

(a) the details of steps taken to enhance the Research and Development activities in the field of Non-Conventional Energy Sources in the country, so far;

(b) whether any plan has been formulated to set up more energy parks for the promotion of renewable energy sources in the country;

(c) if so, the details thereof;

(d) whether the Government propose to provide more funds for R&D in this sector;

(e) if so, the details thereof; and

(f) the time by which the final decision is likely to be taken in this regard?

THE MINISTER OF POWER, MINISTER OF PARLIAMENTARY AFFAIRS AND MINISTER OF NON-CONVENTIONAL ENERGY SOURCES (SHRI P. R. KUMARAMANGALAM) : (a), (d) and (e) The Ministry of Non-Conventional Energy Sources has been supporting research and development activities in the field of non-conventional energy sources in the country. A substantial step up has been made in the financial allocation in the Ninth Plan as compared to the Eighth Plan for enhancing research and development activities. The thrust of the R&D programme is to upgrade existing renewable energy technologies and also to promote development, demonstration and commercialisation of new and emerging renewable energy technologies. The Ministry's R&D programmes include inhouse R&D, support to R&D projects in IITs, Indian Institute of Science, leading Universities and R&D establishments. The Ministry also supports R&D in industries with financial support upto 50 per cent. A high level R&D Advisory Committee has been constituted consisting of eminent experts and decision makers in the field of non-conventional energy for advising the Ministry in R&D programmes.

(b) and (c) Yes, Sir, The Energy parks scheme has been under implementation since 1994-95 under which parks are being set up in educational institutions and public places for demonstration of renewable energy systems and devices. 140 energy parks have so far been sanctioned in 25 States/UTs of the country.

(f) Does not arise since R&D is an ongoing activity in the Ministry.

[English]

#### **List System for Elections**

\*279. DR. SUGUNA KUMARI CHELLAMELLA :  
PROF. P.J. KURIEN :

Will the Minister of LAW, JUSTICE AND COMPANY AFFAIRS be pleased to state :

(a) whether his Ministry have proposed package of electoral reforms including introduction of the list system in addition to the existing first past the post system;

(b) if so, the advantages and disadvantages thereof;

(c) whether a paper in this regard has been submitted for consideration to the Government; and

(d) if so, the action taken/proposed to be taken by the Government in the matter?

THE MINISTER OF LAW, JUSTICE AND COMPANY AFFAIRS AND MINISTER OF SURFACE TRANSPORT (DR. M. THAMBI DURAI): (a) to (d) Government had discussed with political parties, on 22.05.1998, a set of proposals on electoral reforms which also contained a proposal regarding 'change of present electoral system to Majoritarian system/ List System/Mixed System/any other System'. Government has however not favoured/proposed any one system/combination of systems in this regard and has left the matter for wider debate among political parties. The proposal regarding introduction of list system in addition to the existing first-past-the-post system, in fact, finds place among the proposals contained in the 'Working Paper on Reform of the Electoral Laws' prepared by the Law Commission which has been circulated by the Commission for soliciting views from various political parties, Election Commission, Legislatures, etc. The Law Commission had also sought views of the Government on its Working Paper. Government has, however, decided to wait for the final recommendations of the Law Commission in this regard.

#### **Demand and Supply of Hydro-Carbons in the Country**

\*280. SHRI CHAMAN LAL GUPTA :  
SHRI TATHAGATA SATPATHY :

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state :

(a) whether there is increasing demand of hydro-carbons in the country;

(b) whether the Government propose to increase the production of hydro-carbons to meet the domestic demand and reduce their import;

(c) if so, the details thereof and the target fixed in this regard for the Ninth Plan.

(d) the new projects launched in search of hydro-carbons in the country during the last three years as also in the current year and the result achieved, State-wise;

(e) the total amount spent on each of such project;

(f) whether there are any plans to resume the drilling in search of hydrocarbons in the Jammu areas;

(g) if so, the reasons for the abandoning of drillings halfway in the Sruinsar areas; and

(h) the dates on which these drillings were abandoned and total expenditure incurred thereon so far?

