 10671 | 11029 | 11378 | 11949 | 12384 | 12863 |
| OIL | 1418 | 1418 | 1418 | 1418 | 1418 | 1418 | 1418 | 1418 | 1418 | 1418 |
| IOC | 2640 | 2788 | 2788 | 2788 | 2788 | 3962 | 3962 | 4341 | 4332 | 4332 |
| BPCL | - | - | - | - | - | - | - | - | 6 | 6 |
| HPCL | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 19 | 19 |
| Pvt. / JVC^ | 16 | 16 | 17 | 19 | 19 | 21 | 47 | 47 | 662 | 662 |
| **Subtotal** | **13295** | **13826** | **14257** | **14533** | **14907** | **16441** | **16816** | **17766** | **18821** | **19300** |
| **Crude Pipelines (Offshore)** | | | | | | | | | | |
| ONGC | 2080 | 2115 | 2137 | 2181 | 2475 | 2569 | 2588 | 2673 | 2683 | 2811 |
| IOC | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 34 | 34 |
| BPCL | - | - | - | - | - | - | - | - | 20 | 20 |
| Pvt. / JVC^ | 142 | 174 | 179 | 179 | 179 | 200 | 200 | 200 | 205 | 205 |
| **Subtotal** | **2247** | **2314** | **2341** | **2385** | **2679** | **2794** | **2813** | **2898** | **2941** | **3069** |
| **Total Crude Oil Pipelines** | **15542** | **16140** | **16597** | **16917** | **17585** | **19234** | **19629** | **20664** | **21762** | **22369** |
| **Gas Pipelines (Onshore)** | | | | | | | | | | |
| ONGC | 3198 | 3369 | 3519 | 3689 | 3892 | 4098 | 4284 | 4461 | 4667 | 4996 |
| IOC | - | - | - | - | - | - | - | - | 132 | |
| GAIL | 4443 | 4536 | 5172 | 5471 | 5599 | 6197 | 7001 | 7190 | 7803 | 8197 |
| BPCL | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Petronet India Limited | 392 | 753 | 753 | 753 | 753 | 753 | 753 | 753 | 753 | 753 |
| EOL | - | - | - | - | - | - | - | - | - | 15 |
| RIL | - | - | - | - | - | - | - | 1469 | 1469 | 1469 |
| Pvt. / JVC^ | 5 | 19 | 30 | 35 | 35 | 35 | 41 | 41 | 729 | 729 |
| **Subtotal** | **8040** | **8679** | **9476** | **9950** | **10281** | **11086** | **12081** | **13916** | **15423** | **16293** |
| **Gas Pipelines (Offshore)** | | | | | | | | | | |
| ONGC | 2502 | 2512 | 2512 | 2517 | 2783 | 2863 | 2863 | 3022 | 3241 | 3337 |
| Pvt. / JVC^ | 115 | 115 | 123 | 123 | 132 | 137 | 259 | 411 | 504 | 504 |
| **Subtotal** | **2617** | **2627** | **2635** | **2640** | **2915** | **3000** | **3122** | **3433** | **3745** | **3841** |
| **Total Gas Pipelines** | **10657** | **11306** | **12111** | **12590** | **13197** | **14085** | **15203** | **17349** | **19168** | **20134** |
| **Product Pipelines (Onshore)** | | | | | | | | | | |
| IOC(AOD) | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| IOC | 4186 | 4687 | 4842 | 4842 | 6063 | 5286 | 5211 | 5349 | 6100 | 6326 |
| BPCL | 576 | 613 | 971 | 971 | 971 | 1745 | 1745 | 1745 | 1705 | 1705 |
| HPCL | 732 | 732 | 732 | 732 | 732 | 2130 | 2130 | 2130 | 2134 | 2134 |
| OIL | - | - | - | - | - | - | - | 660 | 660 | 660 |
| ONGC | 1795 | 1940 | 2041 | 2132 | 2239 | 2396 | 2606 | 2731 | 2840 | 3025 |
| GAIL | 1233 | 1233 | 1495 | 1927 | 1927 | 1927 | 1927 | 1964 | 1978 | 1978 |
| **Subtotal** | **8597** | **9280** | **10156** | **10679** | **12007** | **13559** | **13694** | **14654** | **15492** | **15903** |
| **Product Pipelines (Offshore)** | | | | | | | | | | |
| BPCL | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ONGC | 636 | 668 | 668 | 678 | 697 | 730 | 752 | 762 | 783 | 798 |
| **Subtotal** | **639** | **671** | **671** | **681** | **700** | **733** | **755** | **765** | **786** | **801** |
| **Total Product Pipeline** | **9236** | **9951** | **10827** | **11360** | **12707** | **14292** | **14449** | **15419** | **16278** | **16704** |
| **Grand Total** | **35434** | **37397** | **39535** | **40867** | **43489** | **47612** | **49281** | **53432** | **57209** | **59208** |

*Provisional

^Reported by DGH

# Includes Internal Pipelines

## III.6 Tonnage of Indian Tankers Fleet

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011* |
|---|---|---|---|---|---|---|---|---|---|---|
| **A. Coastal Trade (Oil Tankers)** | | | | | | | | | | |
| **1. Product Carriers** | | | | | | | | | | |
| No. of tankers | 12 | 12 | 12 | 11 | 9 | 10 | 12 | 14 | 13 | 13 |
| DWT ('000' tonnes) | 90.1 | 61.0 | 61.0 | 54.9 | 40.5 | 42.6 | 44.7 | 66.70 | 43.2 | 43.2 |
| **2. Crude Oil Carriers** | | | | | | | | | | |
| No. of tankers | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| DWT ('000' tonnes) | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 | 82.2 |
| **3. Offshore Supply Vessels** | | | | | | | | | | |
| No. of tankers | 70 | 73 | 76 | 80 | 83 | 89 | 96 | 100 | 110 | 110 |
| DWT ('000' tonnes) | 85.6 | 95.8 | 99.1 | 99.7 | 100.2 | 105.8 | 118.4 | 122.6 | 132.5 | 133.9 |
| **4. Specialised vessels for offshore** | | | | | | | | | | |
| No. of tankers | 28 | 31 | 32 | 32 | 35 | 35 | 36 | 36 | 38 | 38 |
| DWT ('000' tonnes) | 59.2 | 53.2 | 54.1 | 54.1 | 47.4 | 47.4 | 47.4 | 49.3 | 50.5 | 50.5 |
| **Total (1+2+3+4)** | | | | | | | | | | |
| No. of tankers | 112 | 118 | 122 | 125 | 129 | 136 | 146 | 152 | 163 | 163 |
| DWT ('000' tonnes) | 317.1 | 292.2 | 296.4 | 290.9 | 270.3 | 278.0 | 292.7 | 320.8 | 308.4 | 309.8 |
| **B. Overseas Trade (Oil Tankers)** | | | | | | | | | | |
| **5. Ore Oil Bulk Carriers** | | | | | | | | | | |
| No. of tankers | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| DWT ('000' tonnes) | 231.6 | 169.3 | 169.3 | 169.3 | 169.3 | 169.3 | 169.3 | 169.3 | 169.3 | 169.3 |
| **6. Crude Oil Carriers** | | | | | | | | | | |
| No. of tankers | 34 | 36 | 46 | 49 | 47 | 54 | 53 | 54 | 60 | 72 |
| DWT ('000' tonnes) | 3474.3 | 3592.1 | 4744.4 | 5735.4 | 5379.9 | 5730.9 | 5273.8 | 5264.1 | 5687.5 | 6665.2 |
| **7. Product Carriers** | | | | | | | | | | |
| No. of tankers | 45 | 40 | 45 | 47 | 52 | 47 | 48 | 50 | 57 | 55 |
| DWT ('000' tonnes) | 1642.3 | 1493.0 | 1998.0 | 2471.9 | 2985.5 | 2684.8 | 2940.3 | 3302.9 | 3586.9 | 3474.1 |
| **8. LPG Carriers** | | | | | | | | | | |
| No. of tankers | 6 | 7 | 8 | 11 | 14 | 15 | 16 | 14 | 9 | 8 |
| DWT ('000' tonnes) | 138.1 | 162.6 | 183.2 | 250.7 | 341.9 | 385.5 | 442.3 | 395.8 | 276.9 | 240.8 |
| **Total Overseas (5+6+7+8)** | | | | | | | | | | |
| No. of tankers | 88 | 85 | 101 | 109 | 115 | 118 | 119 | 120 | 128 | 137 |
| DWT ('000' tonnes) | 5486.3 | 5417.0 | 7094.9 | 8627.3 | 8876.6 | 8970.5 | 8825.7 | 9132.1 | 9720.6 | 10549.4 |
| **Total Oil Tankers (A+B)** | | | | | | | | | | |
| No. of tankers | 200 | 203 | 223 | 234 | 244 | 254 | 265 | 272 | 291 | 300 |
| DWT ('000' tonnes) | 5803.4 | 5709.2 | 7391.3 | 8918.2 | 9146.9 | 9248.5 | 9118.4 | 9452.9 | 10029.0 | 10859.2 |

Note: As on 30th June in 2001 and 31st March from 2002 and onwards. DWT: Dead Weight Tonnage

Source: Directorate General of Shipping, Mumbai.

## III.7 Indian Tonnage as on 31.3.2011

(Tonnes)

| Sl.No. | Owner of the ship | Gross Registered Tonnage | Dead Weight Tonnage |
|---|---|---|---|
| | **Coastal Trade** | | |
| | **Tankers (Product Carriers)** | | |
| 1 | Associated Maritime Pvt. Ltd. | 1090 | 2052 |
| 2 | Atlantic Shipping Pvt. Ltd. | 2814 | 3617 |
| 3 | K.Raghu Pathi Rao(Raghu) | 65 | 0 |
| 4 | M.Gangadhar Rao | 36 | 0 |
| 5 | Blue Ocean Sea Transport Ltd. | 965 | 1546 |
| 6 | Castle Ships Pvt. Ltd. | 1332 | 2127 |
| 7 | Coast Line Services (India) (P) Ltd. | 493 | 872 |
| 8 | Jaisu Shipping (P) Ltd. | 1873 | 2808 |
| 9 | Pratibha Shipping Co. Ltd. | 30565 | 28610 |
| 11 | Vamsee Shipping Carrier Pvt. Ltd. | 496 | 1179 |
| 12 | Viking Lighterage & Cargo Handlers P. Ltd. | 306 | 415 |
| | **Total** | 40035 | 43226 |
| | **Tankers (Crude Oil Carriers)** | | |
| 1 | The Shipping Corporation of India Ltd. | 50080 | 82246 |
| | **Total** | 50080 | 82246 |
| | **Offshore Supply Vessels** | | |
| 1 | Admn. of UT of Lakshadweep | 738 | 960 |
| 2 | Albatross Shipping Agencies | 273 | 214 |
| 3 | ARC Marine Pvt. Ltd. | 1591 | 1921 |
| 4 | Chandra Ship Management Pvt. Ltd. | 285 | 0 |
| 5 | Damodar Marine Services Pvt. Ltd. | 487 | 737 |
| 6 | Dolphin Offshore Shipping Ltd. | 363 | 272 |
| 7 | Dunnimaa Engineers & Divers Ent. P. Ltd. | 639 | 627 |
| 8 | Procyon Offshore Shipping Ltd. | 1008 | 491 |
| 9 | Epsom Shipping (I) Pvt. Ltd. | 1791 | 1451 |
| 10 | Yojaka (Ind) Pvt. Ltd. | 275 | 290 |
| 11 | GAL Offshore Shipping | 640 | 0 |
| 12 | Garware Offshore | 2601 | 3180 |
| 13 | Great Offshore Ltd. | 13594 | 17194 |
| 14 | Greatship (India) Ltd. | 1596 | 2416 |
| 15 | HAL Offshore Ltd. | 1085 | 832 |
| 16 | Hede Ferominas (P) Ltd. | 1332 | 1686 |
| 17 | ITT Lines Pvt. Ltd. | 1042 | 1207 |
| 18 | Jayesh Shipping P.Ltd. | 69 | 0 |
| 19 | Hind Offshore Pvt. Ltd. | 2438 | 2387 |
| 20 | KEI-RSOS Maritime Ltd. | 2779 | 2914 |
| 21 | Mathew Meenathethil George | 322 | 500 |
| 22 | Oil and Natural Gas Commission | 37065 | 46428 |
| 23 | Prince Marine Transport Services | 3138 | 646 |
| 24 | PFS Shipping (India) Ltd. | 5766 | 5763 |
| 25 | Raj Shipping Agencies Ltd. | 4337 | 4759 |
| 26 | Samson Maritime Ltd. | 2443 | 2443 |
| 27 | Samson Maritime Ltd. | 3444 | 3000 |
| 28 | Synergy Offshore Services | 189 | 125 |
| 29 | Supreme Globle Service Pvt. Ltd. | 495 | 0 |
| 30 | Shipping Corporation of India Ltd. | 13100 | 17912 |
| 31 | Tidewater (India) Pvt. Ltd. | 1121 | 2118 |
| 32 | Varun Shipping Co. Ltd. | 2655 | 2415 |
| 33 | Tarun Shipping & Industries Ltd. | 1978 | 2172 |
| 34 | Tag Logistics Ltd. | 3939 | 4952 |
| 35 | TAG Offshore Ltd | 3826 | 1884 |
| | **Total** | **118444** | **133896** |

Contd..

| Sl.No. | Owner of the ship | Gross Registered Tonnage | Dead Weight Tonnage |
|---|---|---|---|
| | **LPG Carriers** | | |
| 1 | Great Eastern Shipping Co. Ltd. | 17778 | 17577 |
| 2 | Shipping Corpn. Of India Ltd. | 35556 | 35202 |
| 3 | Varun Shipping Co.Ltd. | 155605 | 187978 |
| | **Total** | **208939** | **240757** |
| | **Specialised Vessels for Offshore Services** | | |
| 1 | Bhambhani Shipping Pvt. Ltd. | 684 | 933 |
| 2 | Elcome Surveys | 392 | 469 |
| 3 | Hind Offshore Pvt. Ltd. | 969 | 0 |
| 4 | Jaisu Shipping Co.(P) Ltd. | 99 | 99 |
| 5 | National Institute of Oceanography, Goa | 709 | 297 |
| 6 | National Institute of Ocean Technology | 4862 | 0 |
| 7 | Oil and Natural Gas Commission | 47426 | 27949 |
| 8 | Procyon Offshore Services Pvt. Ltd. | 405 | 436 |
| 9 | Raj Shipping Agencies Ltd. | 715 | 915 |
| 10 | Reliance Industries Ltd. | 2421 | 3104 |
| 11 | Safe & Sure Marine Pvt. Ltd. | 490 | 826 |
| 12 | Samson Maritime | 1674 | 1810 |
| 13 | Sealion Sparkle Maritime Services Ltd. | 136 | 14 |
| 14 | South East Asia Marine Engg. & Construction Ltd. | 11211 | 6135 |
| 15 | The Council of Scientific & Industrial Research | 2661 | 800 |
| 16 | The Department of Ocean Development | 4582 | 1605 |
| 17 | The Director General of Lighthouses & Lightships | 5823 | 3083 |
| 18 | The Geological Survey of India | 2942 | 2005 |
| | **Total** | **88201** | **50480** |
| | **Overseas Trade**<br>**Ore Oil Bulk Carriers** | | |
| 1 | The Shipping Corporation of India Ltd. | 94955 | 169257 |
| | **Total** | **94955** | **169257** |
| | **Oil Tankers (Crude Carriers)** | | |
| 1 | Chambal Fertilisers & Chemicals | 342002 | 623836 |
| 2 | Essar Shipping Ports & Logistics Ltd. | 149274 | 281396 |
| 3 | Great Eastern Shipping Co.Ltd. | 449626 | 796640 |
| 4 | Mercator Lines Ltd. | 136977 | 234833 |
| 5 | Pratibha Shipping Co. Ltd. | 205806 | 364629 |
| 6 | Peninsular Tankers Pvt. Ltd., Mumbai | 8228 | 15037 |
| 7 | Seven Islands Shipping Ltd. | 26530 | 43275 |
| 8 | The Shipping Corporation of India Ltd. | 2210629 | 3985897 |
| 9 | Varun Shipping Co. Ltd. | 171506 | 319682 |
| | **Total** | **3700578** | **6665225** |
| | **Oil Tankers (Product Carriers)** | | |
| 1 | AET Tankers India Pvt. Ltd. | 20378 | 29990 |
| 2 | ASM Shipping | 18101 | 30990 |
| 3 | Castle Ships Pvt. Ltd. | 9461 | 15571 |
| 4 | Great Eastern Shipping Co.Ltd. | 662983 | 1157956 |
| 5 | Mercator Lines | 364064 | 638994 |
| 6 | Pratibha Shipping Ltd. | 45172 | 76881 |
| 7 | Sanmar Shipping Ltd. | 117250 | 203119 |
| 8 | Seven Islands Shipping | 33292 | 53387 |
| 9 | Shipping Corpn. Of India Ltd. | 680358 | 1232227 |
| 10 | SCI Forbes Ltd. | 34500 | 52489 |
| 11 | West Asia Maritime Ltd. | 6742 | 9928 |
| | **Total** | **1992301** | **3501532** |

Source: Directorate General of Shipping, Mumbai.

## III.8 Share of Traffic of Petroleum Products in the Total Traffic Handled at Major Ports

(Million Tonnes)

| Name of the port | Year | Total traffic | POL traffic | POL as %age of total traffic at the port |
|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* |
| Kolkata/Haldia | 2002-03 | 35.80 | 16.47 | 46.0 |
| | 2003-04 | 41.26 | 20.24 | 49.0 |
| | 2004-05 | 46.21 | 22.01 | 47.6 |
| | 2005-06 | 53.14 | 22.62 | 42.6 |
| | 2006-07 | 55.05 | 23.24 | 42.2 |
| | 2007-08 | 57.33 | 22.25 | 38.8 |
| | 2008-09 | 54.05 | 20.31 | 37.6 |
| | 2009-10 | 46.30 | 10.08 | 21.8 |
| | 2010-11* | 47.43 | 11.65 | 24.6 |
| Mumbai | 2002-03 | 26.80 | 16.03 | 59.8 |
| | 2003-04 | 30.00 | 18.58 | 61.9 |
| | 2004-05 | 35.19 | 19.40 | 55.1 |
| | 2005-06 | 44.19 | 27.78 | 62.9 |
| | 2006-07 | 52.36 | 32.17 | 61.4 |
| | 2007-08 | 57.04 | 37.07 | 65.0 |
| | 2008-09 | 51.88 | 34.87 | 67.2 |
| | 2009-10 | 54.54 | 36.60 | 67.1 |
| | 2010-11* | 54.59 | 33.23 | 60.9 |
| Chennai | 2002-03 | 33.69 | 8.92 | 26.5 |
| | 2003-04 | 36.71 | 9.20 | 25.1 |
| | 2004-05 | 43.81 | 11.42 | 26.1 |
| | 2005-06 | 47.25 | 13.11 | 27.7 |
| | 2006-07 | 53.41 | 12.99 | 24.3 |
| | 2007-08 | 57.15 | 12.71 | 22.2 |
| | 2008-09 | 57.49 | 13.11 | 22.8 |
| | 2009-10 | 61.06 | 13.43 | 22.0 |
| | 2010-11* | 61.46 | 13.88 | 22.6 |
| Kochi | 2002-03 | 13.00 | 9.37 | 72.1 |
| | 2003-04 | 13.57 | 9.96 | 73.4 |
| | 2004-05 | 14.10 | 10.28 | 72.9 |
| | 2005-06 | 13.89 | 9.64 | 69.4 |
| | 2006-07 | 15.26 | 10.48 | 68.7 |
| | 2007-08 | 15.81 | 11.30 | 71.5 |
| | 2008-09 | 15.23 | 10.49 | 68.9 |
| | 2009-10 | 17.43 | 11.46 | 65.7 |
| | 2010-11* | 17.47 | 12.10 | 69.3 |
| Kandla | 2002-03 | 40.63 | 23.01 | 56.6 |
| | 2003-04 | 41.52 | 23.63 | 56.9 |
| | 2004-05 | 41.55 | 22.12 | 53.2 |
| | 2005-06 | 45.91 | 24.29 | 52.9 |
| | 2006-07 | 52.98 | 29.71 | 56.1 |
| | 2007-08 | 64.92 | 38.23 | 58.9 |
| | 2008-09 | 72.23 | 45.54 | 63.0 |
| | 2009-10 | 79.52 | 47.21 | 59.4 |
| | 2010-11* | 81.88 | 48.43 | 59.1 |
| Visakhapatnam | 2002-03 | 46.01 | 16.91 | 36.8 |
| | 2003-04 | 47.74 | 17.43 | 36.5 |
| | 2004-05 | 50.15 | 14.63 | 29.2 |
| | 2005-06 | 55.80 | 16.94 | 30.4 |
| | 2006-07 | 56.39 | 18.18 | 32.2 |
| | 2007-08 | 64.60 | 19.81 | 30.7 |
| | 2008-09 | 63.91 | 19.76 | 30.9 |
| | 2009-10 | 65.50 | 18.29 | 27.9 |
| | 2010-11* | 68.04 | 19.27 | 28.3 |
| Mormugao | 2002-03 | 23.65 | 1.13 | 4.8 |
| | 2003-04 | 27.87 | 1.32 | 4.7 |

Contd..

| Name of the port | Year | Total traffic | POL traffic | POL as %age of total traffic at the port |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | 2004-05 | 30.66 | 1.01 | 3.3 |
| | 2005-06 | 31.69 | 0.83 | 2.6 |
| | 2006-07 | 34.24 | 0.79 | 2.3 |
| | 2007-08 | 35.13 | 0.87 | 2.5 |
| | 2008-09 | 41.68 | 0.90 | 2.2 |
| | 2009-10 | 48.85 | 0.96 | 2.0 |
| | 2010-11* | 50.02 | 0.94 | 1.9 |
| J.N.P.T. | 2002-03 | 26.84 | 1.89 | 7.0 |
| | 2003-04 | 31.19 | 1.94 | 6.2 |
| | 2004-05 | 32.81 | 2.46 | 7.5 |
| | 2005-06 | 37.84 | 2.55 | 6.7 |
| | 2006-07 | 44.82 | 2.63 | 5.9 |
| | 2007-08 | 55.84 | 2.19 | 3.9 |
| | 2008-09 | 57.28 | 5.37 | 9.4 |
| | 2009-10 | 60.75 | 6.08 | 10.0 |
| | 2010-11* | 64.30 | 5.13 | 8.0 |
| Paradip | 2002-03 | 23.90 | 1.92 | 8.0 |
| | 2003-04 | 25.31 | 1.36 | 5.4 |
| | 2004-05 | 30.10 | 0.84 | 2.8 |
| | 2005-06 | 33.11 | 0.91 | 2.7 |
| | 2006-07 | 38.52 | 1.38 | 3.6 |
| | 2007-08 | 42.44 | 1.76 | 4.1 |
| | 2008-09 | 46.41 | 3.24 | 7.0 |
| | 2009-10 | 57.01 | 11.65 | 20.4 |
| | 2010-11* | 56.03 | 12.85 | 22.9 |
| Port of Tuticorin | 2002-03 | 13.29 | 0.49 | 3.7 |
| | 2003-04 | 13.68 | 0.56 | 4.1 |
| | 2004-05 | 15.81 | 0.74 | 4.7 |
| | 2005-06 | 17.14 | 0.77 | 4.5 |
| | 2006-07 | 18.00 | 0.74 | 4.1 |
| | 2007-08 | 21.48 | 0.46 | 2.1 |
| | 2008-09 | 22.01 | 0.50 | 2.3 |
| | 2009-10 | 23.79 | 0.51 | 2.1 |
| | 2010-11* | 25.73 | 0.74 | 2.9 |
| New Mangalore | 2002-03 | 21.43 | 13.45 | 62.8 |
| | 2003-04 | 26.67 | 17.95 | 67.3 |
| | 2004-05 | 33.89 | 21.43 | 63.2 |
| | 2005-06 | 34.45 | 22.39 | 65.0 |
| | 2006-07 | 32.04 | 21.87 | 68.3 |
| | 2007-08 | 36.02 | 21.78 | 60.5 |
| | 2008-09 | 36.69 | 21.33 | 58.1 |
| | 2009-10 | 35.53 | 21.34 | 60.1 |
| | 2010-11* | 31.55 | 21.55 | 68.3 |
| Ennore | 2002-03 | 8.49 | 0.00 | 0.0 |
| | 2003-04 | 9.28 | 0.00 | 0.0 |
| | 2004-05 | 9.48 | 0.10 | 1.1 |
| | 2005-06 | 9.17 | 0.24 | 2.6 |
| | 2006-07 | 10.71 | 0.19 | 1.8 |
| | 2007-08 | 11.55 | 0.32 | 2.8 |
| | 2008-09 | 11.50 | 0.36 | 3.1 |
| | 2009-10 | 10.70 | 0.40 | 3.7 |
| | 2010-11* | 11.01 | 0.59 | 5.4 |
| Grand Total | 2002-03 | 313.53 | 109.59 | 35.0 |
| | 2003-04 | 344.80 | 122.16 | 35.4 |
| | 2004-05 | 383.75 | 126.44 | 32.9 |
| | 2005-06 | 423.57 | 142.09 | 33.5 |
| | 2006-07 | 463.78 | 154.34 | 33.3 |
| | 2007-08 | 519.31 | 168.75 | 32.5 |
| | 2008-09 | 537.65 | 177.45 | 33.0 |
| | 2009-10 | 560.98 | 178.01 | 31.7 |
| | 2010-11* | 569.51 | 180.36 | 31.7 |

Source : Ministry of Shipping.

*: Provisional

## III.9 Movement of POL Traffic on Railways

| Year | Tonnes Originating (TMT) | Earnings ('000' Rs.) | Average Lead (Kms) | Earnings (Paise/ Tonnes/ Kms) | Average Freight Col 3 / Col 2 (Rs/Tonne) |
|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* |
| 2002-03 | 34051 | 27546070 | 564 | 143.4 | 808.97 |
| 2003-04 | 32020 | 24283000 | 569 | 133.3 | 758.37 |
| 2004-05 | 31997 | 26825426 | 657 | 127.6 | 838.37 |
| 2005-06 | 33454 | 30693555 | 726 | 126.4 | 917.49 |
| 2006-07 | 35234 | 30375674 | 702 | 122.9 | 862.11 |
| 2007-08 | 35879 | 29364077 | 652 | 125.5 | 818.42 |
| 2008-09 | 38078 | 30511602 | 631 | 127.0 | 801.29 |
| 2009-10 | 38884 | 31890095 | 639 | 128.3 | 820.13 |
| 2010-11* | 39296 | 33570383 | 665 | 128.5 | 854.30 |

* Provisional
Source : Railway Board

## III.10 Rail Freight Rates in respect of Petroleum Products

(Rs./Tonne)

| Effective | Distance in Kilometres | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dates | 100 | 300 | 500 | 800 | 1000 | 1500 | 2000 | 2500 |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* |
| 01.04.2003 | 200.2 | 464.2 | 728.2 | 1124.2 | 1388.2 | 2048.2 | 2540.2 | 2900.2 |
| 01.04.2004 | 200.2 | 464.2 | 728.2 | 1124.2 | 1388.2 | 2048.2 | 2540.2 | 2900.2 |
| 01.04.2005 | 200.2 | 464.2 | 728.2 | 1124.2 | 1388.2 | 2048.2 | 2540.2 | 2900.2 |
| 01.04.2006 | 183.5 | 425.5 | 667.5 | 1030.5 | 1272.5 | 1877.5 | 2328.5 | 2658.5 |
| 01.07.2006 | 175.1 | 413.1 | 647.2 | 1007.6 | 1243.0 | 1835.0 | 2302.4 | 2615.8 |
| 01.04.2007 | 175.1 | 413.1 | 647.2 | 1007.6 | 1243.0 | 1835.0 | 2302.4 | 2615.8 |
| 01.04.2008 | 166.8 | 393.4 | 616.4 | 959.6 | 1183.8 | 1747.6 | 2192.8 | 2491.2 |
| 01.04.2009 | 166.8 | 393.4 | 616.4 | 959.6 | 1183.8 | 1747.6 | 2192.8 | 2491.2 |
| 01.04.2010 | 166.8 | 393.4 | 616.4 | 959.6 | 1183.8 | 1747.6 | 2192.8 | 2491.2 |
| 01.04.2011 | 166.8 | 405.0 | 640.8 | 998.0 | 1231.2 | 1817.6 | 2280.6 | 2590.8 |

Source : Railway Board

## III.11 Total Retail Outlets in India

(Number)

| Year | Retail Outlets* | BPCL | HPCL | IOC | IBP | TOTAL |
|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| 2002 | Nos. | 4610 | 4642 | 7433 | 1551 | 18554 |
| | % | 24.8 | 25.0 | 40.1 | 8.4 | 100.0 |
| 2003 | Nos. | 4772 | 4799 | 7635 | 1808 | 19337 |
| | % | 24.7 | 24.8 | 39.5 | 9.3 | 100.0 |
| 2004 | Nos. | 5274 | 5204 | 8762 | 2524 | 22090 |
| | % | 23.9 | 23.6 | 39.7 | 11.4 | 100.0 |
| 2005 | Nos. | 6016 | 6295 | 9882 | 3114 | 25307 |
| | % | 23.8 | 24.9 | 39.0 | 12.3 | 100.0 |
| 2006 | Nos. | 7321 | 7026 | 11149 | 3412 | 28908 |
| | % | 25.3 | 24.3 | 38.6 | 11.8 | 100.0 |
| 2007 | Nos. | 7800 | 7909 | 12841 | 3590 | 32140 |
| | % | 24.3 | 24.6 | 40.0 | 11.2 | 100.0 |
| 2008 | Nos. | 8238 | 8329 | 17534 | # | 34101 |
| | % | 24.2 | 24.4 | 51.4 | | 100.0 |
| 2009 | Nos. | 8389 | 8419 | 18140 | # | 34948 |
| | % | 24.0 | 24.1 | 51.9 | | 100.0 |
| 2010 | Nos. | 8692 | 9127 | 18643 | # | 36462 |
| | % | 23.8 | 25.0 | 51.1 | | 100.0 |
| 2011 | Nos. | 9289 | 10212 | 19463 | # | 38964 |
| | % | 23.8 | 26.2 | 50.0 | | 100.0 |

Note: #: Included in IOC.
*: As on 1st January upto 2006 & 1st April from 2007 and onwards.
Source: Public Sector Undertakings



## III.12 State-wise Number of Retail Outlets, LDO/SKO Dealers and LPG Distributors

(Number)

| State / UT | As on 1.4.2011 | | |
|---|---|---|---|
| | Retail Outlets | LDO/SKO Dealers | LPG Distributors |
| *1* | *2* | *3* | *4* |
| ***STATES*** | | | |
| Andhra Pradesh | 3374 | 603 | 1051 |
| Arunachal Pradesh | 48 | 33 | 31 |
| Assam | 561 | 361 | 270 |
| Bihar | 1653 | 374 | 426 |
| Chhattisgarh | 632 | 109 | 183 |
| Delhi | 409 | 116 | 314 |
| Goa | 100 | 21 | 53 |
| Gujarat | 1926 | 496 | 559 |
| Haryana | 1721 | 148 | 300 |
| Himachal Pradesh | 320 | 26 | 125 |
| Jammu & Kashmir | 404 | 47 | 164 |
| Jharkhand | 769 | 86 | 167 |
| Karnataka | 2585 | 325 | 531 |
| Kerala | 1710 | 243 | 418 |
| Madhya Pradesh | 1929 | 281 | 634 |
| Maharashtra | 3565 | 775 | 1114 |
| Manipur | 57 | 36 | 36 |
| Meghalaya | 132 | 35 | 34 |
| Mizoram | 25 | 19 | 28 |
| Nagaland | 50 | 19 | 31 |
| Odisha | 1052 | 179 | 230 |
| Punjab | 2814 | 244 | 455 |
| Rajasthan | 2572 | 253 | 549 |
| Sikkim | 31 | 12 | 8 |
| Tamil Nadu | 3401 | 465 | 738 |
| Tripura | 43 | 40 | 29 |
| Uttar Pradesh | 4643 | 697 | 1299 |
| Uttarakhand | 413 | 72 | 178 |
| West Bengal | 1808 | 469 | 530 |
| ***UNION TERRITORIES*** | | | |
| Andaman & Nicobar | 9 | 1 | 5 |
| Chandigarh | 41 | 12 | 27 |
| Dadra & Nagar Haveli | 15 | 2 | 2 |
| Daman & Diu | 21 | 5 | 2 |
| Lakshadweep | 0 | 0 | 1 |
| Pondicherry | 131 | 8 | 19 |
| **Grand Total** | **38964** | **6612** | **10541** |

**Source:** Public Sector Undertakings.

## III.13 State-wise and Company-wise Retail Outlets

(Number)

| State / UT | As on 1.4.2011 | | | | Total as on 1.4.2010 |
|---|---|---|---|---|---|
| | IOCL/ AOD | HPCL | BPCL | TOTAL (Col.2-4) | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| ***STATES*** | | | | | |
| Andhra Pradesh | 1533 | 1004 | 837 | 3374 | 3069 |
| Arunachal Pradesh | 47 | 0 | 1 | 48 | 48 |
| Assam | 469 | 66 | 26 | 561 | 549 |
| Bihar | 998 | 283 | 372 | 1653 | 1549 |
| Chhattisgarh | 253 | 196 | 183 | 632 | 546 |
| Delhi | 201 | 98 | 110 | 409 | 407 |
| Goa | 24 | 34 | 42 | 100 | 96 |
| Gujarat | 958 | 498 | 470 | 1926 | 1837 |
| Haryana | 988 | 440 | 293 | 1721 | 1606 |
| Himachal Pradesh | 179 | 88 | 53 | 320 | 302 |
| Jammu & Kashmir | 193 | 112 | 99 | 404 | 386 |
| Jharkhand | 378 | 208 | 183 | 769 | 702 |
| Karnataka | 1273 | 721 | 591 | 2585 | 2382 |
| Kerala | 766 | 526 | 418 | 1710 | 1668 |
| Madhya Pradesh | 868 | 500 | 561 | 1929 | 1756 |
| Maharashtra | 1341 | 1095 | 1129 | 3565 | 3304 |
| Manipur | 55 | 0 | 2 | 57 | 57 |
| Meghalaya | 105 | 19 | 8 | 132 | 129 |
| Mizoram | 22 | 3 | 0 | 25 | 24 |
| Nagaland | 44 | 3 | 3 | 50 | 47 |
| Odisha | 549 | 221 | 282 | 1052 | 969 |
| Punjab | 1504 | 730 | 580 | 2814 | 2708 |
| Rajasthan | 1221 | 749 | 602 | 2572 | 2416 |
| Sikkim | 13 | 5 | 13 | 31 | 28 |
| Tamil Nadu | 1567 | 931 | 903 | 3401 | 3118 |
| Tripura | 43 | 0 | 0 | 43 | 42 |
| Uttar Pradesh | 2582 | 1086 | 975 | 4643 | 4395 |
| Uttarakhand | 205 | 124 | 84 | 413 | 382 |
| West Bengal | 966 | 410 | 432 | 1808 | 1737 |
| ***UNION TERRITORIES*** | | | | | |
| Andaman & Nicobar | 9 | 0 | 0 | 9 | 9 |
| Chandigarh | 20 | 11 | 10 | 41 | 40 |
| Dadra & Nagar Haveli | 8 | 6 | 1 | 15 | 13 |
| Daman & Diu | 11 | 7 | 3 | 21 | 19 |
| Lakshadweep | 0 | 0 | 0 | 0 | 0 |
| Pondicherry | 70 | 38 | 23 | 131 | 122 |
| **Grand Total** | **19463** | **10212** | **9289** | **38964** | **36462** |

**Source:** Public Sector Undertakings.

## III.14 State-wise and Company-wise LPG Domestic Consumers

('000' Number)

| State / UT | As on 1.4.2011 | | | | Total as on 1.4.2010 |
|---|---|---|---|---|---|
| | IOCL/ AOD | HPCL | BPCL | TOTAL (Col.2-4) | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| ***STATES*** | | | | | |
| Andhra Pradesh | 5272 | 5931 | 2839 | 14042 | 12736 |
| Arunachal Pradesh | 164 | 0 | 0 | 164 | 146 |
| Assam | 2140 | 39 | 96 | 2275 | 2184 |
| Bihar | 2120 | 601 | 566 | 3287 | 2918 |
| Chhattisgarh | 662 | 415 | 199 | 1276 | 1192 |
| Delhi | 2926 | 660 | 1030 | 4615 | 4429 |
| Goa | 11 | 294 | 162 | 467 | 436 |
| Gujarat | 3528 | 1351 | 1488 | 6367 | 5876 |
| Haryana | 1873 | 795 | 1237 | 3905 | 3645 |
| Himachal Pradesh | 1159 | 172 | 91 | 1422 | 1370 |
| Jammu & Kashmir | 443 | 988 | 149 | 1580 | 1497 |
| Jharkhand | 947 | 244 | 154 | 1345 | 1256 |
| Karnataka | 3234 | 2454 | 1796 | 7484 | 6791 |
| Kerala | 3604 | 1046 | 1974 | 6625 | 6218 |
| Madhya Pradesh | 2559 | 1444 | 1053 | 5056 | 4704 |
| Maharashtra | 1928 | 6897 | 7030 | 15855 | 14652 |
| Manipur | 254 | 0 | 0 | 254 | 240 |
| Meghalaya | 138 | 0 | 0 | 138 | 117 |
| Mizoram | 223 | 0 | 0 | 223 | 213 |
| Nagaland | 168 | 0 | 0 | 168 | 155 |
| Odisha | 702 | 763 | 357 | 1822 | 1648 |
| Punjab | 3276 | 1062 | 1274 | 5612 | 5321 |
| Rajasthan | 2510 | 1532 | 1560 | 5602 | 4865 |
| Sikkim | 141 | 0 | 0 | 141 | 130 |
| Tamil Nadu | 7796 | 1874 | 3379 | 13049 | 11736 |
| Tripura | 295 | 0 | 0 | 295 | 260 |
| Uttar Pradesh | 7745 | 1948 | 3318 | 13011 | 11826 |
| Uttarakhand | 1460 | 127 | 237 | 1824 | 1673 |
| West Bengal | 4134 | 1427 | 962 | 6523 | 5905 |
| ***UNION TERRITORIES*** | | | | | |
| Andaman & Nicobar | 59 | 0 | 0 | 59 | 68 |
| Chandigarh | 242 | 77 | 47 | 366 | 352 |
| Dadra & Nagar Haveli | 0 | 48 | 20 | 68 | 44 |
| Daman & Diu | 0 | 33 | 0 | 33 | 49 |
| Lakshadweep | 3 | 0 | 0 | 3 | 3 |
| Pondicherry | 116 | 117 | 78 | 311 | 297 |
| **GRAND TOTAL** | **61832** | **32339** | **31094** | **125266** | **114952** |

**Source:** Public Sector Undertakings.

# III.15 Compressed Natural Gas (CNG) Activities in India ( as on 1.4.2011 )

| Item | Delhi | Maharashtra | | | Gujarat | | | Madhya Pradesh | | | | | Haryana | Andhra Pradesh | | | | Tripura | Uttar Pradesh | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Delhi | # | Pune | Panvel | Vado-dara | Surat | Ankle-shwar | Vijaypur | Dewas | Gwalior | Ujjain | Indore | Sonipat | Hydera bad | Vihaya-wada | Kakinada | Rajamun-dary | Agar-tala | Lucknow | Agra | Kanpur | Bareilly | |
| | IGL | MGL | MNGL | GAIL | GAIL | GGCL | GGCL | GAIL Gas | GAIL Gas | AGL | AGL | AGL | Gas | GAIL BGL | BGL | GAIL BGL | GAIL BGL | GAIL TNGCL | GAIL GGL | GGL | CUGL | CUGL | |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* | *14* | *15* | *16* | *17* | *18* | *19* | *20* | *21* | *22* | *23* | *24* |
| **Station Type** | | | | | | | | | | | | | | | | | | | | | | | |
| Mother | 99 | 12 | 3 | 0 | 2 | 3 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 131 |
| Online | 65 | 127 | | 0 | 1 | 27 | 4 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 0 | 238 |
| Daughter Booster | 47 | 10 | 11 | 1 | 2 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 7 | 1 | 1 | 1 | 3 | 2 | 0 | 0 | 97 |
| Daughter | 2 | 0 | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 11 |
| **Total** | **213** | **149** | **14** | **1** | **5** | **34** | **8** | **1** | **1** | **1** | **2** | **8** | **1** | **5** | **8** | **1** | **1** | **2** | **7** | **3** | **11** | **1** | **477** |
| **No. of Vehicles** | | | | | | | | | | | | | | | | | | | | | | | |
| Cars / Taxis | 281802 | 66552 | 1399 | 38 | 984 | 70502 | 8465 | 25 | 77 | 50 | 0 | 2700 | 1150 | 364 | 566 | 46 | 12 | 362 | 488 | 50 | 3407 | 211 | 439250 |
| Autos | 121854 | 140533 | 12991 | 163 | 2327 | 50448 | 10630 | 0 | 29 | 350 | 2000 | 10500 | 10 | 2558 | 4272 | 20 | 34 | 3243 | 6747 | 6430 | 3618 | 3542 | 382299 |
| LCV/RTVs | 5389 | 2043 | | 0 | 0 | 2994 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 | 0 | 10677 |
| Buses | 16655 | 3720 | 115 | 2 | 72 | 584 | 62 | 1 | 2 | 9 | 40 | 109 | 2 | 0 | 293 | 0 | 0 | 30 | 755 | 567 | 847 | 35 | 23900 |
| Others/Phatphat | 5681 | 1188 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 13 | 0 | 0 | 0 | 0 | 0 | 10056 | 1009 | 17965 |
| **Total** | **431381** | **214036** | **14505** | **203** | **3383** | **124528** | **19303** | **26** | **108** | **409** | **2040** | **13309** | **1162** | **2940** | **5144** | **66** | **46** | **3635** | **7990** | **7047** | **18033** | **4797** | **874091** |
| **Price (Rs./Kg)** | 29.00 | 31.84 | 37.5 | 41.00 | 32.05 | 35.25 | 35.25 | 38.00 | 38.00 | 46.00 | 46.00 | 45.00 | 34.20 | 40.00 | 30.00 | 35.00 | 35.00 | 28.00 | 39.00 | 39.00 | 39.00 | 39.00 | |
| **Average Consumption** | | | | | | | | | | | | | | | | | | | | | | | |
| TPD | 1706.06 | 940.37 | 35.70 | 0.44 | 21.89 | 216.23 | 34.92 | 0.10 | 0.79 | 0.75 | 4.50 | 41.35 | 7.68 | 6.01 | 26.46 | 0.02 | 0.09 | 9.85 | 56.85 | 30.46 | 57.33 | 13.95 | |
| MMSCMD | 2.24 | 1.31 | 0.05 | 0.00 | 0.02 | 0.31 | 0.05 | 0.00 | 0.00 | 0.00 | 0.01 | 0.06 | 0.01 | 0.01 | 0.04 | 0.00 | 0.00 | 0.10 | 0.082 | 0.042 | 0.08 | 0.02 | |

# Mumbai and adjoining areas including Thane, Mira Bhyander and Navi Mumbai
TPD : Tonnes per day

**Conversion factors:**

1. IGL : Indraprastha Gas Ltd. — 1 Kg = 1.313 SCM of gas
2. MGL : Mahanagar Gas Ltd. — 1 Kg = 1.39 SCM of gas
3. GGCL : Gujarat Gas Company Ltd. — 1 Kg = 1.45 SCM of gas
4. MNGL: Maharashtra Natural Gas Ltd — 1 Kg = 1.41 SCM of gas
5. AGL: Aavantika Gas Ltd. — 1 Kg = 1.33 SCM of gas

Source: Gas Authority of India Limited

## III.16 Introduction to Green Fuels in India

| Product | Effective Date | Areas Covered |
|---|---|---|
| 1 | 2 | 3 |
| **Bio Diesel** | 1st Jan.,2006 | The 20 purchase centres have been nominated : A.P(Ghatkesor), Chandigarh (Mandirhasaud),Delhi(Bijwasan),Gujarat(Kandla),Haryana (Rewari), Karnataka (Devenagunthi & Mangalore),Madhya Pradesh (Mangliagaon),Maharashtra (Loni, Manmad, Barkhedi & Vashi), Punjab (Bhatinda), Rajasthan (Sanganer & Salawas), Tamil Nadu (Karukkupet, Narimanam & Karur) & U.P.( Panki & Amousi) |
| **Ethanol Blended Petrol (EBP)** | 20th Sept.,2006* | 20 States: A.P., Bihar,Chhatisgarh,Delhi,Goa, Gujarat,Haryana, H.P., Jharkhand, Karnataka, Kerala, M. P., Maharashtra, Orissa, Punjab, Rajasthan, T.N., Uttarakhan, U.P & West Bengal and 4UTs: Chandigarh, Daman & Diu,Dadar & Nagar Haveli & Pondicherry. |
| **MS(BS-IV)** | | 13 major cities |
| | 1st April 2010 | NCR/Delhi, Mumbai, Kolkatta, Chennai,Banglore, Kanpur, Agra, Pune, Surat, Ahmedabad, Lucknow,Goa & Sholapur |
| | 1st June 2010 | Chandigarh.MP, Maharashtra |
| | 1st July 2010 | Haryana, Himachal Pradesh, Punjab,Rajasthan, Chandigarh Uttranchal Western UP, Andaman & Nicobar, Orrisa, Sikkim, WB.Gujarat, AP., TN.& Pondicherry. |
| | 1st July 2010 | Jammu & Kashmir, Eastern UP, Bihar & Jharkhand |
| | 1st August 2010 | Karnataka |
| | 1st Oct 2010 | Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Eastem UP, Bihar, Jharkhand & Kerala |
| | 2nd Oct, 2010 | Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura & Kerala |
| **HSD(BS-IV)** | 1st April 2010 | Goa |
| | 1st June 2010 | Chandigarh.MP, Maharashtra |
| | 1st July 2010 | Haryana, Himachal Pradesh, Punjab, Rajasthan, Chandigarh, Uttranchal, Western UP, Andaman & Nicobar,Orrisa, Sikkim,WB, Gujarat,AP, TN, Pondicherry, Jammu & Kashmir |
| | 1st August 2010 | Karnataka |
| **HSD (BS-III)** | 1st April 2010 | Goa |
| | 16-May-10 | Chattisgarh, Andaman & Nicobar |
| | 31st May | Madhya Pradesh, Maharastra |
| | 16 June, 2010 | Punjab, Rajasthan, Chandigarh, Orissa, Sikkim, West Bengal, Gujarat, U T of Dadara & Nagar Haveli and Daman & Dieu, Haryana, Uttarakhand, &Himachal Pradesh |
| | 30 June, 2010 | Western UP, Andra Pradesh, Tamil Nadu, Puducheery, Jammu & Kashmir ( other than Leh & Kargil) |
| | 16.July. 2010 | Leh & Kargil |
| | 16.Sep 2010 | Eastern UP, Bihar & Jharkhand |
| | 31st July 2010 | Karnataka |
| | 16.Sep 2010 | Kerala, including, UT of Laskshdweep & Puducherry area fed Ex- Kerala |
| | 22.Sep 2010 | Arunachal Pradesh, Assam, Manipur Meghalaya, Mizoram, Nagaland, & Tripura |

**Note:** *:Vide Notification No. GSR-580(E) dated 20.09.2006 MoP&NG decided to introduce Ethanol Blended Petrol(EBP) in 2006 States and 4 UTs subject to commercial viability.Supplies to Leh, Ladakh, Kargil & some parts of Kashmir, which are open only during May to September of the Year,conversion would be possible only from 1.10.2010, as replenshiments to these areas can start only from mid May, 2010.

**Source**: Petroleum Planning & Analysis Cell.

# Prices

## IV.1. Wholesale Price Indices of Selected Petroleum Products

(1993-94=100) (2004-05 =100)

| Products | Weight(%) | 2002-03 | 2003-04 | 2004-05 | Weight(%) | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* |
| ***Light Distillates*** | | | | | | | | | | | |
| LPG | 1.83730 | 284.0 | 285.5 | 316.0 | 0.91468 | 106.1 | 106.1 | 106.1 | 117.2 | 111.9 | 125.9 |
| Petrol | 0.88815 | 163.4 | 178.7 | 203.5 | 1.09015 | 113.6 | 125.3 | 119.1 | 128.3 | 119.3 | 143.0 |
| Naphtha | 0.41885 | 256.5 | 315.6 | 432.1 | 0.79078 | 121.9 | 134.4 | 134.6 | 179.4 | 172.8 | 204.0 |
| ***Middle Distillates*** | | | | | | | | | | | |
| Kerosene | 0.68928 | 359.7 | 359.2 | 357.9 | 0.73619 | 99.9 | 99.9 | 99.9 | 99.9 | 99.9 | 127.2 |
| Aviation Turbine Fuel | 0.16953 | 135.7 | 149.3 | 174.1 | 0.25545 | 132.0 | 151.6 | 157.4 | 194.5 | 137.0 | 164.9 |
| High Speed Diesel Oil | 2.02034 | 273.5 | 300.4 | 360.4 | 4.67020 | 119.7 | 130.2 | 125.6 | 135.8 | 133.0 | 151.7 |
| Light Diesel Oil | 0.16015 | 233.0 | 284.6 | 366.3 | 0.11889 | 123.4 | 143.8 | 162.3 | 178.3 | 161.5 | 192.5 |
| ***Heavy Ends*** | | | | | | | | | | | |
| Furnace Oil | 0.49335 | 179.7 | 227.2 | 265.5 | 0.46505 | 131.2 | 148.4 | 166.0 | 197.9 | 187.6 | 223.7 |
| Lubricating Oil | 0.16367 | 154.7 | 163.8 | 189.3 | 0.16785 | 101.9 | 131.8 | 145.8 | 171.1 | 174.5 | 192.6 |
| Bitumen | 0.14900 | 207.6 | 251.2 | 267.4 | 0.15515 | 107.8 | 157.8 | 179.2 | 257.0 | 238.0 | 249.4 |
| **Total Petroleum Products** | 6.98964 | 254.7 | 274.3 | 315.8 | 9.36439 | 116.7 | 127.4 | 126.3 | 141.8 | 135.8 | 157.5 |
| **All commodities** | **100.00** | **166.8** | **175.9** | **187.3** | **100.00** | **104.5** | **111.4** | **116.6** | **126.0** | **130.8** | **143.3** |

Note:*:Provisional.
**Source:** Office of the Economic Adviser, Ministry of Commerce & Industry.

## IV.2 Month & Year-wise Average of International Crude Oil Prices (Indian Basket)

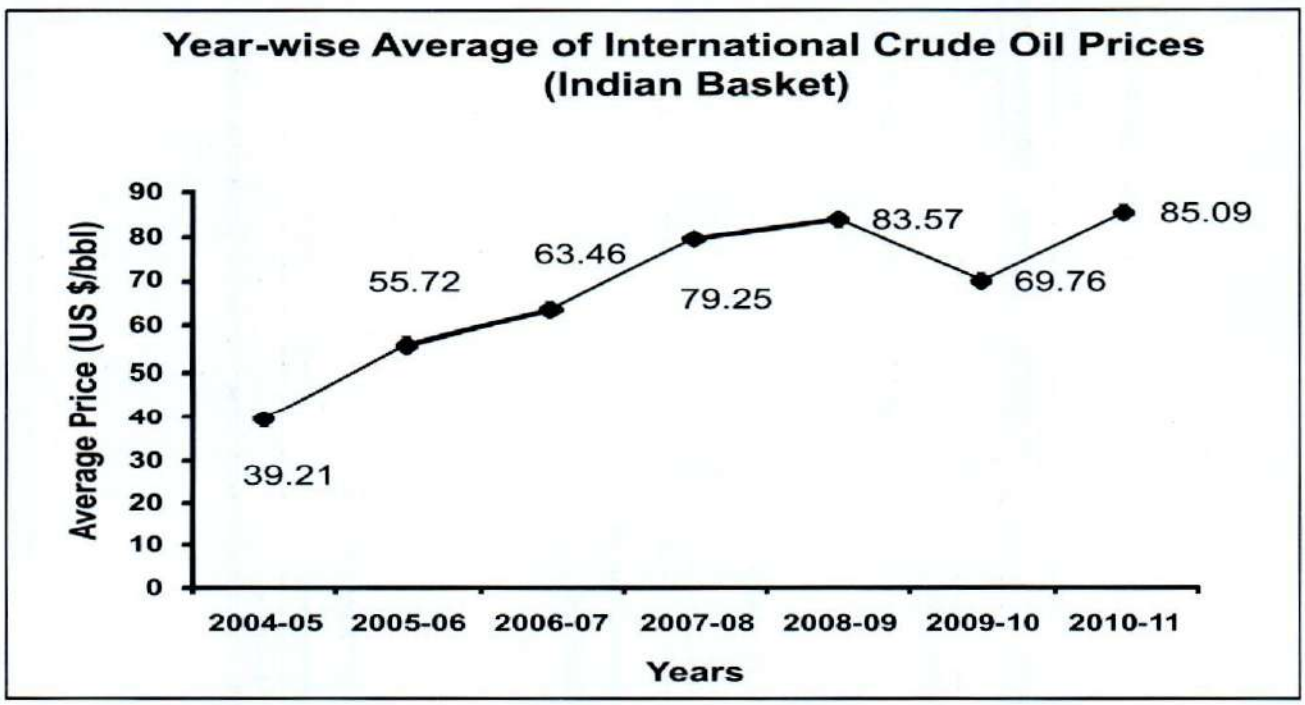
**Price in US$/bbl**

| Year/Month | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | % Growth * |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| April | 32.37 | 49.47 | 67.15 | 65.52 | 105.77 | 50.14 | 84.13 | 67.79 |
| May | 36.08 | 47.02 | 67.29 | 65.74 | 120.91 | 58.00 | 76.11 | 31.22 |
| June | 34.23 | 52.75 | 66.80 | 68.19 | 129.72 | 69.12 | 74.36 | 7.58 |
| July | 36.35 | 55.05 | 71.36 | 72.69 | 132.47 | 64.83 | 73.54 | 13.44 |
| August | 40.53 | 60.05 | 70.84 | 69.03 | 113.05 | 71.98 | 75.13 | 4.38 |
| September | 39.15 | 59.74 | 61.04 | 74.83 | 96.81 | 67.70 | 76.09 | 12.39 |
| October | 43.88 | 56.28 | 57.27 | 79.33 | 69.12 | 73.07 | 81.11 | 11.00 |
| November | 38.82 | 53.14 | 57.8 | 89.11 | 50.91 | 77.39 | 84.26 | 8.88 |
| December | 36.82 | 55.05 | 60.35 | 87.92 | 40.61 | 75.02 | 89.78 | 19.67 |
| January | 40.96 | 60.54 | 52.53 | 89.52 | 44.02 | 76.61 | 93.87 | 22.53 |
| February | 42.67 | 58.95 | 56.53 | 92.37 | 43.22 | 73.65 | 101.16 | 37.35 |
| March | 49.27 | 60.01 | 60.25 | 99.76 | 46.02 | 78.02 | 110.72 | 41.91 |
| **Year Average** | 39.21 | 55.72 | 62.46 | 79.25 | 83.57 | 69.76 | 85.09 | 21.98 |

**Note:**

* = % Growth during 2010-11 as compared to 2009-10

**Source:** Petroleum Planning & Analysis Cell



## IV. 3(a). Weighted Average Crude Oil Prices

(Rs./MT)

| Year | | Basic Price | Royalty | Cess | Sales Tax/VAT/CST |
|---|---|---|---|---|---|
| 2005-06 | Offshore crude | 11811 | 1259 | 1945 | 563 |
| | Onshore crude | 7372 | 2818 | 1954 | 490 |
| | Offshore and Onshore crude | 10174 | 1834 | 1948 | 536 |
| 2006-07 | Offshore crude | 17856 | 1814 | 2601 | 824 |
| | Onshore crude | 14504 | 3110 | 2601 | 812 |
| | Offshore and Onshore crude | 16725 | 2251 | 2601 | 820 |
| 2007-08 | Offshore crude | 26668 | 2224 | 2500 | 869 |
| | Onshore crude | 24433 | 3707 | 2500 | 940 |
| | Offshore and Onshore crude | 25913 | 2714 | 2500 | 893 |
| 2008-09 | Offshore crude | 30507 | 2568 | 2500 | 878 |
| | Onshore crude | 28354 | 4335 | 2500 | 1091 |
| | Offshore and Onshore crude | 29796 | 3152 | 2500 | 948 |
| 2009-10 | Offshore crude | 26187 | 2128 | 2500 | 722 |
| | Onshore crude | 24233 | 3670 | 2500 | 931 |
| | Offshore and Onshore crude | 25530 | 2633 | 2500 | 791 |
| 2010-11 | Offshore crude | 31525 | 2664 | 2500 | 846 |
| | Onshore crude | 28829 | 4411 | 2500 | 1109 |
| | Offshore and Onshore crude | 30614 | 3255 | 2500 | 935 |

**Notes:**

2005-06 The prices exclude octroi and BPT charges, Royalty on onshore crude are based on pre discount crude prices, Cess includes NCCD of Rs.50/MT and education cess of Rs.37/MT and prices are net after considering subsidy discount on crude oil to refineries during 2005-06.

