Petroleum and gas

9.33 The petroleum sector has been shaken by the wild swings in international oil prices during 2008-09. The production of crude and products witnessed slack growth in 2008-09, compared to the previous year. The 3 per cent growth in refinery production in 2008-09 was mainly on account of the impressive growth of private sector production. While the production of crude oil declined in 2008-09, its consumption increased. In contrast, the production of petroleum products increased by 3.9 per cent in 2008-09, while its consumption declined. The growth in diesel consumption which stood at 6.7 per cent in 2006-07, rose to 11.1 per cent in 2007-08 and then declined to 8.4 per cent in 2008-09, year-on-year. Major reasons for the slowdown in growth included industrial slowdown, business slowdown in sectors like automobiles, transporters strike in January 2009, etc. With the commissioning of Reliance Petroleum Ltd. (SEZ) Refinery in Gujarat in December 2008, the total installed capacity of India refineries increased from 148.97 MMTPA to 177.97 MMTPA by the end of 2008-09 (Table 9.13).

Progress under new exploration licensing policy

9.34 Since operationalizing the NELP in 1999, in seven rounds of NELP, 203 Production Sharing Contract (PSC) have been signed, thereby increasing the area under exploration more than four times. In the recently concluded NELP-VII, 181 bids were received from 95 companies including 21 foreign companies. Under NELP, 68 oil and gas discoveries have been made by private/joint venture (JV) companies in 19 blocks, which have added more than 600 MMT of oil equivalent hydrocarbon reserves. As on April 1, 2009, investment commitment under NELP is about US$ 10 billion on exploration, against which actual expenditure so far under NELP is about US$ 4.7 billion. In addition, US$ 5.2 billion investment has been made on development of discoveries (Table 9.14).

Table 9.13 : Petroleum industry production

		Item	Unit	2007-08 [a]	2008-09
Reserves (balance	(i)	Crude oil	MT	725	770
recoverable) [b]	(ii)	Natural gas	BCM	1055	1090
Production	(i)	Crude oil	MT	34.12	33.51
	(ii)	Petroleum products [c]	MT	146.99	152.68
Consumption	(i)	Crude oil [d]	MT	156.1	160.77
	(ii)	Petroleum products	MT	128.95	124.17
Refinery Installed Capacity			MT	148.97	148.97
Refinery Production	(i)	Public sector	MT	112.54	112.22
(Throughput)	(ii)	Private sector	MT	43.56	48.55
		Total	**MT**	**156.1**	**160.77**
Natural Gas	(i)	Gross production	BCM	32.402	32.85
	(ii)	Utilization	BCM	31.478	31.77
Exploratory drilling	(i)	Wells	No.	106	121
	(ii)	Metreage	000' No.	293	342
Wells & Metreage drilled	(i)	Wells	No.	359	355
	(ii)	Metreage	000' No.	872	871

Source: Ministry of Petroleum & Natural Gas

a= Provisional b= As on April 1st of the initial year c= Includes LPG production from Natural Gas
d= Refinery crude throughput; MT= Million Tonne BCM= Billion Cubic Metre

Table 9.14 : Progress under new exploration license policy

Parameter	NELPI	NELP II	NELP III	NELP IV	NELP V	NELP VI	NELP VII
No. of blocks awarded	25	23	23	21	20	52	44
No. of PSCs signed	24	23	23	20	20	52	41
Signed in	2000	2001	2003	2004	2005	2007	2008
Area awarded (sq. km)	1,94,735	2,63,050	2,04,588	1,92,810	1,15,180	3,06,200	1,21,000

Source : Ministry of Petroleum & Natural Gas

Coal-bed methane policy

9.35 Under the first three rounds of the CBM policy, 26 CBM exploration blocks are under operation and 6 TCF reserves have already been established in 4 CBM blocks. First commercial production of CBM commenced from July 2007. Preparation for launch of CBM IV is in progress.

National gas hydrate programme

9.36 In tune with the road map for NGHP, India has acquired core samples with the help of the drill ship "JOIDES Resolution". In December 2008, an MoU was signed between the Directorate General of Hydrocarbons and the U.S. Geological Survey for exchange of scientific knowledge and technical personnel to exploit the potential of the gas hydrate as an alternate source of energy.

Acquisition of oil and gas assets abroad

9.37 In view of the demand-supply gap in hydrocarbons, national oil companies are encouraged to pursue equity oil and gas opportunities overseas. Oil & Natural Gas Corporation Videsh Limited (OVL) produced about 8.78 million metric tonnes of oil and equivalent gas during the year 2008-09 from its assets abroad in Sudan, Vietnam, Russia, Syria and Colombia. In 2008, OVL acquired two oil blocks each in Brazil and Colombia. The largest ever acquisition of a foreign company, Imperial Energy Plc., U K (IEC) by an Indian public sector company, ONGC-Videsh Ltd. took place in 2008. Besides, IEC-OVL-IOC alliance, BPCL along with Videocon, too have acquired oil assets abroad.