THE MINISTER OF PETROLEUM AND NATURAL GAS (SHRI VAZHAPADY K. RAMAMURTHY) : (a) and (b) Yes, Sir.

(c) Steps being taken by the Government to increase crude oil production in the country include application of improved technologies, 3D seismic surveys for better understanding of the fields and reservoir behaviour, improving the recovery percentage, development of new fields, additional development of existing fields, long term reservoir management of Mumbai High field, intensive exploration in the existing basins and inviting foreign and private capital in the upstream sector through early implementation of new exploration licensing policy. The refining capacity is also being increased in the country by expansion of existing refineries in the public sector and setting up of refineries in Joint Sector and Private Sector. The cumulative indigenous production during the IX Plan period is targetted to be 180.82 million tonnes of crude oil and 144.53 billion cubic meters of gas.

(d) The requisite information in respect of ONGC and OIL is given in the enclosed Statements I to VI.

As far as private companies are concerned, contracts were signed for 19 exploration blocks during last 3 years. 13 of the these contracts were signed in 1998 and one in 1999 and exploration activities are in planning stage in these blocks. Exploration activities are in progress in 5 blocks. No discovery of oil/gas has been made yet.

(e) The information is given in the enclosed Statements VII and VIII.

(f) Presently acquisition of 2D seismic data in Poonch-Rajauri area of Jammu & Kashmir State is in progress. Resumption of drilling in this area will depend upon identification of viable prospects based upon data acquired/planned to be acquired.

(g) Two well viz. Surinsar-1 (SNS-1) and Surinsar-2 (SNS-2) were drilled on Surinsar-Mastgarh anticline in Jammu area. Well SNS-1 was abandoned at a depth of 3665 m due to re-activation of high pressured zones and drilling complications. Well SNS-2 was also abandoned at 5448 m on account of super high pressures and drilling difficulties including technical failure of casing.

(h) Surisar-2 spudded on 18.05.1987 was drilled to a depth of 5448 m. No hydrocarbon was encountered and the well was abandoned on 29.08.1989. The total expenditure incurred by ONGC on exploratory drilling etc. excluding expenditure on survey in the State of Jammu & Kashmir up to 31.03.1998 was to the tune of Rs. 97.96 crores.

### Statement - I

*Details of the Seismic and Drilling Activities of ONGC during the period April '95 to Dec. 98*

State	Seismic Surveys		Wells Drilled	
	2D	3D	Exploratory	Development
1	2	3	4	5
<b>1995-96</b>				
Andhra Pradesh	996	1037	25	1
Assam	686	808	18	17
Bihar	228	0		
Gujarat	1916	2330	96	136
Himachal Pradesh	168			
Madhya Pradesh	932		1	
Rajasthan	494		2	
Tamil Nadu	397	791	25	2
Tripura	102		4	
West Bengal	172	502	1	
West Coast Off.	15947	14725	24	52
East Coast Off.	3060	0	3	0
<b>Total</b>	<b>25098</b>	<b>20193</b>	<b>199</b>	<b>208</b>
<b>1996-97</b>				
Andhra Pradesh	1240	987	27	0
Assam	677	1233	15	19
Bihar	255			
Gujarat	1295	2077	89	120
Himachal Pradesh	108			
Jammu & Kashmir	135			
Madhya Pradesh	1641			
Rajasthan	433		2	
Tamil Nadu	98	1849	26	0
Tripura	108		2	
West Bengal	136	685	1	
West Coast Off.	15868	19668	23	18
East Coast Off.	3383	0	4	0
<b>Total</b>	<b>25377</b>	<b>26499</b>	<b>189</b>	<b>157</b>
<b>1997-98</b>				
Andhra Pradesh	635	1649	22	0
Assam	433	628	18	19
Bihar	122			
Gujarat	1146	6638	43	100
Himachal Pradesh	59			

1	2	3	4	5
Jammu & Kashmir	185			
Madhya Pradesh	984		1	0
Rajasthan	692		3	
Tamil Nadu	18	1962	17	3
Tripura	112		3	2
West Bengal	182	867		
West Coast Off.	1460	82232	18	38
East Coast Off.	450	2012	2	0
<b>Total</b>	<b>6478</b>	<b>95988</b>	<b>127</b>	<b>162</b>