2006-07 The prices exclude octroi and BPT charges, which is Rs.303.25 and Rs.26.74 per MT respectively, applicable in case of offshore crude only & crude pipeline charges of Rs.72.30 per MT applicable for onshore crude and Cess includes OIDB

2007-08 & 2008-09 Basic Price is all inclusive Gross (pre-discount) price,levies like VAT/CST, Royalty, Octroi etc. worked out on Gross Price and NCCD @ Rs.50/MT and education cess @3% on OID Cess and NCCD are also payable on crude.

2009-10 Basic price is all inclusive Gross (Pre-discount) price, levies VAT/CST, Royalty etc are notional figures and worked out based on gross Price (Pre-discopunt), levies are actually paid on post-discount price during 2009-10, NCCD @ Rs. 50/MT and education cess @ 3% on OID cess and NCCD are also payable on crude.

2010-11 Basic price is all inclusive Gross (Pre-discount) price, levies VAT/CST, Royalty etc are notional figures and worked out based on gross Price (Pre-discopunt), levies are actually paid on post-discount price during 2010-2011, NCCD @ Rs. 50/MT and education cess @ 3% on OID cess and NCCD are also payable on crude.

Source: Petroleum Planning and Analysis Cell.

## IV.3(b) Consumer and Producer Prices of Natural Gas

(Rs./'oo' cubic metre)

| Effective Date | Consumer Prices | | Transportation charges along HVJ pipeline | Producer Prices | | | Calorific Value (K. Cal / SCM) |
|---|---|---|---|---|---|---|---|
| | Off-shore (Landfall point) and On-shore | For North-Eastern States | | ONGC | ONGC (NE states) | OIL (NE states) | |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| 01.01.2004 | 2850 | 1700 | 1150 | 2224 | 1700 | 1900 | 10000 |
| 01.03.2004 | 2850 | 1700 | 1150 | 2224 | 1700 | 1900 | 10000 |
| 01.04.2004 | 2850 | 1700 | 1150 | 2137 | 1700 | 1900 | 10000 |
| 01.07.2004 | 2850 | 1700 | 1150 | 2176 | 1700 | 1900 | 10000 |
| 01.09.2004 | 2850 | 1700 | 1150 | 2194 | 1700 | 1900 | 10000 |
| 01.10.2004 | 2850 | 1700 | 1150 | 2120 | 1700 | 1900 | 10000 |
| 01.01.2005 | 2850 | 1700 | 1150 | 2143 | 1700 | 1900 | 10000 |
| 01.04.2005 | 2850 | 1700 | 1150 | 2384 | 1700 | 1900 | 10000 |
| 01.07.2005 | 3200 | 1920 | 1150 | 3168 | 1920 | 3168 | 10000 |
| 01.10.2005 | 3200 | 1920 | 1150 | 3137 | 1920 | 3137 | 10000 |
| 01.01.2006 | 3200 | 1920 | 1150 | 3118 | 1920 | 3118 | 10000 |
| 01.04.2006 | 3200 | 1920 | 1150 | 3200 | 1920 | 3200 | 10000 |
| 01.04.2007 | 3200 | 1920 | 1150 | 3200 | 1920 | 3200 | 10000 |
| 01.04.2008 | 3200 | 1920 | 1150 | 3200 | 1920 | 3200 | 10000 |
| 01.04.2009 | 3200 | 1920 | 1069 | 3200 | 1920 | 3200 | 10000 |
| 01.04.2010 | 3200 | 1920 | 1069 | 3200 | 1920 | 3200 | 10000 |

**Notes:**

1. The consumer prices are exclusive of Royalty, Sales Tax and other Statutory Levies & Producer prices are exclusive of Royalty.
2. W.e.f 06.06.2006 MoP&NG has revised the price of Natural Gas having allocation upto 0.05 MMSCMD & city gas distribution projects vide order dated 05.06.2006. The revised price is Rs 3840/MSCM.
3. As per the Govt. order dated 03.06.2010, the difference of APM gas cunsumer price in other than North East and in North East would be paid to ONGC through Government Budget.

**Source:** Petroleum Planning & Analysis Cell.

## IV.4 Subsidies provided under Budget of Government of India

| Sector | Actuals 2002-03 | Actuals 2003-04 | Actuals 2004-05 | Actuals 2005-06 | Actuals 2006-07 | Actuals 2007-08 | Actuals 2008-09 | Actuals 2009-10 | Budget 2010-11 | Revised 2010-11 | Budget 2011-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | (Rs. in Crore) | | | | | | |
| **1. Food Subsidy** | **24200** | **25181** | **25798** | **23077** | **24014** | **31328** | **43751** | **58443** | **55578** | **60600** | **60573** |
| **2. Fertilisers** | | | | | | | | | | | |
| (i) Indigenous (Urea) Fertilisers | 7499 | 8521 | 10243 | 10653 | 12650 | 12950 | 17969 | 17580 | 15981 | 15081 | 13308 |
| (ii) Imported (Urea) Fertilisers | 10 | 0 | 494 | 1211 | 3274 | 6606 | 10079 | 4603 | 5500 | 6396 | 6983 |
| (iii) Sale of decontrolled fertiliser with concession to Farmers | 3500 | 3326 | 5142 | 6596 | 10298 | 12934 | 48555 | 39081 | 28500 | 33500 | 29707 |
| Total Fertiliser Subsidy | 11009 | 11847 | 15879 | 18460 | 26222 | 32490 | 76603 | 61264 | 49981 | 54977 | 49998 |
| **3. Petroleum Subsidy** | **6265** | **6351** | ***2956*** | ***2683*** | ***2724*** | ***2820*** | ***2852*** | **14951** | **3108** | **38386** | **23640** |
| 4. Interest Subsidies | 765 | 170 | 564 | 2177 | 2809 | 2311 | 3493 | 2686 | 4416 | 5223 | 6868 |
| 5.Grants to NAFED for MIS/PPS | | 156 | 120 | 260 | 560 | 860 | 375 | | | | |
| 5. Other Subsidies | 2379 | 618 | 640 | 865 | 821 | 1117 | 2634 | 4006 | 3141 | 4968 | 2490 |
| **Total Subsidies** | **44618** | **44323** | **45957** | **47522** | **57150** | **70926** | **129708** | **141350** | **116224** | **164154** | **143569** |
| | | | | | Percentages | | | | | | |
| **1. Food Subsidy** | **54.24** | **56.81** | **56.14** | **48.56** | **42.02** | **44.17** | **33.73** | **41.35** | **47.82** | **36.92** | **42.19** |
| **2. Fertilisers** | | | | | | | | | | | |
| (i) Indigenous (Urea) Fertilisers | 16.81 | 19.22 | 22.29 | 22.42 | 22.13 | 18.26 | 13.85 | 12.44 | 13.75 | 9.19 | 9.27 |
| (ii) Imported (Urea) Fertilisers | 0.02 | 0.00 | 1.07 | 2.55 | 5.73 | 9.31 | 7.77 | 3.26 | 4.73 | 3.90 | 4.86 |
| (iii) Sale of decontrolled fertiliser with concession to Farmers | 7.84 | 7.50 | 11.19 | 13.88 | 18.02 | 18.24 | 37.43 | 27.65 | 24.52 | 20.41 | 20.69 |
| **Total Fertiliser Subsidy** | **24.67** | **26.73** | **34.55** | **38.85** | **45.88** | **45.81** | **59.06** | **43.34** | **43.00** | **33.49** | **34.83** |
| **3. Petroleum Subsidy** | **14.04** | **14.33** | **6.43** | **5.65** | **4.77** | **3.98** | **2.20** | **10.58** | **2.67** | **23.38** | **16.47** |
| 4. Interest Subsidies | 1.71 | 0.38 | 1.23 | 4.58 | 4.92 | 3.26 | 2.69 | 1.90 | 3.80 | 3.18 | 4.78 |
| 5. Other Subsidies | 5.33 | 1.39 | 1.39 | 1.82 | 1.44 | 1.57 | 2.03 | 2.83 | 2.70 | 3.03 | 1.73 |
| **Total** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |

**Note**: Subsidy under Petroleum is for domestic LPG, PDS Kerosene, freight subsidy for far flung areas and other compensation. The Subsidy excludes Oil Bonds issued by the Government to IOCL, BPCl & HPCL under realization for markeing of sensitive petro products.

**Souces**: Expenditure Budget 2011-12 (Vol.-I)

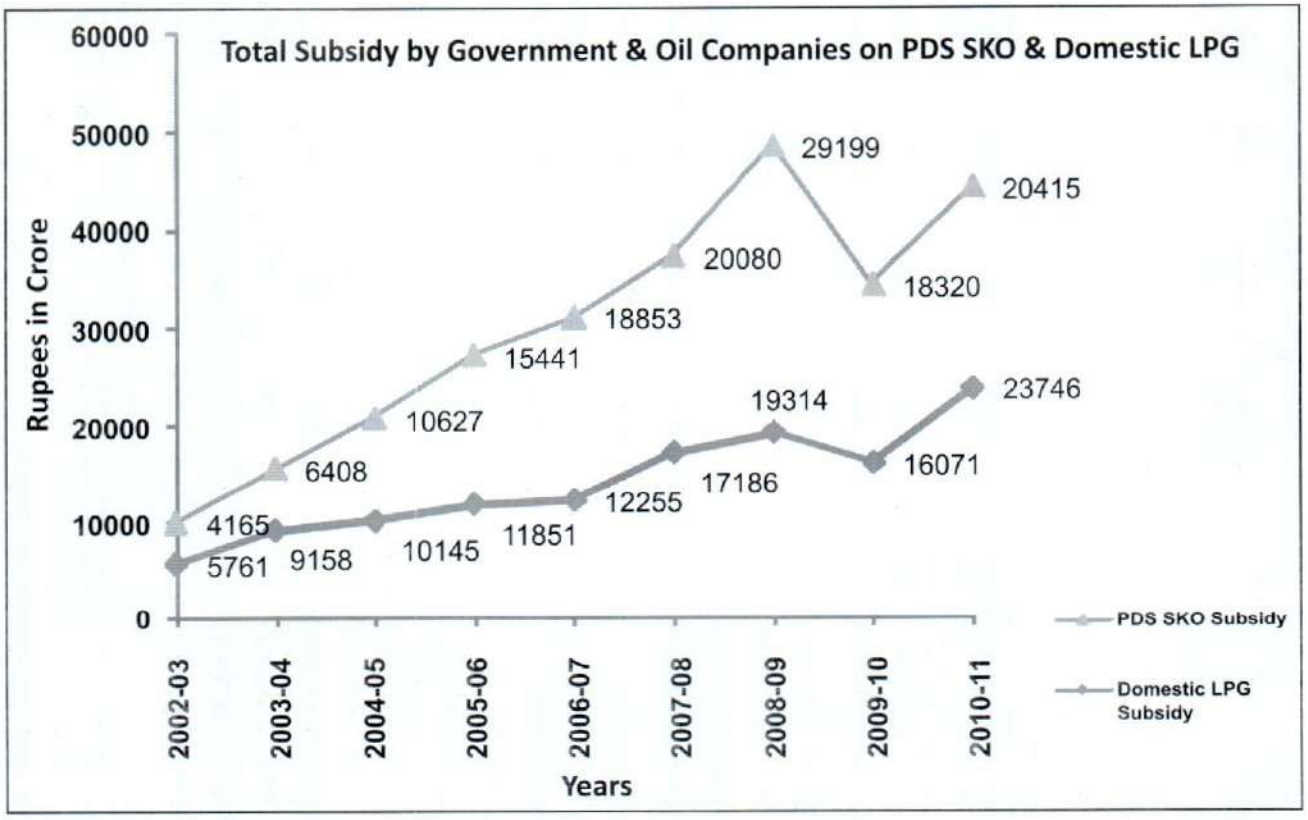
## IV.5 Subsidy Provided by the Government and Oil Companies on PDS SKO & Domestic LPG

(Rs. in Crore)

| Years | PDS SKO | | | Domestic LPG | | | Total (Subsidy+ Under Recoveries) |
|---|---|---|---|---|---|---|---|
| | Fiscal Subsidy* | Under Recoveries to Oil Company | Total | Fiscal Subsidy* | Under Recoveries to Oil Company | Total | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 2002-03 | 2098 | 2067 | 4165 | 2398 | 3363 | 5761 | 9926 |
| 2003-04 | 2657 | 3751 | 6408 | 3635 | 5523 | 9158 | 15566 |
| 2004-05 | 1147 | 9480 | 10627 | 1783 | 8362 | 10145 | 20772 |
| 2005-06 | 1057 | 14384 | 15441 | 1605 | 10246 | 11851 | 27292 |
| 2006-07 | 970 | 17883 | 18853 | 1554 | 10701 | 12255 | 31108 |
| 2007-08 | 978 | 19102 | 20080 | 1663 | 15523 | 17186 | 37266 |
| 2008-09 | 974 | 28225 | 29199 | 1714 | 17600 | 19314 | 48513 |
| 2009-10 | 956 | 17364 | 18320 | 1814 | 14257 | 16071 | 34391 |
| 2010-11 | 931 | 19484 | 20415 | 1974 | 21772 | 23746 | 44161 |
| **Total** | **10837** | **112256** | **143508** | **16166** | **85575** | **125487** | **224834** |

Source:Budget document and Petroleum Planning & Analysis Cell

* Subdisy on PDS SKO and Domestic LPG ( Under Scheme 2002)



## IV.6 Price Build-up of Selected Petroleum Products in Major Cities (As on 1.4.2011)

| | Delhi | Kolkata | Mumbai | Chennai |
|---|---|---|---|---|
| **Liquefied Petroleum Gas (Domestic) (Rs./14.2 Kg Cyl)** | | | | |
| Basic Price | 290.55 | 290.55 | 290.55 | 290.55 |
| State surcharge | 0.03 | 3.86 | 4.08 | 7.01 |
| Freight upto bottling plant | 1.42 | 2.27 | 0.00 | 0.00 |
| Price adj factor | 21.43 | 22.27 | 21.88 | 10.16 |
| **Assessable value** | **313.43** | **318.95** | **316.51** | **307.72** |
| Excise Duty | 0.00 | 0.00 | 0.00 | 0.00 |
| Octroi/ ET Amount at BP | 0.00 | 0.00 | 0.00 | 0.00 |
| **Price at bottling plant** | **313.43** | **318.95** | **316.51** | **307.72** |
| **State Subsidy** | **0.00** | **0.00** | **0.00** | **0.00** |
| Freight / local delivery charges | 10.00 | 10.00 | 10.00 | 10.00 |
| Octroi / Transit Tax Amount at MKT | 0.00 | 0.17 | 0.00 | 0.00 |
| **Price including octroi** | **323.43** | **329.12** | **326.51** | **317.72** |
| Central Sales Tax / Sales Tax Amount | 0.00 | 13.16 | 0.00 | 12.71 |
| Surcharge on ST/Toll Tax | 0.00 | 0.00 | 0.00 | 0.00 |
| **Billable rate** | **323.43** | **342.28** | **326.51** | **330.43** |
| **Sub Total** | **323.43** | **342.28** | **326.51** | **330.43** |
| Price to Dealer (14.2kg/cyl) | 323.43 | 342.28 | 326.51 | 330.43 |
| Distributor commission | 21.94 | 21.94 | 21.94 | 21.94 |
| Price after Distributor Commission | 345.37 | 364.22 | 348.45 | 352.37 |
| VAT | 0.00 | 4.00 | 4.00 | 0.00 |
| VAT Amount | 0.00 | 0.88 | 0.00 | 0.00 |
| RSP for 14.2kg/cyl | 345.37 | 365.10 | 348.45 | 352.37 |
| **RSP Rounded off** | **345.35** | **365.10** | **348.45** | **352.35** |
| **Motor Spirit (Rs./Kl)** | | | | |
| Revised ex-storage point price | 32356.25 | 32356.25 | 32356.25 | 32356.25 |
| State surcharge | 4.00 | 605.00 | 276.00 | 795.00 |
| BMC Surcharge | 0.00 | 0.00 | 859.00 | 0.00 |
| Siding Charge | 106.60 | 104.88 | 0.00 | 0.00 |
| Rly/Ocean/Freight | 91.96 | 144.73 | 0.00 | 0.00 |
| RPO surcharge | 36.00 | 36.00 | 36.00 | 36.00 |
| RPO charge | 4.36 | 4.36 | 4.36 | 4.36 |
| Price adj factor | 0.00 | 84.79 | (53.01) | (218.86) |
| **Assessable value** | **32599.17** | **33336.01** | **33478.60** | **32972.75** |
| Basic Excise Duty | 0.00 | 0.00 | 0.00 | 0.00 |
| ADE + SADE | 0.00 | 0.00 | 0.00 | 0.00 |
| **Sub Total** | **32599.17** | **33336.01** | **33478.60** | **32972.75** |
| FDZ charges | 44.00 | 44.00 | 44.00 | 44.00 |
| Basic Excise Duty | 0.00 | 0.00 | 0.00 | 0.00 |
| EDN Cess | 14780.50 | 14780.50 | 14780.50 | 14780.50 |
| **Sub Total** | **47423.67** | **48160.51** | **48303.10** | **47797.25** |
| Delivery charges beyond FDZ | 0.00 | 49.20 | 0.00 | 0.00 |
| Toll Tax | 0.00 | 16.00 | 0.00 | 0.00 |
| RPO Price | 47423.67 | 48225.71 | 48303.10 | 47797.25 |
| Sales Tax | 9728.33 | 12056.43 | 12558.81 | 12905.26 |
| Surcharge on ST | 0.00 | 1000.00 | 1000.00 | 0.00 |
| Dealer Commission | 1218.00 | 1218.00 | 1218.00 | 1218.00 |

Contd..

| | Delhi | Kolkata | Mumbai | Chennai |
|---|---|---|---|---|
| **Retail Selling Price Rs./Kl** | **58370.00** | **62500.14** | **63079.91** | **61920.51** |
| **Retail Selling Price Rs./Ltr** | **58.37** | **62.50** | **63.08** | **61.92** |
| | **High Speed Diesel (Rs./Kl)** | | | |
| Revised Storage Point Price | 27514.19 | 27514.19 | 27514.19 | 27514.19 |
| State surcharge | 2.00 | 300.00 | 137.00 | 120.00 |
| BMC surcharge | 0.00 | 0.00 | 299.00 | 0.00 |
| Siding Charge w.e.f. 19.7.07 | 120.52 | 120.80 | 0.00 | 0.00 |
| Rly / Ocean / Freight | 102.68 | 162.19 | 0.00 | 0.00 |
| RPO surcharge | 21.00 | 21.00 | 21.00 | 21.00 |
| RPO charge (excisable) | 0.27 | 0.27 | 0.27 | 0.27 |
| PAF | 0.00 | 18.14 | 22.33 | 3.52 |
| **Assessable value** | **27760.66** | **28136.59** | **27993.79** | **27658.98** |
| Basic Excise Duty | 0.00 | 0.00 | 0.00 | 0.00 |
| **Sub Total** | **27760.66** | **28136.59** | **27993.79** | **27658.98** |
| FDZ charges | 44.00 | 44.00 | 44.00 | 44.00 |
| Additional Excise Duty | 0.00 | 0.00 | 0.00 | 0.00 |
| Basic Excise Duty | 0.00 | 0.00 | 0.00 | 0.00 |
| Edn Cess | 4738.00 | 4738.00 | 4738.00 | 4738.00 |
| **Sub Total** | **32542.66** | **32918.59** | **32775.79** | **32440.98** |
| Delivery charges beyond FDZ | 0.00 | 49.20 | 0.00 | 0.00 |
| Octroi at destination | 0.00 | 16.00 | 0.00 | 0.00 |
| RPO Price | 32542.66 | 32983.79 | 32775.79 | 32440.98 |
| Pollution Cess w.e.f. 8.2.08 | 250.00 | 0.00 | 0.00 | 0.00 |
| Sales Tax | 4193.71 | 5317.24 | 8521.71 | 6952.10 |
| Surcharge on ST | 0.00 | 1000.00 | 0.00 | 0.00 |
| Dealer Commission | 757.00 | 757.00 | 757.00 | 757.00 |
| **Retail Selling Price Rs./Kl** | **37743.37** | **40058.03** | **42054.50** | **40150.08** |
| **Retail Selling Price Rs./Ltr** | **37.74** | **40.06** | **42.05** | **40.15** |
| | **Superior Kerosene Oil(Rs./Kl)** | | | |
| Revised Ex-storage point price | 10822.00 | 10822.00 | 10822.00 | 10822.00 |
| State surcharge | 0.00 | 62.00 | 4.00 | 113.00 |
| BMC surcharge | 0.00 | 0.00 | 62.00 | 0.00 |
| Siding charges | 58.97 | 0.00 | 0.00 | 0.00 |
| Rly / PL / Ocean / Freight | 108.14 | 19.37 | 0.00 | 0.00 |
| **Assessable value** | **10989.11** | **10903.37** | **10888.00** | **10935.00** |
| Entry tax amount / TN rebate | 0.00 | 0.00 | 0.00 | (576.00) |
| Sales Tax | 549.46 | 0.00 | 544.40 | 414.36 |
| Wholesales Margin | 275.00 | 275.00 | 275.00 | 170.00 |
| Transport charges | 675.23 | 408.30 | 254.10 | 114.78 |
| VAT on wholesale margin | 47.51 | 0.00 | 27.86 | 0.00 |
| Leakage and other Expenses | 0.00 | 159.03 | 19.50 | 0.00 |
| Rounding Up | 0.00 | 0.00 | 8.64 | 0.00 |
| **Wholesales Price/Kl** | **12536.31** | **11745.70** | **12017.50** | **11058.14** |
| Retailers Margin | 179.00 | 313.00 | 231.00 | 360.00 |
| Handling Charges | 0.00 | 250.00 | 0.00 | 0.00 |
| Leakage and other Expenses | 0.00 | 233.68 | 19.00 | 40.00 |
| Retailer Transportation | 0.00 | 295.18 | 12.50 | 0.00 |
| VAT on wholesale margin | 8.95 | 0.00 | 0.00 | 0.00 |

Contd..

| | Delhi | Kolkata | Mumbai | Chennai |
|---|---|---|---|---|
| Retail Extraordinary Commission | 0.00 | 0.00 | 19.00 | 0.00 |
| **Retail Selling Price Rs./Kl** | **12724.26** | **12837.56** | **12299.00** | **11458.14** |
| **Retail Selling Price Rs./Ltr** | **12.72** | **12.84** | **12.30** | **11.46** |
| | **ATF ( Domestic Airlines)** | | | |
| Basic price | 40490.00 | 40880.00 | 40570.00 | 40760.00 |
| Inland differential | 570.00 | 0.00 | 0.00 | 0.00 |
| State surcharge | 2.00 | 3070.00 | 590.00 | 1032.00 |
| Freight | 336.27 | 756.92 | 100.00 | 226.60 |
| Siding charges | 92.60 | 0.00 | 0.00 | 0.00 |
| Marketing cost | 3802.00 | 4673.00 | 2760.00 | 3295.00 |
| MSL cost | 252.00 | 252.00 | 252.00 | 252.00 |
| **Assessable value** | **45544.87** | **49631.92** | **44272.00** | **45565.60** |
| Excise Duty | 3643.59 | 3970.55 | 3541.76 | 3645.25 |
| Education Cess @3% on ED | 109.31 | 119.12 | 106.25 | 109.36 |
| Toll Tax | 0.00 | 0.00 | 0.00 | 0.00 |
| **Posted airfield price per KL** | **49297.77** | **53721.59** | **47920.01** | **49320.21** |
| Sales Tax | | | | |
| **Final Selling Price Per KL** | **49297.77** | **53721.59** | **47920.01** | **49320.21** |
| | **Furnace Oil (Rs./Kl)** | | | |
| Ex-storage point price | | 33890.00 | 33380.00 | 33730.00 |
| State surcharge | | 105.00 | 191.60 | 375.00 |
| Notional railway freight | | 461.48 | 0.00 | 0.00 |
| Siding / shunting charges | | 0.00 | 0.00 | 0.00 |
| **Assessable value** | | **34456.48** | **33571.60** | **34105.00** |
| Excise duty + edu cess | | 4968.62 | 4841.02 | 4917.94 |
| **Total inclusive of excise duty + edu cess** | | **39425.10** | **38412.62** | **39022.94** |
| Sales tax | | 1577.00 | 4801.58 | 1560.92 |
| **Total** | | **41002.10** | **43214.20** | **40583.86** |
| | **Light Diesel Oil (Rs./Kl)** | | | |
| Ex-storage point price | 44970.00 | 44970.00 | 44970.00 | 44970.00 |
| State surcharge | 25.00 | 1070.00 | 821.28 | 455.00 |
| Notional railway freight | 259.28 | 1181.67 | 0.00 | 0.00 |
| Siding Dest. | 101.01 | 134.34 | 0.00 | 0.00 |
| **Assessable value** | **45355.29** | **47356.01** | **45791.28** | **45425.00** |
| Excise duty + edu cess | 6540.23 | 6828.74 | 6603.10 | 6550.29 |
| Additional levy alongwith cess | 2575.00 | 2575.00 | 2575.00 | 2575.00 |
| **Total inclusive of excise duty + edu cess** | **54470.52** | **56759.75** | **54969.38** | **54550.29** |
| Sales tax | 10894.10 | 9649.16 | 6871.17 | 13637.57 |
| Discount on Sales Tax | 0.00 | (290.00) | 0.00 | 0.00 |
| State Development Tax | 250.00 | 0.00 | 0.00 | 0.00 |
| **Total** | **65614.62** | **66118.91** | **61840.55** | **68187.86** |

**Source: IOCL Price Build-up**

Note: Selling price for Superior Kerosene Oil is for Public Distribution System(PDS).

## IV.7 Trends in Retail Selling Prices of Selected Petroleum Products in Metropolitan Towns in India

| Price as on | Mumbai | Kolkata | Delhi | Chennai |
|---|---|---|---|---|
| | | **Motor Spirit (Rs./Litre)** | | |
| 01.04.2002 | 30.78 | 26.99 | 26.54 | 28.49 |
| 01.04.2003 | 38.59 | 35.00 | 33.49 | 36.56 |
| 01.04.2004 | 38.83 | 36.61 | 33.71 | 36.79 |
| 01.04.2005 | 43.23 | 40.89 | 37.99 | 41.25 |
| 01.04.2006 | 49.16 | 46.90 | 43.49 | 47.49 |
| 01.04.2007 | 48.41 | 46.90 | 42.85 | 47.48 |
| 01.04.2008 | 50.51 | 48.95 | 45.52 | 49.61 |
| 01.04.2009 | 44.55 | 44.05 | 40.62 | 44.24 |
| 01.04.2010 | 52.20 | 51.67 | 47.93 | 52.13 |
| 01.04.2011 | 63.08 | 62.51 | 58.37 | 61.93 |
| | | **High Speed Diesel Oil (Rs./Litre)** | | |
| 01.04.2002 | 21.10 | 16.97 | 16.60 | 18.10 |
| 01.04.2003 | 27.88 | 23.51 | 22.11 | 24.65 |
| 01.04.2004 | 27.43 | 23.99 | 21.73 | 24.23 |
| 01.04.2005 | 32.83 | 28.72 | 28.22 | 29.30 |
| 01.04.2006 | 37.57 | 32.87 | 30.45 | 33.72 |
| 01.04.2007 | 34.96 | 32.88 | 30.25 | 33.31 |
| 01.04.2008 | 36.08 | 33.92 | 31.76 | 34.40 |
| 01.04.2009 | 34.45 | 32.92 | 30.86 | 32.82 |
| 01.04.2010 | 39.88 | 37.99 | 38.10 | 38.05 |
| 01.04.2011 | 42.06 | 40.06 | 37.75 | 40.16 |
| | | **Superior Kerosene Oil (Rs./Litre)*** | | |
| 01.04.2002 | 9.01 | 9.27 | 8.98 | 8.40 |
| 01.04.2003 | 9.26 | 9.30 | 9.01 | 8.40 |
| 01.04.2004 | 9.26 | 9.30 | 9.01 | 8.40 |
| 01.04.2005 | 9.28 | 9.26 | 9.02 | 8.39 |
| 01.04.2006 | 9.05 | 9.30 | 9.05 | 8.39 |
| 01.04.2007 | 9.05 | 9.29 | 9.09 | 8.39 |
| 01.04.2008 | 9.10 | 9.30 | 9.09 | 8.39 |
| 01.04.2009 | 9.10 | 9.75 | 9.22 | 8.39 |
| 01.04.2010 | 9.13 | 9.62 | 9.32 | 8.41 |
| 01.04.2011 | 9.22 | 9.75 | 9.10 | 8.39 |
| | | **Liquefied Petroleum Gas (Rs./14.2 Kg Cylinder)** | | |
| 01.04.2002 | 244.95 | 265.55 | 240.45 | 247.40 |
| 01.04.2003 | 250.61 | 266.30 | 241.21 | 248.17 |
| 01.04.2004 | 251.00 | 266.70 | 241.60 | 248.55 |
| 01.04.2005 | 297.95 | 300.50 | 294.75 | 288.15 |
| 01.04.2006 | 297.95 | 300.50 | 294.75 | 288.15 |
| 01.04.2007 | 298.00 | 300.50 | 294.75 | 288.10 |
| 01.04.2008 | 298.00 | 300.50 | 294.75 | 288.10 |
| 01.04.2009 | 312.05 | 327.25 | 279.70 | 314.55 |
| 01.04.2010 | 313.45 | 328.70 | 310.35 | 315.95 |
| 01.04.2011 | 348.45 | 365.10 | 345.35 | 352.35 |

*: Prices for Public Distribution System.

## IV.8 Rates of Dealers' Commission for MS, HSD and LPG in India

| Effective | MS (Rs/Kilolitre) | HSD | LPG (Packed Domestic) (Rs./Cylinder) | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| **01.11.2002** | 639 | 385 | 16.33 | 8.40 |
| **01.04.2004** | 707 | 425 | 16.71 | 8.60 |
| **21.06.2005** | 778 | 467 | 16.71 | 8.60 |
| **01.08.2005** | 848 | 509 | 16.71 | 8.60 |
| **01.03.2007** | 894 | 529 | 19.05 | 9.81 |
| **16.05.2007** | 1024 | 600 | 19.05 | 9.81 |
| **23.05.2008** | 1052 | 631 | 20.54 | 10.58 |
| **27.10.2009** | 1125 | 673 | 21.94 | 11.30 |
| **07.09.2010** | 1218 | 757 | 21.94 | 11.30 |
| **01.07.2011** | 1499 | 912 | 25.83 | 13.30 |

Notes: (i) : Licence Fee Recovery may be recovered for 'A' Site @ Rs.43/KL and RS.36/KL and for B' Site @Rs. 13/KL and Rs.11/KL for MS and HSD respectively.
(ii) The service tax component of LFR of Rs.4/- per/KL on MS and HSD is also recovered from dealers w.e.f. 27th Oct,2009
Source: Petroleum Planning and Analysis Cell.

# Consumption

## V.1(a) Product-wise Consumption of Petroleum Products (Calender Year)

(Qty: '000' Tonnes)

| | Products | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* | % to total | Change % *2010/09* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1 | **Light Distillates** | **24293** | **25454** | **24421** | **24318** | **26344** | **28239** | **28835** | **31150** | **20.4** | **8.0** |
| | LPG | 8828 | 9878 | 9980 | 10279 | 11228 | 11860 | 12402 | 13592 | **8.9** | **9.6** |
| | Mogas | 7758 | 8081 | 8272 | 8594 | 9561 | 10821 | 11964 | 13642 | **8.9** | **14.0** |
| | Naphtha | 7116 | 6843 | 5566 | 4758 | 5049 | 5184 | 3904 | 3292 | **2.2** | **-15.7** |
| | Others | 591 | 652 | 603 | 687 | 506 | 374 | 565 | 624 | **0.4** | **10.4** |
| 2 | **Middle Distillates** | **49879** | **52041** | **50449** | **53844** | **59080** | **65627** | **68541** | **72361** | **47.4** | **5.6** |
| | SKO | 9490 | 9303 | 9472 | 9414 | 9372 | 9313 | 9345 | 9000 | **5.9** | **-3.7** |
| | ATF | 2394 | 2716 | 3126 | 3830 | 4398 | 4492 | 4587 | 4821 | **3.2** | **5.1** |
| | HSDO | 36182 | 38305 | 36467 | 39414 | 44112 | 50796 | 53585 | 57608 | **37.8** | **7.5** |
| | LDO | 1236 | 1134 | 890 | 742 | 671 | 611 | 528 | 439 | **0.3** | **-16.9** |
| | Others | 577 | 583 | 494 | 444 | 526 | 415 | 495 | 493 | **0.3** | **-0.4** |
| 3 | **Heavy Ends** | **16216** | **17076** | **17650** | **17036** | **18717** | **18531** | **18394** | **16716** | **11.0** | **-9.1** |
| | Furnace Oil | 7018 | 7698 | 8375 | 8076 | 8288 | 7940 | 8164 | 7768 | **5.1** | **-4.9** |
| | LSHS | 4572 | 4465 | 4134 | 3414 | 3306 | 3241 | 2739 | 2040 | **1.3** | **-25.5** |
| | Lubes/Greases | 831 | 775 | 886 | 887 | 1057 | 1022 | 1192 | 1210 | **0.8** | **1.5** |
| | Bitumen/Asphalt | 3196 | 3397 | 3365 | 3685 | 4308 | 4487 | 4458 | 3963 | **2.6** | **-11.1** |
| | Petroleum Coke | 319 | 392 | 509 | 485 | 1150 | 1174 | 1236 | 1146 | **0.8** | **-7.3** |
| | Wax | 60 | 74 | 74 | 74 | 70 | 67 | 68 | 69 | **0.0** | **1.5** |
| | Others | 220 | 275 | 307 | 415 | 538 | 600 | 537 | 520 | **0.3** | **-3.2** |
| 4 | **Total (PSUs)** | **90388** | **94570** | **92520** | **95198** | **104141** | **112397** | **115771** | **120227** | **78.8** | **3.8** |
| 5 | **Pvt. Cons.** | **14633** | **17041** | **17943** | **14468** | **22048** | **20159** | **21652** | **19824** | **13.0** | **-8.4** |
| 6 | **Total** | **105021** | **111611** | **110463** | **109666** | **126189** | **132556** | **137423** | **140051** | **91.8** | **1.9** |
| 7 | RBF | 8063 | 8559 | 8914 | 10471 | 11575 | 12033 | 11607 | 12469 | **8.2** | **7.4** |
| 8 | **Grand Total** | **113084** | **120170** | **119377** | **120137** | **137764** | **144589** | **149030** | **152520** | **100.0** | **2.3** |
| | %age growth | 2.8 | 6.3 | -0.7 | 0.6 | 14.7 | 5.0 | 3.1 | 2.3 | | |

**Notes:**

*: Provisional and not included data in respect of RIL SEZ Refinery as it is presumed that all products have been exported and not consumed domestically.

@ :Private Consumption in the year 2007,08,09 &10 includes Private Imports also.

**Source:** Petroleum Planning & Analysis Cell.

## V.1(b) Product-wise Consumption of Petroleum Products (Financial Year)

( 000' Tonne)

| | Products | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* | % Growth 2010-11/ 2009-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | **Light Distillates of which** | **34335** | **35204** | **33662** | **37075** | **38557** | **39878** | **38995** | **41433** | **6.3** |
| | LPG | 9305 | 10245 | 10456 | 10849 | 12165 | 12344 | 13135 | 14328 | **9.1** |
| | Motor Spirit | 7897 | 8251 | 8647 | 9285 | 10332 | 11258 | 12818 | 14192 | **10.7** |
| | Naphtha+NGL | 11868 | 13993 | 12194 | 13886 | 13294 | 13911 | 10134 | 10691 | **5.5** |
| | Others | 5265 | 2715 | 2365 | 3055 | 2766 | 2365 | 2908 | 2222 | **-23.6** |
| 2 | **Middle Distillates of which** | **52023** | **53906** | **54423** | **57595** | **62823** | **66378** | **71120** | **74949** | **5.4** |
| | SKO | 10230 | 9395 | 9541 | 9505 | 9365 | 9303 | 9304 | 8928 | **-4.0** |
| | ATF | 2484 | 2811 | 3296 | 3983 | 4543 | 4423 | 4627 | 5079 | **9.8** |
| | HSDO | 37074 | 39651 | 40191 | 42896 | 47669 | 51710 | 56242 | 59990 | **6.7** |
| | LDO | 1619 | 1476 | 883 | 720 | 667 | 552 | 457 | 455 | **-0.4** |
| | Others | 616 | 573 | 512 | 491 | 579 | 390 | 490 | 497 | **1.4** |
| 3 | **Heavy Ends of which** | **21393** | **22523** | **25129** | **26078** | **27568** | **27343** | **27693** | **25402** | **-8.3** |
| | Furnace Oil | 8312 | 9136 | 8921 | 9257 | 9469 | 9419 | 9145 | 8896 | **-2.7** |
| | LSHS | 4633 | 4404 | 3907 | 3361 | 3248 | 3169 | 2484 | 1982 | **-20.2** |
| | Lubes/Greases | 1427 | 1347 | 2081 | 1900 | 2290 | 2000 | 2539 | 2508 | **-1.2** |
| | Bitumen | 3373 | 3337 | 3508 | 3833 | 4506 | 4747 | 4934 | 4566 | **-7.5** |
| | Petroleum Coke | 2877 | 3129 | 4928 | 5441 | 5950 | 6166 | 6586 | 5487 | **-16.7** |
| | Paraffin Wax | 41 | 60 | 268 | 303 | 241 | 203 | 211 | 190 | **-10.0** |
| | Other Waxes | 20 | 20 | 105 | 64 | 65 | 65 | 78 | 73 | **-6.4** |
| | Others | 710 | 1090 | 1411 | 1919 | 1799 | 1574 | 1716 | 1700 | **-0.9** |
| | TOTAL | **107751** | **111633** | **113214** | **120748** | **128948** | **133599** | **137808** | **141784** | **2.9** |
| | Refinery Boiler Fuel | 8240 | 8537 | 9141 | 10920 | 11751 | 11912 | 11607 | 15873 | **36.8** |
| | Grand Total | **115991** | **120170** | **122355** | **131668** | **140699** | **145511** | **149415** | **157657** | **5.5** |
| | % age growth | **3.8** | **3.6** | **1.8** | **7.6** | **6.9** | **3.4** | **2.7** | **5.5** | |

* :Provisional and not included data in respect of RIL SEZ Refinery as it is presumed that all products have been exported and not consumed domestically.

**Notes**: Consumption data includes private sales & private imports also.

**Source**: Petroleum Planning & Analysis Cell.

## V.1(c) Product-wise Consumption of Petroleum Products by Public & Private Sector

(000' Tonnes)

| | Products | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* | % Growth 2010-11/ 2009-10 |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | **A. PUBLIC SECTOR** | | | | | | | | |
| 1 | **Light Distillates** | **25317** | **24008** | **25350** | **26695** | **28943** | **29068** | **32153** | **10.6** |
| | LPG | 9967 | 9976 | 10530 | 11482 | 11927 | 12740 | 13902 | **9.1** |
| | Motor Spirit | 8162 | 8254 | 8803 | 9875 | 11169 | 12603 | 13893 | **10.2** |
| | Naphtha+NGL | 6550 | 5155 | 5327 | 4912 | 5471 | 3106 | 3704 | **19.3** |
| | Others | 638 | 623 | 690 | 425 | 376 | 618 | 654 | **5.8** |
| 2 | **Middle Distillates** | **51919** | **50281** | **55189** | **61536** | **65936** | **69797** | **73606** | **5.5** |
| | SKO | 9395 | 9373 | 9412 | 9365 | 9303 | 9304 | 8928 | **-4.0** |
| | ATF | 2811 | 3295 | 3982 | 4522 | 4363 | 4551 | 4961 | **9.0** |
| | HSDO | 38087 | 36308 | 40617 | 46443 | 51328 | 54994 | 58765 | **6.9** |
| | LDO | 1085 | 834 | 720 | 667 | 552 | 457 | 455 | **-0.4** |
| | Others | 541 | 471 | 458 | 539 | 390 | 490 | 497 | **1.4** |
| 3 | **Heavy Ends** | **17357** | **17413** | **17401** | **18912** | **18615** | **17913** | **16736** | **-6.6** |
| | Furnace Oil | 8055 | 8221 | 8186 | 8247 | 8004 | 7981 | 7713 | **-3.4** |
| | LSHS | 4404 | 3907 | 3361 | 3248 | 3169 | 2484 | 1982 | **-20.2** |
| | Lubes/Greases | 779 | 892 | 878 | 1129 | 1015 | 1239 | 1216 | **-1.9** |
| | Bitumen/Asphalt | 3318 | 3485 | 3818 | 4471 | 4516 | 4342 | 4069 | **-6.3** |
| | Petroleum Coke | 445 | 496 | 645 | 1198 | 1224 | 1273 | 1147 | **-9.9** |
| | Paraffin Wax | 60 | 55 | 67 | 80 | 65 | 62 | 69 | **11.3** |
| | Other Waxes | 20 | 19 | 0 | 0 | 0 | 0 | 0 | **0.0** |
| | Others | 277 | 277 | 446 | 539 | 623 | 532 | 540 | **1.5** |
| | **Total (A) (Excl. RBF)** | **94593** | **91702** | **97940** | **107142** | **113493** | **116777** | **122495** | **4.9** |
| | **B. PRIVATE SECTOR** | | | | | | | | |
| 1 | **Light Distillates** | **9887** | **9654** | **11726** | **11862** | **10935** | **10156** | **9282** | **-8.6** |
| | LPG | 278 | 480 | 319 | 683 | 418 | 395 | 426 | **7.8** |
| | Motor Spirit | 89 | 393 | 482 | 456 | 89 | 216 | 299 | **38.4** |
| | Naphtha / NGL | 7443 | 7039 | 8559 | 8382 | 8439 | 7029 | 6988 | **-0.6** |
| | Others | 2077 | 1742 | 2366 | 2341 | 1989 | 2516 | 1569 | **-37.6** |
| 2 | **Middle Distillates** | **1987** | **4141** | **2406** | **1287** | **443** | **1324** | **1342** | **1.4** |
| | SKO | 0 | 168 | 93 | 0 | 0 | 0 | 0 | **0.0** |
| | ATF | 0 | 1 | 1 | 21 | 60 | 76 | 117 | **53.9** |
| | HSDO | 1564 | 3883 | 2279 | 1226 | 383 | 1248 | 1225 | **-1.8** |
| | LDO | 391 | 49 | 0 | 0 | 0 | 0 | 0 | **0.0** |
| | Others | 32 | 40 | 33 | 41 | 0 | 0 | 0 | **0.0** |
| 3 | **Heavy Ends** | **5167** | **7716** | **8677** | **8656** | **8728** | **9551** | **8667** | **-9.3** |
| | Furnace Oil / LSHS | 1081 | 700 | 1071 | 1222 | 1415 | 1164 | 1183 | **1.6** |
| | Lubes/Greases | 568 | 1189 | 1022 | 1161 | 986 | 1300 | 1292 | **-0.6** |
| | Bitumen | 21 | 23 | 14 | 35 | 231 | 592 | 497 | **-16.0** |
| | Petroleum Coke | 2684 | 4432 | 4796 | 4752 | 4942 | 5313 | 4340 | **-18.3** |
| | Others | 1056 | 1529 | 934 | 1486 | 1155 | 1182 | 1355 | **14.6** |
| | **Total (B)** | **17041** | **21511** | **22809** | **21804** | **20106** | **21031** | **19291** | **-8.3** |
| | **TOTAL (A+B)** | **111634** | **113213** | **120749** | **128946** | **133599** | **137808** | **141786** | **2.9** |
| | Refinery Boil Fuel | 8537 | 9141 | 10920 | 11751 | 11912 | 11607 | 12622 | **8.7** |
| | **Grand Total** | **120171** | **122354** | **131669** | **140697** | **145511** | **149415** | **154408** | **3.3** |

* :Provisional and not included data in respect of RIL SEZ Refinery as it is presumed that all products have been exported and not consumed domestically.