Oil prices

9.38 International prices of crude oil and petroleum products remained volatile in the recent past. The Indian basket of crude oil, which averaged US$ 79.25/bbl during 2007-08, went up to US$ 142.04 per barrel on July 3, 2008 and then slumped steeply to US$ 35.83 per barrel on December 24, 2008, before recovering to US$ 46.02 per barrel in March 2009. The average for the year 2008-09 stood at US$ 83.57 per barrel. The benefit of softening international oil prices has been partly offset by the depreciation of the rupee. Despite India importing over 75 per cent of its crude oil requirement, final energy consumers have not been made to bear the brunt of oscillating oil prices, as the major part of elevated international oil prices during the first half of 2008-09 was shared by the Government, upstream oil companies and oil marketing companies (OMCs). Following the sharp rise in international oil prices up to May 2008, the prices of petrol, diesel and domestic LPG were increased in June 2008 by Rs. 5/litre, Rs. 3/litre and Rs. 50/cylinder at Delhi with corresponding increase in rest of the country. Following the softening of international crude prices, the domestic prices were reduced in two phases in December 2008 and January 2009 by Rs. 10.00 per litre for petrol, Rs. 4.00 per litre for diesel and Rs. 25.00 per cylinder for domestic LPG (14.2 kg weight).

Under-recoveries

9.39 The OMCs pay trade/import parity price to refineries when they buy products. The difference between the required prices based on trade parity / import parity and the regulated actual selling price realized (excluding taxes, dealer commission) resulted in the under-recoveries in oil companies, the burden of which have been shared by the Government (oil bonds), upstream oil companies (offer of discount on crude oil sold to the oil marketing companies) and OMCs themselves (Table 9.15).

Table 9.15 : Under-recoveries and its financing

(Rs. crore)

	2005-06	2006-07	2007-08	2008-09
PDS Kerosene	14,384	17,883	19,102	28225
Domestic LPG	10,246	10,701	15,523	17600
Petrol	2,723	2,027	7,332	5181
Diesel	12,647	18,776	35,166	52286
Total Under-Recovery	40,000	49,387	77,123	103292
Burden Sharing (percentage)				
Oil Bonds	28.8	48.8	45.8	59.04
Upstream assistance	35.0	41.5	33.3	30.98
Balance borne by OMCs.	36.3	9.6	20.9	Nil

Source : Ministry of Petroleum & Natural Gas

Box 9.4 : Developments in the petroleum and natural gas sector - 2008-09

- Under NELP-VII, the award of 44 blocks has been approved.
- First crude oil production from MA field in deepwater block D6 in Krishna- Godavari Basin started in September 2008 with initial production of about 5,000 barrels per day by the Reliance Industries Limited and the NIKO Resources Limited.
- Natural gas development project for development of gas discoveries D1& D3 in block D6 of KG Basin is being undertaken by the Reliance Industries Limited (RIL) and NIKO Resources Limited. The first gas production from this block is expected during 2009.
- Government has conveyed "in principle" approval to the Public Sector Oil Marketing Companies for introducing composite cylinders for marketing domestic LPG, subject to there being no subsidy.
- OMCs have started the service of using Unique Toll Free telephone Numbers for public grievances redressal.

Efforts towards energy conservation

9.40 Petroleum Conservation Research Association (PCRA) is mandated to spread the awareness on energy conservation through field activities like energy audit, fuel oil diagnostics, service to small-scale industries, institutional training, seminars, exhibitions and workshops. PCRA has carried out technical/R&D interventions aimed at reducing energy intensity in small and medium enterprises (Box 9.4). PCRA has also taken up a Media Campaign "Save Fuel yanni Save Money". Based on the PCRA experience, a book titled "Practical Guide to Energy Conservation" was prepared. Besides, chapters related to energy conservation have also been included in NCERT books.

9.41 In order to contain adulteration and diversion of PDS kerosene, over 62 per cent of retail outlets selling more than 200 KLs per month have been automated and 87 per cent of tank-trucks fitted with Global Positioning System at the end of October 2008. Marker system has facilitated detection of adulteration of fuels by the Oil Marketing Companies. Marketing of non-PDS kerosene in one litre bottles, piloted in two districts of Haryana, has been expanded to cover five districts in Haryana.

9.42 As a result of economic meltdown and the financial/credit crisis, oil prices have slumped. International agencies project world oil demand to fall in 2009. The product prices have fallen faster than crude prices resulting in drop in refining margins.