**1998-99 (as on 1.1.99)**

Andhra Pradesh	0	1086	16	2
Assam	329	639	8	6
Bihar				

1	2	3	4	5
Gujarat	493	3773	34	74
Himachal Pradesh	28			
Jammu & Kashmir	60			
Madhya Pradesh	634			
Meghalaya	0.175			
Rajasthan	169			
Tamil Nadu	389	1899	15	2
Tripura	73		1	
West Bengal	76	388		
West Coast Off.	0	38127	14	25
East Coast Off.	394	1107	2	0
<b>Total</b>	<b>2645.175</b>	<b>47019</b>	<b>90</b>	<b>109</b>
<b>Total</b>	<b>59598.18</b>	<b>189699</b>	<b>605</b>	<b>636</b>

(1995-96 to 01.01.99)

**Statement-II***New Structure taken up for Drilling during 1995-98 and 1998-99 (upto 1.1.99)*

Region	1995-96	1996-97	1997-98	1998-99 (As on 1.1.99)
MRBC	HW-1, WO-18, WO-19, B-15A, C-45, C-43, C-47, C-39, D-WO, B-27A, B-172B, UMART B-199	B-199, RNE, B-158 B-158A, D-5, MD, BHE-B, B-100-3, B-201, RN-1, B-28	B-23-A, MDS, ED-5A, EDC, BSE, B-201-1A, B-34 KKD-17	C-39, WO-16, C-22, B-22, B-200, KK-1
SRBC	ADIVIPALEM-1, LEMELLAPADU-1, MAHADEVAPATNAM-1, ENUGUPALI, SALAPAKA, MATTAPARRU, SATYAVOLU, NAMAVANIPALEM, LAXMIPURAM, SAKHINETIPALLE, LANKAPALEM, MULKIPALLE, KB-4	ENUGUPALLI, KESANAPALLI-WEST, RANGAPURAM, MULAPARRU, ISUKAPUDI, RAVIPADU, SITARAMPURAM, SIDDAVARM GODI, PULLEETIKURRU, KANDIKUPPA, MANDIPETA-WEST	MANGINAPUDI, VIRAVASRAM, AMBAJIPETA, MAKANAPALEM, LONAPADU, KESAVADASAPALEM, GOKARNAPURAM,	KILAKADDU, MADAPURAM, SAMANTHAKURRU, BANDHARUPETTA, VISWESHARAYAPURAM,
	ANNIYUR, MULLAIVASAL, MELUR JAYANKONDAN, KIZHVALUR, THIRUVIDAIMARUDUR RAJASINGAMANGALAM	KUTHALAM, HARIHARANKUDAL, RETTAIKUDI, KUCHCHIPALAYAM, TULSAPATNAM, VANDAMPALAI, NAGANGUDI, PERIYAPATNAM	RAMNAVALSAI, SIRUVATTUR, KIRANGUDI, KOLUVUR, KERIYAPATTINAM, KALI, UTHIRANGUDI	UMAHAHESHWARAMPU, RAM MANAKKUDI MAYILADUTHURAI CDW-1A
WRBC		UMIAPUR, NENPUR, KARJAN, NAWAMANKA, VATRAK, RANLUJ, MEHSANA, HORST, HIRAPUR SADEWALA	TELAVI, BALASAR, ANKLAV	CHARADA, JANTRAN
ERBC		MEKRANG	PANIDIHING	LONGAI
CRBC			JHARIA, RAJNAGAR	
NRBC		ANHONI		