**Notes**: Private Sector data include private imports also.

**Source**: Petroleum Planning & Analysis Cell.

## V.2 Sector-wise Consumption (end use) of Selected Petroleum Products

(Qty.'000'Tonnes)

| Sector | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | | LPG | | | | | |
| 1. Resellers | 10433 | 96.2 | 11173 | 91.8 | 11607 | 94.0 | 12540 | 95.5 | 13670 | 95.4 |
| 2. Transport | | | | | | | | | | |
| i) Railways | 0 | 0.0 | 1 | 0.0 | 1 | 0.0 | 1 | 0.0 | 1 | 0.0 |
| ***Total (2)*** | ***0*** | ***0.0*** | ***1*** | 0.0 | ***1*** | 0.0 | ***1*** | 0.0 | ***1*** | 0.0 |
| 3. Agriculture Sector | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 | 4 | 0.0 | 2 | 0.0 |
| 4. Power Generation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 5. Mining | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 6. Manufacturing (Bulk LPG) | 31 | 0.3 | 113 | 0.9 | 119 | 1.0 | 142 | 1.1 | 165 | 1.2 |
| 7. Miscellaneous | 66 | 0.6 | 202 | 1.7 | 207 | 1.7 | 54 | 0.4 | 63 | 0.4 |
| ***Total PSU*** | ***10530*** | ***97.1*** | ***11489*** | ***94.4*** | ***11935*** | ***96.7*** | ***12741*** | ***97.0*** | ***13902*** | ***97.0*** |
| 8. Pvt. Sales | 9 | 0.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 9. Pvt. Imports | 310 | 2.9 | 676 | 5.6 | 409 | 3.3 | 395 | 3.0 | 426 | 3.0 |
| **TOTAL** | **10849** | **100.0** | **12165** | **100.0** | **12344** | **100.0** | **13136** | **100.0** | **14328** | **100.0** |
| | | | | | SKO (Kerosene) | | | | | |
| 1. Domestic | 9203 | 96.8 | 9167 | 97.9 | 9131 | 98.1 | 9102 | 97.8 | 8722 | 97.7 |
| 2. Transport | | | | | | | | | | |
| i) Road Transport | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| ii) Aviation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| iii) Shipping | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| iv) Railways | 3 | 0.0 | 5 | 0.1 | 5 | 0.1 | 5 | 0.1 | 5 | 0.1 |
| ***Total (2)*** | ***3*** | ***0.0*** | ***5*** | ***0.1*** | ***5*** | ***0.1*** | ***5*** | ***0.1*** | ***5*** | ***0.1*** |
| 3. Agriculture | 1 | 0.0 | 1 | 0.0 | 0 | 0.0 | 1 | 0.0 | 1 | 0.0 |
| 4. Power Generation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 5. Mining | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 |
| 6. Manufacturing Industry | 45 | 0.5 | 44 | 0.5 | 38 | 0.4 | 61 | 0.7 | 59 | 0.7 |
| 7. Miscellaneous | 159 | 1.7 | 147 | 1.6 | 129 | 1.4 | 135 | 1.5 | 139 | 1.6 |
| ***Total PSU*** | ***9412*** | ***99.0*** | ***9365*** | ***100.0*** | ***9303*** | ***100.0*** | ***9304*** | ***100.0*** | ***8928*** | ***100.0*** |
| 8. Pvt. Party sales | 93 | 1.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| **TOTAL** | **9505** | **100.0** | **9365** | **100.0** | **9303** | **100.0** | **9304** | **100.0** | **8928** | **100.0** |

Contd..

| Sector | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | NAPHTHA | | | | | | |
| 1. Fertilizers Sector | 1980 | 14.3 | 1689 | 12.7 | 1803 | 13.0 | 844 | 8.3 | 892 | 8.3 |
| 2. Petrochemicals Sector | 1197 | 8.6 | 6048 | 45.5 | 5889 | 42.3 | 6968 | 68.8 | 7500 | 70.2 |
| 3. Power Sector | 681 | 4.9 | 753 | 5.7 | 1147 | 8.2 | 639 | 6.3 | 419 | 3.9 |
| 4. Steel Plants | 34 | 0.2 | 54 | 0.4 | 71 | 0.5 | 3 | 0.0 | 0 | 0.0 |
| 5. Others | 1435 | 10.3 | 333 | 2.5 | 694 | 5.0 | 559 | 5.5 | 155 | 1.4 |
| ~~1~~ | ~~2~~ | ~~3~~ | ~~4~~ | ~~5~~ | ~~6~~ | ~~7~~ | ~~8~~ | ~~9~~ | ~~10~~ | ~~11~~ |
| ***Total PSU*** | ***5327*** | ***38.4*** | ***8877*** | ***66.8*** | ***9604*** | ***69.0*** | ***9013*** | ***88.9*** | ***8966*** | ***83.9*** |
| 6. Pvt. Sales | 5107 | 36.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 7. Pvt. Imports | 3452 | 24.9 | 4417 | 33.2 | 4307 | 31.0 | 1121 | 11.1 | 1725 | 16.1 |
| **TOTAL** | **13886** | **100.0** | **13294** | **100.0** | **13911** | **100.0** | **10134** | **100.0** | **10691** | **100.0** |
| | | | | HSDO | | | | | | |
| 1. TRANSPORT | | | | | | | | | | |
| i) Road Transport | 21611 | 50.4 | 25556 | 53.6 | 30817 | 59.6 | 33744 | 60.0 | 36235 | 60.4 |
| ii) Aviation | 9 | 0.0 | 3 | 0.0 | 2 | 0.0 | 2 | 0.0 | 1 | 0.0 |
| iii) Shipping | 341 | 0.8 | 619 | 1.3 | 745 | 1.4 | 668 | 1.2 | 561 | 0.9 |
| iv) Railways | 1856 | 4.3 | 2036 | 4.3 | 2166 | 4.2 | 2261 | 4.0 | 2371 | 4.0 |
| ***Sub total (1)*** | ***23818*** | ***55.5*** | ***28214*** | ***59.2*** | ***33730*** | ***65.2*** | ***36675*** | ***65.2*** | ***39168*** | ***65.3*** |
| 2. Agriculture | 7914 | 18.4 | 9330 | 19.6 | 6153 | 11.9 | 6829 | 12.1 | 7337 | 12.2 |
| 3. Power Generation | 2895 | 6.7 | 3243 | 6.8 | 4316 | 8.3 | 4686 | 8.3 | 4890 | 8.2 |
| 4. Mining & Quarrying | 714 | 1.7 | 925 | 1.9 | 1025 | 2.0 | 1248 | 2.2 | 1366 | 2.3 |
| 5. Manufacture Industry | | | | | | | | | | |
| a) Chemical & Fertilizers | 90 | 0.2 | 58 | 0.1 | 117 | 0.2 | 175 | 0.3 | 143 | 0.2 |
| b) Civil Engineering | 325 | 0.8 | 153 | 0.3 | 600 | 1.2 | 614 | 1.1 | 568 | 0.9 |
| c) Elec./Elecronics | 43 | 0.1 | 21 | 0.0 | 26 | 0.1 | 37 | 0.1 | 35 | 0.1 |
| d) Mechanical | 162 | 0.4 | 54 | 0.1 | 97 | 0.2 | 113 | 0.2 | 106 | 0.2 |
| e) Metallurgical | 181 | 0.4 | 87 | 0.2 | 217 | 0.4 | 231 | 0.4 | 0 | 0.0 |
| f) Textile | 267 | 0.6 | 41 | 0.1 | 92 | 0.2 | 172 | 0.3 | 188 | 0.3 |
| g) Other Consumer & Industrial goods) | 1113 | 2.6 | 1954 | 4.1 | 3115 | 6.0 | 3412 | 6.1 | 3906 | 6.5 |
| ***Total (5)*** | ***2181*** | ***5.1*** | ***2368*** | ***5.0*** | ***4264*** | ***8.2*** | ***4754*** | ***8.5*** | ***4946*** | ***8.2*** |
| 6. Miscellaneous & Unknown end use | 3097 | 7.2 | 3558 | 7.5 | 2160 | 4.2 | 1956 | 3.5 | 2171 | 3.6 |
| ***Product Total (PSU)*** | ***40618*** | ***94.7*** | ***47638*** | ***99.9*** | ***51648*** | ***99.9*** | ***56148*** | ***99.8*** | ***59878*** | ***99.8*** |
| 7. Pvt. Sales | 2230 | 5.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 8. Pvt. Imports | 49 | 0.1 | 31 | 0.1 | 62 | 0.1 | 94 | 0.2 | 112 | 0.2 |
| **Total** | **42897** | **100.0** | **47669** | **100.0** | **51710** | **100.0** | **56242** | **100.0** | **59990** | **100.0** |

Contd..

| Sector | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | LDO | | | | | | |
| 1. TRANSPORT | | | | | | | | | | |
| i) Road Transport | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| ii) Aviation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| iii) Shipping | 50 | 7.0 | 33 | 5.0 | 13 | 2.4 | 5 | 1.0 | 4 | 0.8 |
| iv) Railways | 3 | 0.4 | 2 | 0.3 | 2 | 0.4 | 2 | 0.4 | 1 | 0.2 |
| ***Sub total (1)*** | ***53*** | ***7.4*** | ***36*** | ***5.3*** | ***15*** | ***2.7*** | ***6*** | ***1.4*** | ***5*** | ***1.1*** |
| 2. Agriculture | 13 | *1.8* | 3 | *0.5* | 4 | *0.8* | 3 | *0.6* | 2 | *0.4* |
| 3. Power Generation | 67 | 9.2 | 77 | 11.6 | 175 | 31.6 | 152 | 33.2 | 137 | 30.1 |
| 4. Mining & Quarrying | 6 | 0.8 | 2 | 0.2 | 5 | 0.9 | 2 | 0.4 | 3 | 0.6 |
| 5. Manufacture Industry | | | | | | | | | | |
| a) Chemical & Fertilizers | 33 | 4.6 | 17 | 2.5 | 16 | 3.0 | 19 | 4.1 | 16 | 3.6 |
| b) Civil Engineering | 35 | 4.9 | 34 | 5.1 | 26 | 4.8 | 16 | 3.6 | 12 | 2.5 |
| c) Elec./Elecronics | 12 | 1.7 | 15 | 2.3 | 2 | 0.4 | 0 | 0.1 | 0 | 0.0 |
| d) Mechanical | 29 | 4.0 | 13 | 2.0 | 20 | 3.6 | 19 | 4.1 | 17 | 3.6 |
| e) Metallurgical | 102 | 14.2 | 113 | 16.9 | 92 | 16.6 | 82 | 18.0 | 78 | 17.1 |
| f) Textile | 22 | 3.0 | 4 | 0.7 | 1 | 0.3 | 1 | 0.3 | 2 | 0.3 |
| g) Other Consumer & Industrial goods) | 11 | 1.6 | 4 | 0.5 | 14 | 2.5 | 6 | 1.2 | 3 | 0.7 |
| Total (5) | ***244*** | ***34*** | ***200*** | ***30*** | ***172*** | ***31*** | ***143*** | ***31*** | ***127*** | ***28*** |
| 6. Miscellaneous & Unknown end use/Ressellers | 337 | 46.9 | 350 | 52.4 | 182 | 32.9 | 152 | 33.1 | 182 | 39.9 |
| ***Product Total (PSU)*** | ***720*** | 100.0 | ***668*** | 100.0 | ***552*** | 100.0 | ***458*** | 100.0 | ***455*** | 100.0 |
| 7. Pvt. Sales | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 8. Pvt. Imports | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| **Total** | **720** | **100.0** | **668** | **100.0** | **552** | **100.0** | **458** | **100.0** | **455** | **100.0** |

Contd..

| Sector | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | | **Furnace Oil (FO)** | | | | | |
| 1. TRANSPORT | | | | | | | | | | |
| i) Road Transport | 0 | 0.0 | 55 | 0.6 | 34 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| ii) Aviation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| iii) Shipping | 276 | 3.0 | 260 | 2.7 | 431 | 4.6 | 557 | 6.1 | 776 | 8.7 |
| iv) Railways | 0 | 0.0 | 0 | 0.0 | 4 | 0.0 | 3 | 0.0 | 4 | 0.0 |
| ***Sub total (1)*** | ***276*** | ***3.0*** | ***315*** | ***3.3*** | ***469*** | ***5.0*** | ***560*** | ***6.1*** | ***780*** | ***8.8*** |
| 2. Agriculture | 0 | 0.0 | 0 | 0.0 | 55 | 0.6 | 68 | 0.7 | 70 | 0.8 |
| 3. Power Generation | 254 | 2.7 | 281 | 3.0 | 749 | 8.0 | 688 | 7.5 | 823 | 9.3 |
| 4. Mining & Quarrying | 0 | 0.0 | 1 | 0.0 | 35 | 0.4 | 22 | 0.2 | 7 | 0.1 |
| 5. Manufacture Industry | | | | | | | | | | |
| a) Chemical & Fertilizers | 854 | 9.2 | 750 | 7.9 | 878 | 9.3 | 964 | 10.5 | 790 | 8.9 |
| b) Civil Engineering | 7 | | 5 | 0.1 | 141 | 1.5 | 159 | 1.7 | 137 | 1.5 |
| c) Elec./Elecronics | 0 | 0.0 | | 0.0 | 2 | 0.0 | 8 | 0.1 | 7 | 0.1 |
| d) Mechanical | 21 | 0.2 | 5 | 0.1 | 52 | 0.6 | 53 | 0.6 | 55 | 0.6 |
| e) Metallurgical | 914 | 9.9 | 855 | 9.0 | 1040 | 11.0 | 1220 | 13.3 | 1100 | 12.4 |
| f) Textile | 24 | 0.3 | 15 | 0.2 | 71 | 0.8 | 139 | 1.5 | 81 | 0.9 |
| g) Other Consumer & Industrial goods) | 11 | 0.1 | 4 | 0.0 | 659 | 7.0 | 591 | 6.5 | 604 | 6.8 |
| ***Total (5)*** | ***1831*** | ***19.8*** | ***1634*** | ***17.3*** | ***2843*** | ***30.2*** | ***3134*** | ***34.3*** | ***2774*** | ***31.2*** |
| 6. Miscellaneous and Unknown end use/Ressellers | 5826 | 62.9 | 6400 | 67.6 | 4356 | 46.2 | 4135 | 45.2 | 3979 | 44.7 |
| 7.Pvt. Sales | 299 | 3.2 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 8. Pvt. Imports | 772 | 8.3 | 839 | 8.9 | 913 | 9.7 | 538 | 5.9 | 463 | 5.2 |
| **Total** | **9257** | **100.0** | **9470** | **100.0** | **9420** | **100.0** | **9145** | **100.0** | **8896** | **100.0** |

Contd..

| Sector | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total | Consum-ption | %to Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | LSHS/HHS | | | | | | |
| 1. TRANSPORT | | | | | | | | | | |
| i) Road Transport | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| ii) Aviation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| iii) Shipping | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| iv) Railways | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.1 | 0 | 0.0 |
| ***Sub total (1)*** | ***0*** | ***0.0*** | ***0*** | ***0.0*** | ***0*** | ***0.0*** | ***2*** | ***0.1*** | ***0*** | ***0.0*** |
| 2. Agriculture | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 | 936 | 37.7 | 0 | 0.0 |
| 3. Power Generation | 298 | 8.9 | 344 | 10.6 | 1347 | 42.5 | 0 | 0.0 | 469 | 23.7 |
| 4. Mining & Quarrying | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 5. Manufacture Industry | | | | | | | | | | |
| a) Chemical & Fertilizers | 1298 | 38.6 | 1239 | 38.1 | 1197 | 37.8 | 1036 | 41.7 | 842 | 42.5 |
| b) Civil Engineering | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 | 7 | 0.3 | 3 | 0.2 |
| c) Elec./Elecronics | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 104 | 4.2 | 106 | 5.3 |
| d) Mechanical | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 | 2 | 0.1 | 2 | 0.1 |
| e) Metallurgical | 21 | 0.6 | 65 | 2.0 | 76 | 2.4 | 69 | 2.8 | 72 | 3.6 |
| f) Textile | 0 | 0.0 | 0 | 0.0 | 3 | 0.1 | 3 | 0.1 | 0 | 0.0 |
| g) Other Consumer & Industrial goods) | 0 | 0.0 | 0 | 0.0 | 15 | 0.5 | 4 | 0.2 | 5 | 0.3 |
| ***Total (5)*** | ***1320*** | ***39.3*** | ***1304*** | ***40.1*** | ***1293*** | ***40.8*** | ***1225*** | ***49.3*** | ***1030*** | ***52.0*** |
| 6. Miscellaneous and Unknown end use/Ressellers | 1744 | 51.9 | 1600 | 49.3 | 528 | 16.7 | 321 | 12.9 | 483 | 24.4 |
| ***Product Total (PSU)*** | ***3361*** | ***100.0*** | ***3248*** | ***100.0*** | ***3169*** | ***100.0*** | ***2484*** | ***100.0*** | ***1982*** | ***100.0*** |
| 7. Pvt. Sales | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 8. Pvt. Imports | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| **Total** | **3361** | **100.0** | **3248** | **100.0** | **3169** | **100.0** | **2484** | **100.0** | **1982** | **100.0** |

**Note**: In HSDO Sectorwise distribution upto the year 2007-08 is according to OCC's survey of 1998 and after 2007-08 it is according to PPAC's survey 2008. Retail sales (by re-sellers) is included in Road Transport, Agriculture, Power and Industrial Applications.

*: Provisional.

LSHS/HHS sales/import by Pvt. Is included in Furnance Oil.

Source: PPAC's Oil Industry Sales Statistics

## V.3 Consumption of Petroleum Products and Market Share of Oil Companies in India

(Qty. ' 000' Tonnes)

| Year | Consumption | IOC | BPCL/ KRL | HPCL | IBP | Other Companies | Private # | TOTAL |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2003-04 | Consumption | 46778 | 20297 | 18577 | 4162 | 2316 | 15621 | 107751 |
| | % | 43.4 | 18.8 | 17.2 | 3.9 | 2.1 | 14.5 | 100.0 |
| 2004-05 | Consumption | 48018 | 20697 | 19091 | 4594 | 2193 | 17041 | 111634 |
| | % | 43.0 | 18.5 | 17.1 | 4.2 | 2.0 | 15.3 | 100.0 |
| 2005-06 | Consumption | 46160 | 20477 | 18309 | 4316 | 2440 | 21511 | 113213 |
| | % | 40.8 | 18.1 | 16.2 | 3.8 | 2.2 | 19.0 | 100.0 |
| 2006-07 | Consumption | 53425 | 22661 | 19698 | $ | 2156 | 22809 | 120749 |
| | % | 44.2 | 18.8 | 16.3 | | 1.8 | 18.9 | 100.0 |
| 2007-08 | Consumption | 57956 | 24866 | 22056 | $ | 2264 | 21804 | 128946 |
| | % | 44.9 | 19.3 | 17.1 | | 1.8 | 16.9 | 100.0 |
| 2008-09 | Consumption | 61363 | 26324 | 23712 | $ | 2094 | 20106 | 133599 |
| | % | 45.9 | 19.7 | 17.7 | | 1.6 | 15.0 | 100.0 |
| 2009-10 | Consumption | 63570 | 27015 | 24246 | $ | 1946 | 21419 | 138196 |
| | % | 46.0 | 19.5 | 17.5 | | 1.4 | 15.5 | 100.0 |
| 2010-11* | Consumption | 66725 | 28461 | 25580 | $ | 1729 | 19290 | 141785 |
| | % | 47.1 | 20.1 | 18.0 | | 1.2 | 13.6 | 100.0 |

**Notes** : Consumption excludes RBF

*: Provisional

Others: It include CPCL,GAIL,MRPL,NRL and ONGC

$: IBP has been merged with IOC.

# : Private data includes sales by pvt.oil companies & direct private imports.

**Source:** Petroleum Planning & Analysis Cell.

## V.4 Deliveries Made to International/Coastal Bunkers

( Qty. ' 000 ' Tonnes )

| Items | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **INTERNATIONAL BUNKERS** | | | | | | | | |
| F.O | 47.0 | 21.1 | 17.9 | 12.3 | 33.8 | 127.1 | 37.3 | 85.7 |
| H.S.D | 2.8 | 3.5 | 4.8 | 2.3 | 14.9 | 17.0 | 94.7 | 16.6 |
| L.D.O | 12.1 | 3.7 | 4.5 | 1.4 | 0.1 | 1.3 | 0.3 | 0.0 |
| **TOTAL** | **61.9** | **28.3** | **27.2** | **16.0** | **48.8** | **145.4** | **132.3** | **102.3** |
| **COASTAL BUNKERS** | | | | | | | | |
| F.O | 96.0 | 171.5 | 234.3 | 264.8 | 353.4 | 362.4 | 553.7 | 783.6 |
| H.S.D | 173.2 | 185.3 | 239.7 | 239.4 | 23.4 | 586.1 | 503.5 | 404.2 |
| L.D.O | 23.0 | 34.3 | 43.0 | 48.8 | 39.7 | 17.5 | 6.5 | 4.7 |
| **TOTAL** | **292.2** | **391.1** | **517** | **553.0** | **416.5** | **966.0** | **1063.7** | **1192.5** |
| **TOTAL BUNKERS** | | | | | | | | |
| F.O | 143.0 | 192.6 | 252.2 | 277.1 | 387.2 | 489.5 | 590.9 | 869.3 |
| H.S.D | 176.0 | 188.8 | 244.5 | 241.7 | 38.3 | 603.1 | 598.2 | 420.7 |
| L.D.O | 35.1 | 37.9 | 47.5 | 50.2 | 39.8 | 18.7 | 6.8 | 4.7 |
| **TOTAL** | **354.1** | **419.3** | **544.2** | **569.0** | **465.3** | **1111.3** | **1195.9** | **1294.7** |

**Note:** * Provisional

**Source:** Petroleum Planning & Analysis Cell.

## V.5 State-wise Consumption of Major Petroleum Products During 2010-11*

('000' Tonnes)

| State/UT | Naphtha | LPG | Petrol/ MS | SKO | ATF | Diesel/ HSD | LDO | FO | LSHS/ HHS | Lubes & Greases | Bitumen | Others# | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| **A. States** | | | | | | | | | | | | | |
| **Region: North** | | | | | | | | | | | | | |
| Jammu & Kashmir | 0 | 141 | 125 | 155 | 45 | 488 | 3 | 16 | 0 | 9 | 79 | 51 | 1112 |
| Punjab | 0 | 618 | 590 | 223 | 52 | 2936 | 5 | 275 | 487 | 37 | 157 | 196 | 5576 |
| Rajasthan | 1 | 633 | 678 | 400 | 99 | 3845 | 9 | 199 | 2 | 33 | 296 | 1026 | 7221 |
| Uttar Pradesh | 12 | 1487 | 1315 | 1241 | 119 | 5997 | 35 | 446 | 19 | 62 | 448 | 420 | 11601 |
| Haryana | 1389 | 479 | 624 | 135 | 11 | 4546 | 28 | 419 | 335 | 33 | 256 | 216 | 8471 |
| Himachal Pradesh | 0 | 107 | 105 | 35 | 7 | 441 | 1 | 76 | 1 | 9 | 46 | 153 | 981 |
| Uttarakhand | 0 | 180 | 156 | 90 | 1 | 551 | 13 | 148 | 4 | 14 | 45 | 20 | 1222 |
| Chandigarh | 0 | 43 | 91 | 7 | 39 | 77 | 0 | 34 | 9 | 1 | 7 | 9 | 317 |
| Delhi | 0 | 709 | 825 | 107 | 1477 | 805 | 7 | 89 | 1 | 21 | 32 | 7 | 4080 |
| **Total** | **1402** | **4397** | **4509** | **2393** | **1850** | **19686** | **101** | **1702** | **858** | **219** | **1366** | **2098** | **40581** |
| **Region: North East** | | | | | | | | | | | | | |
| Assam | 0 | 204 | 149 | 260 | 81 | 699 | 0 | 10 | 0 | 11 | 67 | 233 | 1714 |
| Manipur | 0 | 13 | 20 | 11 | 3 | 48 | 0 | 0 | 0 | 0 | 8 | 0 | 103 |
| Meghalaya | 0 | 15 | 48 | 21 | 0 | 296 | 0 | 0 | 0 | 1 | 9 | 3 | 393 |
| Nagaland | 0 | 15 | 23 | 14 | 2 | 49 | 0 | 0 | 0 | 0 | 7 | 0 | 110 |
| Tripura | 0 | 25 | 26 | 31 | 9 | 78 | 0 | 0 | 0 | 1 | 14 | 0 | 184 |
| Arunachal Pradesh | 0 | 13 | 19 | 14 | 2 | 80 | 0 | 0 | 0 | 1 | 6 | 1 | 136 |
| Mizoram | 0 | 19 | 16 | 6 | 1 | 41 | 0 | 0 | 0 | 0 | 6 | 0 | 89 |
| **Total** | **0** | **304** | **301** | **357** | **98** | **1291** | **0** | **10** | **0** | **14** | **117** | **237** | **2729** |
| **Region: East** | | | | | | | | | | | | | |
| Bihar | 0 | 370 | 271 | 638 | 9 | 1854 | 3 | 28 | 0 | 11 | 206 | 195 | 3585 |
| Odisha | 0.1 | 192 | 318 | 312 | 30 | 1776 | 45 | 454 | 0 | 24 | 97 | 30 | 3278 |
| West Bengal | 547 | 739 | 392 | 758 | 194 | 2464 | 48 | 467 | 0 | 95 | 133 | 137 | 5974 |
| Jharkhand | 0 | 134 | 217 | 209 | 9 | 1256 | 48 | 138 | 0 | 32 | 94 | 12 | 2149 |
| Sikkim | 0 | 11 | 11 | 12 | 0 | 59 | 0 | 1 | 0 | 1 | 2 | 0 | 97 |
| Andaman & Nikobar | 0 | 6 | 10 | 6 | 14 | 94 | 0 | 0 | 0 | 1 | 7 | 0 | 138 |
| **Total** | **547** | **1452** | **1219** | **1935** | **256** | **7503** | **144** | **1088** | **0** | **164** | **539** | **374** | **15221** |

| State/UT | Naphtha | LPG | Petrol/ MS | SKO | ATF | Diesel/ HSD | LDO | FO | LSHS/ HHS | Lubes & Greases | Bitumen | Others# | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| **Region: West** | | | | | | | | | | | | | |
| Goa | 258 | 59 | 99 | 18 | 76 | 373 | 0 | 174 | 0 | 4 | 19 | 3 | 1083 |
| Gujarat | 5365 | 726 | 993 | 722 | 120 | 3523 | 27 | 1130 | 375 | 71 | 542 | 2464 | 16058 |
| Madhya Pradesh | 23 | 557 | 620 | 482 | 41 | 2513 | 11 | 157 | 0 | 33 | 238 | 362 | 5037 |
| Maharashtra | 204 | 2012 | 1966 | 1228 | 1249 | 6658 | 121 | 1384 | 209 | 322 | 416 | 638 | 16407 |
| Chhattisgarh | 0 | 135 | 233 | 145 | 10 | 996 | 14 | 209 | 11 | 17 | 116 | 19 | 1905 |
| Dadra & Nagarhav. | 0 | 14 | 12 | 2 | 0 | 70 | 1 | 115 | 0 | 95 | 6 | 24 | 339 |
| Daman & Diu | 0 | 7 | 14 | 2 | 1 | 57 | 0 | 23 | 0 | 1 | 2 | 3 | 110 |
| **Total** | **5850** | **3510** | **3937** | **2599** | **1497** | **14190** | **174** | **3192** | **595** | **543** | **1339** | **3513** | **40939** |
| **Region: South** | | | | | | | | | | | | | |
| Andhra Pradesh | 63 | 1232 | 1073 | 466 | 251 | 5752 | 15 | 340 | 68 | 63 | 278 | 187 | 9788 |
| Kerala | 488 | 636 | 745 | 183 | 299 | 1910 | 0 | 277 | 70 | 42 | 178 | 83 | 4911 |
| Tamilnadu | 452 | 1362 | 1346 | 543 | 457 | 5483 | 5 | 1153 | 263 | 113 | 406 | 334 | 11917 |
| Karnataka | 164 | 972 | 972 | 441 | 372 | 3693 | 12 | 613 | 122 | 54 | 243 | 81 | 7739 |
| Lakshdeep | 0 | 0 | 0 | 1 | 0 | 21 | 0 | 1 | 0 | 0 | 0 | 0 | 23 |
| Pondicherry | 0 | 36 | 90 | 12 | 0 | 350 | 1 | 56 | 5 | 2 | 2 | 4 | 558 |
| **Total** | **1167** | **4238** | **4226** | **1646** | **1379** | **17209** | **33** | **2440** | **528** | **274** | **1107** | **689** | **34936** |
| **Total(PSU+Pvt.)** | **8966** | **13901** | **14192** | **8930** | **5080** | **59879** | **452** | **8432** | **1981** | **1214** | **4468** | **6911** | **134406** |
| **Private Imports** | **1725** | **427** | **0** | **0** | **0** | **111** | **3** | **464** | **1** | **1294** | **98** | **3258** | **7381** |
| **Grand Total** | **10691** | **14328** | **14192** | **8930** | **5080** | **59990** | **455** | **8896** | **1982** | **2508** | **4566** | **10169** | **141787** |

**Note**: Some totals may not tally due to individual rounding. * Provisional

#: Includes Petroleum Coke etc. * :Provisional

and not included data in respect of RIL SEZ Refinery as it is presumed that all products have been exported and not consumd domestically.**Source:** Petroleum Planning and Analysis Cell, New Delhi.

## V.6 State-wise Per Capita Sales of Petroleum Products

(Unit: Kg)

| State/UT | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **A. States** | | | | | | | | |
| 1. Andhra Pradesh | 85.9 | 86.4 | 78.8 | 84.6 | 100.9 | 112.9 | 113.3 | 116.6 |
| 2. Arunachal Pradesh | 80.0 | 83.6 | 82.3 | 81.3 | 89.3 | 90.8 | 110.6 | 110.8 |
| 3. Assam | 46.3 | 50.6 | 47.7 | 46.0 | 48.7 | 50.9 | 55.7 | 56.8 |
| 4. Bihar | 26.7 | 26.6 | 24.4 | 25.0 | 28.2 | 31.5 | 35.4 | 37.2 |
| 5. Chhattisgarh | 50.0 | 61.5 | 59.9 | 62.6 | 70.1 | 75.9 | 77.5 | 79.6 |
| 6. Delhi | 237.2 | 253.5 | 228.3 | 260.4 | 248.2 | 233.6 | 237.1 | 227.5 |
| 7. Goa | 656.9 | 743.1 | 631 | 651.4 | 653.5 | 646.5 | 633.2 | 631.9 |
| 8. Gujarat | 164.5 | 161.9 | 135 | 136.4 | 138.5 | 274.1 | 299.9 | 275.8 |
| 9. Haryana | 179.7 | 188.6 | 178 | 193.5 | 236.2 | 256.1 | 304.4 | 338.6 |
| 10. Himachal Pradesh | 88.4 | 92.5 | 91.8 | 95.9 | 110.1 | 114.2 | 135.8 | 145.8 |
| 11. Jammu & Kashmir | 71.1 | 74.3 | 75.1 | 77.5 | 84.5 | 86.0 | 99.9 | 96.1 |
| 12. Jharkhand | 52.5 | 58.8 | 54.8 | 51.0 | 53.6 | 57.8 | 64.5 | 69.2 |
| 13. Karnataka | 98.7 | 102.0 | 96.6 | 102.7 | 112.0 | 120.1 | 127.2 | 131.6 |
| 14. Kerala | 129.2 | 112.7 | 105.6 | 107.1 | 113.6 | 131.3 | 141.9 | 143.1 |
| 15. Madhya Pradesh | 62.1 | 62.7 | 51.9 | 52.9 | 54.7 | 63.4 | 64.5 | 70.9 |
| 16. Maharashtra | 128.8 | 133.1 | 128 | 132.1 | 145.7 | 144.4 | 145.3 | 147.7 |
| 17. Manipur | 40.0 | 42.7 | 42.1 | 40.5 | 47.4 | 51.8 | 58.1 | 42.5 |
| 18. Meghalaya | 95.2 | 101.3 | 98 | 98.5 | 108.7 | 126.6 | 137.1 | 151.7 |
| 19. Mizoram | 74.4 | 72.2 | 75.9 | 73.8 | 77.3 | 81.5 | 85.6 | 89.6 |
| 20. Nagaland | 34.5 | 44.0 | 40.6 | 40.3 | 38.2 | 39.1 | 42.8 | 49.5 |
| 21. Orissa | 50.2 | 54.9 | 51.6 | 52.2 | 61.0 | 66.3 | 74.6 | 81.2 |
| 22. Pondicherry | 327.0 | 377.0 | 382.2 | 422.4 | 407.0 | 389.1 | 431.7 | 419.2 |
| 23. Punjab | 180.9 | 189.0 | 169.4 | 179.8 | 189.1 | 200.1 | 219.6 | 203.7 |
| 24. Rajasthan | 96.6 | 96.9 | 76.1 | 86.1 | 93.0 | 120.2 | 106.4 | 108.2 |
| 25. Sikkim | 126.0 | 110.0 | 109 | 89.2 | 96.4 | 112.0 | 137.1 | 160.3 |
| 26. Tamilnadu | 134.3 | 136.2 | 129.6 | 131.0 | 148.7 | 163.1 | 170.0 | 177.8 |
| 27. Tripura | 37.8 | 36.6 | 37.4 | 39.0 | 40.4 | 45.0 | 47.8 | 51.5 |
| 28. Uttar Pradesh | 57.5 | 59.5 | 53.3 | 50.9 | 51.4 | 55.5 | 58.7 | 58.8 |
| 29. Uttarakhand | 84.6 | 88.7 | 85.6 | 92.4 | 101.0 | 106.4 | 121.2 | 124.7 |
| 30. West Bengal | 57.8 | 60.5 | 55.6 | 54.5 | 58.9 | 59.7 | 62.3 | 67.4 |
| **B.Union Territories** | | | | | | | | |
| 1. Chandigarh | 230.0 | 245.6 | 211.4 | 212.4 | 189.1 | 208.4 | 233.1 | 231.7 |
| 2. Daman&Diu& Dadra&Nagar Haveli | 820.0 | 965.0 | 739.6 | 636.8 | 642.5 | 627.2 | 763.3 | 1332.3 |
| 3. Others | 178.0 | 228.0 | 240 | 273.7 | 296.2 | 261.6 | 266.8 | 290.6 |
| **Total All India** | **112.9** | **116.8** | **111.7** | **115.5** | **93.6** | **106.9** | **112.5** | **115.8** |

**Note**: State-wise per capita sales includes private sales but does not include direct private imports.

## Per Capita Sales of Selected Petroleum Products

(Unit : Kg)

| Product | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Naphatha | 7.1 | 13.6 | 11.1 | 11.3 | 11.6 | 8.3 | 7.8 | 7.7 |
| MS | 7.7 | 8.0 | 7.9 | 8.2 | 9.0 | 9.7 | 11.0 | 12.2 |
| SKO | 9.2 | 9.1 | 8.7 | 8.4 | 8.2 | 8.0 | 8.0 | 7.7 |
| HSDO | 35.9 | 38.5 | 36.7 | 37.9 | 41.6 | 44.5 | 48.4 | 51.6 |
| LDO | 1.1 | 1.4 | 0.8 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 |
| F.O ( Regular ) | 7.0 | 8.9 | 8.1 | 8.2 | 8.3 | 7.3 | 7.4 | 7.3 |
| LSHS/HHS | 4.5 | 4.3 | 3.6 | 3.0 | 2.8 | 2.7 | 2.1 | 1.7 |
| **Total All India Sales @** | **112.9** | **116.8** | **111.7** | **115.5** | **112.6** | **106.9** | **112.5** | **115.8** |

**Notes**: Projected Population for the year 2010-11 taken from RGI website.
* : Provisional @: Includes pvt. sales by oil companies but do not include direct private imports.
**Source:** Petroleum Planning and Analysis Cell, New Delhi.

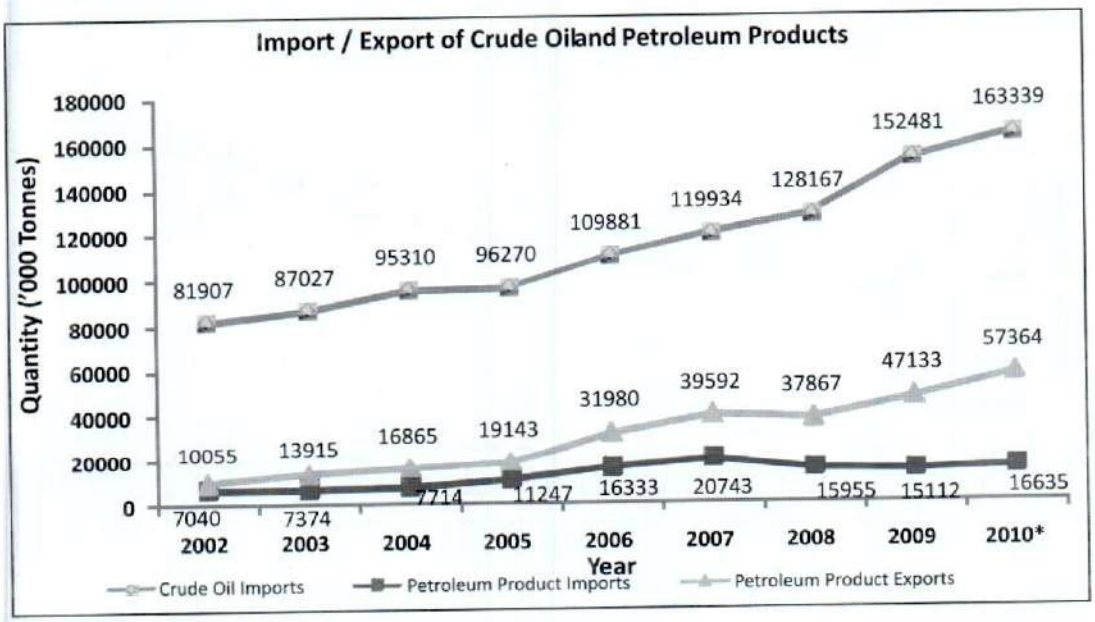
# Trade

## VI.1 Import / Export of Crude Oil and Petroleum Products
### Calender Years

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

| Year | Crude Oil | | Petroleum Products | | Total | |
|---|---|---|---|---|---|---|
| | Qty. | Value | Qty. | Value | Qty. | Value |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| | | | **Gross Import** | | | |
| 2002 | 81907 | 69522 | 7040 | 7655 | 88947 | 77177 |
| 2003 | 87027 | 81161 | 7374 | 9103 | 94401 | 90264 |
| 2004 | 95310 | 108774 | 7714 | 12062 | 103024 | 120836 |
| 2005 | 96270 | 153217 | 11247 | 23304 | 107517 | 176521 |
| 2006 | 109881 | 219447 | 16333 | 38305 | 126214 | 257752 |
| 2007 | 119934 | 242707 | 20743 | 51723 | 140677 | 294430 |
| 2008 | 128167 | 373902 | 15955 | 63349 | 144122 | 437251 |
| 2009 | 152481 | 323940 | 15112 | 33057 | 167593 | 356997 |
| 2010* | 163339 | 421975 | 16635 | 48244 | 179974 | 470219 |
| | | | **Export** | | | |
| 2002 | - | - | 10055 | 9243 | 10055 | 9243 |
| 2003 | - | - | 13915 | 15791 | 13915 | 15791 |
| 2004 | - | - | 16865 | 25611 | 16865 | 25611 |
| 2005 | - | - | 19143 | 39610 | 19143 | 39610 |
| 2006 | - | - | 31980 | 77732 | 31980 | 77732 |
| 2007 | - | - | 39592 | 100521 | 39592 | 100521 |
| 2008 | - | - | 37867 | 129742 | 37867 | 129742 |
| 2009 | | | 47133 | 120860 | 47133 | 120860 |
| 2010* | | | 57364 | 176664 | 57364 | 176664 |
| | | | **Net Import** | | | |
| 2002 | 81907 | 69522 | -3015 | -1588 | 78892 | 67934 |
| 2003 | 87027 | 81161 | -6541 | -6688 | 80486 | 74473 |
| 2004 | 95310 | 108774 | -9151 | -13549 | 86159 | 95225 |
| 2005 | 96270 | 153217 | -7896 | -16306 | 88374 | 136911 |
| 2006 | 109881 | 219447 | -15647 | -39427 | 94234 | 180020 |
| 2007 | 119934 | 242707 | -18849 | -48798 | 101085 | 193909 |
| 2008 | 128167 | 373902 | -21912 | -66393 | 106255 | 307509 |
| 2009 | 152481 | 323940 | -32021 | -87803 | 120460 | 236137 |
| 2010* | 163339 | 421975 | -40729 | -128420 | 122610 | 293555 |

: Provisional.
Source: Petroleum Planning & Analysis Cell, New Delhi.



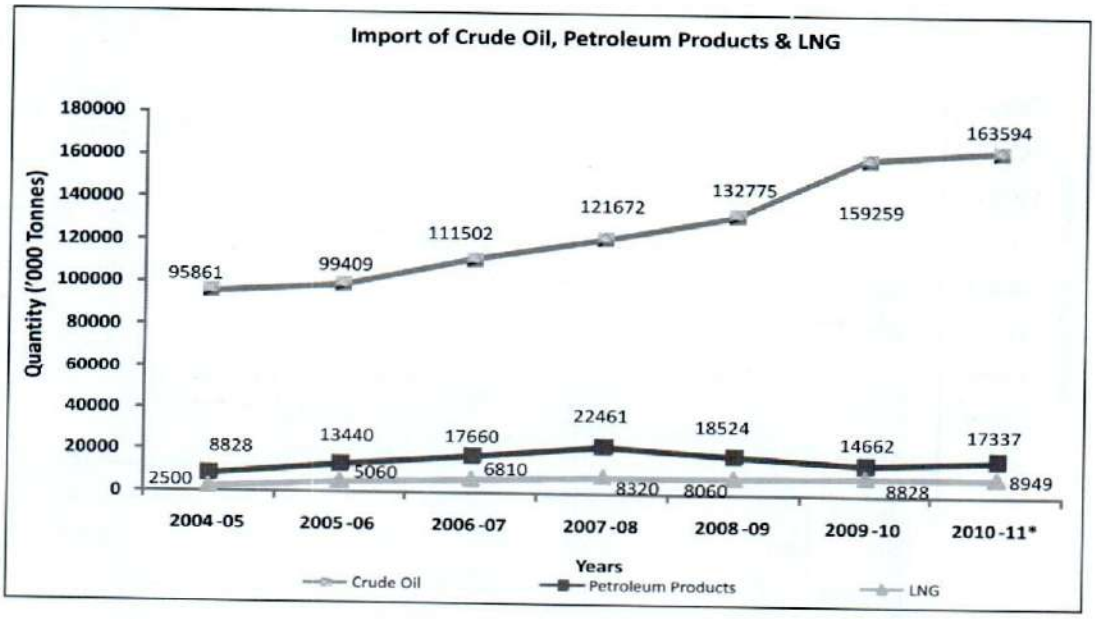
## VI.2 Import/Export of Crude Oil and Petroeum Products

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

| Year | Crude Oil | | Petroleum Products | | LNG | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Qty. | Value | Qty. | Value | Qty. | Value | Qty. | Value |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* |
| | | | | **Gross Imports** | | | | |
| 2002-03 | 81989 | 76195 | 7228 | 8847 | - | - | 89217 | 85042 |
| 2003-04 | 90434 | 83528 | 8001 | 9723 | - | - | 98435 | 93251 |
| 2004-05 | 95861 | 117003 | 8828 | 14887 | 2500 | 1696 | 107189 | 133586 |
| 2005-06 | 99409 | 171702 | 13440 | 27972 | 5060 | 3366 | 117909 | 203040 |
| 2006-07 | 111502 | 219029 | 17660 | 41160 | 6810 | 5650 | 135972 | 265839 |
| 2007-08 | 121672 | 272699 | 22461 | 61000 | 8320 | 7197 | 152453 | 340896 |
| 2008-09 | 132775 | 348149 | 18524 | 60846 | 8060 | 9548 | 159359 | 418543 |
| 2009-10 | 159259 | 375378 | 14662 | 33754 | 8828 | 10297 | 182749 | 419429 |
| 2010-11 | 163594 | 455909 | 17337 | 55812 | 8949 | 12719 | 189880 | 524440 |
| | | | | **Exports** | | | | |
| 2002-03 | - | - | 10289 | 10868 | | - | 10289 | 10868 |
| 2003-04 | - | - | 14620 | 16781 | - | - | 14620 | 16781 |
| 2004-05 | - | - | 18211 | 29928 | - | - | 18211 | 29928 |
| 2005-06 | - | - | 23460 | 49974 | - | - | 23460 | 49974 |
| 2006-07 | - | - | 33624 | 81094 | - | - | 33624 | 81094 |
| 2007-08 | - | - | 40779 | 110789 | - | - | 40779 | 110789 |
| 2008-09 | - | - | 38902 | 122064 | - | - | 38902 | 122064 |
| 2009-10 | - | - | 50974 | 144037 | - | - | 50974 | 144037 |
| 2010-11* | | | 59133 | 196112 | | | 59133 | 196112 |
| | | | | **Net Imports** | | | | |
| 2002-03 | 81989 | 76195 | -3061 | -2021 | - | - | 78928 | 74174 |
| 2003-04 | 90434 | 83528 | -6619 | -7058 | - | - | 83815 | 76470 |
| 2004-05 | 95861 | 117003 | -9383 | -15041 | 2500 | 1696 | 88978 | 103658 |
| 2005-06 | 99409 | 171702 | -10020 | -22002 | 5060 | 3366 | 94449 | 153066 |
| 2006-07 | 111502 | 219029 | -15964 | -39934 | 6810 | 5650 | 102348 | 184745 |
| 2007-08 | 121672 | 272699 | -18318 | -49789 | 8320 | 7197 | 111674 | 230107 |
| 2008-09 | 132775 | 348149 | -20377 | -61218 | 8060 | 9548 | 120458 | 296479 |
| 2009-10 | 159259 | 375378 | -36312 | -110283 | 8828 | 10297 | 131775 | 275392 |
| 2010-11* | 163594 | 455909 | -41796 | -140300 | 8949 | 12719 | 130747 | 328328 |

**Note**: *: Provisional.

**Source**: Petroleum Planning & Analysis Cell, New Delhi.



## VI. 3 India's POL Imports as a proportion to overall Import

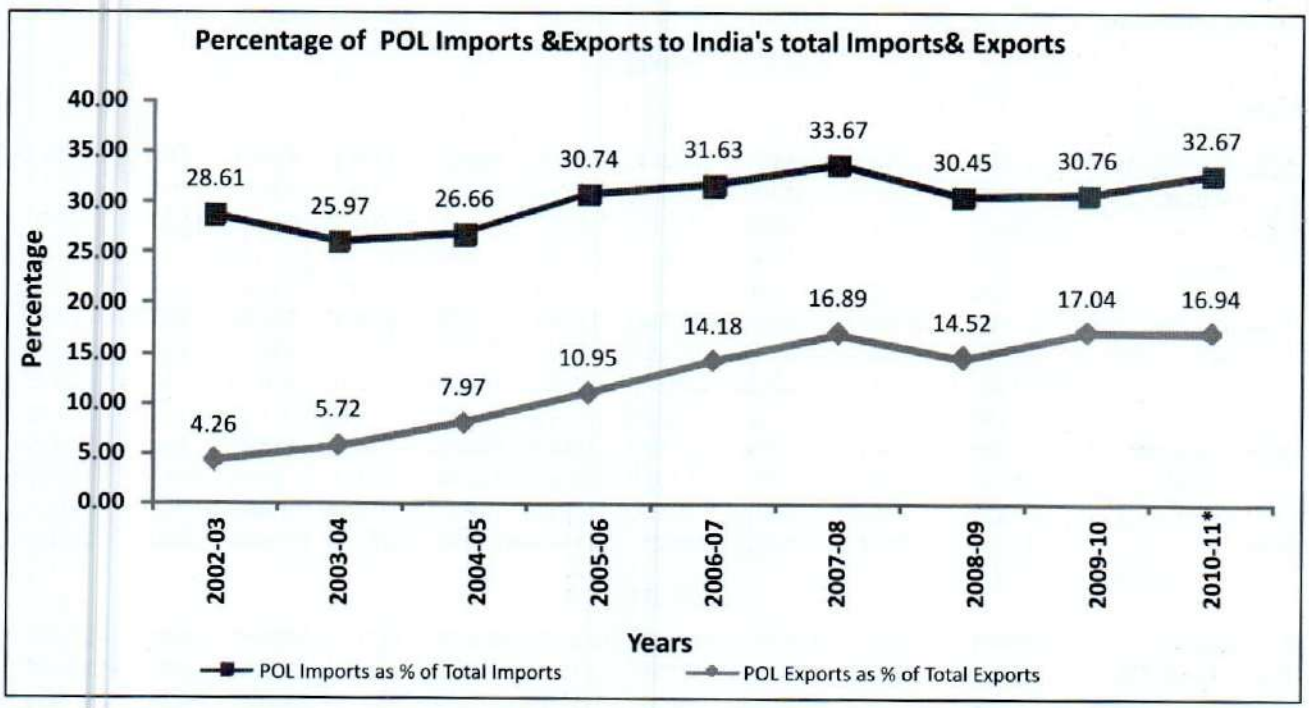
(Rs. Crore)

| Year | POL Imports# | India's Total Imports | POL Imports as % of Total Imports | POL Exports | India's Total Exports | POL Imports as % of Total Imports |
|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| 2002-03 | 85042 | 297206 | 28.61 | 10868 | 255137 | 4.26 |
| 2003-04 | 93251 | 359108 | 25.97 | 16781 | 293367 | 5.72 |
| 2004-05 | 133586 | 501064 | 26.66 | 29928 | 375339 | 7.97 |
| 2005-06 | 203040 | 660409 | 30.74 | 49974 | 456418 | 10.95 |
| 2006-07 | 265839 | 840506 | 31.63 | 81094 | 571779 | 14.18 |
| 2007-08 | 340896 | 1012312 | 33.67 | 110789 | 655863 | 16.89 |
| 2008-09 | 418543 | 1374436 | 30.45 | 122064 | 840755 | 14.52 |
| 2009-10 | 419429 | 1363736 | 30.76 | 144037 | 845534 | 17.04 |
| 2010-11* | 524440 | 1605315 | 32.67 | 196112 | 1157474 | 16.94 |

**Source:** PPAC and M/o Commerce

* provisional

# Includes crude oil, Petroleum Products and Natural Gas



## VI.4 Import / Export of Crude Oil and Petroleum Products

(Qty :'000' Tonnes)

(Value : Rs.Crores)

| ITEM | 2006 | | 2007 | | 2008 | | 2009 | | 2010* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Qty. | Value | Qty. | Value | Qty. | Value | Qty. | Value | Qty. | Value |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| **Gross Import** | | | | | | | | | | |
| **A. Crude Oil** | **109881** | **219447** | **119934** | **242707** | **128167** | **373902** | **152481** | **323940** | **163339** | **421975** |
| **B. Pol.Products** | | | | | | | | | | |
| **I.Light Distillates** | **7487** | **20161** | **9001** | **25564** | **8697** | **32316** | **4196** | **13754** | **7633** | **25874** |
| 1. LPG | 2218 | 5798 | 2627 | 7284 | 2590 | 9349 | 2344 | 6405 | 4111 | 13882 |
| 2.MS | 397 | 1266 | 277 | 836 | 454 | 1860 | 314 | 931 | 1534 | 5792 |
| 3. Naphtha | 4777 | 12841 | 5829 | 16772 | 5360 | 20108 | 1266 | 5790 | 1913 | 5981 |
| 4.Propane | 95 | 255 | 268 | 672 | 293 | 999 | 272 | 628 | 75 | 219 |
| **II.Middle Distillates** | **2019** | **6022** | **4297** | **12797** | **4844** | **20049** | **2905** | **9321** | **3148** | **10032** |
| 1.ATF | 2 | 19 | 2 | 14 | 3 | 34 | 3 | 31 | 2 | 16 |
| 2.SKO | 1257 | 3846 | 2254 | 7159 | 1773 | 7958 | 707 | 2437 | 1317 | 4344 |
| 3.HSD | 760 | 2157 | 2041 | 5624 | 3068 | 12057 | 2195 | 6853 | 1829 | 5673 |
| **III.Heavy Ends** | **6827** | **12122** | **7445** | **13362** | **2414** | **10984** | **8011** | **9982** | **5855** | **12338** |
| 1.FO / LSHS | 2734 | 4845 | 1419 | 2367 | 1331 | 5728 | 953 | 1720 | 727 | 1684 |
| 2.Lubes / Others | 4093 | 7277 | 6026 | 10995 | 1083 | 5256 | 7058 | 8262 | 5128 | 10654 |
| **Total(B)** | **16333** | **38305** | **20743** | **51723** | **15955** | **63349** | **15112** | **33057** | **16635** | **48244** |
| **Grand Total(A+B)** | **126214** | **257752** | **140677** | **294430** | **144122** | **437251** | **167593** | **356997** | **179974** | **470218** |
| **Export** | | | | | | | | | | |
| **Pol.Products** | | | | | | | | | | |
| **I.Light Distillates** | **11635** | **30651** | **13691** | **38500** | **13486** | **48069** | **16678** | **47521** | **24252** | **81419** |
| 1.Naphtha | 7742 | 19641 | 9586 | 26450 | 7884 | 27706 | 8561 | 23550 | 10454 | 34156 |
| 2.MS | 3453 | 9731 | 3852 | 11298 | 5369 | 19418 | 8023 | 23547 | 13645 | 46600 |
| 3.Reformate | 334 | 953 | 157 | 427 | 129 | 432 | 0 | 0 | 0 | 0 |
| 4.LPG | 106 | 326 | 96 | 325 | 104 | 513 | 94 | 424 | 154 | 664 |
| **II.Middle Distillates** | **14961** | **39444** | **18211** | **48252** | **17301** | **67218** | **22908** | **58744** | **22711** | **73336** |
| 1.HSD | 11469 | 29334 | 13584 | 35328 | 13543 | 51956 | 18414 | 46615 | 18422 | 59597 |
| 2.ATF | 3343 | 9573 | 4489 | 12457 | 3663 | 14805 | 4448 | 11987 | 4248 | 13595 |
| 3.SKO | 149 | 537 | 138 | 467 | 95 | 457 | 46 | 142 | 42 | 145 |
| **III.Heavy Ends** | **5384** | **7637** | **7690** | **13769** | **7080** | **14455** | **7547** | **14595** | **10401** | **21909** |
| 1.FO/LSHS | 3547 | 4748 | 3727 | 5570 | 6460 | 12628 | 5136 | 9143 | 6194 | 12906 |
| 2.Others | 1837 | 2889 | 3963 | 8199 | 620 | 1827 | 2411 | 5452 | 4207 | 9003 |
| **Total** | **31980** | **77732** | **39592** | **100521** | **37867** | **129742** | **47133** | **120860** | **57364** | **176664** |
| **Net Import** | | | | | | | | | | |
| **A. Crude Oil** | **109881** | **219447** | **119934** | **242707** | **128167** | **373902** | **152481** | **323940** | **163339** | **421975** |
| **B. Pol.Products** | **-15647** | **-39428** | **-18849** | **-48798** | **-21912** | **-66393** | **-32021** | **-87803** | **-40729** | **-128420** |
| **Grand Total(A+B)** | **94234** | **180020** | **101085** | **193909** | **106255** | **307509** | **120460** | **236137** | **122610** | **293555** |

**Notes**: 'TAME: Tertiary Amyl Methyl Ether.

*: Provisional

**Source:** Petroleum Planning & Analysis Cell, New Delhi.

## VI.5. Imports / Exports of Crude Oil and Petroleum Products

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

| ITEM | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | | 2010-11* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Qty. | Value | Qty. | Value | Qty. | Value | Qty. | Value | Qty. | Value |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| **Gross Imports** | | | | | | | | | | |
| **A. Crude Oil** | **111502** | **219029** | **121672** | **272699** | **132775** | **348149** | **159259** | **375378** | **163594** | **455909** |
| **B.LNG** | **6810** | **5650** | **8320** | **7197** | **8060** | **9548** | **8828** | **10297** | **8949** | **12719** |
| **C. Petroleum Products** | | | | | | | | | | |
| **I.Light Distillates** | **8005** | **21369** | **9485** | **29221** | **8001** | **27617** | **5146** | **15339** | **8684** | **29204** |
| 1. LPG | 2278 | 5766 | 2832 | 8700 | 2360 | 7916 | 2718 | 8329 | 4484 | 15888 |
| 2. MS | 421 | 1326 | 328 | 1137 | 397 | 1530 | 385 | 1264 | 2115 | 6427 |
| 3. Naphtha | 5306 | 14277 | 5983 | 18470 | 5023 | 17410 | 1734 | 4942 | 2063 | 6853 |
| 4. Propane | 0 | 0 | 342 | 914 | 221 | 761 | 308 | 804 | 22 | 37 |
| **II.Middle Distillates** | **2392** | **6938** | **5443** | **17556** | **4263** | **16286** | **3519** | **9326** | **3364** | **11885** |
| 1.ATF | 2 | 17 | 3 | 20 | 4 | 34 | 3 | 27 | 2 | 22 |
| 2.SKO | 1423 | 4250 | 2489 | 8324 | 1423 | 6480 | 985 | 2909 | 1366 | 4894 |
| 3.HSD | 967 | 2671 | 2951 | 9212 | 2836 | 9772 | 2531 | 6390 | 1996 | 6969 |
| **III.Heavy Ends** | **7263** | **12853** | **7533** | **14223** | **6261** | **16943** | **5938** | **9089** | **5289** | **14723** |
| 1.FO / LSHS | 2983 | 5174 | 1187 | 2211 | 1359 | 3059 | 762 | 1626 | 734 | 1744 |
| 2.Lubes / Others | 4280 | 7679 | 6346 | 12012 | 4902 | 13883 | 5176 | 7463 | 4555 | 12979 |
| **Total(C)** | **17660** | **41160** | **22461** | **61000** | **18524** | **60845** | **14602** | **33754** | **17337** | **55812** |
| **Grand Total(A+B+C)** | **135972** | **265839** | **152453** | **340896** | **159360** | **418542** | **182690** | **419429** | **189880** | **524440** |
| **Exports** | | | | | | | | | | |
| **Petroleum Products** | | | | | | | | | | |
| **I.Light Distillates** | **12344** | **32581** | **13937** | **42220** | **13147** | **43101** | **19804** | **61509** | **24408** | **87356** |
| 1.LPG | 112 | 342 | 99 | 401 | 109 | 455 | 131 | 491 | **158** | **714** |
| 2.MS | 3615 | 10191 | 4258 | 13614 | 5433 | 17779 | 9762 | 31170 | **13581** | **49446** |
| 3.Naphtha | 8411 | 21431 | 9297 | 27365 | 7601 | 24849 | 9911 | 29848 | 10667 | 37184 |
| 4.TAME | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5.Reformate | 206 | 617 | 283 | 841 | 4 | 18 | 0 | 0 | 2 | 12 |
| **II.Middle Distillates** | **15171** | **39993** | **18931** | **54919** | **18471** | **63404** | **23054** | **64318** | **24865** | **84992** |
| 1.ATF | 3652 | 10254 | 4486 | 13556 | 3701 | 13479 | 4588 | 13331 | **4478** | **16141** |
| 2.SKO | 150 | 541 | 137 | 492 | 77 | 362 | 46 | 154 | 34 | 142 |
| 3.HSD/LDO | 11369 | 29198 | 14308 | 40871 | 14693 | 49563 | 18420 | 50833 | 20354 | 68710 |
| **III.Heavy Ends** | **6109** | **8520** | **7911** | **13650** | **7285** | **15559** | **8116** | **18210** | **9859** | **23764** |
| 1.FO/LSHS | 3759 | 4988 | 4718 | 6811 | 6201 | 12240 | 5173 | 10501 | **6735** | **15097** |
| 2.VGO/Lubes | 859 | 1826 | 1498 | 3236 | 122 | 1021 | 87 | 213 | 638 | 1845 |
| 3.Coke/Bitumen/ White Oil/Paraffin | 66 | 77 | 409 | 614 | 132 | 306 | 285 | 544 | 532 | 854 |
| 4. Others | 1425 | 1629 | 1286 | 2989 | 829 | 1992 | 2571 | 6952 | 1954 | 5969 |
| **Total** | **33624** | **81094** | **40779** | **110789** | **38902** | **122064** | **50974** | **144037** | **59133** | **196112** |
| **Net Import** | | | | | | | | | | |
| **A. Crude Oil** | **111502** | **219029** | **121672** | **272699** | **132775** | **348149** | **159259** | **375378** | **163594** | **455909** |
| **B. LNG** | **6810** | **5650** | **8320** | **7197** | **8060** | **9548** | **8828** | **10297** | **8949** | **12719** |
| **C. Pol.Products** | **-15964** | **-39934** | **-18318** | **-49790** | **-20378** | **-61219** | **-36372** | **-110283** | **-41796** | **-140300** |
| **Grand Total** | **102348** | **184745** | **111674** | **230106** | **120458** | **296478** | **131716** | **275392** | **130747** | **328328** |

**Notes**: 'TAME: Tertiary Amyl Methyl Ether.

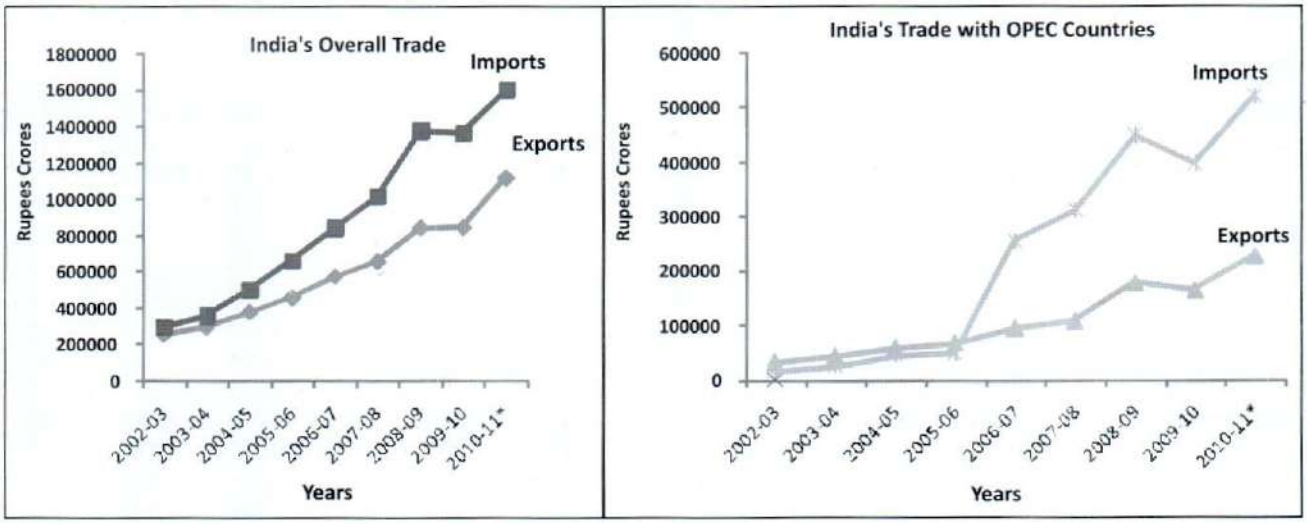
*: Provisional.