**Statement -III***Areas where Seismic Survey were carried out/are Under Progress During F.S. 1998-99***Onland :**

Region	Surv. Type	Basin	Area	
SRBC	2D	Krishna-Godavari	Bantumilli-Laxmipuram	
		Cauvery	Enadi-Vadatheru	
	3D	Krishna-Godavari	Mandapeta, Vadaparru, Elamanchilli	
		Cauvery	Kuthalam, Tulsapatnam	
ERBC	2D	Assam-Arakan F.Belt	i) Shahbazpur	
			ii) Gopinathkila-Dawali	
			iii) Daldali	
			iv) Kasomarigaon,	
		v) Kopili Valley		
	3D	Upper Assam	i) East of Geleki	
			ii) NE of Geleki	
			iii) Disangmukh	
			iv) Panidihing	
WRBC	2D	Cambay (Gujarat)	i) N. of Mehsana Horst-Kamboi	
			ii) Asmali-Dholka-across Vatiak rvr.	
			iii) E. of Anandi-Chakkar	
			iv) Ranakpur-Tadkeshwar	
			i) E. of Maijlar/S. of Manhera Tibba	
	3D	Cambay (Gujarat)	i) E. of Sobhasan	
ii) Langnaj-Wadasma				
iii) Nandipur				
iv) Gandhar				
v) Gandhar Phase-X				
vi) Candhar Phase-IX				
NRBC	2D	Himalayan Foothills	i) Sundernagar ii)Hamirpur	
			Vindhyan	Ranch-Kothi-Amanganj
			Satpura	Katni-Bawai-Amanganj
			Gowdi-Delakhari	
	2D (Cont)	HF	Poonch-Rajauri	
CRBC	2D	Assam-Arakan F.Belt	Bamutia	
			Bengal	Gontai-Govindpur
	3D	Bengal	NE of Ichapur	
<b>Offshore :</b>				
Region	Type	Basin	Area	
MRBC	3D	Bombay Offshore	B-193/22, B-48/188,	
	3D (Contract)	Bombay Offshore	Bombay High., C-22/24, Umrat/C-39	
SRBC	2D	KG Basin	Amlapuram Offshore	

**Statement-IV***Hydrocarbon Finds Made by ONGC During April '95 to Dec. '98*

Sl No.	Field Name	State	Basin	Type
1	2	3	4	5
<b>1995-96</b>				
<b>West Coast Offshore</b>				
	1 B-15A	(West coast) Offshore	Bombay Offshore	Oil+Gas
	2 C-43	(West coast) Offshore	Bombay Offshore	Gas
	3 C-39	(West coast) Offshore	Bombay Offshore	Gas
<b>Andhra Pradesh</b>				
	4 Lankapalem	Andhra Pradesh	Krishna-Godavari	Gas
	5 Mulikipalle	Andhra Pradesh	Krishna-Godavari	Gas
	6 Adivipalem	Andhra Pradesh	Krishna-Godavari	Gas
	7 Mahadevpaattnam	Andhra Pradesh	Krishna-Godavari	Gas
<b>Assam</b>				
	8 Bhubandar	Assam	Assam Arakan fold belt	Gas
<b>Gujarat</b>				
	9 Kambol	Gujarat	Cambay	Oil
<b>Tamilnadu</b>				
	10 Pundi	Tamil Nadu	Cauvery	Oil
	11 Kizhvalur	Tamil Nadu	Cauvery	Oil
<b>1996-97</b>				
<b>West Coast</b>				
	12 B-28	(West coast) Offshore	Bombay Offshore	Oil+Gas
<b>Andhra Pradesh</b>				
	13 Enugupalli	Andhra Pradesh	Krishna-Godavari	Gas
	14 Kesanpaalii-west	Andhra Pradesh	Krishna-Godavari	Oil
	15 Rangapuram	Andhra Pradesh	Krishna-Godavari	Gas
<b>Assam</b>				
	16 Mekrang	Assam	Assam	Oil
<b>Gujarat</b>				
	17 Wadasma	Gujarat	Cambay	Oil
	18 Kherwa	Gujarat	Cambay	Oil
	19 Asmali	Gujarat	Cambay	Oil
	20 Hirpaur	Gujarat	Cambay	Oil
<b>Rajasthan</b>				
	21 Sadewala	Rajasthan	Rajasthan	Gas
<b>Tamilnadu</b>				
	22 Kuthalam	Tamil Nadu	Cauvery	Gas
	23 Tulspatnam	Tamil Nadu	Cauvery	Oil

1	2	3	4	5
<b>1997-98</b>				
<b>West Coast Offshore</b>				
	24 B-23A	(West coast) Offshore	Bombay Offshore	Gas
<b>Andhra Pradesh</b>				
	25 Magatpaalli	Andhra Pradesh	Krishna-Godavari	Gas
<b>Gujarat</b>				
	26 Vatrak	Gujarat	Cambay	Oil
<b>Tamil Nadu</b>				
	27 Periyattinam	Tamil Nadu	Cauvery	Gas
	28 Neyveli	Tamil Nadu	Cauvery	Gas
	29 Ramanavalsai	Tamil Nadu	Cauvery	Gas
<b>1998-99</b>				
<b>Andhra Pradesh</b>				
	30 Gokarnpauram	Andhra Pradesh	Krishna-Godavari	Gas
	31 Kesavadaspalem	Andhra Pradesh	Krishna-Godavari	Gas
<b>Tamil Nadu</b>				
	32 Kali	Tamil Nadu	Cauvery	Oil+Gas
<b>Gujarat</b>				
	33 Anklav	Gujarat	Cambay	Oil

#### Statement-V

In addition to continuing its exploratory effort in the South Bank of river Brahmaputra, Assam and Rajasthan, OIL also started exploratory drilling work in the Saurashtra Offshore in Gujarat and North Bank of River Brahmaputra in Assam during the last three years. Exploratory drilling work was also started in the Ganga Valley Basin U.P. during 1998-99 (current year). Details of exploratory and drilling work carried out by OIL during the last three years and upto February 1999 during 1998-99 are as under :

	1995-96	1996-97	1997-98	1998-99 (Upto Feb. '99)
<b>A. SEISMIC SURVEY</b>				
<b>ASSAM &amp; AP</b>				
2D SLKM	2276.50	1016.60	1112	1057
3D SQKM	120.92	82.96	116.35	155
<b>G.V.P., U.P.</b>				
2D GLKM	990.60	0.00	359.60	150.5
<b>B. EXPL. DRILLING (000 M)</b>				
<b>ASSAM &amp; AP</b>				
BVEP, ASSAM	21.296	40.769	34.823	27.40
RAJASTHAN	4.872	1.520	7.236	9.34
SEP OFFSHORE	5.362	2.850	7.498	0.50
GANGA VALLEY, U.P.	—	—	—	—
TOTAL EXPL	31.530	45.139	49.557	3.17
<b>C. IN-PLACE RESERVE</b>				
<b>ACCRETION (OIL+OEG) (MMT)</b>				
<b>ASSAM &amp; AP</b>				
RAJASTHAN	15.75	16.45	16.27	—
	0.14	0.22	0.02	—
<b>TOTAL</b>	<b>15.89</b>	<b>16.67</b>	<b>16.29</b>	

**Statement-VI**

New Finds of Hydrocarbons by Oil during last three years		
Estimated in-place Reserve (Oil+OEG) (in MMT) (Assam)		
1	2	3
<b>1995-96</b>		
1.	Borhajan	1.55
2.	Tamulkhat	1.80
3.	Rongaiting, and	2.80
4.	Rajali structure	0.52
<b>1996-97</b>		
1.	Madarkhat	2.30
2.	Jutlibari	2.08
3.	Bachmatia	3.50

1	2	3
4.	Chabua and	1.29
5.	Sealkati structures	1.15
<b>1997-98</b>		
1.	Deohal	1.35
2.	Bhogpara	3.23
3.	Sapekhati and	3.77
4.	Jeraipathar Structures	0.10
<b>1998-99 (upto Jan., 99)</b>		
	Moran South (Deeper Prospects) Kamkhat Khagarijan South Balijan Mohanbari	The reserve for the discoveries made during the year are yet to be assessed.