**Source**: Petroleum Planning & Analysis Cell, New Delhi.

## VI.6 Trends in India's overall Trade balance and Trade balance with OPEC Countries

(Rs. Crores)

| Year | India's Overall Trade | | | | | India's Trade with OPEC Countries | | | | | % of India's trade with OPEC to India's total trade | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Exports | Imports | Balance of Trade | % variation over preceding year | | Exports | Imports | Balance of Trade | % variation over preceding year | | | |
| | | | | Exports | Imports | | | | Exports | Imports | Exports | Imports |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* |
| 2001-02 | 209018 | 245199 | -36181 | 2.7 | 6.2 | 25016 | 14215 | 10801 | 12.6 | 14.8 | 12.0 | 5.8 |
| 2002-03 | 255137 | 297206 | -42069 | 22.1 | 21.2 | 33462 | 16951 | 16511 | 33.8 | 19.2 | 13.1 | 5.7 |
| 2003-04 | 293367 | 359108 | -65741 | 15.0 | 20.8 | 43971 | 25905 | 18066 | 31.4 | 52.8 | 15.0 | 7.2 |
| 2004-05 | 375340 | 501065 | -125725 | 27.9 | 39.5 | 59344 | 45031 | 14313 | 35.0 | 73.8 | 15.8 | 9.0 |
| 2005-06 | 456418 | 660409 | -203991 | 21.6 | 31.8 | 67483 | 49458 | 18025 | 13.7 | 9.8 | 14.8 | 7.5 |
| 2006-07 | 571779 | 840506 | -268727 | 25.3 | 27.3 | 94575 | 254871 | -160296 | 40.1 | 415.3 | 16.5 | 30.3 |
| 2007-08 | 655864 | 1012312 | -356448 | 14.7 | 20.4 | 108007 | 310383 | -202376 | 14.2 | 21.8 | 16.5 | 30.7 |
| 2008-09 | 840755 | 1374436 | -533681 | 28.2 | 35.8 | 178789 | 448379 | -269590 | 65.5 | 44.5 | 21.3 | 32.6 |
| 2009-10 | 845534 | 1363736 | -518202 | 0.6 | -0.8 | 164013 | 397180 | -233167 | -8.3 | -11.4 | 19.4 | 29.1 |
| 2010-11* | 1118823 | 1596869 | -478046 | 32.3 | 17.1 | 226655 | 520148 | -293493 | 38.2 | 31.0 | 20.3 | 32.6 |

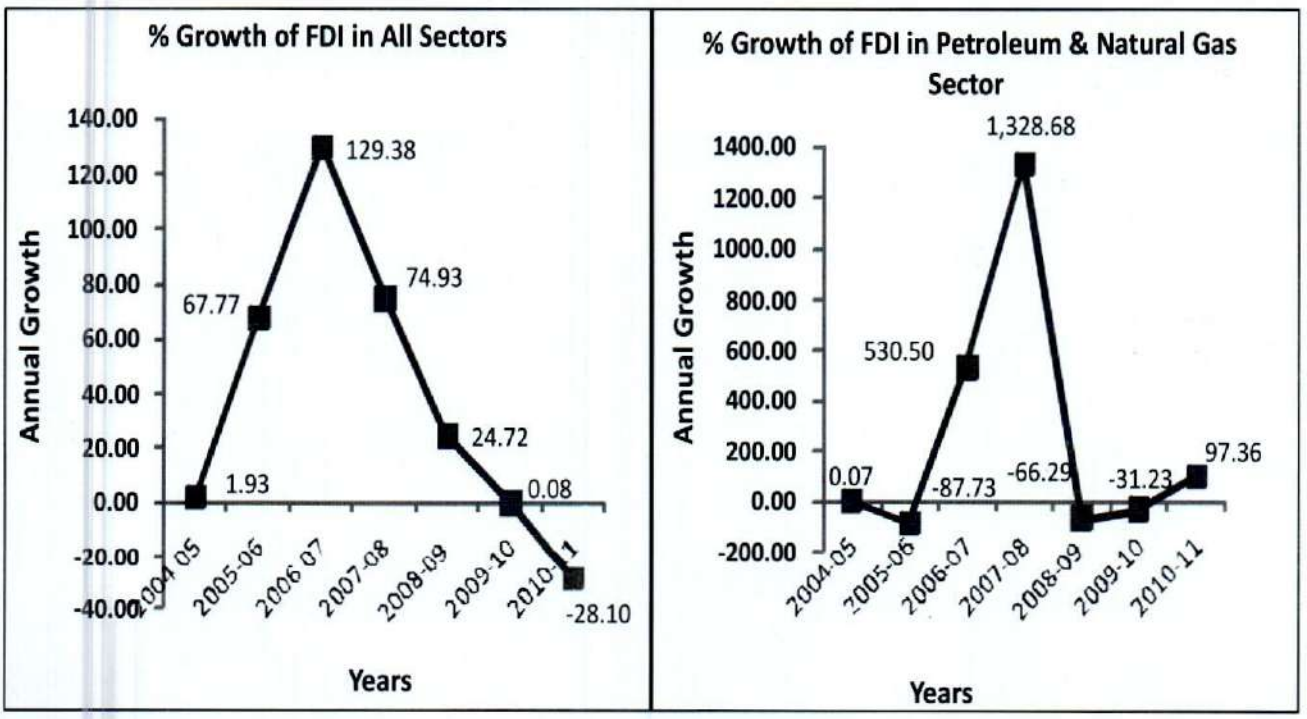



**Note**:*Provisional.
**Source**: Directorate General of Commercial Intelligence & Statistics's Foreign Trade Statistics .

## VI.7 Annual Growth of Foreign Direct Investment Equity Inflows

| Sl. No. | Years | FDI Inflow | | % of FDI in | Annual Growth (%) | |
|---|---|---|---|---|---|---|
| | | Total All Sector | P & NG Sector | P&NG to Total FDI | P & NG Sector | All Sectors |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | (Amount in Rs. Million) | | | |
| 1 | 2004-05 | 146530 | 5182 | 3.54 | 0.07 | 1.93 |
| 2 | 2005-06 | 245840 | 636 | 0.26 | -87.73 | 67.77 |
| 3 | 2006-07 | 563900 | 4010 | 0.71 | 530.50 | 129.38 |
| 4 | 2007-08 | 986420 | 57290 | 5.81 | 1328.68 | 74.93 |
| 5 | 2008-09 | 1230250 | 19310 | 1.57 | -66.29 | 24.72 |
| 6 | 2009-10 | 1231200 | 13280 | 1.08 | -31.23 | 0.08 |
| 7 | 2010-11 | 885200 | 26210 | 2.96 | 97.36 | -28.10 |
| | | | (Amount in US $ Million) | | | |
| 1 | 2004-05 | 3219 | 113 | 3.51 | 3.11 | 88.50 |
| 2 | 2005-06 | 5540 | 14 | 0.25 | -87.61 | 72.10 |
| 3 | 2006-07 | 12492 | 89 | 0.71 | 531.59 | 125.49 |
| 4 | 2007-08 | 24575 | 1427 | 5.81 | 1503.37 | 96.73 |
| 5 | 2008-09 | 27330 | 412 | 1.51 | -71.13 | 11.21 |
| 6 | 2009-10 | 25834 | 272 | 1.05 | -33.98 | -5.47 |
| 7 | 2010-11 | 19427 | 574 | 2.95 | 111.03 | -24.80 |

**Source**: Foreign Direct Investment Cell, Department of Industrial Policy & Promotion



# Taxes & Duties

## VII.1 Realisation of Excise and Custom Duties from Crude Oil and Petroleum Products

(Rs.Crore)

| Products | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **A. Excise Duties** | | | | | | | | | |
| 1. Motor Spirit | 11563 | 12575 | 13792 | 17554 | 18303 | 20102 | 21075 | 24809 | 26771 |
| 2. Kerosene Oil | 1390 | 1700 | 1273 | 212 | 236 | 241 | 281 | 223 | 283 |
| 3. Refined Diesel Oil | 10570 | 13470 | 14455 | 21773 | 24672 | 23848 | 21537 | 23130 | 30412 |
| 4. Diesel Oil (NES) | 1038 | 992 | 1246 | 505 | 389 | 306 | 288 | 188 | 240 |
| 5. Furnace Oil | 971 | 822 | 996 | 1756 | 1877 | 1985 | 2135 | 2446 | 2596 |
| 6. Pol. Products (NOS) | 3483 | 2906 | 3711 | 4623 | 4919 | 6313 | 6840 | 5822 | 6488 |
| 7. Petroleum Gases | 2445 | 2552 | 2424 | 319 | 454 | 570 | 595 | 705 | 896 |
| 8. Cess on crude oil | 4501 | 5134 | 5248 | 5007 | 7034 | 6866 | 6632 | 6688 | 8861 |
| **Total (A)** | **35961** | **40151** | **43145** | **51749** | **57884** | **60231** | **59383** | **64011** | **76547** |
| **B. Custom Duties** | | | | | | | | | |
| 1. Crude Petroleum | 6820 | 7491 | 9761 | 7158 | 7583 | 9101 | 2768 | 1752 | 13207 |
| 2. Petroleum Products | 2346 | 3091 | 3489 | 4236 | 6426 | 9041 | 8406 | 6003 | 12863 |
| **Total (B)** | **9166** | **10582** | **13250** | **11394** | **14009** | **18142** | **11174** | **7755** | **26070** |
| **Grand Total (A+B)** | **45127** | **50733** | **56395** | **63143** | **71893** | **78373** | **70557** | **71766** | **102617** |
| **Composite Incidence of Excise & Custom Duties (Rs.)** | **4333.88** | **4708.36** | **5051.78** | **5577.36** | **5953.92** | **6077.97** | **5281.25** | **5193.10** | **7237.56** |
| **% of Excise & Custom Duties on POL to NNP at Factor Cost at Current Prices** | **2.26** | **2.26** | **2.14** | **2.10** | **2.05** | **1.92** | **1.51** | **1.32** | **1.58** |

*: Provisional

Notes:For Customes Duties, information from Delhi Air Cargo(Export) and Delhi air Cargo (Import) during November 2010 to March 2011, Sahara Cargo during December 2010 to March 2011 and Chennai Sea Port during March 2011 is not available.

RE: Revised estimates are not included in total Excise & Custom duties from 2004-05 to 2008-09

Source: Ministry of Finance & Budget papers of Central Government.

## VII.2 Royalty and Oil Development Cess Paid by Oil Companies on Production of Crude Oil and Natural Gas

(Rs. Lakhs)

| Year | Royalty Paid on Crude Oil | | | | | Royalty Paid on Natural Gas | | | | | Oil |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Western Region | Eastern Region | Southern Region | Bombay High/KG Offshore | Total | Western Region | Eastern Region | Southern Region | B.High/KG Off-shore | Total | Develop-ment Cess |
| *1* | *2* | *3* | *4* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* |
| 2002-03 | 85123 | 57941 | 23635 | 140018 | 306717 | 10099 | 1999 | 7195 | 58481 | 77774 | 509057 |
| 2003-04 | 82282 | 69761 | 27248 | 138070 | 317361 | 10674 | 2226 | 8817 | 63699 | 85416 | 514317 |
| 2004-05 | 121061 | 88099 | 13692 | 204291 | 427143 | 16252 | 2921 | 4326 | 59443 | 82942 | 553650 |
| 2005-06 | 174487 | 135973 | 18788 | 177492 | 506740 | 20156 | 6605 | 6540 | 53065 | 86366 | 519562 |
| 2006-07 | 189162 | 137737 | 36236 | 222585 | 585720 | 35262 | 8056 | 7547 | 56610 | 107475 | 717734 |
| 2007-08 | 214817 | 165983 | 23377 | 250256 | 654433 | 62791 | 22814 | 7640 | 55440 | 148685 | 715626 |
| 2008-09 | 317211 | 136198 | 13774 | 248319 | 715502 | 66682 | 21883 | 8191 | 65665 | 162421 | 688580 |
| 2009-10 | 177601 | 161241 | 18370 | 258281 | 615493 | 59187 | 48819 | 8349 | 63624 | 179979 | 709605 |
| 2010-11* | 465503 | 168545 | 16872 | 261196 | 912116 | 49243 | 85276 | 14157 | 103994 | 252670 | 831418 |

Source: Oil & Natural Gas Corpn. Ltd., Oil India Ltd. and Directorate General of Hydrocarbons.
*Provisional
Note: in addition to above Diferential Royaly paybale by OIDB during 2010-11 to Gujrat -Rs.30.42 crore, Arunachal Pradesh -Rs. 32.52 crore & Assam-Rs.4.2 crore.

## VII.3 State-wise Sales Tax Rates Applicable on Crude Oil, Natural Gas and Petroleum Products as on 1.4.2011

(Percentage)

| STATE | Crude Oil | Natural Gas | MS | HSD | SKO PDS/ Indus. | LPG Dom./ Indus. |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Andhra Pradesh | 4 | 14.5 | 33 | 22.25 | 4/14.5 | 4/14.5 |
| Arunachal Pradesh | NA | NA | 20 | 12.5 | 4/12.5 | 4/12.5 |
| Assam | 5 | 12 | 27.5 | 16.5 | 2/12.5 | 4/9 |
| Bihar | | | 24.5 | 18.36 | 5/5 | 1/13.5 |
| Chandigarh | | | 20 or 22@ | 12.5 | 5/12.5 | 0/12.5 |
| Chhattisgarh | | | 25 | 25 | 4/14 | 0/14 |
| Delhi | | | 20 | 12.5 | 5/12.5 | 0/5 |
| Goa | | | 22 | 20 | 5/12.5 | 4/12.5 |
| Gujarat | 4 | 12.5+2.5% | 23 | 21 | 0/25 | 0/12.5 |
| Haryana | | | 20+5% | 8.8+5% | 5/12.5 | 0/12.5 |
| Himachal Pradesh | | | 25 | 14 | 0/13.75 | 4/13.75 |
| Jammu & Kashmir | | | 20 | 12 | 5/13.5 | 4/13.5 |
| Jharkhand | | 12.5 | 20 | 18 | 4/12.5 | 4/12.5 |
| Karnataka | | | 25 | 18 | 5/14 | 1/14 |
| Kerala | | | 29.3 | 24.93 | 4.04/12.63 | 4/12.63 |
| Madhya Pradesh | | | 28.75 | 23 | 5/13 | 5/13 |
| Maharashtra | 4 | 12.5 | 26 $ | 26 | 5/12.5 | 0/12.5 |
| Manipur | | | 20 | 13.5 | 5/5 | 4/13.5 |
| Meghalaya | | | 20 | 12.5 | 5/13.5 | 4/13.5 |
| Mizoram | | | 18 | 10 | 0/0 | 2/8 |
| Nagaland | | | 20 | 12 | 5/15 | 4/12.5 |
| Odisha | | | 18 | 18 | 4/13.5 | 4/13.5 |
| Punjab | | | 27.5+10% | 8.8 or 12.5@ +10% | 12.5/10 | 4 |
| Pondicherry | | | 15 | 14 | 0/12.5 | 1/12.5 |
| Rajasthan | | 5 | 28+5% | 18+5% | 5/14 | 0/14 |
| Sikkim | | | 15 | 7.5 | 0/12.5 | 4/12.5 |
| Silvassa | | | 20 | 20 | 4/20 | 4/12.5 |
| Tamil Nadu | 4 | 4 | 27 | 21.43 | 4/25 | 4/12.5 |
| Tripura | | 12.5 | 15 | 10 | 0/12.5 | 1.5/12.5 |
| Uttar Pradesh | | | 26.55 | 17.23 | 5/13.5 | 0/12.5 |
| Uttarakhand | | | 25 | 21 | 4.5/4.5 | 4/13.5 |
| West Bengal | | | 25 | 17 | 0/13.5 | 4/4 |

Contd..

## VII.3 (Cont'd..) State-wise Sales Tax Rates Applicable on Crude Oil, Natural Gas and Petroleum Products as on 1.4.2011

(Percentage)

| STATE | FO | LDO | Lubes/ Greases | Naphtha | ATF | Asphalt/ Bitumen |
|---|---|---|---|---|---|---|
| 1 | 8 | 9 | 11 | 10 | 11 | 12 |
| Andhra Pradesh | 14.5 | 22.25 | 14.5 | 14.5 | 16 | 4 |
| Arunachal Pradesh | 12.5 | 12.5 | 12.5 | 12.5 | 20 | 4 |
| Assam | 4 | 16.5 | 13.5 | 13.5 | 22 | 4 |
| Bihar | 13.5 | 18.36 | 12.5 | 12.5 | 29 | 4 |
| Chandigarh | 12.5 | 12.5 | 12.5 | 5 | 20 | 5 |
| Chhattisgarh | 5 | 25 | 14 | 14 | 25 | 5 |
| Delhi | 20 | 12.5 | 20 | 20 | 20 | 5 |
| Goa | 12.5 | 22 | 12.5 | 20 | 22 | 5 |
| Gujarat | 4 | 12.5 | 17.5 | 16 | 30 | 4 |
| Haryana | 12.5+5% | 8.8+5% | 12.5+5% | 20+5 | 20+5% | 5+5% |
| Himachal Pradesh | 13.75 | 14 | 13.75 | 5 | 25 | 5 |
| Jammu & Kashmir | 13.5 | 13.5 | 13.5 | 13.5 | 20+5% | 5 |
| Jharkhand | 12.5 | 18 | 12.5 | 12.5 | 20 | 4 |
| Karnataka | 14 | 14 | 14 | 14 | 28 | 5 |
| Kerala | 12.63 | 47.62 | 12.63 | 4.04 | 29.04 | 4.04 |
| Madhya Pradesh | 13 | 13 | 13 | 13 | 28.75 | 5 |
| Maharashtra | 12.5 | 12.5 | 12.5 | 12.5 | 25 | 12.5 |
| Manipur | 13.5 | 13.5 | 13.5 | NA | 20 | 5 |
| Meghalaya | 13.5 | 12.5 | 13.5 | NA | 20 | NA |
| Mizoram | 20 | 10 | 10 | NA | 20 | NA |
| Nagaland | 12 | 12 | 12 | 12 | 20 | 12 |
| Odisha | 20 | 13.5 | 20 | 13.5 | 20 | 4 |
| Punjab | 5+10% | 8.8+10% | 12.5+10% | 5+10% | 20+10% | 5+10% |
| Pondicherry | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 1 |
| Rajasthan | 5 | 18 | 14 | 5 | 20 | 14 |
| Sikkim | 12.5 | 7.5 | 12.5 | 12.5 | 12.5 | 4 |
| Silvassa | 20 | 20 | 12.5 | 20 | 20 | 4 |
| Tamil Nadu | 4 | 25 | 12.5 | 4 | 29 | 4 |
| Tripura | 12.5 | 10 | 12.5 | 12.5 | 20 | 4 |
| Uttar Pradesh | 21 | 17.23 | 13.5 | 21 | 21 | 13.5 |
| Uttarakhand | 12.5 | 21 | 20 | 12.5 | 20 | 4.5 |
| West Bengal | 4 | 17 | 13.5 | 4 | 25 | 4 |

**Notes**: Above taxes exclude other taxes payable / recoverable as on 1.4.2011.
@20 % for normal and 22% for branded
**Source**: Public Sector Undertakings and Petrleum Planning and Analysis Cell.

## VII.4 Sales Tax Payments (Inclusive of MST and CST) on Crude Oil, Condensates, Natural Gas and Petroleum Products

(Rs. In Lakhs)

| State/UTs | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11* |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **1. CRUDE OIL** | **87544** | **127009** | **118723** | **153548** | **165566** | **130140** | **160845** | **149902** |
| Andhra Pradesh | 2432 | 3553 | 8414 | 10029 | 10069 | 7652 | 4601 | 4461 |
| Arunachal Pradesh | 0 | 157 | 0 | 0 | 0 | 0 | 0 | 0 |
| Assam | 15805 | 20636 | 8305 | 27982 | 31313 | 34996 | 37027 | 37180 |
| Gujrat | 17456 | 23777 | 25379 | 21107 | 20711 | 20518 | 36805 | 25038 |
| Maharashtra | 50292 | 76560 | 73538 | 91137 | 100321 | 63812 | 79962 | 80298 |
| Rajasthan | 3 | 2 | 0 | 6 | 3 | 0 | 2 | 1 |
| Tamil Nadu | 1556 | 2324 | 3085 | 3287 | 3149 | 3162 | 2448 | 2913 |
| Tripura | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 11 |
| **2. NATURAL GAS** | **91264** | **85363** | **107782** | **148490** | **145080** | **223491** | **270331** | **399826** |
| Andhra Pradesh | 12973 | 12652 | 11112 | 9764 | 9223 | 8876 | 41019 | 65812 |
| Assam | 2856 | 2978 | 634 | 6724 | 7200 | 7413 | 6800 | 9701 |
| Delhi | 0 | 0 | 0 | 473 | 305 | 403 | 518 | 841 |
| Gujarat | 43547 | 39672 | 51939 | 63427 | 64418 | 108228 | 107475 | 150976 |
| Harayana | 0 | 0 | 0 | 0 | 0 | 1745 | 2884 | 5054 |
| Jharkhand | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 12 |
| M.P | 10278 | 6606 | 5971 | 10389 | 13409 | 10620 | 14334 | 20168 |
| Maharashtra | 9358 | 9052 | 20864 | 19385 | 20438 | 23947 | 31602 | 40093 |
| Pondicherry/Mane | 0 | 0 | 186 | 4 | 0 | 0 | 0 | 0 |
| Rajasthan | 184 | 324 | 29 | 167 | 175 | 5539 | 5347 | 3889 |
| Tamil Nadu | 1501 | 1368 | 2473 | 4155 | 2242 | 1770 | 1815 | 2935 |
| Tripura | 816 | 956 | 1168 | 1324 | 1326 | 1501 | 1559 | 3070 |
| U.P | 9751 | 11755 | 13406 | 32678 | 26344 | 53449 | 56976 | 97275 |
| **3. POL PRODUCTS** | **3106061** | **3687669** | **4366893** | **5006607** | **5678366** | **5942598** | **5963688** | **7521157** |
| Andhra Pradesh | 278210 | 330193 | 402469 | 483043 | 561180 | 615966 | 619049 | 743946 |
| Arunachal Pradesh | 674 | 1021 | 1703 | 1813 | 1558 | 1894 | 2264 | 3172 |
| Assam | 40821 | 62738 | 46897 | 64637 | 60165 | 86831 | 86440 | 96659 |
| Bihar | 69149 | 90838 | 103602 | 116750 | 138075 | 162345 | 181060 | 222074 |
| Chhattisgarh | 35720 | 51348 | 66508 | 83265 | 95412 | 104582 | 110959 | 140873 |
| Delhi | 90497 | 112201 | 140071 | 173517 | 184540 | 179797 | 153576 | 191044 |
| Goa | 23693 | 25191 | 33751 | 37228 | 37141 | 48983 | 43405 | 47027 |
| Gujarat | 316319 | 299185 | 363735 | 470104 | 468454 | 371002 | 339089 | 499437 |
| Harayana | 95594 | 142989 | 152880 | 168371 | 220963 | 215167 | 212531 | 277870 |
| Himachal Pradesh | 12964 | 17115 | 20814 | 32141 | 25379 | 25197 | 13949 | 16697 |
| Jammu & kashmir | 17009 | 21289 | 28197 | 32604 | 35087 | 41170 | 45860 | 59026 |
| Jharkhand | 41532 | 51156 | 59686 | 72903 | 79056 | 66466 | 76023 | 111601 |
| Karnataka | 204290 | 241822 | 284734 | 331996 | 391975 | 465040 | 456082 | 572576 |
| Kerala | 184629 | 189764 | 210643 | 202361 | 255933 | 262619 | 289477 | 353718 |
| Madhya Pradesh | 127421 | 154948 | 178561 | 227388 | 247447 | 282495 | 284607 | 380657 |
| Maharashtra | 524725 | 621340 | 764140 | 836560 | 921355 | 966257 | 889120 | 1101417 |
| Manipur | 1794 | 2032 | 2789 | 6826 | 2662 | 3502 | 3581 | 4166 |
| Meghyalya | 1854 | 3057 | 6035 | 7056 | 6975 | 7329 | 5616 | 2582 |
| Mizoram | 1181 | 1404 | 1759 | 2096 | 2140 | 2042 | 2340 | 3178 |
| Nagaland | 1508 | 1852 | 2603 | 2768 | 2801 | 3217 | 2895 | 4187 |
| Odisha | 52986 | 66308 | 83733 | 89277 | 118363 | 127128 | 135674 | 173444 |
| Pondicherry/Mane | 533 | 577 | 465 | 9009 | 837 | 783 | 662 | 937 |
| Punjab | 100269 | 119400 | 136825 | 171618 | 175455 | 176331 | 199032 | 253422 |
| Rajasthan | 164383 | 194296 | 228669 | 259122 | 299593 | 315144 | 322105 | 397050 |
| Sikkim | 1102 | 1459 | 1765 | 16626 | 2919 | 7050 | 2107 | 3639 |
| Tamil Nadu | 302447 | 371086 | 436399 | 457361 | 528230 | 588202 | 601613 | 768458 |
| Tripura | 2841 | 3330 | 3851 | 4348 | 4634 | 5034 | 6098 | 6408 |
| Uttar Pradesh | 252335 | 299959 | 367091 | 376231 | 476157 | 476604 | 525464 | 652311 |
| Uttarakhand | 19816 | 25267 | 30609 | 51966 | 41018 | 46332 | 48410 | 64676 |
| West Bengal | 137770 | 182277 | 200766 | 205028 | 277173 | 273567 | 294345 | 360869 |
| **Union Territories** | | | | | | | | |
| Chandigarh | 1918 | 2126 | 5016 | 12506 | 12776 | 12428 | 8779 | 7556 |
| Andeman & Nocobar | 0 | 0 | 0 | 0 | 2186 | 0 | 0 | 0 |
| Dadra & Nagar Haveli | 14 | 8 | 109 | 84 | 723 | 2094 | 0 | 476 |
| Daman & Diu | 63 | 93 | 18 | 4 | 4 | # | 1476 | 3 |
| **Grand Total (1+2+3)** | **3284869** | **3900041** | **4593398** | **5308645** | **5989012** | **6296229** | **6394864** | **8070885** |

* Provisional # included in Dadra & Nagar Haveli

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

# Manpower

## VIII.1 Manpower employed in the Petroleum Industry in India
## (As on 31st March)

(Number)

| Category | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | 9 | 10 | 11 |
| 1. Exploration & Production | 49540 | 48237 | 44943 | 41415 | 39694 | 38948 | 33935 | 33612 | 33351 | 33984 |
| 2. Refining | 25322 | 26451 | 25640 | 26859 | 30262 | 28151 | 30128 | 32745 | 34036 | 31836 |
| 3. Marketing | 41865 | 40561 | 40232 | 40628 | 43317 | 42970 | 44995 | 42183 | 41387 | 44464 |
| 4. Pipelines | 4094 | 4092 | 3829 | 7318 | 7816 | 7510 | 8933 | 4598 | 4563 | 5536 |
| 5. R&D | 2797 | 2330 | 2278 | 2096 | 2071 | 2029 | 1964 | 2076 | 2133 | 2007 |
| 6. Others | 9992 | 8256 | 9780 | 15055 | 15151 | 15707 | 20001 | 23759 | 24395 | 24102 |
| **Grand Total** | **133610** | **129927** | **126702** | **133371** | **138311** | **135315** | **139956** | **138973** | **139865** | **141929** |

**Source**: Public Sector Undertakings

## VIII.2 Category-wise Manpower employed in the Petroleum Industry in India (As on 31st March)

(Number)

| Category | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | 9 | 10 | 11 |
| 1. Executive/ Managerial | 45385 | 45301 | 45109 | 45319 | 45727 | 44447 | 46387 | 49742 | 51486 | 55305 |
| 2. Supervisory | 13138 | 12610 | 12348 | 10780 | 11232 | 13147 | 12964 | 13490 | 14197 | 14481 |
| 3. Clerical | 13014 | 12263 | 11559 | 11249 | 10807 | 16820 | 15247 | 13879 | 13324 | 8222 |
| 4. Workmen | 54860 | 52200 | 50013 | 48197 | 45810 | 38210 | 37266 | 35759 | 34420 | 35765 |
| **5. Total** | **126397** | **122374** | **119029** | **115545** | **113576** | **112624** | **111864** | **112870** | **113427** | **113773** |
| 6. Expatriates/ Foreign Experts/ on Contract | 7213 | 7553 | 7673 | 17826 | 24735 | 22691 | 28092 | 26103 | 26438 | 28156 |
| **Grand Total** | **133610** | **129927** | **126702** | **133371** | **138311** | **135315** | **139956** | **138973** | **139865** | **141929** |

**Source**: Public Sector Undertakings

## VIII.3 Category-wise Manpower Employed in Various Sectors of Petroleum Industry in India (As on 31st March)

(Number)

| Category | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | 9 | 10 | 11 |
| **Exploration and Production** | | | | | | | | | | |
| 1. Executive/ Managerial | 19461 | 19605 | 19270 | 18571 | 18432 | 19459 | 17693 | 18391 | 18862 | 21727 |
| 2. Supervisory | 6601 | 6349 | 6055 | 4523 | 4778 | 3510 | 2825 | 2822 | 2790 | 2853 |
| 3. Clerical | 3278 | 3068 | 2351 | 2176 | 1984 | 8013 | 6256 | 5486 | 4937 | 720 |
| 4. Workman | 20200 | 19215 | 17240 | 16138 | 14486 | 7940 | 7142 | 6908 | 6745 | 8666 |
| **5. Sub-Total** | **49540** | **48237** | **44916** | **41408** | **39680** | **38922** | **33916** | **33607** | **33334** | **33966** |
| 6. Expatriates/ Foreign Experts/ on Contract | 0 | 0 | 27 | 7 | 14 | 26 | 19 | 5 | 17 | 18 |
| **Total** | **49540** | **48237** | **44943** | **41415** | **39694** | **38948** | **33935** | **33612** | **33351** | **33984** |
| **Petroleum Refining** | | | | | | | | | | |
| 1. Executive/ Managerial | 5556 | 5977 | 5899 | 6200 | 6296 | 5659 | 5975 | 8054 | 8517 | 8656 |
| 2. Supervisory | 2589 | 2586 | 2616 | 2716 | 2809 | 3961 | 3988 | 4249 | 4383 | 4406 |
| 3. Clerical | 2587 | 2521 | 2371 | 2293 | 2268 | 2216 | 1929 | 1959 | 2149 | 1928 |
| 4. Workman | 12338 | 12266 | 11847 | 11445 | 11345 | 11208 | 11334 | 10926 | 10888 | 10972 |
| **5. Sub-Total** | **23070** | **23350** | **22733** | **22654** | **22718** | **23044** | **23226** | **25188** | **25937** | **25962** |
| 6. Expatriates/ Foreign Experts/ on Contract | 2252 | 3101 | 2907 | 4205 | 7544 | 5107 | 6902 | 7557 | 8099 | 5874 |
| **Total** | **25322** | **26451** | **25640** | **26859** | **30262** | **28151** | **30128** | **32745** | **34036** | **31836** |
| **Marketing** | | | | | | | | | | |
| 1. Executive/ Managerial | 11649 | 11598 | 11747 | 11799 | 11365 | 10429 | 10841 | 11006 | 11150 | 11479 |
| 2. Supervisory | 2274 | 2320 | 2334 | 2419 | 2422 | 3845 | 4015 | 4378 | 4421 | 4779 |
| 3. Clerical | 5434 | 5245 | 5133 | 4831 | 4400 | 4413 | 4350 | 3973 | 3671 | 3929 |
| 4. Workman | 17956 | 17152 | 16725 | 15658 | 15148 | 14621 | 14046 | 13487 | 12842 | 12219 |
| **5. Sub-Total** | **37313** | **36315** | **35939** | **34707** | **33335** | **33308** | **33252** | **32844** | **32084** | **32406** |
| 6. Expatriates/ Foreign Experts/ on Contract | 4552 | 4246 | 4293 | 5921 | 9982 | 9662 | 11743 | 9339 | 9303 | 12058 |
| **Total** | **41865** | **40561** | **40232** | **40628** | **43317** | **42970** | **44995** | **42183** | **41387** | **44464** |

Source: Public Sector Undertakings.

# Energy

## IX.1 Gross Production of Energy by Various Sources in India

| Year | Coal & Lignite | | | Hydro-Carbon | | | Power | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Coal | Lignite | Total | Natural Gas | Crude Petroleum | Petroleum Products | Thermal | Hydel | Nuclear | |
| | (..... Million Tonnes.....) | | (MCM) | (..... '000' Tonnes .....) | | | (.....Billion KWH.....) | | | |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* |
| 2002-03 | 341.29 | 26.02 | 367.31 | 31389 | 33044 | 104140 | 449.3 | 64.0 | 19.4 | 532.7 |
| 2003-04 | 361.25 | 27.96 | 389.21 | 31962 | 33373 | 113463 | 472.1 | 75.2 | 17.8 | 565.1 |
| 2004-05 | 382.61 | 30.34 | 412.95 | 31763 | 33981 | 118579 | 492.8 | 84.6 | 17.0 | 594.4 |
| 2005-06 | 407.04 | 30.06 | 437.10 | 32202 | 32190 | 119750 | 506.0 | 101.5 | 17.3 | 624.8 |
| 2006-07 | 430.83 | 31.29 | 462.12 | 31747 | 33988 | 135260 | 538.4 | 113.5 | 18.8 | 670.7 |
| 2007-08 | 457.08 | 33.98 | 491.06 | 32417 | 34118 | 144930 | 585.3 | 120.4 | 16.9 | 722.6 |
| 2008-09 | 492.76 | 32.42 | 525.18 | 32845 | 33508 | 150516 | 616.1 | 110.1 | 14.9 | 741.1 |
| 2009-10 | 532.06 | 34.07 | 566.13 | 47496 | 33690 | 179768 | 677.1 | 104.1 | 18.6 | 799.8 |
| 2010-11* | 533.08 | 37.74 | 570.81 | 52222 | 37712 | 190364 | 704.3 | 114.2 | 26.3 | 844.8 |

Note: RIL Refineries Petroleum production includes during 2009-10 & 2010-11 which includes other inputs.
* : Provisional
**Source :** Economic Survey, M/o Coal and CEA, M/o Power

## IX.2 Gross Domestic Product By Economic Activity

(Rs. Crore)

| Sectors | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 |
|---|---|---|---|---|---|---|
| | | | (Constant at 2004-05 Prices) | | | |
| 1. (a) Petroleum & Natural Gas | 47211 | 45290 | 47224 | 47553 | 46923 | 50974 |
| (b) Petroleum Products $ | 35330 | 39935 | 47327 | 55084 | 55909 | 60667 |
| (c) Total | 82541 | 85225 | 94551 | 102637 | 102832 | 111641 |
| 2. Railways | 29162 | 31339 | 34831 | 38236 | 41161 | 45035 |
| 3. Transport by other means | 169995 | 185741 | 202366 | 219978 | 231521 | 247660 |
| 4. Storage | 1980 | 2073 | 2298 | 2375 | 2624 | 2904 |
| 5. Communications | 49280 | 61855 | 77273 | 96925 | 121911 | 161055 |
| 6. Electricity | 50509 | 54299 | 60490 | 65982 | 68831 | 73389 |
| 7. Gas | 5493 | 5449 | 5462 | 5642 | 6354 | 6532 |
| 8. Water Supply | 6674 | 7374 | 7405 | 7801 | 8159 | 8733 |
| GDP at factor cost | 2971464 | 3254216 | 3566011 | 3898958 | 4162509 | 4493743 |
| Contribution of P&NG in GDP at factor cost | 2.78 | 2.62 | 2.65 | 2.63 | 2.47 | 2.48 |
| | | | Growth Rate (%) | | | |
| **Sectors** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2009-10** | **CAGR*** |
| 1. (a) Petroleum & Natural Gas | -4.07 | 4.27 | 0.70 | -1.32 | 8.63 | 1.55 |
| (b) Petroleum Products | 13.03 | 18.51 | 16.39 | 1.50 | 8.51 | 11.42 |
| (c) Total | 3.25 | 10.94 | 8.55 | 0.19 | 8.57 | 6.23 |
| 2. Railways | 7.47 | 11.14 | 9.78 | 7.65 | 9.41 | 9.08 |
| 3. Transport by other means | 9.26 | 8.95 | 8.70 | 5.25 | 6.97 | 7.82 |
| 4. Storage | 4.70 | 10.85 | 3.35 | 10.48 | 10.67 | 7.96 |
| 5. Communications | 25.52 | 24.93 | 25.43 | 25.78 | 32.11 | 26.72 |
| 6. Electricity | 7.50 | 11.40 | 9.08 | 4.32 | 6.62 | 7.76 |
| 7. Gas | -0.80 | 0.24 | 3.30 | 12.62 | 2.80 | 3.53 |
| 8. Water Supply | 10.49 | 0.42 | 5.35 | 4.59 | 7.04 | 5.53 |
| GDP at factor cost | 9.52 | 9.58 | 9.34 | 6.76 | 7.96 | 8.62 |
| | | | (at Current Prices) | | | |
| **Sectors** | **2004-05** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2009-10** |
| 1. (a) Petroleum & Natural Gas | 47211 | 50541 | 56520 | 60693 | 65491 | 78572 |
| (b) Petroleum Products | 35330 | 45946 | 58717 | 68541 | 78639 | 82785 |
| (c) Total | 82541 | 96487 | 115237 | 129234 | 144130 | 161357 |
| 2. Railway | 29162 | 30771 | 37429 | 43608 | 47478 | 60144 |
| 3. Transport by other means | 169995 | 192588 | 224121 | 254243 | 288016 | 321568 |
| 4. Storage | 1980 | 2155 | 2520 | 2716 | 3218 | 3855 |
| 5. Communications | 49280 | 54035 | 58694 | 66069 | 75430 | 91442 |
| 6. Electricity | 50509 | 55505 | 61836 | 67317 | 66551 | 71505 |
| 7. Gas | 5493 | 5919 | 6071 | 7274 | 7069 | 8484 |
| 8. Water Supply | 6674 | 7683 | 8246 | 9239 | 10544 | 12682 |
| GDP at factor cost | 2971464 | 3389621 | 3952241 | 4581422 | 5282086 | 6133230 |
| Contribution of P&NG in GDP | 2.78 | 2.85 | 2.92 | 2.82 | 2.73 | 2.63 |
| | | | Growth Rate (%) | | | |
| **Sectors** | **2005-06** | **2006-07** | **2007-08** | **2008-09** | **2009-10** | **CAGR*** |
| 1. (a) Petroleum & Natural Gas | 7.05 | 11.83 | 7.38 | 7.91 | 19.97 | 10.72 |
| (b) Petroleum Products $ | 30.05 | 27.80 | 16.73 | 14.73 | 5.27 | 18.57 |
| (c) Total | 16.90 | 19.43 | 12.15 | 11.53 | 11.95 | 14.35 |
| 2. Railways | 5.52 | 21.64 | 16.51 | 8.87 | 26.68 | 15.58 |
| 3. Transport by other means | 13.29 | 16.37 | 13.44 | 13.28 | 11.65 | 13.60 |
| 4. Storage | 8.84 | 16.94 | 7.78 | 18.48 | 19.79 | 14.25 |
| 5. Communications | 9.65 | 8.62 | 12.57 | 14.17 | 21.23 | 13.16 |
| 6. Electricity | 9.89 | 11.41 | 8.86 | -1.14 | 7.44 | 7.20 |
| 7. Gas | 7.76 | 2.57 | 19.82 | -2.82 | 20.02 | 9.08 |
| 8. Water Supply | 15.12 | 7.33 | 12.04 | 14.12 | 20.28 | 13.70 |
| GDP at factor cost | 14.07 | 16.60 | 15.92 | 15.29 | 16.11 | 15.60 |

Note:*: Compound Annual Growth Rate in 2009-10 over 2004-05.
$: Estimated contribution at 81% of petroluem sector in rubber +petroleum in manufacturing
GDP of POL using domestic product for petroleum products & value of output for mining items
Source : National Account Statistics, 2011

# Plan Outplay and Expenditure

## X.1 Expenditure of Public Sector Undertakings of Ministry of Petroleum & Natural Gas

(Rs.Crore)

| Undertaking | 2007-08 (Actual) | 2008-09 (Actual) | 2009-10 (Actual) | 2010-11 (BE) | 2010-11 (Actual)* | 2011-12 (BE) |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **A. Exploration & Production** | **25151.06** | **42958.71** | **34320.55** | **46299.08** | **42013.01** | **48294.10** |
| 1. ONGC | 17651.04 | 21820.12 | 23559.05 | 26523.02 | 28275.54 | 30040.02 |
| 2. OIL | 1210.33 | 1631.89 | 1556.86 | 4464.98 | 1742.76 | 3180.33 |
| 3. GAIL (India) Ltd. | 1317.84 | 2716.24 | 3540.94 | 5113.29 | 4882.45 | 4527.56 |
| 4. ONGC Videsh Ltd. | 4529.26 | 16104.89 | 4991.89 | 8662.79 | 5650.22 | 8686.93 |
| 5.IOC | 218.24 | 195.59 | 222.22 | 335.00 | 371.91 | 600.00 |
| 6.HPCL | 36.96 | 89.94 | 249.59 | 300.00 | 93.82 | 460.00 |
| 7.BPCL | 187.39 | 400.04 | 200.00 | 900.00 | 996.31 | 799.26 |
| **B. Refining & Marketing** | **5088.66** | **9029.85** | **16969.54** | **20451.13** | **16362.09** | **24353.44** |
| 1. IOC | 2487.27 | 5451.79 | 8767.69 | 10301.00 | 7227.84 | 13000.00 |
| 2. HPCL | 1656.82 | 1204.69 | 2832.11 | 3621.00 | 3006.11 | 3540.90 |
| 3. BPCL | 632.22 | 1575.60 | 2890.47 | 2122.00 | 1483.89 | 2067.15 |
| 4. CPCL | 159.80 | 422.96 | 892.51 | 1059.90 | 674.78 | 1053.92 |
| 5. KRL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6. BRPL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7. IBP Co. Ltd. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8. Numaligarh Refinery Ltd. | 59.24 | 108.42 | 229.04 | 202.24 | 116.36 | 57.47 |
| 9. MRPL | 93.31 | 266.39 | 1357.72 | 3144.99 | 3853.11 | 4634.00 |
| **C. Petrochemicals** | **2502.51** | **4818.51** | **3481.55** | **2655.58** | **2708.42** | **2097.44** |
| 1. BRPL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2. MRPL | 0.00 | 15.00 | 56.20 | 11.87 | 136.57 | 530.00 |
| 3. IOC | 2436.08 | 4705.14 | 3266.25 | 2189.00 | 2231.27 | 900.00 |
| 4. CPCL | 0.00 | 0.00 | 0.00 | 20.00 | 0.00 | 0.00 |
| 5. GAIL | 31.33 | 70.09 | 159.10 | 396.71 | 317.70 | 622.44 |
| 6. HPCL | 30.91 | 0.00 | 0.00 | 3.00 | 0.00 | 2.00 |
| 7. NRL | 4.19 | 28.28 | 0.00 | 35.00 | 22.88 | 43.00 |
| **D. Engineering Unit** | **17.26** | **19.10** | **41.34** | **52.00** | **50.03** | **68.00** |
| 1. Balmer Lawrie & Co. Ltd. | 17.26 | 19.10 | 41.34 | 47.00 | 45.03 | 60.00 |
| 2. Biecco Lawrie Limited | 0.00 | 0.00 | 0.00 | 5.00 | 5.00 | 8.00 |
| **Total (A+B+C+D)** | **32759.49** | **56826.17** | **54812.98** | **69457.79** | **61133.55** | **74812.98** |

**Notes**: *: KRL is merged in BPCL BE: Budget Estimates RE : Revised Estimates

**: IBP Co. Ltd. is merged in IOC

**Source**: Outcome Budget, Ministry of Petroleum & Natural Gas.

## X.2 Import Availability ratios of Crude Oil and Petroleum Products

| Items | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| **A. CRUDE OIL(MMT)** | | | | | | | |
| (i) Production | 33.98 | 32.19 | 33.99 | 34.12 | 33.51 | 33.69 | 37.71 |
| (ii) Imports | 95.86 | 99.41 | 111.50 | 121.67 | 132.78 | 159.26 | 163.59 |
| (iii)Availability (Net) | 129.84 | 131.60 | 145.49 | 155.79 | 166.29 | 192.95 | 201.30 |
| **B. PETROLEUM PRODUCTS(MMT)** | | | | | | | |
| (i) Production* | 120.82 | 121.94 | 137.35 | 146.99 | 152.68 | 182.11 | 192.53 |
| (ii) Imports(Net)$ | -9.383 | -10.021 | -15.964 | -18.318 | -20.38 | -36.31 | -41.77 |
| (iii)Availability | 111.44 | 111.92 | 121.39 | 128.67 | 132.30 | 145.80 | 150.76 |

**Notes:**

*: Includes LPG Production from Natural Gas.

$: Excluding LNG imports.

## X.3 Crude Oil Processing and Import during the Eleventh Plan

**(MMT)**

| Particulars | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | TOTAL |
|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| Processing* | 148.5 | 162.7 | 193.0 | 211.6 | 235.0 | 802.3 |
| Actuals | 156.1 | 160.8 | 192.8 | 206.1 | - | - |
| Imports* | 107.27 | 120.37 | 150.51 | 170.41 | 195.49 | 744.05 |
| Actuals | 121.7 | 132.8 | 159.3 | 163.6 | - | - |

**Source:** Eleventh Five Year Plan document and oil PSUs .

***Projections**

## X. 4 Eleventh Plan Demand Projections for Petroleum Products

| Items | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| | | | **Demand for Petroleum Products (MMT)** | | | |
| Base Case | 114.034 | 116.089 | 119.098 | 121.987 | 126.973 | 131.767 |
| Annual Growth Rate % | | 1.80 | 2.59 | 2.43 | 4.09 | 3.78 |
| Upper Case | 114.034 | 117.555 | 121.951 | 127.789 | 136.593 | 141.793 |
| Annual Growth Rate % | | 3.09 | 3.74 | 4.79 | 6.89 | 3.81 |

**Note:**MMT: Million Metric Tonnes.

**Source**: Eleventh Five Year Plan document

## X.5 Crude Oil and Natural Gas Production Projections for Eleventh Plan

| Company | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | TOTAL |
|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| | | | **Crude Oil (MMT)** | | | |
| ONGC | 27.16 | 28.00 | 29.00 | 28.53 | 27.37 | 140.06 |
| OIL | 3.50 | 3.55 | 3.73 | 3.91 | 4.30 | 18.99 |
| Joint Venture / Private Companies | 10.57 | 10.78 | 9.76 | 8.75 | 7.85 | 47.71 |
| **Total** | **41.23** | **42.33** | **42.49** | **41.19** | **39.52** | **206.76** |
| **Actuals** | **34.12** | **33.51** | **33.69** | **37.71** | - | - |
| | | | **Natural Gas (BCM)** | | | |
| ONGC | 22.10 | 22.53 | 22.77 | 22.99 | 22.00 | 112.39 |
| OIL | 3.13 | 3.21 | 3.25 | 3.28 | 3.56 | 16.43 |
| Joint Venture / Private Companies | 8.55 | 22.55 | 29.41 | 28.77 | 37.61 | 126.45 |
| **Total** | **33.78** | **48.29** | **55.43** | **55.03** | **63.23** | **255.76** |
| **Actuals** | **32.42** | **32.85** | **47.5** | **52.22** | - | - |

## X.6 Availabilty of Petroleum Product during the Eleventh Plan

(MMT)

| Product | 2007-08 (Actuals) | 2008-09 (Actuals) | 2009-10 (Actuals) | 2010-11 (Actuals) | 2011-12 (Projected) | TOTAL of XI plan |
|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* |
| LPG | 11.5 | 11.41 | 12.92 | 14.032 | 12.8 | 51.9 |
| MS | 10.2 | 10.99 | 13.16 | 14.256 | 30.5 | 118.3 |
| Naphtha | 13.1 | 12.25 | 8.93 | 8.927 | 18.8 | 81.1 |
| ATF | 4.6 | 4.37 | 4.71 | 5.094 | 11 | 45.1 |
| SKO | 10.1 | 9.57 | 9.48 | 9.034 | 11.3 | 54.2 |
| HSD | 47.0 | 50.99 | 57.37 | 59.57 | 92.3 | 371.5 |
| LDO | 0.7 | 0.61 | 0.43 | 0.453 | 0.6 | 4.2 |
| Lubes | 1.8 | 2.27 | 2.34 | 2.024 | 1.1 | 4.6 |
| FO/LSHS | 12.3 | 13.20 | 11.15 | 12.659 | 9.5 | 66.4 |
| Bitumen | 4.5 | 4.79 | 4.92 | 4.556 | 4.4 | 20 |
| Coke | 6.6 | 7.56 | 6.41 | 4.187 | 12.8 | 41.6 |
| Others | 4.1 | 2.14 | 11.56 | 13.776 | 13.2 | 45.9 |
| **Grand Total** | **126.6** | **130.1** | **143.40** | **148.568** | **218.3** | **904.8** |

Notes: Includes RIL SEZ Production during 2009-10 & 2010-11

## X.7(a) Projected Refinery-wise Capacity addition during the Eleventh Plan*

| Year | Refinery | PSU/PVT. | MMT |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 2007-08 | IOCL, Panipat | PSU | 3.00 |
| | HPCL,Mumbai | PSU | 2.40 |
| | HPCL, Visakh | PSU | 0.83 |
| | Essar Oil Ltd., Jamnagar | PVT | 3.50 |
| | | **Sub total** | **9.73** |
| 2008-09 | CPCL, Chennai | PSU | 1.00 |
| | RIL SEZ | PVT | 27.00 |
| | Nagarjuna Oil Corporation Ltd. | PVT | 6.00 |
| | | **Sub total** | **34.00** |
| 2009-10 | IOCL,Haldia | PSU | 1.50 |
| | BPCL, Bina | PSU | 6.00 |
| | CPCL, Chennai | PSU | 0.70 |
| | KRL, Kochi | PSU | 2.00 |
| | MRPL, Mangalore | PSU | 5.31 |
| | | **Sub total** | **15.51** |
| 2010-11 | HPCL,Visakh | PSU | 6.67 |
| | HPCL,Bhatinda | PSU | 9.00 |
| | | **Sub total** | **15.67** |
| 2011-12 | IOCL, Paradip | PSU | 15.00 |
| | ONGC, Tatipaka | PSU | 0.08 |
| | | **Sub total** | **15.08** |
| | | **Total** | **89.99** |

* Working Group Report of the Petroleum & Natural Gas Sector- (2007-12)

## X,7 (b) Projected Refinery wise Capicity addition during the Eleventh Plan

| Refineries | Beginning of 11th Plan | Additions during 11th Plan | Capacity as on 01.04.2011 |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| **Public Sector (PSU)** | | | |
| IOC, Digboi | 0.65 | | 0.65 |
| IOC, Guwahati | 1.00 | | 1.00 |
| IOC, Koyali | 13.7 | | 13.70 |
| IOC, Barauni | 6.00 | | 6.00 |
| IOC, Haldia | 6.00 | 1.50 | 7.50 |
| IOC, Mathura | 8.00 | | 8.00 |
| IOC,Panipat | 12.00 | 3.00 | 15.00 |
| IOC, Bongaigaon | 0.00 | 2.35 | 2.35 |
| HPC, Mumbai | 5.50 | 1.00 | 6.50 |
| HPC,Visakh | 7.50 | 0.80 | 8.30 |
| BPC,Mumbai | 12.00 | | 12.00 |
| BPC,Kochi | 7.50 | 2.00 | 9.50 |
| BPC,BORL-Bina | 0.00 | 6.00 | 6.00 |
| KRL,Kochi | 0.00 | | 0.00 |
| CPCL, Chennai | 9.50 | 1.00 | 10.50 |
| CPCL,Nariman | 1.00 | | 1.00 |
| BRPL,Bongaigaon | 2.35 | -2.35 | 0.00 |
| NRL,Numaligarh | 3.00 | | 3.00 |
| ONGC, Tatipaka | 0.07 | | 0.07 |
| MRPL,Mangalore | 9.69 | 2.13 | 11.82 |
| **Total PSU** | **105.46** | **17.43** | **122.89** |
| RIL,Jamnagar | 33.00 | | 33.00 |
| RPL(SEZ),Jamnagar | 0.00 | 27.00 | 27.00 |
| EOL,Jamnagar | 10.50 | | 10.50 |
| **JVC/Pvt,Total** | **43.50** | **27.00** | **70.50** |
| **All India Total** | **148.96** | **44.43** | **193.39** |

## X.8 Refining Capacity addition during the Eleventh Plan

(MMT)

| | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | Total |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Capacity addition | Base year | 9.73 | 34.00 | 15.51 | 15.67 | 15.08 | 89.99 |
| Total Capacity | 148.97 | 158.7 | 192.70 | 208.21 | 223.88 | 238.96 | 328.95 |
| Actual Capacity | 132.47 | 148.97 | 148.97 | 177.97 | 183.39 | 193.39 | - |

**Note**: *: Reliance Petroleum Ltd.(SEZ) with capacity 27 MMT was commissioned on 25.12.2008.
Refinery capicity as on 1st April of the year

## X.9 Estimates of Demand of Petroleum Products during the Eleventh Plan

('000' Tonnes)

| Products | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | CAGR |
|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| | | | **Base Case** | | | | |
| LPG | 10494 | 10853 | 11246 | 11683 | 12183 | 12770 | 4.0 |
| Naphtha | 11333 | 10425 | 9517 | 10441 | 11138 | 11588 | 0.4 |
| MS | 8983 | 9377 | 9828 | 10242 | 10667 | 11097 | 4.3 |
| ATF | 3630 | 4335 | 4774 | 5187 | 5569 | 5907 | 10.2 |
| SKO | 9414 | 8830 | 8510 | 8222 | 7962 | 7729 | -3.9 |
| HSD | 40583 | 42210 | 43797 | 45328 | 46871 | 48419 | 3.6 |
| LDO | 905 | 951 | 951 | 849 | 786 | 569 | -8.9 |
| FO/LSHS | 13454 | 13601 | 13959 | 12806 | 13327 | 13874 | 0.6 |
| Bitumen | 3592 | 3772 | 3961 | 4159 | 4367 | 4585 | 5.0 |
| Lubes | 2421 | 2453 | 2487 | 2521 | 2556 | 2592 | 1.4 |
| Pet. Coke | 4736 | 4736 | 4736 | 4736 | 5210 | 5731 | 3.9 |
| Others | 4489 | 4893 | 5333 | 5813 | 6337 | 6907 | 9.0 |
| **Total** | **114034** | **116436** | **119099** | **121987** | **126973** | **131768** | **2.9** |
| | | | **Upper Case** | | | | |
| LPG | 10494 | 10853 | 11246 | 11683 | 12183 | 12770 | 4.0 |
| Naphtha | 11333 | 10077 | 9517 | 10441 | 11138 | 11588 | 0.4 |
| MS | 8983 | 9330 | 9775 | 10442 | 11197 | 11605 | 5.3 |
| ATF | 3630 | 4356 | 5227 | 6011 | 6612 | 7274 | 14.9 |
| SKO | 9414 | 9414 | 9414 | 9414 | 9414 | 9414 | 0.0 |
| HSD | 40583 | 42374 | 43818 | 45751 | 47952 | 49776 | 4.2 |
| LDO | 905 | 951 | 951 | 849 | 786 | 569 | -8.9 |
| FO/LSHS | 13454 | 13754 | 14250 | 13611 | 14277 | 14982 | 2.2 |
| Bitumen | 3592 | 3808 | 4036 | 4279 | 4535 | 4808 | 6.0 |
| Lubes | 2421 | 2453 | 2487 | 2521 | 2556 | 2592 | 1.4 |
| PET. COKE | 4736 | 4736 | 4736 | 4736 | 7210 | 7411 | 9.4 |
| Others | 4489 | 5449 | 6494 | 8052 | 8734 | 9006 | 14.9 |
| **Total** | **114034** | **117555** | **121951** | **127790** | **136594** | **141795** | **4.5** |

**Source**: Eleventh Five Year Plan document

## X.10 Dividend paid by Public Sector Undertakings under the Ministry of Petroleum and Natural Gas

(Rs. Crore)

| Name of Company | Dividend paid to Govt by PSUs in 2010-11 |
|---|---|
| 1. Oil & Natural Gas Corp. Ltd. (ONGC) | 4278.00 |
| 2. Oil India Ltd. (OIL) | 240.45 |
| 3. GAIL (INDIA) Ltd. | 1268.48 |
| 4. Indian Oil Corp. Ltd. (IOCL) | 2427.95 |
| 5. Hindustan Petroleum Corp. Ltd. (HPCL) | 338.63 |
| 6. Bharat Petroleum Corp. Ltd. (BPCL) | 361.54 |
| 7. Engineers India Ltd. (EIL) | 168.47 |
| 8. Chennai Petroleum Corp. Ltd. (CPCL) | 149.00 |
| 9. Biecco Lawrie Ltd. | 42.00 |
| 10. Balmer Lawrie Ltd. | 16.29 |
| 11. Numaligarh Refinery Ltd. (NRL) | 735.63 |
| 12. Mangalore Refinery & Petrochemicals Ltd. | 1761.85 |
| 13. ONGC (Videsh) Ltd. (OVL) | 1000.00 |
| **Total** | **12788.29** |

## X.11 Equity Capital of Public sector Undertakings under the Ministry of Petroleum and Natural Gas

(Rs. Crore)

| Name of the PSU | Authorised Capital | Paid up Capital | % Govt. holding as on 31.3.2011 |
|---|---|---|---|
| 1. Indian Oil Corp. Ltd. (IOCL) | 6000 | 2427.95 | 78.92 |
| 2. Bharat Petroleum Corp. Ltd. (BPCL) | 450 | 361.54 | 54.93 |
| 3. Hindustan Petroleum Corp. Ltd. (HPCL) | 350 | 338.63 | 51.11 |
| 4. Oil & Natural Gas Corp. Ltd. (ONGC) | 15000 | 4278.00 | 74.14 |
| 5. Oil India Ltd. (OIL) | 500 | 240.45 | 78.43 |
| 6. GAIL (INDIA) Ltd. | 2000 | 1268.48 | 57.35 |
| 7. Engineers India Ltd. (EIL) | 300 | 168.47 | 80.40 |
| 8. Chennai Petroleum Corp. Ltd. (CPCL) | 400 | 149.00 | Nil |
| 9. Biecco Lawrie Ltd. | 50 | 42.00 | 99.22 |
| 10. Balmer Lawrie Ltd. | 30 | 16.29 | 80.40 |
| 11. Numaligarh Refinery Ltd. (NRL) | 1000 | 735.63 | Nil |
| 12. Mangalore Refinery & Petrochemicals Ltd. | 2000 | 1761.85 | Nil |
| 13. ONGC (Videsh) Ltd. (OVL) | 1000 | 1000.00 | 0.00 |

NRL: Subsidiary of BPCL.

CPCL: Subsidiaries of IOCL.

**Source:** Ministry of Petroleum and Natural Gas (Internal Finance Division-I)

## X.12 Profit earned by PSUs under the Ministry of Petroleum and Natural Gas

(Rs. Crores)

| S. No | Name of PSUs | Profit after tax during | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11(P) |
| *1* | *2* | *3* | *4* | *5* | 6 | 7 | 8 |
| 1 | Indian Oil Corporation Ltd. | 4915.12 | 7499.47 | 7500 | 2950 | 10221 | 7445 |
| 2 | Bharat Petroleum Corporation Ltd. | 291.65 | 1805.48 | 1805 | 736 | 1536 | 1547 |
| 3 | Hindustan Petroleum Corporation Ltd. | 405.63 | 1571.17 | 1571 | 575 | 1301 | 1539 |
| 4 | Oil & Natural Gas Corporation Ltd. | 14430.78 | 15643 | 15643 | 16126 | 16126 | 18924 |
| 5 | Oil India Ltd. | 1689.93 | 1639.99 | 1640 | 2162 | 2611 | 2888 |
| 6 | GAIL (India) Ltd. | 2310 | 2387 | 2387 | 2804 | 3140 | 3561 |
| 7 | Kochi Refineries Ltd. | * | * | * | * | * | * |
| 8 | Bongaigaon Refinery & Petrochemicals Ltd. | 174.76 | 184.98 | 306.82 | ** | ** | ** |
| 9 | Engineers India Ltd. | 138.64 | 142.99 | 143 | 345 | 436 | 523 |
| 10 | Chennai Petroleum Corporation Ltd. | 480.96 | 565.27 | 565 | -397 | 603 | 512 |
| 11 | IBP Co. Ltd. | 12.44 | # | # | # | # | # |
| 12 | Numaligarh Refineries Ltd. | 448.93 | 568.8 | 569 | 236 | 232 | 279 |
| 13 | Mangalore Refinery & Petrochemicals Ltd. | 371.61 | 525.52 | 526 | 1193 | 1112 | 1177 |
| 14 | ONGC (Videsh) Ltd. (OVL) | 901.19 | 1663.29 | 2397.14 | NA | 2089.58 | NA |

**Notes**: (P) : Provisional

* :Amalgamated with BPCL

** : Merged with IOCL since 25th March,2009

#: Merged with IOCL.

**Source:** Ministry of Petroleum and Natural Gas(Internal Finance Division-I)

## X.13 Performance of Public Sector Undertakings under the Ministry of Petroleum and Natural Gas Year -2010-11

| S. No. | Performance Parameters | Unit | ONGC | OIL | GAIL | IOC | HPCL | BPCL | EIL | NRL | CPCL | Balmer Lawrie | MRPL | OVL | Biecco Lawrie |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* | *14* | *15* | *16* |
| 1 | Authorised Capital | Rs./Crore | 15000 | 500 | 2000 | 6000 | 350 | 450 | 300 | 1000 | 400 | 30 | 2000 | 1000 | 50 |
| 2 | Paid up Capital | Rs./Crore | 4278.00 | 240 | 1268.48 | 2427.95 | 338.63 | 361.54 | 168.47 | 735.63 | 149.00 | 16.29 | 1762.82 | 1000 | 42 |
| 3 | Govt. equity in the PSU | | 74.14 | 78.43 | 57.35 | 78.92 | 51.11 | 54.93 | 80.40 | Nil | Nil | 80.40 | Nil | 0.00 | 99.22 |
| 4 | Gross Turnover | Rs./Crore | 69532 | 8303.38 | 32459 | 328744.27 | 132670 | 163218.21 | 2823.28 | 8972.19 | 38128.26 | 2136 | 44035.87 | 18683.20 | 83.19 |
| 5 | PAT | Rs./Crore | 18924 | 2887.73 | 3561 | 7445.48 | 1539 | 1547 | 522.52 | 279.26 | 511.52 | 118 | 1176.63 | 2690.56 | 3.75 |
| 6 | Debt equity ratio | Ratio | 0.0003:1 | 0.0065:8 | 0.12 | 95.10 | 54.10 | 1.35 | 0.00 | 0.04.1 | 1.12 | 0.00 | 0.19 | 141.00 | 120.07 |
| 7 | Reserves & Surpluses | Rs./Crore | 93227 | 15361.42 | 17985 | 52904.37 | 12207 | 13696.08 | 1273.65 | 1865.43 | 3616.93 | 517.89 | 4767.05 | 13552.97 | 0.31 |
| 8 | Networth | Rs./Crore | 96708 | 15601.87 | 19054 | 55332.32 | 12546 | 14058 | 1442.12 | 2601.06 | 3765.93 | 534.18 | 6528.90 | 14552.97 | -2.55 |
| 9 | Dividend paid / payable | Rs./Crore | 74486 | 901.70 | 951 | 2306.55 | 474.08 | 506 | 168.47 | 110.34 | 178.69 | 39.09 | 244.43 | 0.00 | 0.00 |
| 10 | Dividend as a %age of PAT | %age | 40 | 31 | 75 | 95 | 31 | 33 | 32 | 40 | 120 | 240 | 21 | 0 | 0 |
| 11 | EPS | Rs. | 22.12 | 120.04 | 27 | 30.67 | 45.45 | 42.78 | 15.51 | 3.80 | 34.35 | 72.33 | 6.71 | 269.05 | 0.89 |
| 12 | Total outstanding loan | Rs./Crore | 0 | 1026.79 | 2310 | 52733.87 | 25021 | 18971.87 | 0 | 219.9 | 4222.35 | 0 | 1556.98 | 20590.7 | 50.43 |

**Source:** Ministry of Petroleum and Natural Gas (Internal Finance Division-I)

# International Petroleum Statistics

## XI.1 (a) World Proven Reserves of Crude Oil at end 2010

| Country/ Region | Thousand million tonnes | Thousand million barrels | Share of total | R/P ratio |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| US | 3.7 | 30.9 | 2.2% | 11.3 |
| Canada | 5.0 | 32.1 | 2.3% | 26.3 |
| Mexico | 1.6 | 11.4 | 0.8% | 10.6 |
| **Total North America** | **10.3** | **74.3** | **5.4%** | **14.8** |
| Argentina | 0.3 | 2.5 | 0.2% | 10.6 |
| Brazil | 2.0 | 14.2 | 1.0% | 18.3 |
| Colombia | 0.3 | 1.9 | 0.1% | 6.5 |
| Ecuador | 0.9 | 6.2 | 0.4% | 34.1 |
| Peru | 0.2 | 1.2 | 0.1% | 21.6 |
| Trinidad & Tobago | 0.1 | 0.8 | 0.1% | 15.6 |
| Venezuela | 30.4 | 211.2 | 15.3% | * |
| Other S. & Cent. America | 0.2 | 1.4 | 0.1% | 28.9 |
| **Total S. & Cent. America** | **34.3** | **239.4** | **17.3%** | **93.9** |
| Azerbaijan | 1.0 | 7.0 | 0.5% | 18.5 |
| Denmark | 0.1 | 0.9 | 0.1% | 9.9 |
| Italy | 0.1 | 1.0 | 0.1% | 25.0 |
| Kazakhstan | 5.5 | 39.8 | 2.9% | 62.1 |
| Norway | 0.8 | 6.7 | 0.5% | 8.5 |
| Romania | 0.1 | 0.5 | w | 14.8 |
| Russian Federation | 10.6 | 77.4 | 5.6% | 20.6 |
| Turkmenistan | 0.1 | 0.6 | w | 7.6 |
| United Kingdom | 0.4 | 2.8 | 0.2% | 5.8 |
| Uzbekistan | 0.1 | 0.6 | w | 18.7 |
| Other Europe & Eurasia | 0.3 | 2.4 | 0.2% | 17.5 |
| **Total Europe & Eurasia** | **19.0** | **139.7** | **10.1%** | **21.7** |
| Iran | 18.8 | 137.0 | 9.9% | 88.4 |
| Iraq | 15.5 | 115.0 | 8.3% | * |
| Kuwait | 14.0 | 101.5 | 7.3% | * |
| Oman | 0.7 | 5.5 | 0.4% | 17.4 |
| Qatar | 2.7 | 25.9 | 1.9% | 45.2 |
| Saudi Arabia | 36.3 | 264.5 | 19.1% | 72.4 |
| Syria | 0.3 | 2.5 | 0.2% | 17.8 |
| United Arab Emirates | 13.0 | 97.8 | 7.1% | 94.1 |
| Yemen | 0.3 | 2.7 | 0.2% | 27.7 |

Contd..

| Country/ Region | Thousand million tonnes | Thousand million barrels | Share of total | R/P ratio |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Other Middle East | ^ | 0.1 | w | 9.3 |
| **Total Middle East** | **101.8** | **752.5** | **54.4%** | **81.9** |
| Algeria | 1.5 | 12.2 | 0.9% | 18.5 |
| Angola | 1.8 | 13.5 | 1.0% | 20.0 |
| Chad | 0.2 | 1.5 | 0.1% | 33.7 |
| Rep. of Congo (Brazzaville) | 0.3 | 1.9 | 0.1% | 18.2 |
| Egypt | 0.6 | 4.5 | 0.3% | 16.7 |
| Equatorial Guinea | 0.2 | 1.7 | 0.1% | 17.1 |
| Gabon | 0.5 | 3.7 | 0.3% | 41.2 |
| Libya | 6.0 | 46.4 | 3.4% | 76.7 |
| Nigeria | 5.0 | 37.2 | 2.7% | 42.4 |
| Sudan | 0.9 | 6.7 | 0.5% | 37.8 |
| Tunisia | 0.1 | 0.4 | w | 14.6 |
| Other Africa | 0.2 | 2.3 | 0.2% | 44.2 |
| **Total Africa** | **17.4** | **132.1** | **9.5%** | **35.8** |
| Australia | 0.4 | 4.1 | 0.3% | 19.9 |
| Brunei | 0.1 | 1.1 | 0.1% | 17.5 |
| China | 2.0 | 14.8 | 1.1% | 9.9 |
| India | 1.2 | 9.0 | 0.7% | 30.0 |
| Indonesia | 0.6 | 4.2 | 0.3% | 11.8 |
| Malaysia | 0.8 | 5.8 | 0.4% | 22.2 |
| Thailand | 0.1 | 0.4 | w | 3.6 |
| Vietnam | 0.6 | 4.4 | 0.3% | 32.6 |
| Other Asia Pacific | 0.2 | 1.3 | 0.1% | 11.3 |
| **Total Asia Pacific** | **6.0** | **45.2** | **3.3%** | **14.8** |
| **Total World** | **188.8** | **1383.2** | **100.0%** | **46.2** |

* More than 100 years.

^ Less than 0.05.

w Less than 0.05%.

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

**Reserves-to-production (R/P) ratio** - If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that rate.

**Source of data** - The estimates in this table have been compiled using a combination of primary official sources, third-party data from the OPEC Secretariat, Oil & Gas Journal and an independent estimate of Russian reserves based on information in the public domain. Canadian proved reserves include an official estimate of 26.5 billion barrels for oil sands 'under active development'. Venezuelan reserves are taken from the OPEC Annual Statistical Bulletin, that noted in 2008 that the figure included "proven reserves of the Magna Reserve Project in the Orinoco Belt, which amounted to 94,168mb"Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil.

Annual changes and shares of total are calculated using thousand million barrels figures.

**Source:** BP Statistical Review of World Energy, 2011.

## XI.1 (b) World Proven Reserves of Natural Gas at end 2010

| Country/ Region | Trillion cubic feet | Trillion cubic feet | Share of total | R/P ratio |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| US | 272.5 | 7.7 | 4.1% | 12.6 |
| Canada | 61.0 | 1.7 | 0.9% | 10.8 |
| Mexico | 17.3 | 0.5 | 0.3% | 8.9 |
| **Total North America** | **350.8** | **9.9** | **5.3%** | **12.0** |
| Argentina | 12.2 | 0.3 | 0.2% | 8.6 |
| Bolivia | 9.9 | 0.3 | 0.2% | 19.5 |
| Brazil | 14.7 | 0.4 | 0.2% | 28.9 |
| Colombia | 4.4 | 0.1 | 0.1% | 11.0 |
| Peru | 12.5 | 0.4 | 0.2% | 48.8 |
| Trinidad & Tobago | 12.9 | 0.4 | 0.2% | 8.6 |
| Venezuela | 192.7 | 5.5 | 2.9% | * |
| Other S. & Cent. America | 2.3 | 0.1 | w | 22.4 |
| **Total S. & Cent. America** | **261.6** | **7.4** | **4.0%** | **45.9** |
| Azerbaijan | 44.9 | 1.3 | 0.7% | 84.2 |
| Denmark | 1.8 | 0.1 | w | 6.4 |
| Germany | 2.4 | 0.1 | w | 6.5 |
| Italy | 3.0 | 0.1 | w | 11.1 |
| Kazakhstan | 65.2 | 1.8 | 1.0% | 54.9 |
| Netherlands | 41.5 | 1.2 | 0.6% | 16.6 |
| Norway | 72.1 | 2.0 | 1.1% | 19.2 |
| Poland | 4.2 | 0.1 | 0.1% | 29.2 |
| Romania | 21.0 | 0.6 | 0.3% | 54.4 |
| Russian Federation | 1580.8 | 44.8 | 23.9% | 76.0 |
| Turkmenistan | 283.6 | 8.0 | 4.3% | * |
| Ukraine | 33.0 | 0.9 | 0.5% | 50.4 |
| United Kingdom | 9.0 | 0.3 | 0.1% | 4.5 |
| Uzbekistan | 55.1 | 1.6 | 0.8% | 26.4 |
| Other Europe & Eurasia | 10.0 | 0.3 | 0.2% | 28.3 |
| **Total Europe & Eurasia** | **2227.6** | **63.1** | **33.7%** | **60.5** |
| Bahrain | 7.7 | 0.2 | 0.1% | 16.7 |
| Iran | 1045.7 | 29.6 | 15.8% | * |
| Iraq | 111.9 | 3.2 | 1.7% | * |
| Kuwait | 63.0 | 1.8 | 1.0% | * |
| Oman | 24.4 | 0.7 | 0.4% | 25.5 |

Contd..

| Country/ Region | Trillion cubic feet | Trillion cubic feet | Share of total | R/P ratio |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Qatar | 894.2 | 25.3 | 13.5% | * |
| Saudi Arabia | 283.1 | 8.0 | 4.3% | 95.5 |
| Syria | 9.1 | 0.3 | 0.1% | 33.2 |
| United Arab Emirates | 213.0 | 6.0 | 3.2% | * |
| Yemen | 17.3 | 0.5 | 0.3% | 78.3 |
| Other Middle East | 7.7 | 0.2 | 0.1% | 62.1 |
| **Total Middle East** | **2677.0** | **75.8** | **40.5%** | * |
| Algeria | 159.1 | 4.5 | 2.4% | 56.0 |
| Egypt | 78.0 | 2.2 | 1.2% | 36.0 |
| Libya | 54.7 | 1.5 | 0.8% | 98.0 |
| Nigeria | 186.9 | 5.3 | 2.8% | * |
| Other Africa | 41.4 | 1.2 | 0.6% | 65.7 |
| **Total Africa** | **520.1** | **14.7** | **7.9%** | **70.5** |
| Australia | 103.1 | 2.9 | 1.6% | 58.0 |
| Bangladesh | 12.9 | 0.4 | 0.2% | 18.3 |
| Brunei | 10.6 | 0.3 | 0.2% | 24.7 |
| China | 99.2 | 2.8 | 1.5% | 29.0 |
| India | 51.2 | 1.5 | 0.8% | 28.5 |
| Indonesia | 108.4 | 3.1 | 1.6% | 37.4 |
| Malaysia | 84.6 | 2.4 | 1.3% | 36.1 |
| Myanmar | 11.8 | 0.3 | 0.2% | 27.5 |
| Pakistan | 29.1 | 0.8 | 0.4% | 20.9 |
| Papua New Guinea | 15.6 | 0.4 | 0.2% | * |
| Thailand | 11.0 | 0.3 | 0.2% | 8.6 |
| Vietnam | 21.8 | 0.6 | 0.3% | 66.0 |
| Other Asia Pacific | 12.4 | 0.4 | 0.2% | 20.4 |
| **Total Asia Pacific** | **571.8** | **16.2** | **8.7%** | **32.8** |
| **Total World** | **6608.9** | **187.1** | **100.0%** | **58.6** |

* More than 100 years.

w Less than 0.05%.

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

Reserves-to-production (R/P) ratio - If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that rate.

Source of data - The estimates in this table have been compiled using a combination of primary official sources and third-party data from Cedigaz and the OPEC Secretariat.

**Source:** BP Statistical Review of World Energy, 2011.

## XI.2 World Crude Oil Production*

(Million Tonnes)

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 329.2 | 313.3 | 310.2 | 309.8 | 304.9 | 328.6 | **339.1** | 8.7% |
| Canada | 147.6 | 144.9 | 153.4 | 158.3 | 156.8 | 156.1 | **162.8** | 4.2% |
| Mexico | 190.7 | 187.1 | 183.1 | 172.7 | 157.7 | 147.5 | **146.3** | 3.7% |
| **Total North America** | **667.4** | **645.3** | **646.7** | **640.8** | **619.5** | **632.2** | **648.2** | **16.6%** |
| Argentina | 37.8 | 36.2 | 35.8 | 34.9 | 34.1 | 33.8 | **32.5** | 0.8% |
| Brazil | 76.5 | 84.6 | 89.2 | 90.4 | 93.9 | 100.4 | **105.7** | 2.7% |
| Colombia | 27.3 | 27.3 | 27.5 | 27.6 | 30.5 | 34.1 | **39.9** | 1.0% |
| Ecuador | 27.3 | 27.6 | 27.7 | 26.5 | 26.2 | 25.2 | **25.2** | 0.6% |
| Peru | 4.4 | 5.0 | 5.1 | 5.1 | 5.3 | 6.4 | **6.9** | 0.2% |
| Trinidad & Tobago | 7.3 | 8.3 | 8.3 | 7.2 | 6.9 | 6.8 | **6.5** | 0.2% |
| Venezuela | 150.0 | 151.0 | 144.2 | 133.9 | 131.5 | 124.8 | **126.6** | 3.2% |
| Other S. & Cent. America | 7.3 | 7.2 | 7.0 | 7.1 | 7.0 | 6.7 | **6.6** | 0.2% |
| **Total S. & Cent. America** | **337.9** | **347.1** | **344.9** | **332.7** | **335.5** | **338.2** | **350.0** | **8.9%** |
| Azerbaijan | 15.6 | 22.4 | 32.5 | 42.8 | 44.7 | 50.6 | **50.9** | 1.3% |
| Denmark | 19.1 | 18.4 | 16.7 | 15.2 | 14.0 | 12.9 | **12.2** | 0.3% |
| Italy | 5.5 | 6.1 | 5.8 | 5.9 | 5.2 | 4.6 | **5.1** | 0.1% |
| Kazakhstan | 60.6 | 62.6 | 66.1 | 68.4 | 72.0 | 78.2 | **81.6** | 2.1% |
| Norway | 149.9 | 138.2 | 128.7 | 118.6 | 114.2 | 108.8 | **98.6** | 2.5% |
| Romania | 5.7 | 5.4 | 5.0 | 4.7 | 4.7 | 4.5 | **4.3** | 0.1% |
| Russian Federation | 458.8 | 470.0 | 480.5 | 491.3 | 488.5 | 494.2 | **505.1** | 12.9% |
| Turkmenistan | 9.6 | 9.5 | 9.2 | 9.8 | 10.3 | 10.4 | **10.7** | 0.3% |
| United Kingdom | 95.4 | 84.7 | 76.6 | 76.8 | 71.7 | 68.2 | **63.0** | 1.6% |
| Uzbekistan | 6.6 | 5.4 | 5.4 | 4.9 | 4.8 | 4.5 | **3.7** | 0.1% |
| Other Europe & Eurasia | 23.4 | 21.9 | 21.7 | 21.6 | 20.6 | 19.6 | **18.2** | 0.5% |
| **Total Europe & Eurasia** | **850.1** | **844.8** | **848.1** | **860.0** | **850.8** | **856.5** | **853.3** | **21.8%** |
| Iran | 207.8 | 206.3 | 208.2 | 209.7 | 209.9 | 201.5 | **203.2** | 5.2% |
| Iraq | 100.0 | 90.0 | 98.1 | 105.2 | 119.5 | 119.8 | **120.4** | 3.1% |
| Kuwait | 122.3 | 129.3 | 132.7 | 129.9 | 137.2 | 121.7 | **122.5** | 3.1% |
| Oman | 38.1 | 37.4 | 35.7 | 34.5 | 35.9 | 38.7 | **41.0** | 1.0% |
| Qatar | 46.0 | 47.3 | 50.9 | 53.6 | 60.8 | 57.9 | **65.7** | 1.7% |
| Saudi Arabia | 506.0 | 526.8 | 514.3 | 494.2 | 515.3 | 464.7 | **467.8** | 12.0% |

Contd..

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Syria | 24.7 | 22.4 | 21.6 | 20.6 | 19.8 | 18.6 | **19.1** | 0.5% |
| United Arab Emirates | 131.7 | 137.3 | 145.5 | 140.7 | 142.9 | 126.3 | **130.8** | 3.3% |
| Yemen | 19.9 | 19.6 | 17.9 | 16.3 | 14.4 | 13.5 | **12.5** | 0.3% |
| Other Middle East | 2.2 | 1.6 | 1.4 | 1.6 | 1.5 | 1.7 | **1.7** | w |
| **Total Middle East** | **1198.9** | **1217.9** | **1226.4** | **1206.4** | **1257.2** | **1164.4** | **1184.6** | **30.3%** |
| Algeria | 83.6 | 86.4 | 86.2 | 86.5 | 85.6 | 77.9 | **77.7** | 2.0% |
| Angola | 54.5 | 69.0 | 69.6 | 82.5 | 92.2 | 87.4 | **90.7** | 2.3% |
| Chad | 8.8 | 9.1 | 8.0 | 7.5 | 6.7 | 6.2 | **6.4** | 0.2% |
| Rep. of Congo (Brazzaville) | 11.6 | 12.6 | 14.3 | 11.7 | 12.4 | 13.9 | **15.1** | 0.4% |
| Egypt | 35.4 | 33.9 | 33.7 | 34.1 | 34.6 | 35.3 | **35.0** | 0.9% |
| Equatorial Guinea | 17.4 | 17.7 | 16.9 | 17.3 | 17.2 | 15.2 | **13.6** | 0.3% |
| Gabon | 11.8 | 11.7 | 11.7 | 11.5 | 11.8 | 11.5 | **12.2** | 0.3% |
| Libya | 76.5 | 81.9 | 84.9 | 85.0 | 85.3 | 77.1 | **77.5** | 2.0% |
| Nigeria | 119.0 | 122.1 | 117.8 | 112.1 | 103.0 | 99.1 | **115.2** | 2.9% |
| Sudan | 14.9 | 15.0 | 16.3 | 23.1 | 23.7 | 23.6 | **23.9** | 0.6% |
| Tunisia | 3.4 | 3.4 | 3.3 | 4.6 | 4.2 | 4.0 | **3.8** | 0.1% |
| Other Africa | 8.1 | 7.7 | 7.6 | 8.3 | 8.1 | 7.7 | **7.1** | 0.2% |
| **Total Africa** | **444.9** | **470.7** | **470.4** | **484.4** | **484.9** | **458.9** | **478.2** | **12.2%** |
| Australia | 24.8 | 24.5 | 23.2 | 23.5 | 23.7 | 21.9 | **23.8** | 0.6% |
| Brunei | 10.3 | 10.1 | 10.8 | 9.5 | 8.5 | 8.2 | **8.4** | 0.2% |
| China | 174.1 | 181.4 | 184.8 | 186.3 | 190.4 | 189.5 | **203.0** | 5.2% |
| India | 36.3 | 34.6 | 35.8 | 36.1 | 36.1 | 35.4 | **38.9** | 1.0% |
| Indonesia | 55.2 | 53.1 | 48.9 | 47.5 | 49.0 | 47.9 | **47.8** | 1.2% |
| Malaysia | 36.5 | 34.4 | 33.5 | 34.2 | 34.6 | 33.1 | **32.1** | 0.8% |
| Thailand | 9.1 | 10.8 | 11.8 | 12.5 | 13.3 | 13.7 | **13.8** | 0.4% |
| Vietnam | 20.8 | 19.4 | 17.8 | 16.4 | 15.4 | 16.8 | **18.0** | 0.5% |
| Other Asia Pacific | 10.5 | 12.5 | 13.2 | 13.9 | 14.7 | 14.3 | **13.6** | 0.3% |
| **Total Asia Pacific** | **377.7** | **380.8** | **379.7** | **380.1** | **385.9** | **380.8** | **399.4** | **10.2%** |
| **Total World** | **3877.0** | **3906.5** | **3916.2** | **3904.3** | **3933.7** | **3831.0** | **3913.7** | **100.0%** |

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

w Less than 0.05%.

**Source:** BP Statistical Review of World Energy, 2011.

## XI.3 Crude Oil Production by OPEC Member Countries

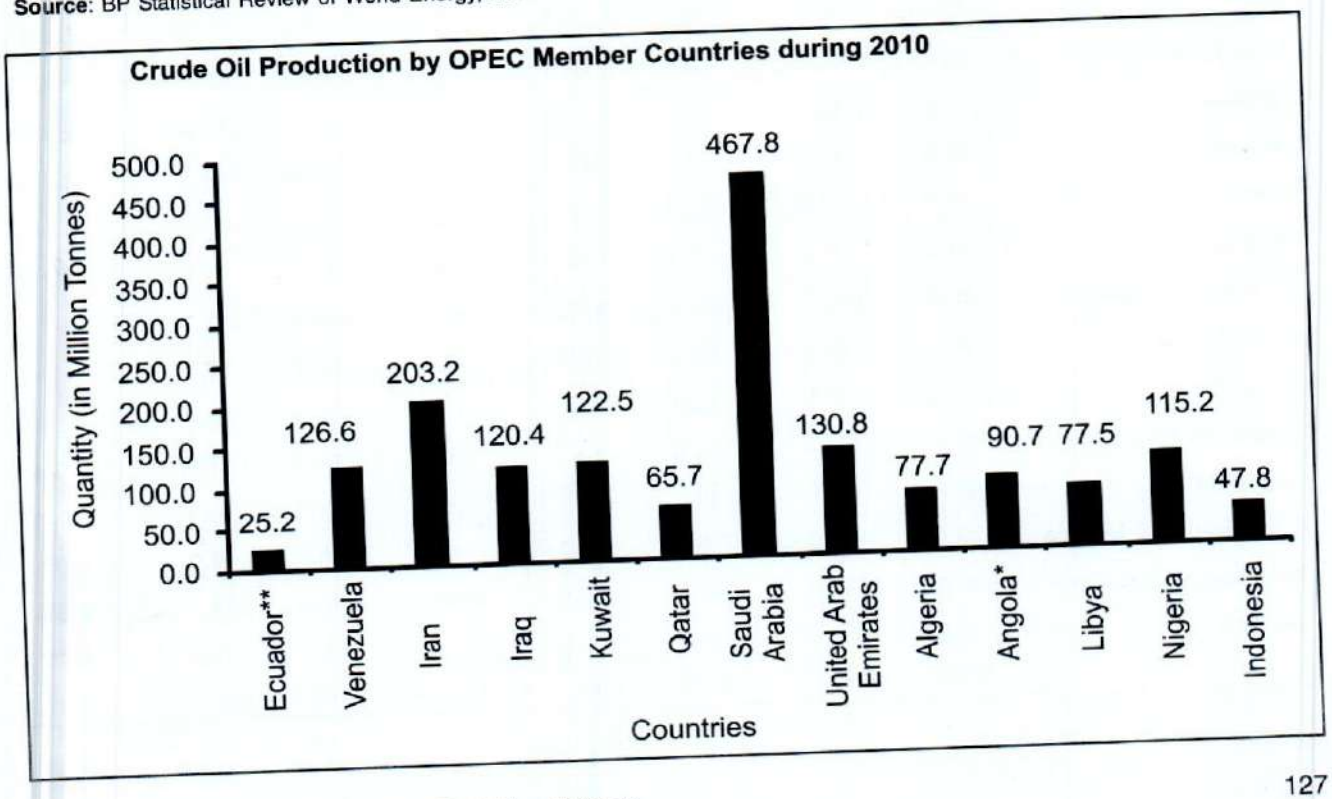
(Million Tonnes)

| OPEC Countries | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Ecuador** | 27.3 | 27.6 | 27.7 | 26.5 | 26.2 | 25.2 | 25.2 | 0.6% |
| Venezuela | 150.0 | 151.0 | 144.2 | 133.9 | 131.5 | 124.8 | 126.6 | 3.2% |
| Iran | 207.8 | 206.3 | 208.2 | 209.7 | 209.9 | 201.5 | 203.2 | 5.2% |
| Iraq | 100.0 | 90.0 | 98.1 | 105.2 | 119.5 | 119.8 | 120.4 | 3.1% |
| Kuwait | 122.3 | 129.3 | 132.7 | 129.9 | 137.2 | 121.7 | 122.5 | 3.1% |
| Qatar | 46.0 | 47.3 | 50.9 | 53.6 | 60.8 | 57.9 | 65.7 | 1.7% |
| Saudi Arabia | 506.0 | 526.8 | 514.3 | 494.2 | 515.3 | 464.7 | 467.8 | 12.0% |
| United Arab Emirates | 131.7 | 137.3 | 145.5 | 140.7 | 142.9 | 126.3 | 130.8 | 3.3% |
| Algeria | 83.6 | 86.4 | 86.2 | 86.5 | 85.6 | 77.9 | 77.7 | 2.0% |
| Angola* | 54.5 | 69.0 | 69.6 | 82.5 | 92.2 | 87.4 | 90.7 | 2.3% |
| Libya | 76.5 | 81.9 | 84.9 | 85.0 | 85.3 | 77.1 | 77.5 | 2.0% |
| Nigeria | 119.0 | 122.1 | 117.8 | 112.1 | 103.0 | 99.1 | 115.2 | 2.9% |
| Indonesia | 55.2 | 53.1 | 48.9 | 47.5 | 49.0 | 47.9 | 47.8 | 1.2% |
| **Total OPEC** | **1680.2** | **1728.1** | **1729.1** | **1707.5** | **1758.4** | **1631.4** | **1671.1** | **100.0%** |

**Notes:** *: Angola joined OPEC in 2007.

**: Ecuador joined OPEC in 1973, suspended its membership from December1992-Oct. 2007.

**Source:** BP Statistical Review of World Energy, 2011



## XI.4 World Production* of Natural Gas

Million tonnes oil equivalent

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 480.7 | 467.6 | 479.3 | 499.6 | 521.7 | 531.6 | **556.8** | 19.3% |
| Canada | 165.3 | 168.4 | 169.6 | 164.3 | 158.8 | 147.5 | **143.8** | 5.0% |
| Mexico | 38.4 | 40.5 | 46.3 | 48.2 | 48.8 | 49.4 | **49.8** | 1.7% |
| **Total North America** | **684.4** | **676.5** | **695.3** | **712.0** | **729.3** | **728.5** | **750.4** | **26.0%** |
| Argentina | 40.4 | 41.1 | 41.5 | 40.3 | 39.7 | 37.2 | **36.1** | 1.3% |
| Bolivia | 8.8 | 10.7 | 11.6 | 12.4 | 12.9 | 11.1 | **12.9** | 0.4% |
| Brazil | 9.9 | 9.9 | 10.2 | 10.1 | 12.4 | 10.5 | **13.0** | 0.5% |
| Colombia | 5.7 | 6.0 | 6.3 | 6.8 | 8.2 | 9.5 | **10.1** | 0.4% |
| Peru | 0.8 | 1.4 | 1.6 | 2.4 | 3.1 | 3.1 | **6.5** | 0.2% |
| Trinidad & Tobago | 24.6 | 27.9 | 32.8 | 35.1 | 35.4 | 36.5 | **38.1** | 1.3% |
| Venezuela | 25.6 | 24.7 | 28.3 | 26.6 | 27.0 | 25.8 | **25.7** | 0.9% |
| Other S. & Cent. America | 2.8 | 3.1 | 3.7 | 3.5 | 3.4 | 2.9 | **2.6** | 0.1% |
| **Total S. & Cent. America** | **118.6** | **124.8** | **136.0** | **137.2** | **141.8** | **136.7** | **145.1** | **5.0%** |
| Azerbaijan | 4.1 | 4.7 | 5.5 | 8.8 | 13.3 | 13.3 | **13.6** | 0.5% |
| Denmark | 8.5 | 9.4 | 9.4 | 8.3 | 9.1 | 7.6 | **7.4** | 0.3% |
| Germany | 14.7 | 14.2 | 14.1 | 12.9 | 11.7 | 11.0 | **9.6** | 0.3% |
| Italy | 10.7 | 10.0 | 9.1 | 8.0 | 7.6 | 6.6 | **6.8** | 0.2% |
| Kazakhstan | 18.0 | 20.3 | 21.5 | 24.1 | 26.8 | 29.3 | **30.3** | 1.1% |
| Netherlands | 61.6 | 56.3 | 55.4 | 54.5 | 60.0 | 56.4 | **63.5** | 2.2% |
| Norway | 70.6 | 76.5 | 78.9 | 80.7 | 89.4 | 93.4 | **95.7** | 3.3% |
| Poland | 3.9 | 3.9 | 3.9 | 3.9 | 3.7 | 3.7 | **3.7** | 0.1% |
| Romania | 11.5 | 11.2 | 10.7 | 10.4 | 10.3 | 10.1 | **9.8** | 0.3% |
| Russian Federation | 516.0 | 522.1 | 535.6 | 532.8 | 541.5 | 474.9 | **530.1** | 18.4% |
| Turkmenistan | 47.5 | 51.3 | 54.3 | 58.9 | 59.5 | 32.7 | **38.1** | 1.3% |
| Ukraine | 16.5 | 16.7 | 16.9 | 16.9 | 17.1 | 17.3 | **16.7** | 0.6% |
| United Kingdom | 86.7 | 79.4 | 72.0 | 64.9 | 62.7 | 53.7 | **51.4** | 1.8% |
| Uzbekistan | 48.8 | 48.6 | 49.0 | 53.2 | 56.0 | 54.0 | **53.2** | 1.8% |
| Other Europe & Eurasia | 9.9 | 9.8 | 10.3 | 9.7 | 9.2 | 8.8 | **9.0** | 0.3% |
| **Total Europe & Eurasia** | **929.0** | **934.2** | **946.5** | **947.9** | **977.8** | **872.8** | **938.8** | **32.6%** |
| Bahrain | 8.8 | 9.6 | 10.2 | 10.6 | 11.4 | 11.5 | **11.8** | 0.4% |
| Iran | 76.4 | 93.2 | 97.7 | 100.7 | 104.7 | 118.0 | **124.7** | 4.3% |

Contd..

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Iraq | 0.9 | 1.3 | 1.3 | 1.3 | 1.7 | 1.0 | **1.1** | w |
| Kuwait | 10.7 | 11.0 | 11.3 | 10.9 | 11.5 | 10.1 | **10.4** | 0.4% |
| Oman | 16.7 | 17.8 | 21.3 | 21.6 | 21.7 | 22.3 | **24.4** | 0.8% |
| Qatar | 35.3 | 41.2 | 45.6 | 56.9 | 69.3 | 80.4 | **105.0** | 3.6% |
| Saudi Arabia | 59.1 | 64.1 | 66.2 | 67.0 | 72.4 | 70.6 | **75.5** | 2.6% |
| Syria | 5.8 | 4.9 | 5.1 | 5.0 | 4.8 | 5.1 | **7.0** | 0.2% |
| United Arab Emirates | 41.7 | 43.0 | 44.1 | 45.3 | 45.2 | 43.9 | **45.9** | 1.6% |
| Yemen | - | - | - | - | - | 0.7 | **5.6** | 0.2% |
| Other Middle East | 1.4 | 1.7 | 2.4 | 2.7 | 3.3 | 2.8 | **3.2** | 0.1% |
| **Total Middle East** | **256.6** | **287.9** | **305.2** | **322.1** | **345.9** | **366.4** | **414.6** | **14.4%** |
| Algeria | 73.8 | 79.4 | 76.0 | 76.3 | 77.2 | 71.6 | **72.4** | 2.5% |
| Egypt | 29.7 | 38.3 | 49.2 | 50.1 | 53.1 | 56.4 | **55.2** | 1.9% |
| Libya | 7.3 | 10.2 | 11.9 | 13.8 | 14.3 | 14.3 | **14.2** | 0.5% |
| Nigeria | 20.5 | 20.2 | 25.6 | 31.5 | 31.5 | 22.3 | **30.3** | 1.1% |
| Other Africa | 8.0 | 8.9 | 9.4 | 11.1 | 14.2 | 14.7 | **16.1** | 0.6% |
| **Total Africa** | **139.3** | **156.9** | **172.1** | **182.8** | **190.4** | **179.3** | **188.1** | **6.5%** |
| Australia | 32.2 | 33.5 | 36.2 | 37.7 | 37.4 | 43.1 | **45.3** | 1.6% |
| Bangladesh | 11.9 | 13.1 | 13.8 | 14.6 | 16.1 | 17.8 | **18.0** | 0.6% |
| Brunei | 11.0 | 10.8 | 11.3 | 11.0 | 10.9 | 10.3 | **11.0** | 0.4% |
| China | 37.3 | 44.4 | 52.7 | 62.3 | 72.3 | 76.7 | **87.1** | 3.0% |
| India | 26.3 | 26.7 | 26.4 | 27.1 | 27.5 | 35.3 | **45.8** | 1.6% |
| Indonesia | 63.3 | 64.1 | 63.2 | 60.9 | 62.7 | 64.7 | **73.8** | 2.6% |
| Malaysia | 48.5 | 55.0 | 57.0 | 58.1 | 58.2 | 57.7 | **59.8** | 2.1% |
| Myanmar | 9.2 | 11.0 | 11.3 | 12.2 | 11.2 | 10.4 | **10.9** | 0.4% |
| Pakistan | 31.0 | 32.0 | 32.5 | 33.1 | 33.8 | 34.6 | **35.5** | 1.2% |
| Thailand | 20.1 | 21.3 | 21.9 | 23.4 | 25.9 | 27.8 | **32.7** | 1.1% |
| Vietnam | 3.7 | 5.8 | 6.3 | 6.4 | 6.7 | 7.2 | **8.4** | 0.3% |
| Other Asia Pacific | 9.1 | 10.0 | 12.8 | 15.2 | 16.0 | 16.1 | **15.6** | 0.5% |
| **Total Asia Pacific** | **303.7** | **327.5** | **345.4** | **362.0** | **378.7** | **401.7** | **443.9** | **15.4%** |
| **Total World** | **2431.5** | **2507.8** | **2600.4** | **2664.0** | **2763.8** | **2685.4** | **2880.9** | **100.0%** |

w Less than 0.05%

* Excluding gas flared or recycled.

**Source:** BP Statistical Review of World Energy, 2011.

## XI.5 World Consumption of Natural Gas

Million tonnes oil equivalent

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 577.3 | 568.5 | 560.0 | 597.3 | 600.6 | 588.3 | **621.0** | 21.7% |
| Canada | 85.6 | 88.0 | 87.3 | 85.7 | 86.0 | 85.0 | **84.5** | 3.0% |
| Mexico | 48.1 | 48.5 | 54.8 | 56.5 | 59.8 | 59.9 | **62.0** | 2.2% |
| **Total North America** | **710.9** | **705.0** | **702.1** | **739.5** | **746.4** | **733.1** | **767.4** | **26.9%** |
| Argentina | 34.1 | 36.4 | 37.6 | 39.5 | 40.0 | 38.8 | **39.0** | 1.4% |
| Brazil | 16.9 | 17.7 | 18.7 | 19.0 | 22.2 | 17.8 | **23.8** | 0.8% |
| Chile | 7.8 | 7.5 | 7.0 | 4.1 | 2.4 | 2.8 | **4.2** | 0.1% |
| Colombia | 5.7 | 6.0 | 6.3 | 6.7 | 6.8 | 7.8 | **8.2** | 0.3% |
| Ecuador | 0.3 | 0.3 | 0.7 | 0.5 | 0.4 | 0.4 | **0.4** | w |
| Peru | 0.8 | 1.4 | 1.6 | 2.4 | 3.1 | 3.1 | **4.9** | 0.2% |
| Trinidad & Tobago | 12.0 | 13.6 | 18.2 | 18.2 | 19.7 | 18.8 | **19.8** | 0.7% |
| Venezuela | 25.6 | 24.7 | 28.3 | 26.6 | 28.3 | 27.5 | **27.6** | 1.0% |
| Other S. & Cent. America | 2.6 | 2.9 | 3.5 | 4.0 | 4.3 | 4.5 | **5.0** | 0.2% |
| **Total S. & Cent. America** | **105.8** | **110.6** | **121.9** | **121.2** | **127.2** | **121.6** | **132.9** | **4.7%** |
| Austria | 8.5 | 9.0 | 8.5 | 8.0 | 8.6 | 8.4 | **9.1** | 0.3% |
| Azerbaijan | 7.5 | 7.7 | 8.2 | 7.2 | 8.2 | 7.0 | **5.9** | 0.2% |
| Belarus | 16.1 | 16.5 | 17.1 | 17.0 | 17.3 | 14.5 | **17.7** | 0.6% |
| Belgium & Luxembourg | 15.2 | 15.4 | 15.4 | 15.3 | 15.5 | 15.7 | **17.4** | 0.6% |
| Bulgaria | 2.5 | 2.8 | 2.9 | 2.9 | 2.9 | 2.1 | **2.3** | 0.1% |
| Czech Republic | 8.2 | 8.6 | 8.4 | 7.8 | 7.8 | 7.4 | **8.4** | 0.3% |
| Denmark | 4.7 | 4.5 | 4.6 | 4.1 | 4.1 | 4.0 | **4.5** | 0.2% |
| Finland | 3.9 | 3.6 | 3.8 | 3.5 | 3.6 | 3.2 | **3.5** | 0.1% |
| France | 40.5 | 39.6 | 37.9 | 38.2 | 39.4 | 38.0 | **42.2** | 1.5% |
| Germany | 77.3 | 77.6 | 78.5 | 74.6 | 73.1 | 70.2 | **73.2** | 2.6% |
| Greece | 2.4 | 2.4 | 2.8 | 3.4 | 3.6 | 3.0 | **3.3** | 0.1% |
| Hungary | 11.7 | 12.1 | 11.5 | 10.7 | 10.6 | 9.1 | **9.8** | 0.3% |
| Republic of Ireland | 3.7 | 3.5 | 4.0 | 4.3 | 4.5 | 4.3 | **4.8** | 0.2% |
| Italy | 66.5 | 71.2 | 69.7 | 70.0 | 70.0 | 64.4 | **68.5** | 2.4% |
| Kazakhstan | 22.5 | 24.1 | 25.3 | 23.8 | 24.5 | 22.1 | **22.7** | 0.8% |
| Lithuania | 2.8 | 2.9 | 2.9 | 3.3 | 2.9 | 2.5 | **2.8** | 0.1% |
| Netherlands | 36.8 | 35.4 | 34.3 | 33.3 | 34.7 | 35.0 | **39.2** | 1.4% |
| Norway | 4.1 | 4.0 | 4.0 | 3.8 | 3.9 | 3.7 | **3.7** | 0.1% |
| Poland | 11.9 | 12.2 | 12.4 | 12.4 | 12.5 | 12.0 | **12.9** | 0.5% |
| Portugal | 3.4 | 3.8 | 3.7 | 3.9 | 4.2 | 4.2 | **4.5** | 0.2% |
| Romania | 15.7 | 15.8 | 16.3 | 14.5 | 14.3 | 11.9 | **12.0** | 0.4% |
| Russian Federation | 354.7 | 360.2 | 367.7 | 379.9 | 374.4 | 350.7 | **372.7** | 13.0% |
| Slovakia | 5.5 | 5.9 | 5.4 | 5.1 | 5.2 | 4.4 | **5.1** | 0.2% |
| Spain | 24.7 | 29.1 | 30.3 | 31.6 | 34.8 | 31.1 | **31.0** | 1.1% |
| Sweden | 0.7 | 0.7 | 0.8 | 0.9 | 0.8 | 1.0 | **1.4** | 0.1% |
| Switzerland | 2.7 | 2.8 | 2.7 | 2.6 | 2.8 | 2.7 | **3.0** | 0.1% |

Contd..

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Turkey | 19.9 | 24.2 | 27.4 | 32.5 | 33.8 | 32.1 | **35.1** | 1.2% |
| Turkmenistan | 13.5 | 14.5 | 16.5 | 19.1 | 18.5 | 17.9 | **20.4** | 0.7% |
| Ukraine | 61.7 | 62.1 | 60.3 | 56.9 | 54.0 | 42.3 | **46.9** | 1.6% |
| United Kingdom | 87.7 | 85.5 | 81.1 | 81.9 | 84.5 | 78.0 | **84.5** | 3.0% |
| Uzbekistan | 39.1 | 38.4 | 37.7 | 41.3 | 43.8 | 39.2 | **41.0** | 1.4% |
| Other Europe & Eurasia | 14.1 | 14.3 | 14.7 | 15.3 | 14.5 | 12.3 | **14.1** | 0.5% |
| **Total Europe & Eurasia** | **990.1** | **1010.5** | **1016.5** | **1029.1** | **1033.4** | **954.5** | **1023.5** | **35.8%** |
| Iran | 77.9 | 94.5 | 97.8 | 101.7 | 107.4 | 118.2 | **123.2** | 4.3% |
| Israel | 1.1 | 1.5 | 2.1 | 2.5 | 3.7 | 4.1 | **4.8** | 0.2% |
| Kuwait | 10.7 | 11.0 | 11.3 | 10.9 | 11.5 | 10.9 | **12.9** | 0.5% |
| Qatar | 13.5 | 16.8 | 17.6 | 17.4 | 17.4 | 18.0 | **18.4** | 0.6% |
| Saudi Arabia | 59.1 | 64.1 | 66.2 | 67.0 | 72.4 | 70.6 | **75.5** | 2.6% |
| United Arab Emirates | 36.2 | 37.8 | 39.0 | 44.3 | 53.5 | 53.2 | **54.5** | 1.9% |
| Other Middle East | 23.9 | 25.5 | 28.3 | 29.1 | 32.8 | 34.7 | **39.6** | 1.4% |
| **Total Middle East** | **222.4** | **251.3** | **262.3** | **272.8** | **298.7** | **309.7** | **329.0** | **11.5%** |
| Algeria | 19.8 | 20.9 | 21.4 | 21.9 | 22.8 | 24.5 | **26.0** | 0.9% |
| Egypt | 28.5 | 28.4 | 32.9 | 34.5 | 36.8 | 38.3 | **40.6** | 1.4% |
| South Africa | 1.9 | 2.8 | 3.1 | 3.1 | 3.4 | 3.0 | **3.4** | 0.1% |
| Other Africa | 21.4 | 22.5 | 22.0 | 25.4 | 27.2 | 23.2 | **24.4** | 0.9% |
| **Total Africa** | **71.7** | **74.7** | **79.3** | **85.0** | **90.1** | **89.0** | **94.5** | **3.3%** |
| Australia | 21.0 | 19.8 | 22.8 | 24.9 | 25.9 | 27.7 | **27.3** | 1.0% |
| Bangladesh | 11.9 | 13.1 | 13.8 | 14.6 | 16.1 | 17.8 | **18.0** | 0.6% |
| China | 35.7 | 42.1 | 50.5 | 63.5 | 73.2 | 80.6 | **98.1** | 3.4% |
| China Hong Kong SAR | 2.4 | 2.4 | 2.6 | 2.5 | 2.9 | 2.8 | **3.4** | 0.1% |
| India | 28.7 | 32.1 | 33.5 | 36.1 | 37.2 | 45.9 | **55.7** | 1.9% |
| Indonesia | 29.0 | 29.9 | 29.9 | 28.2 | 30.0 | 33.6 | **36.3** | 1.3% |
| Japan | 69.3 | 70.7 | 75.4 | 81.2 | 84.4 | 78.7 | **85.1** | 3.0% |
| Malaysia | 22.2 | 28.3 | 30.4 | 30.1 | 30.4 | 30.3 | **32.2** | 1.1% |
| New Zealand | 3.5 | 3.2 | 3.3 | 3.6 | 3.4 | 3.5 | **3.7** | 0.1% |
| Pakistan | 31.0 | 32.0 | 32.5 | 33.1 | 33.8 | 34.6 | **35.5** | 1.2% |
| Philippines | 2.2 | 3.0 | 2.4 | 2.8 | 3.0 | 3.0 | **2.8** | 0.1% |
| Singapore | 4.5 | 6.2 | 6.3 | 7.8 | 7.4 | 7.3 | **7.6** | 0.3% |
| South Korea | 25.5 | 27.3 | 28.8 | 31.2 | 32.1 | 30.5 | **38.6** | 1.4% |
| Taiwan | 9.2 | 9.3 | 10.0 | 10.6 | 10.5 | 10.2 | **12.7** | 0.4% |
| Thailand | 26.9 | 29.3 | 30.0 | 31.8 | 33.6 | 35.3 | **40.6** | 1.4% |
| Vietnam | 3.7 | 5.8 | 6.3 | 6.4 | 6.7 | 7.2 | **8.4** | 0.3% |
| Other Asia Pacific | 4.1 | 4.7 | 4.9 | 5.4 | 5.1 | 4.6 | **4.8** | 0.2% |
| **Total Asia Pacific** | **330.9** | **359.0** | **383.4** | **413.7** | **435.6** | **453.5** | **510.8** | **17.9%** |
| **TOTAL WORLD** | **2431.8** | **2511.2** | **2565.6** | **2661.3** | **2731.4** | **2661.4** | **2858.1** | **100.0%** |

w Less than 0.05%.