**Statement-VII***State-wise expenditure on Exploration (Survey+exploratory Drilling)*

ONGC

(Rs./Crore)

Regions	1995-96 (Actual)	1996-97 (Actual)	1997-98 (Actual)	1998-99 (R.E.)
Rajasthan	16.49	16.42	16.14	15.03
Gujarat	170.22	151.83	132.80	164.97
Assam, Nagaland, Mizoram and Meghalaya	247.98	219.58	160.71	235.00
Bihar	0.00	0.00	0.00	0.00
West Bengal (including Offshore)	25.76	33.78	40.00	42.00
Tripura	49.37	44.04	50.46	46.00
Jammu & Kashmir	0.00	0.00	0.00	0.00
Himachal Pradesh	0.00	0.00	0.00	0.00
Madhya Pradesh	0.92	13.76	0.00	0.00
Uttar Pradesh	18.34	30.56	32.45	28.00
Tamil Nadu (including Offshore)	137.69	113.66	113.59	135.00
Andhra Pradesh (including Offshore)	215.01	199.12	179.56	139.00
Maharashtra	358.68	418.00	444.54	767.00
<b>Total (excluding JVC)</b>	<b>1240.46</b>	<b>1240.75</b>	<b>1170.25</b>	<b>1572.00</b>

Note : 1. Survey Expenditure is maintained region-wise. Hence, the expenditure on the Survey as mentioned above has been shown in the State where the base office of the survey field party is situated.  
2. During 1997-98 the figures of Exploratory Drilling in the State of Gujarat include both Gujarat and Madhya Pradesh.

## OIL

Regions	1995-96	1996-97	1997-98	(Rs./Crore)
				1998-99 (R.E.) (upto Feb., 99)
Assam & AP	82.07	117.05	145.09	156.33
U.P.	8.50	0.97	3.38	16.50
Rajasthan	7.42	4.09	16.40	7.12
Saurashtra Offshore Exploration	45.66	31.28	2.02	1.86

**Statement-VIII**

*Details of Expenditure in Exploration Blocks Signed During Last 3 Years in Respect of Private and Joint Sector Companies*

Sl.No.Exploration block	Date of Signing	State	Amount spent till March'98 (US \$ Million)
<b>Onland Blocks</b>			
1. KG-ON/1	16.07.98	Andhra Pradesh	0
2. CR-ON-90/1	30.06.98	Assam	0
3. AAP-ON-94/1	30.06.98	Assam	0
4. GK-ON-90/2	16.07.98	Gujarat	0
5. GK-ON-/4	30.06.98	Gujarat	0
6. CB-ON-/1	17.07.98	Gujarat	0
7. CB-ON-/3	16.07.98	Gujarat	0
8. RJ-ON-90/4	30.10.96	Rajasthan	1.33
9. RJ-ON-90/5	30.10.96	Rajasthan	1.78
10. RJ-ON-/6	30.06.98	Rajasthan	0
11. AA-ON-/3	16.07.98	Tripura	0
12. AA-ON-/7	19.02.99	Assam	0
		Sub-Total	3.11
<b>Offshore Blocks</b>			
1. KG-OS-/6	30.07.98		0
2. GK-OS-/6	16.07.98		0
3. CB-OS-/2	30.06.98		0
4. GK-OSJ/1	16.07.98		0
5. CY-OS-2	19.11.96		0.513
6. BB-OS-5	30.10.96		0.5
7. CB-OS-1	19.11.96		12.11
		Sub-Total	13.123
		Grand Total	16.233

*[Translation]***Investment of Foreign Capital in Private Internet Sector**

2739. SHRI BRAJ MOHAN RAM : Will the Minister of COMMUNICATIONS be pleased to state :

(a) whether the Government have allowed investment of foreign capital upto 49 percent in the private internet sector; and

(b) if so, the details thereof ?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS (SHRI KABINDRA PURKAYASTHA) : (a) and (b) Yes, Sir. Foreign equity, if any, shall be as per existing Government policy. At present maximum foreign equity permitted is 49%.

*[English]***Security Problem Due to Cellular Telephones**

2740. SHRI T. GOVINDAN : Will the Minister of COMMUNICATIONS be pleased to state :

(a) whether the introduction of Cellular telephones has given rise to serious security problems in the Country especially in the border States; and

(b) if so, the steps proposed to be taken by the Government to change the policy in this regard ?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS (SHRI KABINDRA PURKAYASTHA) : (a) No, Sir. Enough safeguard for national security have been provided in the licences for operation of cellular Mobile Telephone Service.

(b) Does not arise in view of (a) above.

**Non-Availability of Materials**

2741. SHRI ARJUN SETHI : Will the Minister of COMMUNICATIONS be pleased to state :