**Note:** The difference between these world consumption figures and the world production statistics is due to variations in stocks at storage facilities and liquefaction plants, together with unavoidable disparities in the definition, measurement or conversion of gas supply and demand data.

**Source**: BP Statistical Review of World Energy, 2011

## XI.6 Productivity of Producing Well in OPEC Member Countries During 2010

| Country | Wells | Av-daily Production ('000' bbl) | t/w/d |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| Algeria | 2014 | 1189.8 | 80.6 |
| Angola | 1325 | 1691.2 | 174.1 |
| Ecuador | 3433 | 476.4 | 18.9 |
| I.R.Iran | 2064 | 3544 | 234.2 |
| Iraq | 1512 | 2358.1 | 212.7 |
| Kuwait | 1308 | 2312.1 | 241.1 |
| Sp.Libya A.J. | 2064 | 1486.6 | 98.2 |
| Nigeria | 3589 | 2048.3 | 77.8 |
| Qatar | 527 | 733.4 | 189.8 |
| Suadi Arabia & Soudi-Kuwait Neutral Zone | 3650 | 8165.6 | 305.1 |
| U.A.E | 1488 | 2323.8 | 213.0 |
| Venezuela | 14505 | 2853.6 | 26.8 |
| **Total OPEC** | **37479** | **29182.9** | 106.2 |

t/w/d: tonne/well/day

**Source** : OPEC Annual Statistical Bulletin, 2010.

## XI.7 World Oil Refining Capacity

(Thousand barrels daily *)

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 17125 | 17339 | 17443 | 17594 | 17672 | 17688 | **17594** | 19.2% |
| Canada | 1915 | 1896 | 1914 | 1907 | 1951 | 1976 | **1914** | 2.1% |
| Mexico | 1463 | 1463 | 1463 | 1463 | 1463 | 1463 | **1463** | 1.6% |
| **Total North America** | **20503** | **20698** | **20821** | **20964** | **21086** | **21127** | **20971** | **22.8%** |
| Argentina | 623 | 627 | 623 | 634 | 634 | 635 | **638** | 0.7% |
| Brazil | 1915 | 1916 | 1916 | 1935 | 2045 | 2095 | **2095** | 2.3% |
| Netherlands Antilles | 320 | 320 | 320 | 320 | 320 | 320 | **320** | 0.3% |
| Venezuela | 1284 | 1291 | 1294 | 1303 | 1303 | 1303 | **1303** | 1.4% |
| Other S. & Cent. America | 2235 | 2251 | 2260 | 2310 | 2356 | 2335 | **2351** | 2.6% |
| **Total S. & Cent. America** | **6377** | **6405** | **6413** | **6502** | **6658** | **6688** | **6707** | **7.3%** |
| Belgium | 782 | 778 | 774 | 745 | 745 | 823 | **823** | 0.9% |
| France | 1982 | 1978 | 1959 | 1962 | 1971 | 1873 | **1703** | 1.9% |
| Germany | 2320 | 2322 | 2390 | 2390 | 2366 | 2362 | **2091** | 2.3% |
| Greece | 412 | 418 | 425 | 425 | 425 | 425 | **440** | 0.5% |
| Italy | 2497 | 2515 | 2526 | 2497 | 2396 | 2396 | **2396** | 2.6% |
| Netherlands | 1284 | 1274 | 1274 | 1236 | 1280 | 1280 | **1274** | 1.4% |
| Norway | 310 | 310 | 310 | 310 | 310 | 310 | **310** | 0.3% |
| Russian Federation | 5457 | 5522 | 5599 | 5596 | 5549 | 5527 | **5555** | 6.1% |
| Spain | 1372 | 1377 | 1377 | 1377 | 1377 | 1377 | **1427** | 1.6% |
| Sweden | 422 | 422 | 422 | 422 | 422 | 422 | **422** | 0.5% |
| Turkey | 693 | 613 | 613 | 613 | 613 | 613 | **613** | 0.7% |
| United Kingdom | 1848 | 1819 | 1836 | 1819 | 1827 | 1757 | **1757** | 1.9% |
| Other Europe & Eurasia | 5687 | 5650 | 5537 | 5573 | 5559 | 5596 | **5705** | 6.2% |
| **Total Europe & Eurasia** | **25066** | **24999** | **25042** | **24966** | **24840** | **24761** | **24516** | **26.7%** |
| Iran | 1642 | 1642 | 1727 | 1772 | 1805 | 1860 | **1860** | 2.0% |
| Iraq | 740 | 743 | 748 | 755 | 744 | 763 | **856** | 0.9% |
| Kuwait | 931 | 931 | 931 | 931 | 931 | 931 | **931** | 1.0% |
| Saudi Arabia | 2075 | 2100 | 2100 | 2100 | 2100 | 2100 | **2100** | 2.3% |
| United Arab Emirates | 620 | 620 | 620 | 625 | 673 | 673 | **673** | 0.7% |
| Other Middle East | 1248 | 1248 | 1283 | 1339 | 1345 | 1491 | **1491** | 1.6% |
| **Total Middle East** | **7256** | **7284** | **7409** | **7522** | **7598** | **7818** | **7911** | **8.6%** |
| **Total Africa** | **3116** | **3224** | **3049** | **3037** | **3171** | **3022** | **3292** | **3.6%** |
| Australia | 763 | 711 | 694 | 733 | 734 | 734 | **740** | 0.8% |
| China | 6603 | 7165 | 7865 | 8399 | 8722 | 9479 | **10121** | 11.0% |
| India | 2558 | 2558 | 2872 | 2983 | 2992 | 3574 | **3703** | 4.0% |
| Indonesia | 1057 | 1057 | 1133 | 1157 | 1068 | 1106 | **1158** | 1.3% |
| Japan | 4567 | 4529 | 4542 | 4598 | 4650 | 4621 | **4463** | 4.9% |
| Singapore | 1255 | 1255 | 1255 | 1255 | 1385 | 1385 | **1385** | 1.5% |
| South Korea | 2598 | 2598 | 2633 | 2671 | 2712 | 2712 | **2712** | 3.0% |
| Taiwan | 1159 | 1159 | 1140 | 1197 | 1197 | 1197 | **1197** | 1.3% |
| Thailand | 1068 | 1078 | 1125 | 1125 | 1175 | 1240 | **1253** | 1.4% |
| Other Asia Pacific | 1410 | 1428 | 1435 | 1443 | 1459 | 1605 | **1662** | 1.8% |
| **Total Asia Pacific** | **23037** | **23537** | **24693** | **25561** | **26094** | **27653** | **28394** | **30.9%** |
| **Total World** | **85355** | **86147** | **87427** | **88552** | **89446** | **91068** | **91791** | **100.0%** |

* Atmospheric distillation capacity on a calendar-day basis.

**Note: Annual changes and shares of total are calculated using thousand barrels daily figures.**

**Source**: BP Statistical Review of World Energy, 2011

## XI.8 World Refinery Crude Throughput

(Thousand barrels daily*)

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 15475 | 15220 | 15242 | 15156 | 14648 | 14336 | **14722** | 19.7% |
| Canada | 1957 | 1883 | 1835 | 1908 | 1839 | 1773 | **1827** | 2.4% |
| Mexico | 1436 | 1415 | 1407 | 1395 | 1392 | 1392 | **1184** | 1.6% |
| S. & Cent. America | 5414 | 5391 | 5348 | 5470 | 5390 | 4775 | **4621** | 6.2% |
| Europe & Eurasia | 20417 | 20782 | 20822 | 20758 | 20700 | 19562 | **19664** | 26.3% |
| Middle East | 5805 | 6007 | 6294 | 6442 | 6404 | 6330 | **6513** | 8.7% |
| Africa | 2304 | 2490 | 2352 | 2343 | 2455 | 2312 | **2454** | 3.3% |
| Australasia | 820 | 757 | 749 | 767 | 756 | 762 | **756** | 1.0% |
| China | 5382 | 5916 | 6155 | 6563 | 6953 | 7488 | **8492** | 11.4% |
| India | 2559 | 2561 | 2860 | 3107 | 3213 | 3641 | **3903** | 5.2% |
| Japan | 4038 | 4136 | 4026 | 3995 | 3946 | 3627 | **3619** | 4.8% |
| Other Asia Pacific | 7354 | 7470 | 7463 | 7489 | 7342 | 7065 | **7062** | 9.4% |
| **Total World** | **72961** | **74029** | **74553** | **75393** | **75038** | **73063** | **74816** | **100.0%** |

* Input to primary distallation units only.

**Note: Annual changes and shares of total are calculated using thousand barrels daily figures.** **Source**: BP Statistical Review of World Energy, 2011

## XI.9 Country-wise World Oil Consumption

(Million tonnes)

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 936.5 | 939.8 | 930.7 | 928.8 | 875.8 | 833.2 | **850.0** | 21.1% |
| Canada | 100.6 | 100.3 | 100.5 | 103.8 | 102.5 | 97.1 | **102.3** | 2.5% |
| Mexico | 88.6 | 90.9 | 89.8 | 92.1 | 91.7 | 88.5 | **87.4** | 2.2% |
| **Total North America** | **1125.8** | **1131.0** | **1120.9** | **1124.7** | **1070.0** | **1018.8** | **1039.7** | **25.8%** |
| Argentina | 19.3 | 20.6 | 21.5 | 24.2 | 25.9 | 23.7 | **25.7** | 0.6% |
| Brazil | 91.3 | 94.0 | 95.1 | 100.6 | 107.1 | 107.0 | **116.9** | 2.9% |
| Chile | 11.1 | 11.8 | 12.3 | 16.2 | 16.8 | 15.6 | **14.7** | 0.4% |
| Colombia | 9.9 | 10.5 | 11.0 | 10.7 | 10.6 | 10.5 | **11.0** | 0.3% |
| Ecuador | 6.3 | 7.5 | 8.2 | 8.9 | 9.4 | 10.1 | **10.6** | 0.3% |
| Peru | 7.3 | 7.1 | 6.9 | 7.1 | 8.0 | 8.1 | **8.4** | 0.2% |
| Trinidad & Tobago | 1.8 | 2.1 | 2.4 | 2.4 | 2.2 | 2.1 | **2.1** | 0.1% |
| Venezuela | 27.2 | 29.1 | 30.5 | 31.5 | 32.9 | 33.7 | **35.2** | 0.9% |
| Other S. & Cent. America | 56.8 | 57.1 | 58.1 | 59.9 | 58.6 | 57.9 | **57.3** | 1.4% |
| **Total S. & Cent. America** | **231.1** | **239.9** | **246.0** | **261.5** | **271.4** | **268.6** | **282.0** | **7.0%** |
| Austria | 13.8 | 14.2 | 14.2 | 13.4 | 13.5 | 13.0 | **13.0** | 0.3% |
| Azerbaijan | 4.6 | 5.3 | 4.8 | 4.5 | 3.5 | 3.2 | **3.3** | 0.1% |
| Belarus | 7.4 | 7.1 | 8.0 | 7.3 | 8.1 | 9.3 | **6.6** | 0.2% |
| Belgium & Luxembourg | 37.6 | 37.7 | 37.4 | 37.7 | 40.8 | 33.4 | **35.0** | 0.9% |
| Bulgaria | 4.7 | 5.0 | 5.3 | 5.1 | 5.4 | 5.6 | **4.2** | 0.1% |
| Czech Republic | 9.5 | 9.9 | 9.8 | 9.7 | 9.9 | 9.7 | **9.2** | 0.2% |
| Denmark | 9.1 | 9.3 | 9.6 | 9.7 | 9.5 | 8.5 | **8.7** | 0.2% |
| Finland | 10.6 | 11.0 | 10.6 | 10.6 | 10.5 | 9.9 | **10.4** | 0.3% |
| France | 94.0 | 93.1 | 93.0 | 91.4 | 90.8 | 87.5 | **83.4** | 2.1% |
| Germany | 124.0 | 122.4 | 123.6 | 112.5 | 118.9 | 113.9 | **115.1** | 2.9% |
| Greece | 21.4 | 21.2 | 22.2 | 21.7 | 21.4 | 20.2 | **18.5** | 0.5% |
| Hungary | 6.5 | 7.5 | 7.8 | 7.7 | 7.5 | 7.1 | **6.7** | 0.2% |
| Republic of Ireland | 8.9 | 9.3 | 9.3 | 9.4 | 9.0 | 8.0 | **7.6** | 0.2% |
| Italy | 89.7 | 86.7 | 86.7 | 84.0 | 80.4 | 75.1 | **73.1** | 1.8% |
| Kazakhstan | 10.7 | 11.3 | 11.6 | 11.8 | 12.8 | 12.1 | **12.5** | 0.3% |
| Lithuania | 2.6 | 2.8 | 2.8 | 2.8 | 3.1 | 2.6 | **2.7** | 0.1% |
| Netherlands | 47.1 | 50.6 | 52.0 | 53.5 | 51.1 | 49.4 | **49.8** | 1.2% |
| Norway | 9.9 | 10.0 | 10.3 | 10.5 | 10.2 | 10.3 | **10.7** | 0.3% |
| Poland | 21.6 | 22.4 | 23.3 | 24.2 | 25.3 | 25.3 | **26.3** | 0.7% |
| Portugal | 15.4 | 16.0 | 14.4 | 14.4 | 13.6 | 12.8 | **12.6** | 0.3% |
| Romania | 10.9 | 10.5 | 10.3 | 10.3 | 10.4 | 9.2 | **9.1** | 0.2% |
| Russian Federation | 130.6 | 129.9 | 135.8 | 135.7 | 141.4 | 135.2 | **147.6** | 3.7% |
| Slovakia | 3.2 | 3.8 | 3.4 | 3.6 | 3.9 | 3.7 | **3.7** | 0.1% |
| Spain | 79.3 | 80.4 | 79.7 | 80.7 | 79.0 | 75.7 | **74.5** | 1.8% |
| Sweden | 16.5 | 16.5 | 16.9 | 16.1 | 15.7 | 14.6 | **14.5** | 0.4% |

Contd..

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Switzerland | 12.0 | 12.2 | 12.6 | 11.3 | 12.1 | 12.3 | **11.4** | 0.3% |
| Turkey | 31.0 | 30.2 | 29.5 | 30.5 | 30.9 | 28.2 | **28.7** | 0.7% |
| Turkmenistan | 4.3 | 4.5 | 4.7 | 5.1 | 5.3 | 5.4 | **5.6** | 0.1% |
| Ukraine | 14.2 | 13.5 | 14.1 | 15.5 | 14.8 | 13.3 | **11.6** | 0.3% |
| United Kingdom | 81.7 | 83.0 | 82.3 | 79.2 | 77.9 | 74.4 | **73.7** | 1.8% |
| Uzbekistan | 7.0 | 5.3 | 5.3 | 4.9 | 4.8 | 4.8 | **5.0** | 0.1% |
| Other Europe & Eurasia | 26.1 | 27.3 | 27.8 | 29.6 | 29.9 | 28.5 | **28.3** | 0.7% |
| **Total Europe & Eurasia** | **966.0** | **970.1** | **978.9** | **964.4** | **971.5** | **922.2** | **922.9** | **22.9%** |
| Iran | 74.5 | 78.4 | 82.4 | 82.5 | 87.4 | 85.1 | **86.0** | 2.1% |
| Israel | 12.0 | 12.2 | 11.9 | 12.4 | 12.2 | 11.5 | **11.2** | 0.3% |
| Kuwait | 15.2 | 16.7 | 15.2 | 15.3 | 16.3 | 17.2 | **17.7** | 0.4% |
| Qatar | 3.4 | 4.0 | 4.6 | 5.4 | 6.2 | 6.2 | **7.4** | 0.2% |
| Saudi Arabia | 88.3 | 88.1 | 92.3 | 98.2 | 107.2 | 117.2 | **125.5** | 3.1% |
| United Arab Emirates | 24.8 | 26.7 | 28.3 | 30.0 | 32.0 | 29.8 | **32.3** | 0.8% |
| Other Middle East | 60.9 | 62.3 | 67.4 | 70.2 | 73.6 | 77.3 | **80.2** | 2.0% |
| **Total Middle East** | **279.0** | **288.5** | **302.3** | **314.1** | **334.9** | **344.3** | **360.2** | **8.9%** |
| Algeria | 10.6 | 11.0 | 11.5 | 12.9 | 14.0 | 14.9 | **14.9** | 0.4% |
| Egypt | 26.8 | 29.8 | 28.7 | 30.6 | 32.6 | 34.4 | **36.3** | 0.9% |
| South Africa | 24.7 | 24.6 | 25.3 | 26.2 | 25.3 | 24.7 | **25.3** | 0.6% |
| Other Africa | 66.4 | 69.1 | 68.2 | 71.1 | 74.8 | 77.0 | **79.0** | 2.0% |
| **Total Africa** | **128.5** | **134.5** | **133.7** | **140.8** | **146.8** | **150.9** | **155.5** | **3.9%** |
| Australia | 39.1 | 40.2 | 41.5 | 41.8 | 42.5 | 42.2 | **42.6** | 1.1% |
| Bangladesh | 4.0 | 4.6 | 4.5 | 4.6 | 4.7 | 4.8 | **4.8** | 0.1% |
| China | 318.9 | 327.8 | 351.2 | 369.3 | 376.0 | 388.2 | **428.6** | 10.6% |
| China Hong Kong SAR | 15.4 | 13.8 | 15.0 | 16.1 | 14.6 | 14.0 | **16.1** | 0.4% |
| India | 120.2 | 119.6 | 120.4 | 133.4 | 144.1 | 151.0 | **155.5** | 3.9% |
| Indonesia | 62.0 | 61.2 | 58.3 | 59.5 | 59.1 | 59.2 | **59.6** | 1.5% |
| Japan | 241.0 | 244.8 | 238.0 | 229.7 | 222.1 | 198.7 | **201.6** | 5.0% |
| Malaysia | 24.5 | 23.9 | 23.4 | 24.8 | 24.8 | 24.5 | **25.3** | 0.6% |
| New Zealand | 6.9 | 7.1 | 7.2 | 7.2 | 7.3 | 6.8 | **6.9** | 0.2% |
| Pakistan | 16.0 | 15.3 | 17.6 | 19.2 | 19.3 | 20.6 | **20.5** | 0.5% |
| Philippines | 16.0 | 14.9 | 13.3 | 14.0 | 12.3 | 13.1 | **13.1** | 0.3% |
| Singapore | 38.1 | 42.3 | 45.1 | 49.0 | 52.0 | 56.1 | **62.2** | 1.5% |
| South Korea | 103.9 | 104.4 | 104.5 | 107.1 | 101.9 | 103.0 | **105.6** | 2.6% |
| Taiwan | 48.7 | 49.1 | 48.4 | 50.2 | 45.0 | 44.1 | **46.2** | 1.1% |
| Thailand | 48.4 | 50.6 | 50.1 | 49.2 | 49.0 | 49.9 | **50.2** | 1.2% |
| Vietnam | 12.5 | 12.2 | 12.0 | 13.3 | 14.1 | 14.1 | **15.6** | 0.4% |
| Other Asia Pacific | 12.7 | 12.8 | 12.8 | 13.5 | 13.0 | 13.4 | **13.5** | 0.3% |
| **Total Asia Pacific** | **1128.3** | **1144.5** | **1163.5** | **1201.9** | **1201.9** | **1203.8** | **1267.8** | **31.5%** |
| **Total World** | **3858.7** | **3908.5** | **3945.3** | **4007.3** | **3996.5** | **3908.7** | **4028.1** | **100.0%** |

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

**Source**: BP Statistical Review of World Energy, 2011

## XI.10 Product-wise Regional Consumption of Main Petroleum Products

(Thousand barrels daily)

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **North America** | | | | | | | | |
| Light distillates | 10972 | 11012 | 11133 | 11206 | 10860 | 10839 | **10949** | 46.8% |
| Middle distillates | 7131 | 7248 | 7297 | 7318 | 6936 | 6284 | **6548** | 28.0% |
| Fuel oil | 1338 | 1394 | 1055 | 1081 | 941 | 801 | **826** | 3.5% |
| Others | 5506 | 5410 | 5470 | 5467 | 5105 | 5022 | **5095** | 21.8% |
| **Total North America** | **24947** | **25063** | **24955** | **25073** | **23841** | **22946** | **23418** | **100.0%** |
| **of which: US** | | | | | | | | |
| Light distillates | 9518 | 9548 | 9599 | 9597 | 9253 | 9257 | **9305** | 48.6% |
| Middle distillates | 6116 | 6198 | 6226 | 6199 | 5801 | 5241 | **5449** | 28.5% |
| Fuel oil | 859 | 914 | 683 | 718 | 618 | 508 | **547** | 2.9% |
| Others | 4239 | 4143 | 4178 | 4166 | 3826 | 3766 | **3848** | 20.1% |
| **Total US** | **20732** | **20802** | **20687** | **20680** | **19498** | **18771** | **19148** | **100.0%** |
| **S. & Cent. America** | | | | | | | | |
| Light distillates | 1381 | 1467 | 1508 | 1608 | 1697 | 1749 | **1835** | 30.1% |
| Middle distillates | 1759 | 1802 | 1847 | 2017 | 2091 | 2045 | **2203** | 36.1% |
| Fuel oil | 712 | 717 | 729 | 774 | 770 | 770 | **757** | 12.4% |
| Others | 1094 | 1158 | 1187 | 1224 | 1277 | 1264 | **1309** | 21.4% |
| **Total S. & Cent. America** | **4946** | **5144** | **5271** | **5622** | **5835** | **5827** | **6104** | **100.0%** |
| **Europe** | | | | | | | | |
| Light distillates | 4023 | 3921 | 3781 | 3725 | 3521 | 3447 | **3401** | 22.4% |
| Middle distillates | 7364 | 7579 | 7746 | 7630 | 7855 | 7543 | **7663** | 50.5% |
| Fuel oil | 1781 | 1746 | 1705 | 1615 | 1565 | 1352 | **1230** | 8.1% |
| Others | 3088 | 3165 | 3171 | 3145 | 3126 | 2953 | **2867** | 18.9% |
| **Total Europe** | **16257** | **16411** | **16403** | **16115** | **16066** | **15295** | **15161** | **100.0%** |
| **Former Soviet Union** | | | | | | | | |
| Light distillates | 1078 | 1094 | 1136 | 1205 | 1260 | 1234 | **1287** | 29.6% |
| Middle distillates | 1111 | 1144 | 1182 | 1253 | 1334 | 1211 | **1293** | 29.7% |
| Fuel oil | 537 | 516 | 571 | 461 | 428 | 399 | **390** | 9.0% |
| Others | 1216 | 1191 | 1205 | 1236 | 1269 | 1309 | **1379** | 31.7% |
| **Total Former Soviet Union** | **3942** | **3946** | **4095** | **4156** | **4291** | **4153** | **4349** | **100.0%** |
| **Middle East** | | | | | | | | |
| Light distillates | 1293 | 1373 | 1458 | 1457 | 1587 | 1686 | **1783** | 22.8% |
| Middle distillates | 1894 | 1979 | 2107 | 2150 | 2275 | 2314 | **2387** | 30.5% |
| Fuel oil | 1459 | 1541 | 1585 | 1727 | 1867 | 1932 | **2035** | 26.0% |
| Others | 1299 | 1331 | 1348 | 1402 | 1423 | 1501 | **1616** | 20.7% |
| **Total Middle East** | **5946** | **6225** | **6497** | **6736** | **7153** | **7433** | **7821** | **100.0%** |
| **Africa** | | | | | | | | |
| Light distillates | 666 | 680 | 670 | 695 | 742 | 773 | **802** | 24.4% |
| Middle distillates | 1155 | 1194 | 1224 | 1320 | 1389 | 1433 | **1486** | 45.2% |
| Fuel oil | 380 | 428 | 407 | 413 | 418 | 430 | **447** | 13.6% |
| Others | 506 | 533 | 523 | 546 | 549 | 559 | **555** | 16.9% |
| **Total Africa** | **2708** | **2835** | **2824** | **2974** | **3097** | **3195** | **3291** | **100.0%** |

Contd..

| Country/Region | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Asia Pacific** | | | | | | | | |
| Light distillates | 6890 | 7091 | 7180 | 7540 | 7616 | 7875 | **8326** | 30.6% |
| Middle distillates | 8766 | 9005 | 9058 | 9205 | 9312 | 9262 | **9836** | 36.1% |
| Fuel oil | 3505 | 3493 | 3573 | 3605 | 3437 | 3101 | **3163** | 11.6% |
| Others | 4920 | 4914 | 5103 | 5404 | 5351 | 5627 | **5912** | 21.7% |
| **Total Asia Pacific** | **24081** | **24503** | **24914** | **25753** | **25715** | **25866** | **27237** | **100.0%** |
| **of which: China** | | | | | | | | |
| Light distillates | 1681 | 1787 | 1900 | 2036 | 2125 | 2211 | **2454** | 27.1% |
| Middle distillates | 2277 | 2518 | 2713 | 2869 | 3079 | 3178 | **3577** | 39.5% |
| Fuel oil | 943 | 893 | 929 | 899 | 776 | 662 | **671** | 7.4% |
| Others | 1837 | 1745 | 1896 | 2013 | 1957 | 2150 | **2355** | 26.0% |
| **Total China** | **6738** | **6944** | **7437** | **7817** | **7937** | **8201** | **9057** | **100.0%** |
| **of which: Japan** | | | | | | | | |
| Light distillates | 1760 | 1823 | 1814 | 1791 | 1676 | 1678 | **1742** | 39.1% |
| Middle distillates | 1869 | 1878 | 1760 | 1621 | 1502 | 1380 | **1385** | 31.1% |
| Fuel oil | 657 | 680 | 661 | 661 | 710 | 453 | **443** | 10.0% |
| Others | 951 | 953 | 969 | 956 | 948 | 880 | **880** | 19.8% |
| **Total Japan** | **5238** | **5334** | **5203** | **5029** | **4836** | **4391** | **4451** | **100.0%** |
| **World** | | | | | | | | |
| Light distillates | 26303 | 26639 | 26866 | 27436 | 27281 | 27602 | **28383** | 32.5% |
| Middle distillates | 29182 | 29951 | 30460 | 30892 | 31192 | 30091 | **31417** | 36.0% |
| Fuel oil | 9713 | 9836 | 9625 | 9676 | 9426 | 8786 | **8849** | 10.1% |
| Others | 17630 | 17701 | 18008 | 18425 | 18101 | 18235 | **18734** | 21.4% |
| **Total World** | **82827** | **84126** | **84958** | **86428** | **85999** | **84714** | **87382** | **100.0%** |
| **OECD** | | | | | | | | |
| Light distillates | 18009 | 18059 | 18068 | 18167 | 17480 | 17440 | **17622** | 37.9% |
| Middle distillates | 17360 | 17722 | 17832 | 17660 | 17366 | 16240 | **16669** | 35.9% |
| Fuel oil | 4156 | 4192 | 3782 | 3713 | 3518 | 2875 | **2753** | 5.9% |
| Others | 10041 | 10023 | 10112 | 10070 | 9689 | 9408 | **9395** | 20.2% |
| **Total OECD** | **49566** | **49996** | **49794** | **49611** | **48053** | **45963** | **46438** | **100.0%** |
| **Non-OECD** | | | | | | | | |
| Light distillates | 8294 | 8580 | 8798 | 9268 | 9801 | 10162 | **10761** | 26.3% |
| Middle distillates | 11823 | 12229 | 12628 | 13232 | 13826 | 13851 | **14748** | 36.0% |
| Fuel oil | 5556 | 5643 | 5844 | 5962 | 5908 | 5911 | **6096** | 14.9% |
| Others | 7589 | 7678 | 7895 | 8354 | 8412 | 8827 | **9339** | 22.8% |
| **Total Non-OECD** | **33262** | **34130** | **35164** | **36817** | **37946** | **38751** | **40944** | **100.0%** |
| **European Union** | | | | | | | | |
| Light distillates | 3776 | 3687 | 3549 | 3502 | 3317 | 3223 | **3183** | 22.9% |
| Middle distillates | 6814 | 6981 | 7116 | 6978 | 7166 | 6857 | **6964** | 50.1% |
| Fuel oil | 1600 | 1599 | 1584 | 1503 | 1460 | 1284 | **1173** | 8.4% |
| Others | 2763 | 2834 | 2853 | 2818 | 2814 | 2652 | **2570** | 18.5% |
| **Total European Union #** | **14953** | **15101** | **15103** | **14801** | **14757** | **14016** | **13890** | **100.0%** |

# Excludes Estonia, Latvia, Lithuania prior to 1992 and Slovenia prior to 1991

Notes: Annual changes and shares of total are calculated using thousand barrels daily figures.

Light distillates' consists of aviation and motor gasolines and light distillate feedstock (LDF) 'Middle distillates' consists of jet and heating kerosines, and gas and diesel oils (including marine bunkers) 'Fuel oil' includes marine bunkers and crude oil used directly as fuel 'Others' consists of refinery gas, liquified petroleum gas (LPG), solvents, petroleum coke, lubricants, bitumen, wax, other refined products and refinery fuel and loss.

**Source:** BP Statistical Review of World Energy, 2011

## XI.11 World Oil Production, Consumption and Relative Deficit/Surplus in each Country/Region

(Million Tonnes)

| Country/Region | 2009 | | | | 2010* | | | |
|---|---|---|---|---|---|---|---|---|
| | Production | Consumption | Deficit/ Surplus | % extent of dependence | Production | Consumption | Deficit/ Surplus | % extent of dependence |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **North America** | 632.2 | 1018.8 | -386.6 | -37.9 | 648.2 | 1039.7 | -391.5 | -37.7 |
| **South & Central America** | 338.2 | 268.6 | 69.6 | 25.9 | 350.0 | 282 | 68 | 24.1 |
| **Middle East** | 1164.4 | 344.3 | 820.1 | 238.2 | 1184.6 | 360.2 | 824.4 | 228.9 |
| **Africa** | 458.9 | 150.9 | 308 | 204.1 | 478.2 | 155.5 | 322.7 | 207.5 |
| **Asia Pacific** | 380.8 | 1203.8 | -823 | -68.4 | 399.4 | 1267.8 | -868.4 | -68.5 |
| of which India | 35.4 | 151 | -115.6 | -76.6 | 38.9 | 155.5 | -116.6 | -75.0 |
| Japan | - | 198.7 | - | - | - | 201.6 | - | - |
| China | 189.5 | 388.2 | -198.7 | -51.2 | 203.0 | 428.6 | -225.6 | -52.6 |
| Australia | 21.9 | 42.2 | -20.3 | -48.1 | 23.8 | 42.6 | -18.8 | -44.1 |
| OECD | 863.3 | 2094.8 | -1231.5 | -58.8 | 864.7 | 2113.8 | -1249.1 | -59.1 |
| **Europe & Eurasia** | 856.5 | 922.2 | -65.7 | -7.1 | 853.3 | 922.9 | -69.6 | -7.5 |
| Former Soviet Union | 644.3 | 192.7 | 451.6 | 234.4 | 657.5 | 201.5 | 456 | 226.3 |
| **Total World** | **3831.0** | **3908.6** | -77.6 | -2.0 | **3913.7** | **4028.1** | -114.4 | -2.8 |

**Note** *: Provisional

**Source** : BP Statistical Review of World Energy, June 2011

## XI.12 World Crude Oil and Petroleum Products Imports and Exports during 2010

| Region/Country | Imports | | Exports | | Imports | | Exports | |
|---|---|---|---|---|---|---|---|---|
| | Crude | Product | Crude | Product | Crude | Product | Crude | Product |
| | (Million Tonnes) | | | | (Thousand barrels daily) | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 456.1 | 121.0 | 1.4 | 101.7 | 9159 | 2530 | 28 | 2126 |
| Canada | 28.9 | 12.7 | 99.1 | 29.1 | 580 | 266 | 1990 | 609 |
| Mexico | 0.4 | 30.1 | 67.8 | 8.5 | 7 | 629 | 1362 | 177 |
| S. & Cent. America | 20.9 | 56.8 | 131.2 | 44.6 | 419 | 1186 | 2635 | 933 |
| Europe | 465.1 | 131.7 | 19.3 | 71.8 | 9341 | 2753 | 387 | 1501 |
| Former Soviet Union | † | 4.8 | 318.0 | 103.2 | 1 | 101 | 6386 | 2158 |
| Middle East | 11.3 | 10.1 | 828.7 | 107.2 | 226 | 212 | 16642 | 2241 |
| North Africa | 12.3 | 12.0 | 112.6 | 29.2 | 247 | 250 | 2260 | 610 |
| West Africa | 0.1 | 6.9 | 221.2 | 7.6 | 1 | 144 | 4443 | 159 |
| East & Southern Africa | 5.0 | 7.3 | 16.2 | 0.4 | 101 | 152 | 326 | 9 |
| Australasia | 29.0 | 14.1 | 16.2 | 7.6 | 583 | 295 | 325 | 160 |
| China | 234.6 | 59.9 | 2.0 | 29.4 | 4710 | 1253 | 41 | 615 |
| India | 162.0 | 16.5 | 0.0 | 57.2 | 3254 | 344 | 0.0 | 1196 |
| Japan | 184.8 | 40.9 | 0.3 | 14.1 | 3711 | 856 | 6.4 | 295 |
| Singapore | 39.9 | 100.1 | 2.1 | 65.8 | 800 | 2092 | 42 | 1376 |
| Other Asia Pacific | 225.5 | 131.7 | 39.7 | 80.2 | 4528 | 2753 | 796 | 1676 |
| Unidentified * | - | 1.2 | - | - | - | 25 | - | - |
| **Total World** | **1875.8** | **757.7** | **1875.8** | **757.7** | **37670** | **15840** | **37670** | **15840** |

* Includes changes in the quantity of oil in transit, movements not otherwise shown, unidentified military use, etc.† Less than 0.05.
Note: Bunkers are not included as exports. Intra-area movements (for example, between countries in Europe) are excluded.
**Source**: BP Statistical Review of World Energy, 2011

## XI.13 Export of Crude Oil and Refined Petroleum Products from OPEC

(1,000 bbl/day)

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | **Crude Oil** | | | | |
| Algeria | 893 | 970 | 947 | 1253 | 841 | 747 | 709 |
| Angola | 941 | 947 | 1010 | 1158 | 1044 | 1770 | 1683 |
| Ecquador | 374 | 380 | 376 | 342 | 348 | 329 | 340 |
| Indonesia | 413 | 374 | 301 | 319 | 294 | # | # |
| I.R. Iran | 2684 | 2395 | 2561 | 2639 | 2574 | 2406 | 2583 |
| Iraq | 1450 | 1472 | 1468 | 1643 | 1855 | 1906 | 1890 |
| Kuwait | 1415 | 1651 | 1723 | 1613 | 1739 | 1348 | 1430 |
| S.P.Libyan AJ | 1285 | 1306 | 1426 | 1378 | 1403 | 1170 | 1118 |
| Nigeria | 2356 | 2326 | 2248 | 2144 | 2098 | 2160 | 2464 |
| Qatar | 543 | 677 | 620 | 615 | 703 | 647 | 586 |
| Saudi Arabia | 6813 | 7209 | 7029 | 6962 | 7322 | 6268 | 6644 |
| UAE | 2172 | 2195 | 2420 | 2343 | 2334 | 1953 | 2103 |
| Venezuela | 1566 | 1788 | 1919 | 2116 | 1770 | 1608 | 1562 |
| **OPEC** | **22905** | **23690** | **24048** | **24525** | **24325** | **22312** | **23112** |
| | | | **Refined Petroleum Products** | | | | |
| Algeria | 446 | 452 | 435 | 451 | 457 | 233 | 314 |
| Angola | 14 | 14 | 14 | 27 | 41 | 41 | 8 |
| Ecuador | 28 | 20 | 35 | 40 | 42 | 34 | 28 |
| Indonesia | 144 | 142 | 226 | 107 | 103 | # | # |
| I.R. Iran | 340 | 402 | 462 | 388 | 275 | 301 | 371 |
| Iraq | 12 | 14 | 56 | 66 | 85 | 26 | 5 |
| Kuwait | 604 | 614 | 750 | 739 | 708 | 674 | 632 |
| S.P.Libyan AJ | 162 | 163 | 183 | 198 | 157 | 136 | 48 |
| Nigeria | 67 | 49 | 50 | 53 | 19 | 12 | 23 |
| Qatar | 65 | 77 | 81 | 74 | 98 | 249 | 322 |
| Saudi Arabia | 1334 | 1385 | 1278 | 1139 | 1058 | 1008 | 951 |
| UAE | 504 | 509 | 453 | 408 | 359 | 374 | 188 |
| Venezuela | 574 | 609 | 599 | 639 | 912 | 956 | 751 |
| **OPEC** | **4291** | **4450** | **4620** | **4329** | **4313** | **4043** | **3640** |

**Note**: Includes changes in the quantity of oil in transit, movements not otherwise shown, unspecified use, etc. Totals may not add up due to independent rounding.

#: Indonesia suspended its membership effective 2009

na: not available

**Source**: OPEC Annual Statistical Bulletin 2010.

## XI.14 World Imports of Natural Gas by Country

(Million Standard Cubic Metres)

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **North America** | **131800** | **132910** | **1,25,760** | **1,43,850** | **1,30,250** | **1,26,660** | **127120** |
| Canada | 11150 | 10140 | 9,370 | 13,200 | 15,900 | 20,830 | 22530 |
| United States | 120650 | 122770 | 1,16,390 | 1,30,650 | 1,14,350 | 1,05,830 | 104530 |
| **Latin America** | **27730** | **26460** | **28,750** | **26,300** | **29,810** | **28,910** | **37429** |
| Argentina | 800 | 1730 | 1,800 | 1,680 | 1,300 | 2,660 | 3780 |
| Brazil | 7600 | 8970 | 9,860 | 10,020 | 11,030 | 8,440 | 12720 |
| Chile | 7200 | 6100 | 5,950 | 2,380 | 750 | 1,490 | 3220 |
| Dominican Republic | 130 | 250 | 250 | 480 | 470 | 560 | 503 |
| Mexico | 11200 | 8640 | 10,050 | 10,810 | 13,880 | 13,160 | 14910 |
| Puerto Rico | 680 | 670 | 720 | 740 | 810 | 760 | 770 |
| Uruguay | 120 | 100 | 120 | 90 | 70 | 40 | 80 |
| Venezuela | - | - | - | 100 | 1,500 | 1,800 | 1446 |
| **Eastern Europe** | **51390** | **174830** | **1,98,170** | **1,87,110** | **1,95,490** | **1,43,460** | **162140** |
| Armania | - | - | 1,700 | 1,900 | 2,300 | 2,050 | 2083 |
| Belarus | - | - | 20,500 | 20,600 | 21,100 | 17,570 | 2160 |
| Bulgaria | 2800 | 2850 | 2,850 | 3,050 | 3,100 | 2,640 | 2930 |
| Czech Republic | - | 9480 | 9,480 | 8,630 | 8,610 | 8,030 | 11670 |
| Estonia | 970 | 900 | 1,000 | 1,000 | 630 | 710 | 780 |
| Georgia | - | - | 1,900 | 1,200 | 1,130 | 200 | 843 |
| Former Czechoslovakia | - | - | 16,160 | 14,220 | 11,500 | - | - |
| Hungary | 11000 | 12290 | 11,600 | 10,450 | 14,200 | 8,100 | 9410 |
| Kazakhstan | - | 4000 | 5,000 | 6,600 | 5,800 | 5,400 | 5933 |
| Kyrghyzstan | - | - | 900 | 900 | 1,200 | 1,200 | 1100 |
| Latvia | 1750 | 1700 | 1,700 | 1,200 | 750 | 1,190 | 1047 |
| Lithuania | 2930 | 2900 | 2,900 | 3,400 | 3,090 | 2,770 | 3087 |
| Maldova | - | 2600 | 2,550 | 2,700 | 2,800 | 2,900 | 2800 |
| Poland | 9810 | 10210 | 10,390 | 9,280 | 10,280 | 9,150 | 10180 |
| Romania | 6200 | 6250 | 5,300 | 4,500 | 4,500 | 2,050 | 2270 |
| Russia | - | 27400 | 53,500 | 51,500 | 56,200 | 28,400 | 38200 |
| Slovak Republic | - | 6400 | 6,300 | 5,600 | 5,600 | 5,400 | 5780 |
| Tadzhikistan | - | 61100 | 600 | 600 | 700 | 700 | 667 |
| Ukraine | - | 61100 | 56,000 | 54,000 | 56,200 | 45,000 | 61200 |
| **Western Europe** | **336060** | **364480** | **3,79,860** | **3,78,760** | **4,00,860** | **3,89,570** | **419055** |
| Austria | 7880 | 8810 | 7,700 | 7,000 | 8,100 | 7,980 | 8858 |
| Belgium | 21700 | 21980 | 22,450 | 21,080 | 20,740 | 21,000 | 23820 |
| Bosnia/Herzegovina | - | - | 400 | 320 | 310 | 220 | 283 |
| Croatia | - | - | 1,100 | 1,200 | 1,260 | 1,200 | 1220 |
| Denmark | - | - | 80 | - | - | - | 1199 |

Contd..

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Finland | 4610 | 4200 | 4,520 | 4,320 | 4,500 | 4,100 | 4551 |
| France | 47300 | 49030 | 49,580 | 46,920 | 49,250 | 49,060 | 48910 |
| Germany | 88700 | 90750 | 90,920 | 82,900 | 87,100 | 88,820 | 92820 |
| Greece | 2750 | 2860 | 3,190 | 4,010 | 4,140 | 3,290 | 2895 |
| Ireland | 3350 | 2950 | 3,400 | 4,700 | 5,000 | 5,080 | 5290 |
| Italy | 67700 | 73630 | 77,350 | 73,880 | 76,870 | 69,310 | 75340 |
| Luxembourg | 1400 | 1400 | 1,500 | 1,300 | 1,200 | 1,300 | 1404 |
| Macedonia, f Yug Rep | - | - | 100 | 80 | 70 | 80 | 77 |
| Netherlands | 15300 | 18190 | 18,610 | 18,360 | 17,970 | 17,210 | 17250 |
| Portugal | 3560 | 4200 | 4,070 | 4,140 | 4,560 | 4,410 | 4760 |
| Serbia/Montenegro | - | - | 2,100 | 2,100 | 2,150 | 1,550 | 1933 |
| Slovenia | - | - | 1,150 | 1,100 | 1,000 | 890 | 997 |
| Spain | 27400 | 33440 | 35,160 | 35,130 | 39,060 | 35,430 | 36170 |
| Sweden | 1050 | 1030 | 1,080 | 1,110 | 1,000 | 1,310 | 1729 |
| Switzerland | 2770 | 3250 | 2,980 | 2,990 | 3,190 | 3,090 | 3399 |
| Turkey | 22200 | 27030 | 31,060 | 36,160 | 36,850 | 33,180 | 32520 |
| United Kingdom | 13400 | 16520 | 21,360 | 29,960 | 36,540 | 41,060 | 53630 |
| Former Yugoslavia | - | - | 4,800 | 4,800 | 36,450 | - | - |
| **Middle East** | **7500** | **17680** | **18,830** | **25,800** | **35,310** | **39,100** | **40598** |
| Iran, I.R. | 5200 | 5800 | 5,800 | 7,300 | 7,100 | 5,800 | 7243 |
| Israel | - | - | - | - | - | 1,700 | 1700 |
| Jordan | 1100 | 1280 | 1,930 | 2,350 | 2,750 | 2,850 | 2650 |
| Kuwait | - | - | - | - | - | 890 | 890 |
| Oman | - | - | - | - | 350 | 1,500 | 1500 |
| Syrian Arab Republic | - | - | - | - | 140 | 910 | 910 |
| United Arab Emirates | 1200 | 10600 | 11,100 | 16,150 | 24,970 | 25,450 | 25705 |
| **Africa** | **2,490** | **4,070** | **3,900** | **4,150** | **4,950** | **5,250** | **5310** |
| Morocco | - | - | - | - | 500 | 500 | 500 |
| South Africa | 1190 | 2270 | 2,600 | 2,900 | 3,200 | 3,500 | 3560 |
| Tunisia | 1,300 | 1,800 | 1,300 | 1,250 | 1,250 | 1,250 | 1250 |
| **Asia Pacific** | **1,31,800** | **1,39,250** | **1,49,970** | **1,65,150** | **1,75,130** | **1,72,260** | **201010** |
| China | - | - | 1,000 | 3,870 | 4,440 | 7,630 | 15980 |
| India | 2,600 | 6,040 | 7,990 | 9,980 | 10,790 | 12,620 | 12150 |
| Japan | 76,000 | 78,160 | 81,860 | 88,820 | 92,250 | 85,900 | 93180 |
| Korea, South | 29,800 | 30,450 | 34,140 | 34,390 | 36,550 | 34,330 | 43440 |
| Malaysia | - | - | - | - | 500 | 900 | 900 |
| Singapore | 6,600 | 6,130 | 5,800 | 7,680 | 9,970 | 10,800 | 11630 |
| Taiwan | 9,300 | 9,610 | 10,200 | 11,010 | 12,080 | 11,790 | 14920 |
| Thailand | 7,500 | 8,860 | 8,980 | 9,400 | 8,550 | 8,290 | 8810 |
| **Total World** | **6,88,770** | **8,59,680** | **9,05,240** | **9,31,120** | **9,71,800** | **9,05,210** | **992662** |

**Source** : OPEC Annual Statistical Bulletin, 2010.

## XI.15 World Imports of Petroleum Products by Country

(1,000 Barrels/ Day)

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **NORTH AMERICA** | **2502.0** | **2914.0** | **2754.8** | **2713.1** | **2415.1** | **2103.6** | **2087.1** |
| Canada | 261.2 | 298.5 | 291.8 | 282.3 | 329.8 | 279.4 | 238.3 |
| United States | 2236.3 | 2610.9 | 2458.2 | 2425.9 | 2080.4 | 1819.2 | 1844.1 |
| Others | 4.5 | 4.6 | 4.8 | 5.0 | 5.0 | 5.0 | 5.7 |
| **LATIN AMERICA** | **1450.3** | **1526.1** | **1696.6** | **1960.3** | **2052.6** | **1904.7** | **2061.3** |
| Brazil | 215.7 | 222.1 | 261.3 | 320.1 | 343.5 | 310.6 | 311.6 |
| Cuba | 70.8 | 72.4 | 74.7 | 77.2 | 78.6 | 79.9 | 81.3 |
| Mexico | 307.1 | 343.0 | 364.2 | 426.6 | 477.7 | 454.5 | 451.9 |
| Netherland Antilles | 62.7 | 61.3 | 63.5 | 65.9 | 66.0 | 66.0 | 69.7 |
| Panama | 18.2 | 29.9 | 24.5 | 43.1 | 43.0 | 42.9 | 23.8 |
| Puerto Rico | 102.5 | 105.2 | 108.1 | 111.2 | 106.3 | 101.3 | 96.3 |
| Others | 673.4 | 692.1 | 800.3 | 916.3 | 937.6 | 849.5 | 1026.8 |
| **EASTERN EUROPE** | **372.4** | **398.9** | **418.2** | **397.7** | **352.8** | **349.8** | **388.2** |
| Bulgaria | 30.0 | 36.3 | 37.6 | 34.1 | 30.2 | 30.3 | 31.1 |
| Ex USSR | 10.0 | 10.4 | 10.7 | 11.1 | 11.4 | 10.6 | 20.4 |
| Hungary | 35.1 | 42.4 | 44.1 | 47.3 | 44.8 | 44.1 | 48.4 |
| Poland | 139.0 | 160.7 | 165.8 | 138.8 | 120.2 | 120.1 | 140.1 |
| Others | 158.3 | 149.1 | 160.1 | 166.4 | 146.2 | 144.7 | 148.2 |
| **WESTERN EUROPE** | **5572.2** | **6118.5** | **6449.8** | **5984.0** | **6207.3** | **6399.0** | **6677.3** |
| Belgium | 354.5 | 415.3 | 394.5 | 356.8 | 439.0 | 360.8 | 675.3 |
| France | 647.5 | 743.1 | 755.3 | 693.4 | 699.5 | 775.9 | 776.8 |
| Germany | 691.2 | 711.8 | 755.3 | 582.8 | 704.3 | 661.0 | 661.8 |
| Italy | 283.3 | 269.6 | 270.4 | 241.9 | 230.3 | 223.9 | 224.8 |
| Netherlands | 1174.6 | 1340.9 | 1555.7 | 1368.1 | 1459.2 | 1670.6 | 1671.4 |
| United Kingdom | 382.8 | 467.4 | 556.4 | 494.6 | 436.7 | 485.4 | 486.2 |
| Others | 2038.5 | 2170.3 | 2199.3 | 2246.3 | 2238.4 | 2221.4 | 2181.0 |
| **MIDDLE EAST** | **544.3** | **461.9** | **512.2** | **577.3** | **555.2** | **543.1** | **465.6** |
| Syrian Arab Rep. | 21.7 | 20.5 | 21.2 | 22.0 | 20.7 | 19.4 | 18.1 |
| Others | 522.7 | 441.3 | 490.9 | 555.3 | 534.5 | 523.8 | 447.5 |
| **AFRICA** | **725.3** | **773.7** | **805.0** | **867.3** | **826.1** | **862.8** | **988.0** |
| Egypt | 68.6 | 75.9 | 82.0 | 91.8 | 103.1 | 139.0 | 140.1 |
| Morocco | 66.6 | 77.2 | 80.0 | 83.0 | 81.8 | 80.6 | 79.6 |
| Nigeria | 173.6 | 154.3 | 154.8 | 171.3 | 129.3 | 130.3 | 179.0 |
| Senegal | 15.4 | 23.9 | 24.6 | 25.3 | 25.3 | 25.3 | 27.3 |
| Tunisia | 66.2 | 63.8 | 65.7 | 67.8 | 67.8 | 67.8 | 78.4 |
| Others | 335.0 | 378.7 | 397.8 | 428.1 | 418.7 | 419.7 | 483.6 |
| **ASIA & FAR EAST** | **6101.4** | **5872.8** | **6412.7** | **6451.3** | **6813.9** | **7009.3** | **7343.3** |
| Australia | 202.3 | 224.6 | 255.0 | 252.9 | 339.6 | 340.2 | 303.8 |
| China | 762.1 | 634.1 | 733.4 | 680.8 | 803.5 | 877.2 | 835.2 |
| Hong Kong | 348.0 | 324.8 | 343.9 | 364.5 | 330.8 | 398.8 | 432.5 |
| India | 192.8 | 233.3 | 281.6 | 415.2 | 408.1 | 483.0 | 325.7 |
| Japan | 1343.8 | 1044.9 | 1058.7 | 954.2 | 933.5 | 929.3 | 929.7 |
| New Zealand | 43.3 | 38.5 | 42.5 | 50.7 | 44.3 | 44.2 | 36.2 |
| Singapore | 1150.3 | 1293.9 | 1496.1 | 1648.5 | 1678.2 | 1668.0 | 2214.8 |
| Others | 2058.8 | 2078.7 | 2201.5 | 2084.6 | 2275.9 | 2268.6 | 2265.6 |
| **TOTAL WORLD** | **17268.0** | **18065.9** | **19049.3** | **18951.0** | **19223.1** | **19172.3** | **20010.9** |

**Source** : OPEC Annual Statistical Bulletin, 2010.

## XI.16 World Crude Oil Export by Country

(1,000 Barrels/ Day)

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **NORTH AMERICA** | **1376** | **1378** | **1394** | **1422** | **1564** | **1535** | **1432** |
| Canada | 1356 | 1358 | 1,373 | 1,401 | 1,525 | 1,491 | 1,388 |
| United States | 20 | 20 | 21 | 21 | 39 | 44 | 44 |
| **LATIN AMERICA** | **4607** | **4739** | **4900** | **4728** | **4479** | **4271** | **4203** |
| Columbia | 228 | 231 | 234 | 244 | 346 | 358 | 482 |
| Ecuador | 374 | 380 | 376 | 342 | 348 | 329 | 340 |
| Mexico | 2124 | 2021 | 2,048 | 1,738 | 1,446 | 1,312 | 1,459 |
| Trinidad and Tobago | 71 | 70 | 71 | 26 | 10 | 9 | 44 |
| Venezuela | 1566 | 1788 | 1,919 | 2,116 | 1,770 | 1,608 | 1,562 |
| Others | 244 | 249 | 252 | 262 | 559 | 655 | 316 |
| **EASTERN EUROPE** | **4827** | **5344** | **5543** | **5878** | **5658** | **5630** | **5632** |
| Ex USSR | 4822 | 5335 | 5,524 | 5,864 | 5,646 | 5,608 | 5,609 |
| Others | 5 | 9 | 19 | 14 | 12 | 22 | 23 |
| **WESTERN EUROPE** | **4355** | **3740** | **3444** | **3222** | **2785** | **2775** | **2451** |
| Norway | 2731 | 2377 | 2,210 | 2,012 | 1,702 | 1,773 | 1,605 |
| United Kingdom | 1249 | 1009 | 928 | 933 | 840 | 776 | 741 |
| Others | 375 | 354 | 306 | 277 | 243 | 226 | 105 |
| **MIDDLE EAST** | **16370** | **16898** | **17076** | **16948** | **17576** | **15499** | **16321** |
| Iran | 2684 | 2395 | 2,561 | 2,639 | 2,574 | 2,406 | 2,583 |
| Iraq | 1450 | 1472 | 1,468 | 1,643 | 1,855 | 1,906 | 1,890 |
| Kuwait | 1415 | 1651 | 1,723 | 1,613 | 1,739 | 1,348 | 1,430 |
| Oman | 765 | 761 | 769 | 683 | 593 | 574 | 745 |
| Qatar | 543 | 677 | 620 | 615 | 703 | 647 | 586 |
| Saudi Arabia | 6813 | 7209 | 7,029 | 6,962 | 7,322 | 6,268 | 6,644 |
| Syrian Arab Rep. | 247 | 248 | 248 | 250 | 253 | 250 | 149 |
| United Arab E. | 2172 | 2195 | 2,420 | 2,343 | 2,334 | 1,953 | 2,103 |
| Others | 281 | 290 | 238 | 200 | 203 | 147 | 191 |
| **AFRICA** | **6381** | **6481** | **6583** | **6883** | **6396** | **6769** | **6614** |
| Algeria | 893 | 970 | 947 | 1,253 | 841 | 747 | 709 |
| Angola | 941 | 947 | 1,010 | 1,158 | 1,044 | 1,770 | 1,683 |
| Cameroon | 94 | 95 | 97 | 99 | 99 | 89 | 79 |
| Congo | 215 | 237 | 238 | 239 | 240 | 216 | 180 |
| Egypt | 43 | 45 | 57 | 44 | 98 | 102 | 87 |
| Gabon | 202 | 202 | 204 | 207 | 209 | 188 | 158 |
| S.P.Libyan A.J. | 1285 | 1306 | 1,426 | 1,378 | 1,403 | 1,170 | 1,118 |
| Nigeria | 2356 | 2326 | 2,248 | 2,144 | 2,098 | 2,160 | 2,464 |
| Others | 352 | 353 | 356 | 361 | 364 | 327 | 136 |
| **ASIA AND PACIFIC** | **2007** | **1961** | **1878** | **1791** | **1742** | **1612** | **1505** |
| Australia | 284 | 230 | 235 | 239 | 239 | 248 | 314 |
| Brunei | 189 | 199 | 201 | 182 | 164 | 152 | 161 |
| China (P.R.) | 109 | 161 | 126 | 76 | 107 | 104 | 40 |
| Indonesia | 413 | 374 | 301 | 319 | 294 | 250 | 356 |
| Malaysia | 376 | 383 | 391 | 401 | 402 | 372 | 369 |
| Vietnam | 396 | 363 | 365 | 276 | 206 | 202 | 153 |
| Others | 240 | 251 | 259 | 298 | 330 | 284 | 112 |
| **TOTAL WORLD** | **39,923** | **40,541** | **40,818** | **40,872** | **40,200** | **38,091** | **38,158** |
| OPEC | 22,905 | 23,690 | 24,048 | 24,525 | 24,325 | 22,312 | 23,112 |
| OPEC percentage | 57.4 | 58.4 | 58.9 | 60.0 | 60.5 | 58.6 | 60.6 |

Note: Revision have been made throughout the time series. Data includes re-exports. Nigerian exports includecondensates.
Source : OPEC Annual Statistical Bulletin, 2010.

## XI.17 World Exports of Refined Products by Country

(1,000 Barrels/ Day)

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **NORTH AMERICA** | **1360.6** | **1474.9** | **1633.2** | **1673.0** | **2086.3** | **2220.8** | **2473.9** |
| Canada | 414.9 | 442.0 | 463.3 | 443.1 | 444.8 | 431.1 | 410.9 |
| United States | 945.6 | 1032.8 | 1169.8 | 1229.8 | 1641.4 | 1789.6 | 2062.9 |
| Others | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **LATIN AMERICA** | **2013.9** | **2160.1** | **2229.8** | **2299.4** | **2510.4** | **2425.0** | **2144.4** |
| Brazil | 185.3 | 186.7 | 179.8 | 192.8 | 162.8 | 154.8 | 124.4 |
| Ecuador | 27.6 | 19.7 | 34.5 | 40.0 | 42.2 | 33.5 | 28.1 |
| Mexico | 82.6 | 177.7 | 228.0 | 221.4 | 243.5 | 218.8 | 209.2 |
| Netherland Antilles | 214.5 | 219.6 | 224.2 | 229.6 | 231.5 | 201.5 | 203.5 |
| Trinidad and Tobago | 126.6 | 130.2 | 133.0 | 104.4 | 94.2 | 78.2 | 61.1 |
| Venezuela | 573.8 | 609.3 | 598.5 | 638.8 | 912.3 | 955.8 | 751.1 |
| Virgin Islands | 395.2 | 402.7 | 410.3 | 419.0 | 421.3 | 394.3 | 367.3 |
| Others | 408.3 | 414.2 | 421.5 | 453.4 | 402.6 | 388.1 | 399.7 |
| **EASTERN EUROPE** | **2098.3** | **2076.1** | **2113.5** | **2015.4** | **1450.0** | **1613.2** | **2623.8** |
| Romania | 66.9 | 67.7 | 68.6 | 95.3 | 101.4 | 196.0 | 75.5 |
| Ex USSR | 1868.0 | 1836.0 | 1864.0 | 1729.5 | 1126.9 | 1220.9 | 2243.3 |
| Others | 163.4 | 172.4 | 180.9 | 190.6 | 221.7 | 196.3 | 305.0 |
| **WESTERN EUROPE** | **5236.6** | **5587.0** | **5781.5** | **5679.7** | **5679.2** | **5544.6** | **5842.5** |
| Belgium | 452.1 | 456.6 | 432.4 | 429.5 | 400.3 | 343.1 | 339.1 |
| France | 481.1 | 562.9 | 535.0 | 530.8 | 570.7 | 465.6 | 445.8 |
| Germany | 483.5 | 535.8 | 556.7 | 571.8 | 516.9 | 454.0 | 362.6 |
| Italy | 469.6 | 550.2 | 501.6 | 584.8 | 527.4 | 427.3 | 558.8 |
| Netherlands | 1493.7 | 1604.8 | 1789.0 | 1565.3 | 1644.6 | 1912.5 | 2106.4 |
| United Kingdom | 625.3 | 615.5 | 579.5 | 611.1 | 560.8 | 521.3 | 543.3 |
| Others | 1231.3 | 1261.2 | 1387.3 | 1386.4 | 1458.5 | 1420.8 | 1486.5 |
| **MIDDLE EAST** | **3220.7** | **3375.9** | **3450.8** | **3199.3** | **2959.8** | **3000.7** | **2844.3** |
| Bahrain | 243.2 | 253.0 | 246.3 | 253.2 | 237.9 | 222.3 | 230.6 |
| Iran | 339.6 | 402.1 | 461.6 | 388.3 | 274.9 | 300.8 | 370.6 |
| Iraq | 11.5 | 13.5 | 56.3 | 65.6 | 84.9 | 26.2 | 5.0 |
| Kuwait | 604.2 | 614.2 | 749.5 | 739.1 | 707.9 | 673.5 | 631.6 |
| Qatar | 64.9 | 76.8 | 81.1 | 73.9 | 97.8 | 249.3 | 321.6 |
| Saudi Arabia | 1334.4 | 1385.4 | 1277.6 | 1138.8 | 1058.3 | 1008.4 | 950.9 |
| United Arab E. | 503.6 | 509.0 | 452.8 | 407.7 | 359.0 | 374.1 | 187.9 |
| Others | 119.3 | 121.9 | 125.6 | 132.7 | 139.1 | 146.1 | 146.1 |
| **AFRICA** | **1032.9** | **953.3** | **1025.9** | **1077.0** | **1010.5** | **755.0** | **558.5** |
| Algeria | 446.0 | 451.9 | 435.1 | 451.3 | 456.7 | 232.5 | 314.1 |
| Angola | 13.6 | 13.9 | 14.2 | 26.6 | 40.7 | 40.8 | 7.5 |
| Egypt | 82.6 | 7.3 | 68.4 | 64.7 | 67.0 | 63.6 | 29.2 |
| Gabon | 7.3 | 7.3 | 7.3 | 7.4 | 7.4 | 6.1 | 4.8 |
| Nigeria | 66.9 | 49.3 | 50.3 | 53.4 | 19.2 | 12.1 | 23.1 |
| S.P.Libyan A.J. | 161.5 | 162.5 | 183.1 | 198.4 | 156.7 | 136.1 | 48.3 |
| Others | 255.0 | 261.1 | 267.5 | 275.2 | 262.8 | 263.8 | 131.5 |
| **ASIA AND PACIFIC** | **3087.5** | **3673.3** | **3910.2** | **4262.9** | **5055.6** | **5291.0** | **5406.5** |
| Australia | 139.1 | 96.9 | 84.3 | 63.9 | 50.2 | 49.4 | 42.8 |
| China (P.R.) | 336.3 | 329.7 | 323.2 | 313.3 | 455.6 | 522.8 | 582.8 |
| Indonesia | 143.5 | 142.3 | 225.7 | 106.9 | 102.8 | 82.5 | 84.7 |
| Japan | 89.9 | 173.4 | 203.6 | 287.1 | 405.8 | 391.0 | 368.5 |
| Malaysia | 221.2 | 229.6 | 238.4 | 247.9 | 189.3 | 286.0 | 303.1 |
| Singapore | 1083.4 | 1124.6 | 1167.3 | 1474.5 | 1623.4 | 1766.0 | 1767.3 |
| Others | 1074.1 | 1576.8 | 1667.7 | 1769.3 | 2228.5 | 2193.3 | 2257.3 |
| **TOTAL WORLD** | **18050.5** | **19300.6** | **20144.9** | **20206.7** | **20751.8** | **20850.3** | **21893.9** |
| OPEC | 4291.1 | 4449.9 | 4620.3 | 4328.8 | 4313.4 | 4043.1 | 3639.8 |
| OPEC percentage | 23.8 | 23.1 | 22.9 | 21.4 | 20.8 | 19.4 | 16.6 |

**Note**:Revision have been made throughout the time series.Data includes re-exports of petroleum products from gas plants.
**Source** : OPEC Annual Statistical Bulletin, 2010.

## XI.18 International Petroleum Crude Price Index

(US$/bbl))

| Petroleum Spot | Price | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **U.K. BRENT** 38.0/0.26 | 183.01 | 260.60 | 311.90 | 347.30 | 466.11 | 295.26 | 381.04 |
| **USA WEST TAXAS** INTERMEDIATE, 40.0/0.4 | 169.42 | 231.00 | 269.99 | 295.54 | 408.83 | 252.98 | 324.69 |
| **UAE DUBAI FATEH** 32.5/1.43 | 164.87 | 242.20 | 301.96 | 335.53 | 460.50 | 303.39 | 383.22 |
| **IRAN LIGHT** 33.9/1.4 | 167.64 | 245.40 | 295.88 | 335.76 | 458.62 | 296.75 | 378.78 |
| **IRAN HEAVY** 31.0/1.6 | 166.05 | 241.00 | 299.69 | 336.82 | 459.52 | 304.47 | na |
| **INDONESIA MINAS** 33.0/0.1 | 158.34 | 232.20 | 280.44 | 316.25 | 432.72 | 279.02 | 353.74 |
| **NIGERIA** BONNY LIGHT, 36.7/0.1 | 158.24 | 230.40 | 276.66 | 311.01 | 419.78 | 261.80 | 335.51 |
| **MEXICO** ISTHUMAS, 31.8/1.51 | 167.66 | 228.30 | 271.52 | 306.49 | 431.84 | 275.96 | 353.11 |
| **RUSSIA URALS** 36.1/2.52 | 152.93 | 225.30 | 272.37 | 308.56 | 420.90 | 271.61 | 347.78 |
| **MALAYSIA TAPIS** 44.3/0.2 | 152.88 | 215.30 | 260.27 | 289.37 | 388.52 | 241.73 | 307.47 |
| **AUSTRALIA** GIPPSLAND, 46.0/0.13 | 171.80 | 237.80 | 287.55 | 319.86 | 430.40 | 270.15 | 346.02 |
| **SAUDI ARABIA** ARAB HEAVY, 28.0/3.0 | 165.90 | 241.20 | 302.77 | 341.93 | 469.47 | 320.99 | 402.56 |

**Note** : The number below the crude names show the API gravities and percentage of sulphur by weight.(1990 =100)
na: Not available

**Source :** OPEC Annual Statistical Bulletin, 2010.

## XI.19 Crude Oil Spot Prices in US $/bbl

| Period | Country/Crude Name | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Kuwait | Libya | Nigeria | Qatar | Saudi Arabia | UAE | Indonesia | I.R.Iran | | Iraq | Oman |
| | Kuwait Export | Brega | Forcados | Dukhan | Arab Heavy | Murban | Attacka | Iran Light | Iran Heavy | Basrah Light | Oman |
| | 31.4/2.6 | 40.4/0.2 | 41.4/1.1 | 41.4/1.1 | 28.0/3.0 | 39.4/0.8 | 42.3/0.09 | 33.9/1.4 | 31.0/1.6 | 34.0/2.0 | 36.3/0.79 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2004 | 35.08 | 38.35 | 38.1 | 36.05 | 31.14 | 36.65 | 40.87 | 34.6 | 33.06 | 34.6 | 34.35 |
| 2005 | 48.66 | 54.22 | 55.6 | 53.46 | 45.28 | 54.09 | 57.26 | 50.66 | 47.99 | 48.33 | 50.48 |
| 2006 | 58.88 | 65.04 | 67.07 | 65.39 | 56.82 | 66.07 | 67.91 | 61.07 | 59.27 | 57.97 | 62.59 |
| 2007 | 66.35 | 72.93 | 74.49 | 72.33 | 64.18 | 72.87 | 75.44 | 69.30 | 67.06 | 66.40 | 68.86 |
| 2008 | 91.16 | 98.12 | 101.42 | 98.39 | 88.12 | 99.03 | 102.16 | 94.66 | 91.49 | 92.08 | 94.51 |
| 2009 | 60.68 | 62.16 | 63.35 | 62.86 | 60.25 | 63.78 | 64.00 | 61.25 | 60.62 | 60.5 | 62.06 |
| **2010** | 76.32 | 79.67 | 81.06 | 79.36 | 75.56 | 79.94 | 81.78 | 78.18 | 76.74 | 76.79 | 78.34 |
| Jan, 2010 | 75.69 | 76.49 | na | na | 75.60 | 78.19 | na | 75.62 | 75.72 | 75.74 | 77.01 |
| Feb | 72.27 | 73.84 | na | na | 71.98 | 75.22 | na | 72.87 | 72.54 | 72.25 | 73.85 |
| Mar | 76.29 | 79.10 | na | na | 75.87 | 79.18 | na | 77.70 | 76.93 | 77.17 | 77.72 |
| Apr | 81.64 | 84.89 | na | na | 81.13 | 85.38 | na | 82.70 | 82.09 | 81.35 | 83.67 |
| May | 74.23 | 75.37 | na | na | 73.72 | 78.57 | na | 73.21 | 74.09 | 73.15 | 76.75 |
| Jun | 72.03 | 74.35 | na | na | 71.19 | 75.90 | na | 73.13 | 71.83 | 72.09 | 74.18 |
| Jul | 70.69 | 75.49 | na | na | 69.59 | 74.42 | na | 73.39 | 71.07 | 72.14 | 72.59 |
| Aug | 72.42 | 77.12 | na | na | 71.42 | 76.12 | na | 75.06 | 73.20 | 73.39 | 74.57 |
| Sep | 72.92 | 77.95 | na | na | 71.88 | 76.93 | na | 76.82 | 73.58 | 73.70 | 75.43 |
| Oct | 78.10 | 83.00 | na | na | 76.98 | 82.20 | na | 82.32 | 78.99 | 79.36 | 80.44 |
| Nov | 81.59 | 85.58 | na | na | 80.62 | 85.36 | na | 84.38 | 82.24 | 82.14 | 83.91 |
| Dec | 87.25 | 91.78 | na | na | 86.11 | 91.06 | na | 90.60 | 87.81 | 88.09 | 89.24 |

**Notes** : Upto 2005, prices are averages of weakly fob quotations. As of 2006 based on daily quotations.

**Source :** OPEC Annual & monthly Statistical Bulletin, 2010.

## XI.20 Crude Oil Spot Prices in US $/bbl

( Average Unit Value, FOB )

| Crude | Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Brent | U.K | 38.27 | 54.52 | 65.14 | 72.39 | 97.26 | 61.67 | 79.5 |
| WTI | U.S.A | 4149 | 56.59 | 66.02 | 72.20 | 100.06 | 61.92 | 79.45 |
| WTS | U.S.A | 37.51 | 51.97 | 60.89 | 67.17 | 96.31 | 60.40 | 77.3 |
| Light Louisiana | Louisiana | 41.54 | 57.04 | 67.48 | 75.26 | 102.83 | 64.54 | 82.8 |
| Dubai | UAE | 33.69 | 49.54 | 61.52 | 68.27 | 94.18 | 61.91 | 78.08 |
| Iran Light | Iran | 34.62 | 50.74 | 61.07 | 69.30 | 94.67 | 61.25 | 78.18 |
| Iran Heavy | Iran | 33.03 | 48.4 | 59.13 | 67.68 | 92.28 | 60.57 | 76.96 |
| Urals | Russia | 34.13 | 50.32 | 61.22 | 69.16 | 94.83 | 61.15 | 78.26 |
| Minas | Indonesia | 36.96 | 54.18 | 65.18 | 73.42 | 101.00 | 64.97 | 82.28 |
| Tapis | Malaysia | 41.19 | 58.13 | 69.98 | 77.76 | 104.90 | 65.08 | 82.72 |

**Source** : Energy Prices and Taxes, 2nd Quarter of 2011. International Energy Agency Publication

## XI.21 Petroleum Products Spot Prices in US $/bbl

( Average Unit Value, FOB )

| Product | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | **NW EUROPE** | | | | |
| Gasoline | 47.94 | 63.97 | 74.17 | 83.35 | 100.22 | 69.34 | 88.05 |
| Gas Oil | 46.83 | 67.70 | 77.47 | 85.45 | 122.69 | 68.90 | 89.28 |
| Jet/Kero | 50.25 | 71.18 | 81.25 | 89.43 | 126.66 | 70.97 | 91.26 |
| Naphtha | 41.47 | 52.45 | 62.23 | 74.40 | 87.42 | 58.91 | 78.71 |
| LSFO | 25.02 | 39.18 | 45.51 | 53.42 | 82.28 | 55.89 | 72.97 |
| HSFO | 23.91 | 36.21 | 45.18 | 53.39 | 72.42 | 54.44 | 69.66 |
| | | | **U.S.A.** | | | | |
| Gasoline | 49.61 | 65.65 | 76.68 | 86.35 | 103.11 | 69.90 | 87.84 |
| Gas Oil | 46.89 | 68.22 | 75.70 | 85.13 | 120.22 | 69.15 | 89.37 |
| Jet/Kero | 50.23 | 71.98 | 82.03 | 90.72 | 127.70 | 71.33 | 91.78 |
| Naphtha | .. | .. | .. | .. | .. | .. | |
| LSFO | 27.96 | 41.64 | 46.05 | 54.07 | 76.57 | 56.06 | 72.24 |
| HSFO | 25.07 | 36.26 | 45.09 | 54.06 | 73.64 | 55.23 | 70.58 |
| | | | **SINGAPORE** | | | | |
| Gasoline | 47.23 | 62.38 | 73.20 | 82.82 | 103.27 | 70.38 | 8841.00 |
| Gas Oil | 45.69 | 64.35 | 76.79 | 84.96 | 120.25 | 69.13 | 89.55 |
| Jet/Kero | 47.49 | 67.97 | 80.60 | 86.77 | 122.08 | 70.14 | 90.18 |
| Naphtha | 40.74 | 51.12 | 61.85 | 75.03 | 89.36 | 60.96 | 79.24 |
| LSFO | 32.86 | 45.08 | 50.61 | 58.27 | 88.34 | 53.31 | 73.22 |
| HSFO | 27.87 | 40.40 | 48.60 | 58.11 | 79.12 | 58.43 | 73.23 |

**Source** : Energy Prices and Taxes, 2nd Quarter of 2011. International Energy Agency Publication.

## XI. 22 Natural Gas Prices for Industry and Household Use

US $ /$10^7$ kcal (GCV Basis)

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | A. FOR INDUSTRIAL USE | | | | |
| Belgium | c | c | c | .. | 559.8 | 417.4 | 354.9 |
| Canada | 223.7 | 291.1 | 272.0 | 216.1 | 352.3 | 172.6 | 160.1 |
| Czech Republic | 217.4 | 292.5 | 402.3 | 391.7 | 614.1 | 528.0 | 530.5 |
| Estonia | .. | .. | .. | .. | 449.9 | 392.2 | 423.9 |
| Finland | 170.3 | 190.2 | 248.1 | 267.9 | 372.2 | 332.8 | 350.4 |
| France | 262.2 | 330.2 | 412.2 | 414.1 | 607.3 | 438.9 | 484.4 |
| Greece | 232.3 | 312.4 | .. | 441.4 | 643.9 | 441.2 | 517.6 |
| Hungary | 287.7 | 345.6 | 451.1 | 584.2 | 753.0 | 611.4 | .. |
| Ireland | 291.7 | 374.0 | 465.9 | c | 616.2 | 483.5 | 431.2 |
| Italy | 300.4 | 351.8 | 454.2 | 491.1 | 646.5 | 557.7 | 483.0 |
| Korea | 341.8 | 392.3 | 495.3 | 550.8 | 499.5 | 479.5 | 610.3 |
| Luxembourg | .. | .. | .. | .. | 437.7 | 464.4 | 449.7 |
| Mexico | 300.7 | 357.1 | 343.2 | 347.1 | 433.1 | .. | .. |
| Netherlands | .. | .. | .. | 446.6 | 537.6 | 502.6 | 413.9 |
| New Zealand | 176.9 | 222.7 | 242.5 | 278.3 | 239.6 | 231.6 | 234.0 |
| Poland | 179.4 | 224.7 | 294.2 | 375.0 | 531.7 | 432.7 | 454.8 |
| Portugal | 285.8 | 340.3 | 399.0 | 428.8 | 547.9 | 484.1 | 555.5 |
| Slovak Republic | 243.0 | 287.5 | 379.0 | 420.3 | 622.4 | 516.7 | 534.7 |
| Slovenia | .. | .. | .. | .. | 655.5 | 570.9 | 600.2 |
| Spain | 215.6 | 254.2 | 354.9 | 380.3 | 486.6 | 433.8 | 390.4 |
| Sweden | .. | .. | .. | 609.3 | 776.5 | 585.4 | 622.7 |
| Switzerland | 352.4 | 402.6 | 487.6 | 576.6 | 745.4 | 704.3 | 661.6 |
| Turkey | 230.3 | 304.5 | 352.7 | 440.8 | 572.9 | 467.6 | 407.3 |
| U.K | 202.7 | 298.8 | 383.5 | 333.0 | 446.0 | 323.7 | 303.3 |
| U.S.A | 252.0 | 325.2 | 302.0 | 293.8 | 371.3 | 202.8 | 207.4 |
| OECD | 253.6 | 320.1 | 334.6 | 335.5 | 433.1 | 291.2 | 283.3 |
| | | | A. FOR HOUSEHOLD USE | | | | |
| Austria | 686.2 | 729.6 | 785.0 | 936.5 | 1024.3 | 1042.1 | 946.6 |
| Belgium | .. | .. | .. | .. | 1117.1 | 905.9 | 872.9 |
| Canada | 361.4 | 421.0 | 481.6 | 483.5 | 505.1 | 397.9 | 430.8 |
| Chile | 645.8 | 819.3 | 884.1 | 972.3 | 1372.3 | 1109.4 | 1359.0 |
| Czech Republic | 352.6 | 429.1 | 543.5 | 577.6 | 848.9 | 815.0 | 797.3 |
| Denmark | 1052.9 | 1252.6 | .. | .. | .. | 1330.6 | 1449.4 |
| Estonia | .. | .. | .. | .. | 606.3 | 612.7 | 598.4 |
| Finland | 269.8 | 298.1 | 352.3 | 383.6 | 520.6 | 474.4 | 496.5 |
| France | 544.3 | 590.5 | 706.9 | 785.7 | 920.4 | 847.9 | 864.0 |
| Greece | 423.6 | 600.8 | .. | 1000.2 | 1214.2 | 1041.7 | 1084.7 |
| Hungary | 224.6 | 245.1 | 298.4 | 615.4 | 748.8 | 716.9 | .. |
| Ireland | 570.0 | 657.7 | 917.0 | 1099.4 | 1033.9 | 1017.1 | 822.8 |
| Italy | 778.3 | 823.4 | 936.6 | 1016.2 | 1152.7 | 1059.5 | 1093.6 |
| Japan | 1270.9 | 1245.6 | 1238.9 | 1236.9 | .. | .. | .. |
| Korea | 454.3 | 527.8 | 641.5 | 712.6 | 634.0 | 578.7 | 655.5 |
| Lexembourg | 367.7 | 477.5 | 558.7 | .. | 869.3 | 711.8 | 673.7 |
| Mexico | 545.9 | 631.9 | 622.2 | 631.5 | 447.8 | 420.6 | 453.4 |
| Netherlands | 682.5 | 800.4 | 899.7 | 1031.3 | 1239.9 | 1162.6 | 1001.2 |
| New Zealand | 622.3 | 776.9 | 742.8 | 981.2 | 1111.8 | 937.4 | 1009.5 |
| Poland | 369.5 | 443.2 | 554.4 | 688.5 | 933.3 | 801.8 | 772.9 |
| Portugal | 909.1 | 963.5 | 1018.3 | 1075.0 | 1066.4 | 959.7 | 942.2 |
| Slovak Republic | 351.5 | 419.2 | 553.7 | 657.0 | 785.6 | 780.3 | 703.7 |
| Slovania | .. | .. | .. | .. | 1060.3 | 1008.9 | 962.7 |
| Spain | 643.3 | 684.7 | 756.9 | 867.9 | 1026.8 | 925.9 | 859.1 |
| Sweden | .. | .. | .. | 1472.3 | 1690.6 | 1499.0 | 1636.5 |
| Switzerland | 613.0 | 670.7 | 765.3 | 880.2 | 1093.5 | 1026.6 | 1015.7 |
| Turkey | 260.2 | 362.0 | 415.4 | 519.6 | 659.2 | 569.0 | 526.4 |
| U.K | 423.3 | 481.8 | 643.3 | 753.7 | 825.8 | 799.9 | 745.2 |
| U.S.A | 412.8 | 492.1 | 528.2 | 500.7 | 533.5 | 459.5 | 429.5 |
| OECD | 491.2 | 559.5 | 630.5 | 654.1 | 701.6 | 630.6 | 606.8 |

**GCV:** Gross Calorific Value; 0.95 tonne of oil is approximatly 107 kcal. of Gas
**c**: price is confidential * : Provisional
**Source :** Energy Prices and Taxes, 2nd Quarter of 2011. International Energy Agency Publication

## XI. 23 Crude Oil Import Costs in US $/bbl

( Average Unit Value, CIF )

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010* |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| IEA** | 36.38 | 50.67 | 61.80 | 69.33 | 97.19 | 60.40 | 78.13 |
| IEA Europe | 36.53 | 51.74 | 62.77 | 70.81 | 96.83 | 61.09 | 79.05 |
| Australia | 40.93 | 56.71 | 66.71 | 77.13 | 107.83 | 63.40 | 82.60 |
| Austria | 38.21 | 53.15 | 64.44 | 71.86 | 103.05 | 60.69 | 80.00 |
| Belgium | 35.35 | 50.06 | 61.06 | 70.35 | 96.01 | 61.77 | 79.65 |
| Canada | 38.13 | 52.37 | 64.33 | 70.04 | 101.41 | 60.29 | 79.14 |
| France | 37.61 | 52.74 | 63.69 | 72.22 | 97.63 | 61.64 | 79.78 |
| Germany | 36.65 | 52.3 | 63.29 | 71.60 | 96.70 | 61.18 | 78.49 |
| Greece | 34.56 | 50.33 | 60.97 | 69.93 | 93.60 | 60.10 | 78.97 |
| Italy | 36.6 | 51.33 | 62.50 | 70.20 | 96.67 | 60.69 | 79.29 |
| Japan | 36.59 | 51.57 | 64.03 | 70.09 | 100.98 | 61.29 | 79.43 |
| Korea | 36.15 | 50.19 | 62.82 | 70.01 | 98.11 | 61.12 | 78.72 |
| Netherlands | 35.02 | 50 | 61.47 | 68.74 | 97.89 | 60.54 | 78.55 |
| New Zealand | 41.71 | 56.07 | 67.36 | 73.84 | 105.80 | 65.85 | 80.62 |
| Spain | 36.03 | 50.54 | 60.99 | 68.66 | 94.86 | 59.78 | 77.84 |
| Sweden | 36.47 | 51.78 | 62.50 | 70.13 | 95.09 | 60.58 | 79.00 |
| U.K | 37.75 | 53.79 | 65.00 | 73.80 | 99.34 | 62.39 | 80.60 |
| U.S.A | 35.86 | 48.82 | 59.15 | 66.77 | 94.97 | 58.83 | 76.02 |

**: Computed across the countries of the region using import volumes as current weights. Poland is included since Jan. 2008; the Slovac Republic is included since Jan. 2007; Korea and Czech Republic are included since January 2001;Hungary is not included. For reasons as confidentially, data for some countries are not listed separately.

*: Provisional

**Source:** International Energy Agency's "Energy Prices and Taxes" 2nd Quarter of 2011.

## XI.24 Spot Prices of Key OPEC Crude Oils

(US $/bbl )

| Year/Month | Iran | Kuwait | Nigeria Bonny | Saudi Arabia | | UAE |
|---|---|---|---|---|---|---|
| | Light 33.9 | Export 31.4 | Light 36.7 | Light 34.2 | Heavy 28.0 | Dubai 32.4 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **2004** | | | | | | |
| January | 29.31 | 29.16 | 30.94 | 29.83 | 27.49 | 28.93 |
| March | 30.78 | 30.97 | 33.34 | 31.62 | 29.42 | 30.77 |
| June | 32.67 | 33.83 | 36.60 | 34.70 | 32.00 | 33.58 |
| September | 38.77 | 36.12 | 43.56 | 36.58 | 32.38 | 35.52 |
| December | 34.77 | 34.91 | 39.08 | 34.64 | 29.34 | 34.16 |
| **2005** | | | | | | |
| January | 39.87 | 38.55 | 44.01 | 38.26 | 33.41 | 37.78 |
| March | 48.50 | 46.42 | 53.15 | 46.85 | 41.81 | 45.60 |
| June | 52.37 | 51.15 | 55.93 | 52.47 | 48.34 | 51.37 |
| September | 58.74 | 54.60 | 65.60 | 57.63 | 51.57 | 56.41 |
| December | 53.20 | 50.83 | 57.91 | 52.84 | 49.16 | 53.22 |
| **2006** | | | | | | |
| January | 58.99 | 56.52 | 64.04 | 58.43 | 54.91 | 58.56 |
| March | 58.77 | 55.80 | 63.80 | 57.54 | 54.08 | 57.82 |
| June | 64.30 | 62.37 | 70.22 | 65.03 | 59.84 | 65.22 |
| September | 58.56 | 56.75 | 63.87 | 59.72 | 54.56 | 59.82 |
| December | 56.98 | 55.69 | 64.28 | 57.70 | 53.72 | 58.69 |
| **2007** | | | | | | |
| January | 49.12 | 48.42 | 56.18 | 50.86 | 46.15 | 51.92 |
| March | 57.92 | 56.22 | 64.60 | 58.08 | 54.40 | 58.80 |
| June | 67.99 | 63.61 | 74.45 | 65.92 | 61.44 | 65.79 |
| September | 74.88 | 71.94 | 79.87 | 74.28 | 69.86 | 73.36 |
| December | 89.12 | 84.37 | 93.55 | 86.29 | 82.51 | 85.79 |
| **2008** | | | | | | |
| January | 89.21 | 85.63 | 94.85 | 88.75 | 82.85 | 87.35 |
| March | 99.35 | 95.58 | 106.68 | 99.23 | 92.67 | 96.72 |
| June | 127.89 | 124.37 | 136.44 | 129.35 | 120.62 | 127.82 |
| September | 97.56 | 93.15 | 100.48 | 97.57 | 89.92 | 95.90 |
| December | 40.03 | 36.47 | 43.10 | 38.82 | 34.38 | 40.46 |
| **2009** | | | | | | |
| January | 39.13 | 40.00 | 45.44 | 41.23 | 38.31 | 43.94 |
| March | 44.52 | 44.91 | 49.70 | 46.39 | 43.76 | 45.59 |
| June | 68.16 | 68.73 | 69.55 | 69.00 | 68.74 | 69.41 |
| September | 66.43 | 66.45 | 68.74 | 67.34 | 66.16 | 67.74 |
| December | 74.34 | 74.03 | 75.68 | 74.38 | 74.00 | 75.42 |
| **2010** | | | | | | |
| January | 75.62 | 75.69 | 77.39 | 76.46 | 75.60 | 76.69 |
| February | 72.87 | 72.27 | 75.04 | 73.32 | 71.98 | 73.40 |
| March | 77.70 | 76.29 | 80.40 | 77.24 | 75.87 | 77.31 |
| April | 82.70 | 81.64 | 86.14 | 82.75 | 81.13 | 83.59 |
| May | 73.21 | 74.23 | 76.87 | 75.50 | 73.72 | 76.49 |
| June | 73.13 | 72.30 | 76.00 | 73.84 | 71.19 | 73.99 |
| July | 73.39 | 70.69 | 77.04 | 72.63 | 69.59 | 72.49 |
| August | 75.06 | 72.42 | 78.82 | 74.21 | 71.42 | 74.28 |
| September | 76.82 | 72.92 | 79.65 | 74.55 | 71.88 | 75.13 |
| October | 82.32 | 78.10 | 84.35 | 79.93 | 76.98 | 80.22 |
| November | 84.38 | 81.59 | 86.83 | 83.32 | 80.62 | 83.72 |
| December | 90.60 | 87.25 | 93.08 | 89.59 | 86.11 | 89.17 |

Source: OPEC Annual Statistical Bulletin, 2010.

## XI.25 Spot Prices of Major Petroleum Products in Key Trading Centres of the World

(US$bbl)

| Market/Product | 2009 | | | | | 2010 | | | | | 2011 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Mar | June | Sept | Dec | Jan | Mar | June | Sept | Dec | Jan | Mar | June | Sept |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| **NAPHTHA:** | | | | | | | | | | | | | | |
| North Europeon Market, FOB Rotterdam | 44.54 | 43.82 | 62.74 | 65.82 | 75.35 | 79.05 | 80.22 | 72.81 | 75.12 | 93.15 | 100.10 | 104.63 | 107.34 | 112.77 |
| South Europeon Market, FOB Italy | 36.11 | 42.05 | 61.16 | 64.30 | 73.04 | 76.30 | 78.63 | 70.99 | 73.69 | 90.81 | 93.16 | 96.09 | 105.01 | 108.06 |
| Carribean Market,Cargoes | 59.33 | 50.87 | 74.02 | 68.22 | 78.45 | 82.37 | 85.40 | 81.67 | 79.04 | 93.71 | 98.29 | 100.55 | 106.93 | 106.53 |
| Singapore Cargoes | 41.89 | 46.53 | 65.86 | 66.80 | 78.28 | 80.66 | 80.84 | 72.42 | 74.52 | 93.83 | 96.87 | 98.13 | 102.96 | 101.06 |
| Middle East Gulf Market, FOB | 39.85 | 44.26 | 63.19 | 66.26 | 75.80 | 79.49 | 81.27 | 73.25 | 75.56 | 93.59 | 95.46 | 99.00 | 109.17 | 112.59 |
| **GASOLINE** | | | | | | | | | | | | | | |
| North Europeon Market, FOB premium. | 45.98 | 52.02 | 81.07 | 74.81 | 79.68 | 84.65 | 92.38 | 86.01 | 89.26 | 103.44 | 104.18 | 108.35 | 120.90 | 121.52 |
| South Europeon Market, FOB Italy | 44.30 | 26.66 | 36.23 | 22.77 | 26.29 | 57.10 | 57.55 | 59.98 | 60.19 | 61.60 | 64.63 | 69.49 | 84.23 | 88.35 |
| US East Coast, NewYork (Unl.regular 87) | 48.74 | 53.83 | 82.83 | 76.22 | 80.13 | 85.54 | 89.13 | 84.12 | 82.62 | 100.15 | 109.14 | 112.90 | 118.97 | 117.08 |
| Singapore Cargoes(Premium Unl. 95) | 50.95 | 54.20 | 77.15 | 75.63 | 81.85 | 88.01 | 90.86 | 83.26 | 82.55 | 102.09 | 110.17 | 113.95 | 117.89 | 122.62 |
| **JET KERO** | | | | | | | | | | | | | | |
| North Europeon Market, FOB Rotterdam | 61.48 | 55.33 | 78.47 | 76.57 | 83.56 | 86.46 | 89.50 | 84.66 | 90.19 | 105.26 | 113.13 | 115.96 | 125.19 | 127.15 |
| US East Coast, New York | 64.91 | 55.86 | 77.05 | 73.89 | 84.44 | 88.23 | 90.51 | 89.91 | 86.31 | 105.38 | 107.02 | 111.77 | 122.71 | 124.47 |
| Carribean Cargoes | 64.18 | 54.18 | 77.63 | 74.72 | 84.67 | 87.67 | 89.96 | 87.77 | 89.93 | 104.16 | 104.78 | 107.04 | 115.87 | 115.00 |
| Singapore Cargoes | 60.89 | 53.34 | 76.45 | 74.58 | 83.24 | 82.23 | 87.49 | 86.64 | 87.81 | 103.53 | 110.43 | 113.07 | 115.28 | 114.68 |
| Middle East Gulf Market, FOB | 58.72 | 63.50 | 84.21 | 49.61 | 53.99 | 54.45 | 54.59 | 59.31 | 81.68 | 83.05 | 86.08 | 91.12 | 100.21 | 98.75 |
| **GAS OIL/Diesel** | | | | | | | | | | | | | | |
| North Europeon Market, FOB Rotterdam | na | 55.90 | 75.69 | 74.77 | 81.62 | 84.11 | 88.75 | 90.03 | 90.47 | 104.15 | 111.35 | 117.35 | 120.14 | 118.46 |
| South Europeon Market, FOB Italy | na | 35.59 | 47.09 | 29.66 | 34.25 | 65.18 | 65.24 | 60.01 | 60.26 | 60.55 | 67.86 | 71.14 | 81.28 | 85.50 |
| US East Coast, New York | 61.15 | 53.69 | 73.45 | 72.67 | 82.73 | 86.11 | 87.63 | 85.41 | 83.14 | 103.55 | 112.07 | 114.66 | 116.39 | 118.63 |
| Carribean Cargoes | 59.33 | 16.19 | 23.47 | 23.20 | 26.18 | 57.12 | 57.63 | 56.93 | 57.72 | 62.32 | 62.38 | 69.12 | 76.07 | 77.25 |
| Singapore Cargoes | 61.82 | 56.20 | 77.92 | 75.80 | 82.69 | 85.89 | 88.63 | 87.36 | 88.53 | 104.40 | 108.17 | 112.94 | 122.40 | 123.26 |
| Middle East Gulf Market, FOB | 57.30 | 50.06 | 74.25 | 72.14 | 78.51 | 81.77 | 85.71 | 76.40 | 84.73 | 100.43 | 102.94 | 105.74 | 109.54 | 108.72 |
| **FUEL OIL** | | | | | | | | | | | | | | |
| North Europeon Market (1%s) | 34.38 | 36.43 | 59.46 | 64.52 | 69.02 | 72.55 | 73.25 | 70.33 | 71.28 | 76.54 | 78.28 | 83.16 | 87.42 | 85.61 |
| South Europeon Market,(1%s) FOB italy | 36.58 | 39.37 | 60.64 | 64.92 | 69.92 | 72.10 | 72.39 | 68.04 | 70.21 | 75.98 | 78.79 | 84.82 | 94.10 | 95.02 |
| US East Coast, New York (2.2%S) | na | na | na | na | na | na | na | na | 67.26 | 76.28 | 80.43 | 83.35 | 94.95 | 96.94 |
| Carribean Cargoes (2%s) | 28.28 | 32.55 | 54.73 | 60.96 | 68.60 | 70.31 | 74.99 | 70.14 | 68.79 | 73.13 | 82.79 | 88.24 | 94.77 | 98.88 |
| Singapore Cargoes (380 Cst) | 37.47 | 38.05 | 62.34 | 66.30 | 72.65 | 75.11 | 71.89 | 68.31 | 68.92 | 78.57 | 82.95 | 87.14 | 89.89 | 90.87 |
| Singapore Cargoes (180 Cst) | 37.65 | 38.70 | 62.77 | 66.36 | 72.79 | 75.55 | 73.04 | 71.45 | 70.07 | 80.20 | 82.59 | 85.17 | 91.96 | 96.17 |
| Middle East Gulf Market, (180 Cst) | 34.74 | 43.60 | 66.06 | 69.12 | 74.57 | 78.10 | 75.66 | 65.72 | 67.01 | 76.78 | 80.18 | 84.97 | 92.31 | 93.25 |

na: Not Available

**Source :** OPEC Monthly Statistical Bulletin

## XI.26 World Survey of Selected Petroleum Products Prices in 2010

| Country | US $ Exchange Rate in National Currencies | Automotive Diesel Oil Non-commercial use (US$/Ltr) | Heavy/High Sulphur Fuel Oil (US$/tonne) | Light Fuel Oil | |
|---|---|---|---|---|---|
| | | | | For Household Use (US$/1000Ltr) | For Industry Use |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Australia | 1.09 | 1.172 | .. | .. | .. |
| Austria | 0.76 | 1.464 | .. | 995.6 | 763.0 |
| Belgium | 0.76 | 1.592 | .. | 839.9 | 694.1 |
| Canada | 1.03 | .. | 551.7 | 855.5 | 673.7 |
| Chile | 509.98 | 0.947 | .. | 949.8 | .. |
| Czech Repubic | 19.08 | 1.609 | .. | 960.1 | 710.2 |
| Denmark | 5.62 | 1.603 | .. | 1581.1 | 958 |
| Estonia | 0.76 | 1.465 | .. | 982.2 | 818.5 |
| Finland | 0.76 | 1.497 | .. | 1029.1 | 840.1 |
| France | 0.76 | 1.516 | .. | 944.2 | 748.9 |
| Germany | 0.76 | 1.624 | .. | 853.6 | 717.3 |
| Greece | 0.76 | 1.633 | .. | 1093.2 | 897.8 |
| Hungry | 207.80 | 1.547 | .. | .. | .. |
| Ireland | 0.76 | 1.596 | 464.7 | 1099.4 | 881.0 |
| Israel | 3.73 | 1.770 | .. | 1595.9 | NA |
| Italy | 0.76 | 1.608 | .. | 1557.5 | 1297.9 |
| Japan | 87.76 | 1.285 | .. | 869.0 | 649.8 |
| Korea | 1155.00 | 1.300 | 625.3 | 927.1 | 922.9 |
| Luxembourg | 0.76 | 1.321 | .. | 780.5 | 711.4 |
| Mexico | 12.63 | 0.676 | 411.6 | .. | 460.7 |
| Netherlands | 0.76 | 1.55 | .. | .. | .. |
| New Zealand | 1.39 | 0.845 | 578.9 | .. | 576.6 |
| Norway | 6.05 | 1.945 | .. | 1356.6 | 1085.3 |
| Poland | 3.02 | 1.412 | 475.9 | 957.6 | 752.7 |
| Portugal | 0.76 | 1.526 | .. | 1094 | .. |
| Slovak Republic | 0.76 | 1.495 | .. | .. | 723.3 |
| Slovenia | 0.76 | 1.522 | .. | 963 | 802.5 |
| Spain | 0.76 | 1.424 | .. | 918.5 | 781.7 |
| Sweden | 7.20 | 1.732 | .. | 1587.6 | 705.0 |
| Switzerland | 1.04 | 1.651 | .. | 819.1 | 703.9 |
| Turkey | 1.50 | 2.041 | 930.7 | 1641.0 | .. |
| U.K | 0.65 | 1.842 | .. | 836.2 | 793.2 |
| U.S.A | 1.00 | 0.791 | 482.9 | 777.6 | 567.1 |

.. : not available

**NA** : Not Applicable

**Source :** International Energy Agency's "Energy Prices and Taxes" 2nd Quarter of 2011.

## XI.27 Airfield Prices of Jet A-1 Fuel at Major International Airports (As on 1st April)

(U.S.Cents/U.S.Gallon)

| Ports | 2003 | 2004 | 2005* | 2006* | 2007* | 2008* | 2009* | 2010* | 2011* |
|---|---|---|---|---|---|---|---|---|---|
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* |
| Paris | 99.46 | 108.26 | 179.30 | 199.01 | 200.10 | 333.80 | 142.80 | 226.11 | 337.38 |
| Frankfurt | NA | NA | 177.52 | 192.88 | 192.99 | 330.03 | 140.39 | 223.24 | 330.00 |
| Nairobi | NA | NA | 182.81 | 204.61 | 202.11 | 333.06 | 148.94 | 234.05 | 339.44 |
| Kualalampur | NA | NA | 164.71 | 186.94 | 185.56 | 303.74 | 132.36 | 213.35 | 319.36 |
| Singapore | 80.95 | 97.2 | 169.25 | 187.59 | 186.71 | 305.59 | 145.23 | 212.18 | 321.68 |
| Abu Dhabi | NA | NA | 176.59 | 196.63 | 193.47 | 316.21 | 146.42 | 228.97 | 334.64 |
| Dubai | 106.04 | 110.98 | 184.10 | 206.02 | 202.66 | 319.89 | 150.10 | 227.56 | 332.90 |
| London | 95.12 | 104.43 | 176.25 | 196.68 | 200.64 | 333.43 | 144.17 | 226.29 | 337.55 |
| Kuwait | NA | NA | 179.97 | 200.16 | 197.00 | 285.94 | 133.13 | 206.23 | 300.75 |
| New York | 85.01 | 104.32 | 169.48 | 203.46 | 206.49 | 320.68 | 147.75 | 219.92 | 324.55 |
| Tokyo | 91.96 | 111.82 | 177.79 | 197.52 | 195.39 | 314.16 | 143.21 | 221.71 | 327.36 |
| Mumbai | 152.98 | 156.73 | 259.65 | 230.08 | 241.57 | 384.85 | 163.92 | 252.83 | 374.67 |
| Delhi | 156.10 | 160.79 | 203.07 | 233.10 | 243.63 | 387.40 | 166.16 | 254.66 | 378.02 |
| Madras | 160.57 | 166.41 | 197.58 | 228.73 | 238.47 | 381.12 | 164.18 | 253.91 | 358.89 |

NA : Not available

*: Average price.

**Source :** Air India

## XI.28 Tanker Fleet Development in OPEC Members ('000' DWT)

| Country | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | | 2010 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NO. | DWT | NO. | DWT | NO. | DWT | NO. | DWT | NO. | DWT | NO. | DWT |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Algeria | 1 | 23.0 | 1 | 315.0 | 1 | 315.0 | 1 | 315.0 | 1 | 315.0 | 1 | 315.0 |
| Ecuador | na | na | na | na | na | na | na | na | na | na | na | na |
| I.R.Iran | 32 | 6050.0 | 32 | 6050.0 | 29 | 6202.0 | 42 | 9560.0 | 42 | 9560.0 | 47 | 10994.0 |
| Iraq | 1 | 37.0 | 1 | 37.0 | 1 | 37.0 | 2 | 26.0 | 4 | 53.0 | 4 | 53.0 |
| Kuwait | 19 | 2941.0 | 18 | 2802.0 | 22 | 3241.0 | 21 | 3113.0 | 20 | 3110.0 | 16 | 2223.0 |
| S.P. Libyan,A.J. | 6 | 275.0 | 6 | 275.0 | 8 | 627.0 | 8 | 627.0 | 8 | 627.0 | 8 | 627.0 |
| Nigeria | 2 | 409.0 | 2 | 409.0 | 2 | 409.0 | 2 | 409.0 | 2 | 409.0 | 2 | 409.0 |
| Qatar | 6 | 438.0 | 6 | 438.0 | 6 | 528.0 | 6 | 528.0 | 6 | 528.0 | 6 | 528.0 |
| Saudi Arabia | 19 | 1721.0 | 41 | 10055.0 | 41 | 10055.0 | 46 | 10483.0 | 40 | 8662.0 | 35 | 6993.0 |
| UAE | 9 | 400.0 | 6 | 218.0 | 6 | 218.0 | 13 | 660.0 | 13 | 660.0 | 13 | 660.0 |
| Venezuela | 21 | 1348.0 | 21 | 1348.0 | 21 | 1348.0 | 16 | 1091.0 | 16 | 1091.0 | 16 | 1091.0 |
| Total OPEC | 145 | 14636 | 134 | 21947 | 137 | 22980 | 165 | 27081 | 160 | 25284 | 156 | 24162 |
| Total World | **3892** | **340214** | **4177** | **359618** | **4418** | **375591** | **4825** | **398196** | **5713** | **481185** | **5147** | **444815** |
| OPEC %age | | 4.3 | | 6.1 | | 6.1 | | 6.8 | | 5.3 | | 5.4 |

Notes: Figures as at year-end. Totals may not add up due to independent rounding. Including crude oil, petroleum and chemical carriers.

na: not available

DWT: Dead Weight Tonnage

**Source** :OPEC Annual Statistical Bulletin, 2010.

## XI.29 Oil Trade Movements

Thousand barrels daily

| To/From | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| **Imports** | | | | | | | | |
| US | 12898 | 13525 | 13612 | 13632 | 12872 | 11453 | **11689** | 21.8% |
| Europe | 12538 | 13261 | 13461 | 13953 | 13751 | 12486 | **12094** | 22.6% |
| Japan | 5203 | 5225 | 5201 | 5032 | 4925 | 4263 | **4567** | 8.5% |
| Rest of World * | 18651 | 19172 | 20287 | 22937 | 23078 | 24132 | **25160** | 47.0% |
| **Total World** | **49290** | **51182** | **52561** | **55554** | **54626** | **52333** | **53510** | **100.0%** |
| **Exports** | | | | | | | | |
| US | 991 | 1129 | 1317 | 1439 | 1967 | 1947 | **2154** | 4.0% |
| Canada | 2148 | 2201 | 2330 | 2457 | 2498 | 2518 | **2599** | 4.9% |
| Mexico | 2070 | 2065 | 2102 | 1975 | 1609 | 1449 | **1539** | 2.9% |
| South & Central America | 3233 | 3528 | 3681 | 3570 | 3616 | 3748 | **3568** | 6.7% |
| Europe | 1993 | 2149 | 2173 | 2273 | 2023 | 2034 | **1888** | 3.5% |
| Former Soviet Union | 6440 | 7076 | 7155 | 8334 | 8184 | 7972 | **8544** | 16.0% |
| Middle East | 19630 | 19821 | 20204 | 19680 | 20128 | 18409 | **18883** | 35.3% |
| North Africa | 2917 | 3070 | 3225 | 3336 | 3260 | 2938 | **2871** | 5.4% |
| West Africa | 4048 | 4358 | 4704 | 4830 | 4587 | 4364 | **4601** | 8.6% |
| Asia Pacific £ | 4189 | 4243 | 4312 | 6004 | 5392 | 5631 | **6226** | 11.6% |
| Rest of World * | 1631 | 1542 | 1359 | 1656 | 1363 | 1323 | **637** | 1.2% |
| **Total World** | **49290** | **51182** | **52561** | **55554** | **54626** | **52333** | **53510** | **100.0%** |

* Includes unidentified trade.

£ Excludes Japan. Excludes trade between other Asia Pacific countries and Singapore prior to 1993 and India prior to 2007.

**Note: Annual changes and shares of total are calculated using thousand barrels daily figures.**

**Source:** BP Statistical review of World Energy, 2011

## XI.30 World Primary Energy Consumption by Fuel* during 2010

Million tonnes oil equivalent

| Country | Oil | Natural Gas | Coal | Nuclear Energy | Hydro electricity | Renewables | Total |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| US | 850.0 | 621.0 | 524.6 | 192.2 | 58.8 | 39.1 | **2285.7** |
| Canada | 102.3 | 84.5 | 23.4 | 20.3 | 82.9 | 3.3 | **316.7** |
| Mexico | 87.4 | 62.0 | 8.4 | 1.3 | 8.3 | 1.7 | **169.1** |
| **Total North America** | **1039.7** | **767.4** | **556.3** | **213.8** | **149.9** | **44.2** | **2771.5** |
| Argentina | 25.7 | 39.0 | 1.2 | 1.6 | 9.2 | 0.4 | **77.1** |
| Brazil | 116.9 | 23.8 | 12.4 | 3.3 | 89.6 | 7.9 | **253.9** |
| Chile | 14.7 | 4.2 | 3.7 | - | 4.9 | 0.8 | **28.4** |
| Colombia | 11.0 | 8.2 | 3.8 | - | 9.1 | 0.2 | **32.2** |
| Ecuador | 10.6 | 0.4 | - | - | 2.0 | 0.1 | **13.0** |
| Peru | 8.4 | 4.9 | 0.5 | - | 4.4 | 0.1 | **18.3** |
| Trinidad & Tobago | 2.1 | 19.8 | - | - | - | ^ | **22.0** |
| Venezuela | 35.2 | 27.6 | ^ | - | 17.4 | - | **80.3** |
| Other S. & Cent. America | 57.3 | 5.0 | 2.1 | - | 20.7 | 1.7 | **86.8** |
| **Total S. & Cent. America** | **282.0** | **132.9** | **23.8** | **4.9** | **157.2** | **11.1** | **611.9** |
| Austria | 13.0 | 9.1 | 2.0 | - | 7.8 | 1.4 | **33.3** |
| Azerbaijan | 3.3 | 5.9 | ^ | - | 0.8 | ^ | **10.0** |
| Belarus | 6.6 | 17.7 | ^ | - | ^ | ^ | **24.4** |
| Belgium & Luxembourg | 35.0 | 17.4 | 4.9 | 10.9 | 0.1 | 1.5 | **69.8** |
| Bulgaria | 4.2 | 2.3 | 6.6 | 3.5 | 1.3 | 0.2 | **18.0** |
| Czech Republic | 9.2 | 8.4 | 16.0 | 6.3 | 0.8 | 0.6 | **41.3** |
| Denmark | 8.7 | 4.5 | 3.8 | - | ^ | 2.5 | **19.5** |
| Finland | 10.4 | 3.5 | 4.6 | 5.2 | 3.2 | 2.2 | **29.1** |
| France | 83.4 | 42.2 | 12.1 | 96.9 | 14.3 | 3.4 | **252.4** |
| Germany | 115.1 | 73.2 | 76.5 | 31.8 | 4.3 | 18.6 | **319.5** |
| Greece | 18.5 | 3.3 | 8.5 | - | 1.7 | 0.6 | **32.5** |
| Hungary | 6.7 | 9.8 | 2.6 | 3.6 | ^ | 0.7 | **23.4** |
| Republic of Ireland | 7.6 | 4.8 | 1.4 | - | 0.1 | 0.7 | **14.6** |
| Italy | 73.1 | 68.5 | 13.7 | - | 11.2 | 5.6 | **172.0** |
| Kazakhstan | 12.5 | 22.7 | 36.1 | - | 1.5 | - | **72.8** |
| Lithuania | 2.7 | 2.8 | 0.2 | - | 0.3 | 0.1 | **6.1** |
| Netherlands | 49.8 | 39.2 | 7.9 | 0.9 | ^ | 2.2 | **100.1** |
| Norway | 10.7 | 3.7 | 0.5 | - | 26.7 | 0.3 | **41.8** |
| Poland | 26.3 | 12.9 | 54.0 | - | 0.8 | 1.9 | **95.8** |
| Portugal | 12.6 | 4.5 | 3.4 | - | 3.8 | 2.8 | **27.1** |
| Romania | 9.1 | 12.0 | 6.2 | 2.6 | 4.6 | 0.1 | **34.5** |
| Russian Federation | 147.6 | 372.7 | 93.8 | 38.5 | 38.1 | 0.1 | **690.9** |
| Slovakia | 3.7 | 5.1 | 2.7 | 3.3 | 1.3 | 0.1 | **16.2** |
| Spain | 74.5 | 31.0 | 8.3 | 13.9 | 9.6 | 12.4 | **149.7** |
| Sweden | 14.5 | 1.4 | 2.0 | 13.2 | 15.1 | 4.3 | **50.7** |
| Switzerland | 11.4 | 3.0 | 0.1 | 6.0 | 8.2 | 0.3 | **29.0** |

Contd..

| Country | Oil | Natural Gas | Coal | Nuclear Energy | Hydro electricity | Renewables | Total |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Turkey | 28.7 | 35.1 | 34.4 | - | 11.7 | 1.0 | **110.9** |
| Turkmenistan | 5.6 | 20.4 | - | - | - | - | **26.0** |
| Ukraine | 11.6 | 46.9 | 36.4 | 20.2 | 2.9 | ^ | **118.0** |
| United Kingdom | 73.7 | 84.5 | 31.2 | 14.1 | 0.8 | 4.9 | **209.1** |
| Uzbekistan | 5.0 | 41.0 | 1.3 | - | 2.5 | - | **49.8** |
| Other Europe & Eurasia | 28.3 | 14.1 | 15.7 | 1.8 | 22.3 | 1.2 | **83.4** |
| **Total Europe & Eurasia** | **922.9** | **1023.5** | **486.8** | **272.8** | **195.9** | **69.6** | **2971.5** |
| Iran | 86.0 | 123.2 | 1.1 | - | 2.2 | 0.1 | **212.5** |
| Israel | 11.2 | 4.8 | 7.7 | - | - | ^ | **23.7** |
| Kuwait | 17.7 | 12.9 | - | - | - | - | **30.6** |
| Qatar | 7.4 | 18.4 | - | - | - | - | **25.7** |
| Saudi Arabia | 125.5 | 75.5 | - | - | - | - | **201.0** |
| United Arab Emirates | 32.3 | 54.5 | - | - | - | ^ | **86.8** |
| Other Middle East | 80.2 | 39.6 | - | - | 0.9 | ^ | **120.7** |
| **Total Middle East** | **360.2** | **329.0** | **8.8** | **-** | **3.0** | **0.1** | **701.1** |
| Algeria | 14.9 | 26.0 | 0.3 | - | ^ | - | **41.1** |
| Egypt | 36.3 | 40.6 | 0.7 | - | 3.2 | 0.3 | **81.0** |
| South Africa | 25.3 | 3.4 | 88.7 | 3.1 | 0.3 | 0.1 | **120.9** |
| Other Africa | 79.0 | 24.4 | 5.7 | - | 19.6 | 0.7 | **129.5** |
| **Total Africa** | **155.5** | **94.5** | **95.3** | **3.1** | **23.2** | **1.1** | **372.6** |
| Australia | 42.6 | 27.3 | 43.4 | - | 3.4 | 1.5 | **118.2** |
| Bangladesh | 4.8 | 18.0 | 0.5 | - | 0.3 | - | **23.6** |
| China | 428.6 | 98.1 | 1713.5 | 16.7 | 163.1 | 12.1 | **2432.2** |
| China Hong Kong SAR | 16.1 | 3.4 | 6.3 | - | - | ^ | **25.9** |
| India | 155.5 | 55.7 | 277.6 | 5.2 | 25.2 | 5.0 | **524.2** |
| Indonesia | 59.6 | 36.3 | 39.4 | - | 2.6 | 2.1 | **140.0** |
| Japan | 201.6 | 85.1 | 123.7 | 66.2 | 19.3 | 5.1 | **500.9** |
| Malaysia | 25.3 | 32.2 | 3.4 | - | 2.1 | ^ | **62.9** |
| New Zealand | 6.9 | 3.7 | 1.0 | - | 5.5 | 1.8 | **18.9** |
| Pakistan | 20.5 | 35.5 | 4.6 | 0.6 | 6.4 | - | **67.6** |
| Philippines | 13.1 | 2.8 | 7.7 | - | 1.8 | 2.3 | **27.6** |
| Singapore | 62.2 | 7.6 | - | - | - | - | **69.8** |
| South Korea | 105.6 | 38.6 | 76.0 | 33.4 | 0.8 | 0.5 | **255.0** |
| Taiwan | 46.2 | 12.7 | 40.3 | 9.4 | 0.9 | 1.0 | **110.5** |
| Thailand | 50.2 | 40.6 | 14.8 | - | 1.2 | 1.1 | **107.9** |
| Vietnam | 15.6 | 8.4 | 13.7 | - | 6.3 | - | **44.0** |
| Other Asia Pacific | 13.5 | 4.8 | 18.9 | - | 7.4 | ^ | **44.6** |
| **Total Asia Pacific** | **1267.8** | **510.8** | **2384.7** | **131.6** | **246.4** | **32.6** | **4573.8** |
| **Total World** | **4028.1** | **2858.1** | **3555.8** | **626.2** | **775.6** | **158.6** | **12002.4** |

* In this Review, primary energy comprises commercially traded fuels including modern renewables used to generate electricity.

^ Less than 0.05.

**Notes:** Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent.

**Source:** BP Statistical review of World Energy, 2011

## XI.31 Per Capita Primary Energy Consumption* Some International Comparisons during 2010

(Kg oil equivalent)

| Country | Oil | Natural Gas | Coal | Nuclear Energy | Hydro electricity | Renewables | Total |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| US | 2,745 | 2,006 | 1,694 | 621 | 190 | 126 | 7,383 |
| Canada | 3,000 | 2,477 | 686 | 595 | 2,431 | 98 | 9,287 |
| Mexico | 791 | 560 | 76 | 12 | 75 | 16 | 1,529 |
| **Total North America** | **2,289** | **1,689** | **1,225** | **471** | **330** | **97** | **6,101** |
| Argentina | 635 | 963 | 29 | 39 | 227 | 11 | 1,904 |
| Brazil | 605 | 123 | 64 | 17 | 464 | 41 | 1,314 |
| Chile | 860 | 248 | 219 | - | 287 | 46 | 1,660 |
| Colombia | 241 | 180 | 84 | - | 200 | 3 | 708 |
| Ecuador | 744 | 29 | - | - | 138 | 4 | 914 |
| Peru | 284 | 165 | 18 | - | 149 | 4 | 621 |
| Trinidad & Tobago | 1,653 | 15,231 | - | - | - | - | 16,887 |
| Venezuela | 1,223 | 959 | - | - | 165 | - | 2,787 |
| Other S. & Cent. America | 545 | 48 | 20 | - | 43 | 4 | 825 |
| **Total S. & Cent. America** | **593** | **280** | **50** | **-** | **331** | **23** | **1,287** |
| Austria | 1,550 | 1,080 | - | - | 934 | 172 | 3,970 |
| Azerbaijan | 365 | 658 | - | - | - | - | 1,109 |
| Belarus | 695 | 1,868 | - | - | - | - | 2,568 |
| Belgium & Luxembourg | 3,095 | 1,543 | 429 | 965 | 11 | 130 | 6,173 |
| Bulgaria | 558 | 306 | 883 | 460 | 173 | 22 | 2,402 |
| Czech Republic | 876 | 797 | 1,525 | - | - | 55 | 3,930 |
| Denmark | 1,585 | 809 | 690 | - | - | 463 | 3,549 |
| Finland | 1,923 | 654 | 853 | 963 | 588 | 411 | 5,392 |
| France | 1,324 | 669 | 193 | 1,538 | 228 | 54 | 4,006 |
| Germany | 1,411 | 897 | 938 | - | 53 | 227 | 3,915 |
| Greece | 1,635 | 291 | 748 | - | - | 56 | 2,877 |
| Hungary | 670 | - | 264 | - | - | 66 | 2,341 |
| Republic of Ireland | 2,184 | 1,365 | 395 | - | 36 | 194 | 4,174 |
| Italy | 1,208 | 1,132 | 227 | - | 185 | 92 | 2,844 |
| Kazakhstan | 765 | 1,394 | 2,215 | - | 91 | - | 4,465 |
| Lithuania | 820 | 850 | 53 | - | 88 | 23 | 1,834 |
| Netherlands | 3,000 | 2,364 | 478 | 54 | - | 135 | 6,032 |
| Norway | 2,174 | 756 | 94 | - | 5,446 | 58 | 8,528 |
| Poland | 687 | 337 | 1,412 | - | 21 | 49 | 2,507 |
| Portugal | 1,176 | 423 | 315 | - | 359 | 257 | 2,530 |
| Romania | 421 | 559 | 287 | 122 | 212 | 3 | 1,604 |
| Russian Federation | 1,040 | 2,627 | 661 | 272 | 268 | 1 | 4,869 |
| Slovakia | 689 | 939 | 493 | 611 | 236 | 25 | 2,991 |
| Spain | 1,582 | 658 | 176 | 296 | 204 | 263 | 3,179 |
| Sweden | 1,547 | 153 | 216 | 1,409 | 1,610 | 454 | 5,390 |
| Switzerland | 1,459 | 382 | 15 | 770 | 1,046 | 42 | 3,713 |

Contd..

| Country | Oil | Natural Gas | Coal | Nuclear Energy | Hydro electricity | Renewables | Total |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Turkey | 390 | 477 | 467 | - | 160 | 13 | 1,507 |
| Turkmenistan | 1,085 | 3,915 | - | - | - | - | 5,000 |
| Ukraine | 252 | 1,022 | 794 | 439 | 64 | - | 2,571 |
| United Kingdom | 1,184 | 1,358 | 501 | 226 | 13 | 79 | 3,361 |
| Uzbekistan | 177 | 1,458 | 48 | - | 90 | - | 1,773 |
| Other Europe & Eurasia | 503 | 251 | 279 | 33 | 396 | 21 | 1,484 |
| **Total Europe & Eurasia** | **1,034** | **1,146** | **545** | **306** | **219** | **78** | **3,328** |
| Iran | 1,146 | 1,641 | 14 | - | 29 | 1 | 2,830 |
| Israel | 1,477 | 628 | 1,013 | - | - | - | 3,119 |
| Kuwait | 5,694 | 4,169 | - | - | - | - | 9,863 |
| Qatar | 4,327 | 10,810 | - | - | - | - | 15,137 |
| Saudi Arabia | 4,297 | 2,587 | - | - | - | - | 6,884 |
| United Arab Emirates | 5,983 | 10,089 | - | - | - | - | 16,073 |
| Other Middle East | 828 | 410 | - | - | 9 | - | 1,247 |
| **Total Middle East** | **1,647** | **1,504** | **40** | **-** | **14** | **0** | **3,206** |
| Algeria | 413 | 722 | 7 | - | - | - | 1,143 |
| Egypt | 451 | 505 | 8 | - | 40 | 4 | 1,008 |
| South Africa | 508 | 69 | 1,778 | 61 | 6 | 2 | 2,423 |
| Other Africa | 92 | 28 | 7 | - | 23 | 1 | 150 |
| **Total Africa** | **151** | **92** | **93** | **3** | **23** | **1** | **362** |
| Australia | 1,902 | 1,221 | 1,937 | - | 153 | 66 | 5,279 |
| Bangladesh | 167 | 619 | 16 | - | 11 | - | 812 |
| China | 320 | 73 | 1,281 | 12 | 122 | 9 | 1,818 |
| China Hong Kong SAR | 2,298 | 492 | 907 | - | - | - | 3,698 |
| India | 131 | 47 | 233 | 4 | 21 | 4 | 441 |
| Indonesia | 253 | 154 | 167 | - | 11 | 9 | 594 |
| Japan | 1,582 | 668 | 971 | 519 | 151 | 40 | 3,931 |
| Malaysia | 875 | 1,113 | 116 | - | 74 | - | 2,178 |
| New Zealand | 1,558 | 841 | 222 | - | 1,258 | 415 | 4,295 |
| Pakistan | 111 | 192 | 25 | 3 | 35 | - | 366 |
| Philippines | 139 | 30 | 82 | - | 19 | 24 | 294 |
| Singapore | 12,203 | 1,483 | - | - | - | - | 13,686 |
| South Korea | 2,159 | 790 | 1,554 | 684 | 17 | 10 | 5,214 |
| Taiwan | 1,990 | 547 | 1,736 | 406 | 39 | 44 | 4,762 |
| Thailand | 737 | 596 | 218 | - | 18 | 16 | 1,585 |
| Vietnam | 175 | 95 | 154 | - | 70 | - | 495 |
| Other Asia Pacific | 70 | 25 | 99 | - | 38 | - | 233 |
| **Total Asia Pacific** | **332** | **134** | **624** | **34** | **64** | **9** | **1,197** |
| **Total World** | **584** | **415** | **516** | **91** | **113** | **23** | **1,741** |

* In this Review, primary energy comprises commercially traded fuels including modern renewables used to generate electricity.

**Notes:** Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent.

**Source:** BP Statistical review of World Energy, 2011

## XI.32 Per Capita Consumption of Main Petroleum Products Some International Comparisons During 2010

Kg.Oil/ Per Capita

| Country/Area | Light Distillates | Middle Distillates | Fuel Oil | Others | Total |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| USA | 1497 | 876 | 88 | 619 | 3080 |
| Europe | 229 | 516 | 83 | 193 | 1022 |
| Middle East | 623 | 834 | 711 | 565 | 2733 |
| China | 92 | 134 | 25 | 88 | 339 |
| Japan | 680 | 541 | 173 | 343 | 1737 |
| OECD | 779 | 737 | 122 | 415 | 2052 |

**Note: Population (Mid 2010 in Millions) data has been taken from "Population Reference Bureau".**

**Source** : B.P Statistical Review of World Energy, June 2010

## XI.33 Trends in World Primary Energy Consumption

(Million Tonnes Oil Equivalent)

| Year | Oil | Natural Gas | Coal | Nuclear Energy | Hydro electricity | Renewables | Total |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 2001 | 3517 | 2220 | 2243 | 601 | 585 | na | 8581 |
| 2002 | 3563 | 2286 | 2412 | 611 | 593 | na | 9465 |
| 2003 | 3641.8 | 2343.2 | 2613.5 | 598.2 | 604.1 | na | 9800.8 |
| 2004 | 3798.6 | 2425.2 | 2798.9 | 625.1 | 643.2 | na | 10291.0 |
| 2005 | 3861.3 | 2512.2 | 2957 | 627 | 666.6 | na | 10624.1 |
| 2006 | 3910.9 | 2558.3 | 3041.7 | 634.9 | 697.2 | na | 10843.0 |
| 2007 | 3939.4 | 2652.2 | 3194.5 | 622.5 | 695.8 | na | 11104.4 |
| 2008 | 3959.9 | 2717.3 | 3286.4 | 620.2 | 731.4 | na | 11315.2 |
| 2009 | 3908.7 | 2661.4 | 3305.6 | 614.0 | 736.3 | 137.4 | 11363.4 |
| 2010(P) | 4028.1 | 2858.1 | 3555.8 | 626.2 | 775.6 | 158.6 | 12002.4 |

(P) : Provisional

na: not available

**Source :** B.P Statistical Review of world Energy

## XI.34 Primary Energy Consumption* in Selected Countries of the World

Million tonnes oil equivalen

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| US | 2348.8 | 2351.2 | 2332.7 | 2372.7 | 2320.2 | 2204.1 | **2285.7** | 19.0% |
| Canada | 315.2 | 325.3 | 323.6 | 329.0 | 326.6 | 312.5 | **316.7** | 2.6% |
| Mexico | 153.0 | 159.0 | 164.9 | 168.2 | 171.2 | 167.1 | **169.1** | 1.4% |
| **Total North America** | **2817.1** | **2835.4** | **2821.2** | **2870.0** | **2818.0** | **2683.7** | **2771.5** | **23.1%** |
| Argentina | 63.1 | 67.6 | 71.3 | 74.6 | 77.5 | 75.1 | **77.1** | 0.6% |
| Brazil | 199.9 | 207.2 | 212.7 | 225.4 | 235.1 | 234.1 | **253.9** | 2.1% |
| Chile | 27.0 | 28.3 | 29.4 | 29.9 | 29.3 | 28.5 | **28.4** | 0.2% |
| Colombia | 26.8 | 28.3 | 29.6 | 29.3 | 30.8 | 31.5 | **32.2** | 0.3% |
| Ecuador | 8.3 | 9.5 | 10.5 | 11.5 | 12.4 | 12.6 | **13.0** | 0.1% |
| Peru | 12.6 | 13.1 | 13.4 | 14.6 | 15.9 | 16.3 | **18.3** | 0.2% |
| Trinidad & Tobago | 13.9 | 15.8 | 20.6 | 20.6 | 21.9 | 20.8 | **22.0** | 0.2% |
| Venezuela | 68.6 | 71.3 | 77.3 | 77.0 | 80.9 | 80.6 | **80.3** | 0.7% |
| Other S.& Cent. America | 80.2 | 81.3 | 83.4 | 86.7 | 86.0 | 85.4 | **86.8** | 0.7% |
| **Total S. & Cent. America** | **500.2** | **522.3** | **548.1** | **569.6** | **589.9** | **585.0** | **611.9** | **5.1%** |
| Austria | 34.0 | 34.8 | 34.1 | 33.4 | 34.1 | 33.1 | **33.3** | 0.3% |
| Azerbaijan | 12.7 | 13.8 | 13.6 | 12.2 | 12.3 | 10.7 | **10.0** | 0.1% |
| Belarus | 23.7 | 23.7 | 25.2 | 24.3 | 25.5 | 23.9 | **24.4** | 0.2% |
| Belgium & Luxembourg | 70.4 | 70.6 | 70.4 | 70.3 | 72.5 | 65.7 | **69.8** | 0.6% |
| Bulgaria | 19.2 | 19.9 | 20.7 | 19.8 | 20.1 | 18.3 | **18.0** | 0.2% |
| Czech Republic | 44.9 | 44.8 | 44.4 | 43.6 | 42.0 | 40.6 | **41.3** | 0.3% |
| Denmark | 20.5 | 19.8 | 21.9 | 20.9 | 20.1 | 18.8 | **19.5** | 0.2% |
| Finland | 30.9 | 28.4 | 30.0 | 29.8 | 29.2 | 27.1 | **29.1** | 0.2% |
| France | 263.6 | 261.2 | 259.2 | 256.7 | 257.8 | 244.0 | **252.4** | 2.1% |
| Germany | 337.3 | 333.2 | 339.5 | 324.2 | 326.8 | 307.4 | **319.5** | 2.7% |
| Greece | 34.3 | 34.0 | 35.0 | 34.9 | 34.7 | 33.3 | **32.5** | 0.3% |
| Hungary | 24.2 | 25.8 | 25.4 | 25.0 | 24.8 | 22.8 | **23.4** | 0.2% |
| Republic of Ireland | 14.6 | 15.0 | 15.5 | 15.8 | 15.7 | 14.6 | **14.6** | 0.1% |
| Italy | 185.8 | 186.2 | 185.4 | 182.4 | 180.7 | 168.3 | **172.0** | 1.4% |
| Kazakhstan | 61.6 | 64.5 | 66.7 | 68.2 | 73.0 | 67.5 | **72.8** | 0.6% |
| Lithuania | 9.2 | 8.4 | 8.1 | 8.7 | 8.7 | 8.0 | **6.1** | 0.1% |
| Netherlands | 95.0 | 97.1 | 97.2 | 98.4 | 98.1 | 95.6 | **100.1** | 0.8% |
| Norway | 39.5 | 45.6 | 42.0 | 45.7 | 46.7 | 43.4 | **41.8** | 0.3% |
| Poland | 91.7 | 91.5 | 94.9 | 95.8 | 95.4 | 91.3 | **95.8** | 0.8% |
| Portugal | 25.4 | 25.6 | 25.5 | 25.4 | 24.3 | 24.6 | **27.1** | 0.2% |
| Romania | 39.0 | 39.8 | 40.6 | 37.5 | 38.5 | 34.0 | **34.5** | 0.3% |
| Russian Federation | 657.8 | 657.4 | 675.3 | 685.8 | 691.0 | 654.7 | **690.9** | 5.8% |
| Slovakia | 17.6 | 18.8 | 17.8 | 17.2 | 17.7 | 16.0 | **16.2** | 0.1% |
| Spain | 151.1 | 153.4 | 154.1 | 158.6 | 157.1 | 146.1 | **149.7** | 1.2% |
| Sweden | 52.6 | 54.3 | 51.4 | 52.0 | 51.7 | 47.4 | **50.7** | 0.4% |
| Switzerland | 28.8 | 27.7 | 28.9 | 28.6 | 29.7 | 29.7 | **29.0** | 0.2% |

Contd..

| Country | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 share of total |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Turkey | 84.4 | 89.5 | 95.8 | 102.2 | 103.8 | 101.0 | **110.9** | 0.9% |
| Turkmenistan | 17.9 | 19.0 | 21.2 | 24.2 | 23.8 | 23.4 | **26.0** | 0.2% |
| Ukraine | 137.4 | 136.1 | 137.5 | 135.2 | 131.9 | 112.0 | **118.0** | 1.0% |
| United Kingdom | 227.4 | 228.3 | 225.6 | 218.4 | 214.9 | 203.6 | **209.1** | 1.7% |
| Uzbekistan | 48.8 | 46.2 | 45.6 | 49.0 | 52.6 | 48.0 | **49.8** | 0.4% |
| Other Europe & Eurasia | 81.4 | 81.0 | 79.2 | 80.9 | 82.4 | 79.0 | **83.4** | 0.7% |
| **Total Europe & Eurasia** | **2982.7** | **2995.4** | **3027.6** | **3025.6** | **3037.4** | **2853.8** | **2971.5** | **24.8%** |
| Iran | 156.1 | 177.0 | 185.7 | 189.6 | 197.4 | 205.9 | **212.5** | 1.8% |
| Israel | 21.0 | 21.6 | 21.8 | 22.9 | 23.8 | 23.3 | **23.7** | 0.2% |
| Kuwait | 25.9 | 27.7 | 26.5 | 26.2 | 27.7 | 28.0 | **30.6** | 0.3% |
| Qatar | 17.0 | 20.8 | 22.3 | 22.8 | 23.6 | 24.2 | **25.7** | 0.2% |
| Saudi Arabia | 147.4 | 152.3 | 158.5 | 165.2 | 179.6 | 187.8 | **201.0** | 1.7% |
| United Arab Emirates | 61.0 | 64.6 | 67.4 | 74.3 | 85.5 | 83.0 | **86.8** | 0.7% |
| Other Middle East | 86.1 | 89.0 | 97.0 | 100.3 | 107.3 | 112.7 | **120.7** | 1.0% |
| **Total Middle East** | **514.5** | **553.0** | **579.1** | **601.4** | **644.9** | **664.9** | **701.1** | **5.8%** |
| Algeria | 31.3 | 32.7 | 33.7 | 35.5 | 37.5 | 39.7 | **41.1** | 0.3% |
| Egypt | 59.6 | 62.5 | 65.8 | 69.9 | 74.1 | 76.5 | **81.0** | 0.7% |
| South Africa | 115.7 | 113.5 | 115.4 | 118.0 | 116.3 | 118.8 | **120.9** | 1.0% |
| Other Africa | 111.4 | 115.9 | 114.2 | 120.1 | 126.2 | 125.2 | **129.5** | 1.1% |
| **Total Africa** | **318.0** | **324.6** | **329.0** | **343.6** | **354.1** | **360.1** | **372.6** | **3.1%** |
| Australia | 116.9 | 117.7 | 124.3 | 125.2 | 124.3 | 125.6 | **118.2** | 1.0% |
| Bangladesh | 16.6 | 18.3 | 19.1 | 20.0 | 21.8 | 23.4 | **23.6** | 0.2% |
| China | 1531.3 | 1691.5 | 1858.1 | 1996.8 | 2079.9 | 2187.7 | **2432.2** | 20.3% |
| China Hong Kong SAR | 24.3 | 22.9 | 24.7 | 26.2 | 24.5 | 24.3 | **25.9** | 0.2% |
| India | 345.5 | 364.0 | 381.4 | 414.5 | 444.6 | 480.0 | **524.2** | 4.4% |
| Indonesia | 116.9 | 120.5 | 122.0 | 129.6 | 123.6 | 132.2 | **140.0** | 1.2% |
| Japan | 522.1 | 527.2 | 528.3 | 523.6 | 516.2 | 473.0 | **500.9** | 4.2% |
| Malaysia | 53.8 | 59.6 | 62.6 | 63.4 | 62.2 | 60.8 | **62.9** | 0.5% |
| New Zealand | 19.3 | 18.8 | 19.1 | 19.0 | 19.1 | 19.0 | **18.9** | 0.2% |
| Pakistan | 56.8 | 58.9 | 61.8 | 65.1 | 64.8 | 66.9 | **67.6** | 0.6% |
| Philippines | 27.5 | 27.7 | 25.9 | 27.1 | 26.9 | 27.3 | **27.6** | 0.2% |
| Singapore | 42.7 | 48.4 | 51.5 | 56.8 | 59.4 | 63.4 | **69.8** | 0.6% |
| South Korea | 213.2 | 220.6 | 222.7 | 231.3 | 235.3 | 236.7 | **255.0** | 2.1% |
| Taiwan | 104.8 | 107.1 | 108.7 | 113.7 | 106.7 | 104.2 | **110.5** | 0.9% |
| Thailand | 87.7 | 93.1 | 95.0 | 97.9 | 100.6 | 102.4 | **107.9** | 0.9% |
| Vietnam | 28.7 | 29.8 | 32.3 | 34.9 | 36.7 | 42.1 | **44.0** | 0.4% |
| Other Asia Pacific | 41.5 | 44.0 | 45.4 | 43.2 | 44.6 | 46.9 | **44.6** | 0.4% |
| **Total Asia Pacific** | **3349.5** | **3570.2** | **3782.8** | **3988.3** | **4091.5** | **4215.6** | **4573.8** | **38.1%** |
| **Total World** | **10482.0** | **10800.9** | **11087.8** | **11398.4** | **11535.8** | **11363.2** | **12002.4** | **100.0%** |

* In this Review, primary energy comprises commercially traded fuels including modern renewables used to generate electricity.

Notes: Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent

**Source: BP Statistical Review of World Energy.**

## XI. 35 Economic Indicators of OPEC Nations During 2010

| Country | Mid Year Population 2010 (Million) | GDP at market prices 2010 (Mn. $) | Per capita GDP 2010 (US $) | Petroleum Exports 2010 (Mn. $) | Total Exports 2010 (Mn. $) | Petroleum Exports as 2010 Exports | Proven crude oil reserves 2010 (Bn.bbls) | Gas Reserves 2010 (Bn. CM) | Producing Oil wells 2010 | Crude refining Capacity (000/b/d) | Exports of Refined Products (000/b/d) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Algeria | 36.30 | 162915 | 4,488 | 38300 | 57800 | 66.3 | 12.20 | 4504 | 2014 | 652 | 314.1 |
| Angola | 19.05 | 85312 | 4,478 | 47239 | 49259 | 95.9 | 9.50 | 310 | 1325 | 39 | 7.5 |
| Ecuador | 14.31 | 56998 | 3,984 | 9649 | 17369 | 55.6 | 7.21 | 8 | 3433 | 188 | 28.1 |
| Iran | 75.35 | 357221 | 4,741 | 71571 | 83785 | 85.4 | 151.17 | 3090 | 2064 | 1441 | 370.6 |
| Iraq | 32.44 | 125899 | 3,881 | 51147 | 52084 | 98.2 | 143.10 | 3158 | 1552 | 800 | 5.0 |
| Kuwait | 3.57 | 131315 | 36,824 | 61667 | 65984 | 93.5 | 101.50 | 1784 | 1308 | 936 | 631.6 |
| Libya | 6.56 | 74232 | 11,314 | 41874 | 46310 | 90.4 | 47.10 | 1495 | 2064 | 380 | 48.3 |
| Nigeria | 159.64 | 193666 | 1,213 | 61804 | 70579 | 87.6 | 37.20 | 5110 | 3589 | 445 | 23.1 |
| Qatar | 1.70 | 128593 | 75,643 | 29278 | 72054 | 40.6 | 25.38 | 25201 | 527 | 80 | 321.6 |
| Saudi Arabia | 26.11 | 443691 | 16,996 | 196193 | 235342 | 83.4 | 264.52 | 8016 | 3650 | 2109 | 950.9 |
| U.A.E | 4.74 | 269104 | 56,809 | 74027 | 198362 | 37.3 | 97.80 | 6091 | 1488 | 466 | 187.9 |
| Venezuela | 28.95 | 295961 | 10,223 | 62317 | 65786 | 94.7 | 296.50 | 525 | 14505 | 982 | 751.1 |
| **Total** | **408.71.** | **2324908** | **5,688** | **745066** | **1014714** | **73.4** | **1193.18** | **94292** | **37479** | **8819** | **3639.8** |

**Notes**: Totals may not add up due to independent rounding.
**Source :** OPEC Annual Statistical Bulletin, 2010.

# Appendix

## Abbreviations

### (I) Companies/Organisations

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

### (II) Petroleum Products

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

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

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

### (III) Prefixes Used in Metric Tables

| Prefix | : | Meaning |
|---|---|---|
| Milli | : | One Thousandth (1/1000=0.001) |
| Centi | : | One Hundredth (1/100=0.01). |
| Deci | : | One Tenth (1/10=0.1) |
| Unit | : | One (1). |
| Deka | : | Ten(10) |
| Hecto | : | One Hundred (100) |
| Kilo | : | One Thousand (1,000). |
| Mega | : | One Million (1,000,000) |

### (IV) Others

| | | |
|---|---|---|
| API | : | American Petroleum Institute. |
| AFRA | : | Average Freight Rate Assessment. |
| CIF | : | Cost, Insurance and Freight |
| Crores | : | 10 million/100 Lakhs. |
| DWT | : | Dead Weight Tonnage. |
| FOB | : | Free on Board |
| GP | : | General Purpose (16,500-24,999 dwt) |
| LV | : | Low Viscosity. |
| HV | : | High Viscosity |
| HVI | : | High Viscosity Index |
| KL | : | Kilolitre |
| LR I | : | Large Range I (45,000-79,999 dwt). |
| LR II | : | Large Range I I (80,000-159,999 dwt). |
| LVI | : | Medium Range (25,000-49,999 dwt). |
| MT | : | Metric Ton. |
| MTPA | : | Million Tonnes Per Annum. |
| MV | : | Medium Viscosity. |
| MVI | : | Medium Viscosity Index. |
| R&D | : | Research & Development. |
| ULCC | : | Ultra Large Crude Carrier (320,000-549,999 dwt). |
| VLCC | : | Very Large Crude Carrier (160,000 dwt and more). |
| NA | : | Not available. |
| - | : | Nil |
| Neg | : | Negligible |
| Billion | : | $10^9$ or one thousand Million. |
| Trillion | : | $10^{12}$ or one million million. |
| P | : | Provisional. |
| LoI | : | Letter of Intent |
| MMSCMD | : | Million Standard Cubic Metres Per Day |
| CNG | : | Compressed Natural Gas |
| MoU | : | Memorandum of Understanding |

## Metric Units

### Linear

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

### Area

| | | |
|---|---|---|
| 100 Sq. Millimetres | - | 1 Sq. Centimetre |
| 100 Sq. Centimetres | - | 1 Sq. Decimetre |
| 100 Sq. Decimetres | - | 1 Sq. Metre |
| 100 Sq. Metres | - | 1 Sq. Decametre-1 Acre. |
| 100 Sq. Acres | - | 1 Sq. Hectometre-1 Hectare. |
| 100 Hectares | - | 1 Sq. Kilometre. |

### Weight

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

### Capacity

| | | |
|---|---|---|
| 10 Millilitres | - | 1 Centilitre |
| 10 Centilitres | - | 1 Decilitre |
| 10 Decilitres | - | 1 Litre |
| 10 Litres | - | 1 Decalitre |
| 10 Decalitres | - | 1 Hectolitre |
| 10 Hectolitres | - | 1 Kilolitre |

### Volume

| | | |
|---|---|---|
| 1000 Cubic Millimetres | - | 1 Cubic Centimetre |
| 1000 Cubic Centimetres | - | 1 Cubic Decimetre |
| 1000 Cubic Decimetres | - | 1 Cubic Metre |

## Conversion Factors used in Oil Trade Linear and Square Measures

### Length

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

### Area

| | | |
|---|---|---|
| 1 Square Inch | - | 645.16 Square Millimetres ($mm^2$). |
| 1 Square Foot | - | 0.0929030 Square Metre ($m^2$). |
| 1 Square Yard | - | 9 Square Feet. |
| | | 0.836127 Square Metre ($m^2$). |
| 1 Square Metre | - | 10.7639 Square Feet. |
| | - | 1.19599 Square Yards. |
| 1 Acre | - | 4840 Square Yards |
| | - | 4046.86 Sq. Metres ($m^2$) |
| | - | 0.404686 Hectares. |
| 1 Hectare | - | 10,000 Square Metres ($m^2$). |
| | - | 2.47105 Acres. |
| | - | 0.01 Square Kilometre ($km^2$) |
| 1 Square Kilometre | - | 100 Hectares. |
| | - | 0.386102 Square Mile. |
| 1 Square Mile | - | 640 Acres. |
| | - | 258.999 Hectares |
| | - | 2.58999 Square Kilometres ($km^2$). |

## Mass and Weight

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

## Energy and Power

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

## Cubic Measures

### Volume

| | | |
|---|---|---|
| 1 Cubic Inch | - | 16.3871 Cubic Centimetres ($cm^3$) |
| Pint | - | 0.568261 Cubic Decimetres ($dm^3$) or Litres. |
| 1 Litre | - | 61.024 Cubic Inches. |
| | - | 1.75975 Pints. |
| | - | 1 Cubic Decimeter ($dm^3$) |
| | - | 0.264172 American Gallons. |
| | - | 0.219963 Imperial Gallons. |
| | - | 0.0353147 Cubic Foot. |
| 1 Hectolitre | - | 100 Cubic Decimetres ($dm^3$) or |
| | - | 100 Litres |
| 1 American Gallon | - | 231 Cubic Inches. |
| | - | 3.78541 Cubic Decimetres or Litres |
| | - | 0.832674 Imperial Gallon. |
| | - | 0.133681 Cubic Foot. |
| | - | 0.0238095 American Barrel. |
| | - | 0.00378541 Cubic Metre ($M^3$) |
| 1 Imperial Gallon | - | 277.420 Cubic Inches. |
| | - | 4.54609 Cubic Decimetres ($dm^3$) or Litres |
| | - | 1.20095 American Gallon. |
| | - | 0.160544 Cubic Foot, |
| | - | 0.02894 American Barrel. |
| | - | 0.00454609 Cubic Metre ($m^3$) |
| 1 Cubic Foot | - | 28.3168 Cubic Decimetres ($dm^3$) or Litres |
| | - | 7.48052 American Gallons. |
| | - | 6.22883 Imperial Gallons. |
| | - | 0.17811 American Barrel. |
| | - | 0.0283168 Cubic Metre ($m^3$). |
| 1 Americal Barrel | - | 9702 Cubic Inches. |
| | - | 158.987 Cubic Decimetres ($dm^3$) or Litres. |
| | - | 42 American Gallons. |
| | - | 34.9726 Imperial Gallons. |
| | - | 5.6146 Cubic Feet. |
| | - | 0.158987 Cubic Metre ($M^3$). |
| 1 Cubic Metres | - | 1000 Litres. |
| | - | 264.172 American Gallons |
| | - | 219.969 Imperial Gallons. |
| | - | 35.3147 Cubic Feet. |
| 1 Kilolitre | - | 1000 Cubic Decimetres ($dm^3$) or Litres |
| | - | 6.28981 Americal Barrels. |
| 1 Gross Ton (Shipping) | - | 2.83168 Cubic Metres or 100 Cubic Feet |
| | - | or Permanently Enclosed Space |
| 1 Ton of Liquified | - | Approx. 16 Barrels. |
| Methane | - | Approx 1400 Cubic Metres of Natural Gas depending upon Methane Content |

## Product Conversion Factor
## (Conversion Factor from Volume to Tonnes at Natural Temp.)

| Product | Litres to Metric Tonnes | Tonnes per K.L. | American Barrels to Metric Tonnes |
|---|---|---|---|
| *1* | *2* | *3* | *4* |
| Aviation Spirit 100/130 | 1421 | 0.7034 | 8.94 |
| Aviation Spirit 144/145 | 1449 | 0.6901 | 9.11 |
| Aviation Spirit 73 ON | 1432 | 0.6983 | 9.01 |
| Motor Spirit 79 ON | 1427 | 0.7008 | 8.98 |
| Motor Spirit 80 ON | 1427 | 0.7008 | 8.98 |
| Motor Spirit 93 ON | 1386 | 0.7215 | 8.72 |
| Motor Spirit 95 ON | 1359 | 0.7358 | 8.55 |
| Motor Spirit 83 ON/87 ON | 1411 | 0.7087 | 8.88 |
| JP-4 | 1384 | 0.7225 | 8.71 |
| JP-5 | 1273 | 0.7855 | 8.01 |
| Aviation Turbine Fuel | 1288 | 0.7764 | 8.10 |
| Naphtha | 1467 | 0.6817 | 9.23 |
| Power Alcohol | 1286 | 0.7776 | 8.09 |
| Benzol | 1154 | 0.8666 | 7.26 |
| SBP Spirit/Hexane | 1457 | 0.6863 | 9.16 |
| Mineral Turpentine (Laws 140/205) | 1302 | 0.7680 | 8.19 |
| Liquified Petroleum Gas | 1785 | 0.5602 | 11.23 |
| Superior Kerosene | 1285 | 0.7782 | 8.08 |
| Inferior Kerosene | 1265 | 0.7905 | 7.96 |
| Power Kerosene (Vap. Oil) | 1251 | 0.7994 | 7.87 |
| High Speed Diesel | 1210 | 0.8263 | 7.61 |
| Light Diesel Oil | 1172 | 0.8532 | 7.37 |
| Malarial Oil | 1172 | 0.8532 | 7.37 |
| Special Larvicides | 1175 | 0.8511 | 7.39 |
| Furnace Oil | 1071 | 0.9337 | 6.74 |
| Tea Drier Oil | 1071 | 0.9337 | 6.74 |
| Hot Heavy Stock/LSHS | 1017 | 0.9833 | 6.40 |
| Refinery Gas/Ref. Boiler Fuel | 1071 | 0.9337 | 6.74 |
| Lubricants/Greases | 1114 | 0.8977 | 7.01 |
| Jute Batching Oil/Wash Oils | 1167 | 0.8569 | 7.34 |
| Bitumen | 1002 | 0.9980 | 6.30 |
| SBP/Alcohol Mixture | 1414 | 0.7072 | 8.89 |
| Methanol Mixture | 1106 | 0.9042 | 6.96 |
| Carbon Black Feed Stock | 1134 | 0.8818 | 7.13 |
| Carburetter Testing Fluid | 1388 | 0.7205 | 8.73 |
| Benzene | 1131 | 0.8812 | 7.05 |
| Toluene | 1148 | 0.8711 | 7.19 |
| Demineralised Water | 1002 | 0.9930 | 6.30 |
| S. Glass Kleanzit | 1003 | 0.9970 | 6.31 |
| Miscellaneous | 1114 | 0.8977 | 7.01 |
| Wax/P. Coke/Chemicals | 1114 | 0.8977 | 7.01 |
| Aromex | 1221 | 0.8190 | 7.68 |
| Linear Alkyl Benzene Feed Stock | 1205 | 0.8239 | 7.88 |

## Volume per Metric Ton of Petroleum Products

| Products | Kilolitre | Imperial Gallon | U.S. Gallon | Barrel |
|---|---|---|---|---|
| Liquified Petroleum Gas | 1.8519 | 407.365 | 489.213 | 11.648 |
| Aviation Spirit | 1.3699 | 301.332 | 361.873 | 8.613 |
| Natural Gasoline | 1.3514 | 297.265 | 356.990 | 8.496 |
| Motor Spirit | 1.3514 | 297.265 | 356.990 | 8.496 |
| Kerosene | 1.2346 | 271.569 | 326.137 | 7.764 |
| Jet Fuel | 1.2346 | 271.569 | 326.137 | 7.764 |
| Distillate Fuel Oil | 1.1494 | 252.415 | 293.522 | 6.988 |
| Lubricating Oil | 1.1111 | 252.845 | 303.647 | 7.231 |
| Fuel Oil N.O.S. | 1.0939 | 241.727 | 290.301 | 6.911 |
| Residual Fuel Oils | 1.0526 | 231.551 | 278.071 | 6.623 |
| Asphalt and Bitumen | 0.9615 | 211.515 | 254.013 | 6.050 |
| Crude Oil | 1.1856 | 260.910 | 313.340 | 7.441 |

## Conversion Factors for Duty Reduction from 15° C to 29.5° C

| Product | Conversion Factor |
|---|---|
| 1. Aviation Spirit 100/130 | 0.9827 |
| 2. Aviation Spirit 114/145 | 0.9820 |
| 3. Aviation Spirit 73 Clear | 0.9824 |
| 4. Aviation Turbine Fuel | 0.9862 |
| 5. Motor Spirit 83 | 0.9830 |
| 6. Motor Spirit 93 | 0.9836 |
| 7. High Speed Diesel Oil | 0.9879 |
| 8. Kerosene | 0.9864 |
| 9. Light Diesel Oil | 0.9877 |
| 10. Furnace Oil | 0.9899 |
| 11. Special Boiling Point Spirit 55/115 | 0.9820 |
| 12. Special Boiling Point Spirit 64/69 | 0.9806 |
| 13. Solvent 1425 | 0.9820 |
| 14. Hexane | 0.9806 |

## Petroleum Specific Gravities

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

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

## Petroleum Specific Gravity Ranges

| Products | Specific Gravity | Barrels Per tonne |
|---|---|---|
| Crude Oils | 0.80-0.97 | 8.0-6.6 |
| Aviation gasolines | 0.70-0.78 | 9.1-8.2 |
| Motor Gasolines | 0.71-0.79 | 9.0-8.1 |
| Kerosene | 0.78- 0.84 | 8.2-7.6 |
| Gas Oil | 0.82-0.90 | 7.8-7.1 |
| Diesel Oils | 0.82-0.92 | 7.8-6.9 |
| Lubricating Oils | 0.85-0.95 | 7.5-6.7 |
| Fuel Oils | 0.92-0.99 | 6.9-6.5 |
| Asphaltic Bitumens | 1.00-1.10 | 6.4-5.8 |

## Crude Oil Conversions@

| To convert these into | Metric Tons | Barrels | Kilolitres | 1,000 Imp. Gallon | 1,000 U.S. Gallon |
|---|---|---|---|---|---|
| Metric Tons | 1 | 7.33 | 1.16 | 0.256 | 0.308 |
| Barrels | 0.136 | 1 | 0.159 | 0.035 | 0.042 |
| Kilolitres | 0.863 | 6.29 | 1 | 0.220 | 0.264 |
| 1,000 Imp. Gallons | 3.91 | 28.6 | 4.55 | 1 | 1.201 |
| 1,000 U.S. Gallons | 3.25 | 23.8 | 3.79 | 0.833 | 1 |

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

## Multiplier for Conversion of one Metric Tonne of Petroleum Products to one Tonne of Oil Equivalent

| Product | Multiplier |
|---|---|
| L.P.G. | 1.130 |
| Naphtha | 1.075 |
| Aviation Gasoline | 1.070 |
| Motor Gasoline | 1.070 |
| Jet Fuel | 1.065 |
| Kerosene | 1.045 |
| Gas/diesel | 1.035 |
| Residual Fuel Oils | 0.985 |
| Others | 0.960 |

## Average International Calorific Value of different Fules

| Products | K Cals./Kg. (M. Cals/Tonne) | BTUs/Kg. |
|---|---|---|
| *1* | *2* | *3* |
| **A. Oil Equivalence** | | |
| Average Crude Oil/NGLS(a) | 10,300 | 40,870 |
| United Nations | 10,175 | 40,375 |
| **B. Oil Products:** | | |
| NGL | 12,135 | 48,150 |
| Motor Gasoline | 11,135 | 44,190 |
| Kerosene | 10,638 | 42,210 |
| Jet Fuel | 11,790 | 46,790 |
| Gas Oil | 10,790 | 42,820 |
| Fuel Oil | 10,440 | 41,430 |
| **C. Coal Equivalence:** | | |
| Average Hard Coal (b) | 7,000 | 27,775 |
| **D. INDIA** | | |
| Hard Coal | 5,000 | 19,840 |
| Lignite-Brown Coal | 2,310 | 916 |
| Firewood@ | 4,750 | 18,848 |
| Charcoal@ | 6,900 | 27,379 |
| **E. Natural Gas-Production: (Average) India** | | **K cals/Cu. Metre** |
| | | 8,000-9,480 |
| **F. Electricity:** | | |
| Output Basis(c) | | 860 |
| Fuel Input basis(d) | | 2,500-2,700 |

**Note:** (a) Represent average global factor for crude Oil/NGL production. For a specific crude oil, relevant conversion factor may have to be used.

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

(c) Calorific value of 1kwh of electricity.

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

'@ : As per Report of Fuel Policy Committee 1974

Conversion Factor: 1 K Cal=4.19 KJoules

## Coefficients used to Convert from Original Units into Standarad Coal Equivalents

| | Products | Hard Coal | Lignite Brown Coal | Fuel Wood |
|---|---|---|---|---|
| | *1* | *2* | *3* | *4* |
| **A.** | **Primary Solids** | | | |
| 1 | Standard Factor | 1 | 0.385 | 0.333 |
| 2 | India | 0.714 | 0.330 | |
| **B.** | **Other Hydrocarbons** | | | |
| 1 | Petroleum Crude | | 1.454 | |
| 2 | Natural Gas Liquids (wt.av.) | | 1.542 | |
| 3 | Gasolines | | 1.500 | |
| 4 | Kerosene & Jet Fuel | | 1.474 | |
| 5 | Gas-Diesel Oil | | 1.450 | |
| 6 | Residual Fuel Oil | | 1.416 | |
| 7 | Liquified Petroleum Gases | | 1.554 | |
| 8 | Natural Gasoline | | 1.532 | |
| 9 | Condensate | | 1.512 | |
| 10 | Other Natural Gas Liquids | | 1.512 | |
| 11 | Natural Gas (in Terajoules)* | | 34.121 | |
| 12 | Other Gases(in Terajoules)* | | 34.121 | |
| 13 | Hydro, Nuclear and Geothermal Electricity (In 1,000 kwh) | | 0.123 | |

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

## Coal Replacement and Equivalents of different Fuels

| Fuels | Original Unit | Unit million tonnes of coal equivalent (mtce) | Unit million tonnes of coal replacement (mtcr) |
|---|---|---|---|
| *1* | *2* | *3* | *4* |
| Coal coking (6640 K cal/Kg), | 1mt | 1.0 | 1.0 |
| Non-coking coal used in steam | | | |
| Generation (5000 Kcal/kg.) | | | |
| Hard Coke | 1mt | 1.3 | 1.3 |
| Soft Coke | 1mt | 1.5 | 1.3 |
| Firewood (4750 Kcal/Kg.) | 1mt | 0.95 | 0.95 |
| Char Coal (6900 Kcal/Kg.) | 1mt | 1.0 | 1.0 |
| **Oil Products: 10,000 Kcal/Kg.** | | | |
| Black Products:(Fuel Oil, FO, | | | |
| Refinery,Fuel,LSHS&HHS) | 1mt | 2.0 | 2.0 |
| Kerosene & LPG | 1mt | 2.0 | 8.0 |
| HSDO & LDO | 1mt | 2.0 | 9.0 |
| Motor Spirit & Jet Fuel | 1mt | 2.0 | 7.5 |
| Natural Gas(9000k CAL/kg) | $109m^3$ | 1.8 | 3.6 |
| Electricity | 109 kwh | 1.0 | 1.0 |

**Note:** m : Million mt: Million Tonnes

mtce : Million Tonnes of Coal Equivalent

mtcr : Million Tonnes of Coal Replacement

**Source** : Fuel Policy Committee 1974

## Approximate Calorific Equivalents (Oil = 10,000 K Cal/Kg.)

| | Items | | Million Tonnes of Oil equals |
|---|---|---|---|
| 1 | Heat Units | = | 40 million BTU |
| | | = | 397 million therms |
| | | = | 10,000 teracalories |
| 2 | Solid Fuels | = | 1.5 million tonnes of Coal |
| | | = | 3.0 million tonnes of lignite |
| 3 | Natural Gas | = | ( 1 Cub metre = 9000 K cal). |
| | (1 cub.ft.=1000 BTU) | = | 1.111 thousand million cub metres |
| | | = | 39.2 thousand million cubic feet |
| | | = | 107 million cubic feet per day of a year |
| 4 | Electricity | | |
| | (1 Kwh=3412 BTU) | = | 12 thousand million KWH |
| | (1 Kwh=860 KCal) | | |

## Heat Units and others expressed in terms of Million Tonnes of Oil

| | Items | Million Tonnes of Oil equals |
|---|---|---|
| 1 | Heat Units | |
| | 10 million million BTU | 0.25 |
| | 100 million therms | 0.25 |
| | 10,000 teracalories | 1 |
| 2 | Solid Fuels | |
| | 1 million tonnes of coal | 0.67 |
| | 1 million tonnes of lignite | 0.33 |
| | approximates to | |
| 3 | Natural Gas | |
| | 1 thousand million cub, metres(BCM) | 0.9 |
| 4 | Town Gas | |
| | 1 thousand million cub. Metres (BCM) | 0.42 |
| 5 | Electricity | |
| | 12 thousand million KWH | 0.86 |

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

## Exchange Rates

(Rs. Per U.S. Dollar)

| Year | Calendar Years | | | | | Financial Years | |
|---|---|---|---|---|---|---|---|
| | 1st Qr. | 2nd Qr. | 3rd Qr. | 4th Qr. | Average for the year | Year | Average for the year |
| *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* |
| 2002 | 48.58 | 48.96 | 48.60 | 48.26 | 48.60 | 2002-03 | 48.40 |
| 2003 | 47.77 | 47.06 | 46.00 | 45.50 | 46.58 | 2003-04 | 45.95 |
| 2004 | 44.65 | 45.30 | 46.32 | 44.68 | 45.24 | 2004-05 | 44.93 |
| 2005 | 43.69 | 43.62 | 43.84 | 45.37 | 44.13 | 2005-06 | 44.27 |
| 2006 | 44.4 | 45.47 | 46.37 | 44.99 | 45.31 | 2006-07 | 42.25 |
| 2007 | 44.17 | 41.23 | 40.52 | 39.46 | 41.35 | 2007-08 | 40.26 |
| 2008 | 39.82 | 41.72 | 42.78 | 48.76 | 43.27 | 2008-09 | 45.99 |
| 2009 | 49.77 | 48.79 | 48.42 | 46.64 | 48.41 | 2009-10 | 47.44 |
| 2010 | 45.93 | 45.63 | 46.49 | 44.86 | 45.74 | 2010-11 | 45.58 |

**Source**: http://www.rbi@nic.in & Economic Survey.

