

LOK SABHA
UNSTARRED QUESTION NO.2495
TO BE ANSWERED ON 5th MAY, 2016
OIL AND GAS EXPLORATION/EXTRACTION

2495. SHRI B.V. NAIK:
SHRI J.J.T. NATTERJEE:
KUNWAR BHARATENDRA:
SHRI ANTO ANTONY:
SHRI SHIVKUMAR UDASI:
SHRI RAMESH BIDHURI:
SHRI SUMEDHANAND SARSWATI:
DR. SUBHASH BHAMRE:
SHRIMATI SANTOSH AHLAWAT:
SHRI SADASHIV LOKHANDE:

पेट्रोलियम और प्राकृतिक गैस मंत्री

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

- (a) the details of private/public sector companies including Oil and Natural Gas Corporation Limited (ONGC) and Oil India Limited (OIL) involved in exploration and production of oil and gas along with oil and gas explored and produced by them including Konkan, Cochin High, Badmer/Sanchore region during the last three years and expenditure incurred on exploration of such oil/gas wells, States/UT/company/ project-wise including Rajasthan and Tamil Nadu;
- (b) the details of survey conducted/ proposed to be conducted and oil and gas fields discovered by public/private sector companies including ONGC and OIL and number of hydrocarbon blocks awarded along with quantum of crude oil /gas produced from these blocks, State/UT/company/oil field-wise;
- (c) whether the Government has approved a new Hydrocarbon Policy and if so, the salient features of the same and the time by which the next round of bidding for oil and gas blocks is likely to be auctioned;

- (d) the details of crude oil and gas reserves and oil wells/fields available in the country along with the percentage of crude oil and gas produced by ONGC and their share in production of oil/gas as compared to international average as on date, company/oil field-wise;
- (e) whether Indian Oil Corporation Limited (IOCL) is carrying out oil exploration work in certain areas of the country and if so, the details thereof along with crude oil produced by them indicating the average cost of production during the said period; and
- (f) whether the indigenously produced crude oil is sold to oil refineries at par with the cost of imported oil and if so, the details thereof?

ANSWER

पेट्रोलियम और प्राकृतिक गैस मंत्रालय में राज्य मंत्री (श्री धर्मेन्द्र प्रधान) (स्वतन्त्र प्रभार)

MINISTER OF STATE (I/C) IN THE MINISTRY OF PETROLEUM & NATURAL GAS (SHRI DHARMENDRA PRADHAN)

- (a) During last three years, crude oil & natural gas production, reserves accretion and exploration and production expenditure made by Oil & Natural Gas Corporation (ONGC) Limited; Oil India Limited (OIL) and Private/JV companies are at **Annexure-I, II and III** respectively.
- (b) The details of survey conducted/proposed to be conducted by ONGC, OIL and Private/JV companies are at **Annexure-IV, V and VI** respectively.
- (c) Government has approved Hydrocarbon and Exploration Licensing Policy (HELP) coupled with Open Acreage Licensing Policy and same has been notified on 30th March 2016. This policy provides for a uniform licensing system to explore and produce all hydrocarbons such as oil, gas, coal bed methane, shale oil/gas, etc. under a single licensing framework. Policy also provides many incentives such as reduced royalty rates for offshore blocks, marketing & pricing freedom and easy to administer revenue sharing model. On completion of preparatory work by DGH, exploration blocks under HELP is likely to be offered.
- (d) The share of ONGC in Balance Hydrocarbon reserves is about 52.7% of total hydrocarbon reserves of 1888 Million Metric Tonne of Oil Equivalent (MMToe). During 2015-16, crude oil production by ONGC is about 22.368 Million Metric Tonne(MMT), which is 60.5% of the total crude oil production in the country. The share of ONGC in natural gas production is about 65.6% of the domestic natural gas production of 32.249 Billion Cubic Meter (BCM). The reserve to production (R/P) ratio for oil and gas in the country is about 17.6 years and 45 years respectively as per BP Statistics-2015. Globally, R/P ratio for crude oil is ranging from 2.8 to 89 years while R/P ratio in case of natural gas varies from 5.7 to 78.2 years (Source BP-Statistics).

(e) Indian Oil Corporation Limited (IOCL) has been awarded 21 exploration blocks (Two Block as Operator, 19 Blocks as Non-Operator). All these blocks are at exploration stage and no crude oil & natural gas production has commenced till date.

(f) As per the Crude Oil Sales Agreement (COSA) entered into between the PSU upstream companies and refineries/OMCs, the price of indigenous crude is benchmarked to the international market price of equivalent crude oil.

Annexure-I

Annexure to be referred in reply to Lok Sabha Unstarred Question No. 2495 dated 09.05.2016

ONGC: Crude Oil and Natural Gas Production, Reserve Accretion and Expenditure thereon in last three years

State/Source	Crude oil production (2013-16) (MMT)	Natural gas production (2013-16) (BCM)	Ultimate oil reserves accretion (2013-16) (MMT)	Ultimate gas reserves accretion (2013-16) (BCM)	Exploration Expenditure (2013-16) (Rs Crore)	Production Expenditure (2013-16) (Rs Crore)
Andhra Pradesh	0.85	2.33	0.85	1.71	1,585.84	2,030.60
Assam	3.28	1.31			1,743.75	7,590.25
Gujarat	13.74	4.37	15.01	0.80	1,876.00	25,815.99
Himachal Pradesh					25.04	
Madhya Pradesh					280.50	
Rajasthan	0.00	0.03	0.00	0.03	75.04	89.86
Tamil Nadu	0.72	3.51	2.25	11.38	1,127.20	2,357.54
Tripura	0.01	3.29	0.01		480.41	819.94
West Bengal					3.64	
CBM-West Bengal					0.49	215.89
Eastern Offshore	0.07	0.44	1.16	4.30	6,685.17	389.45
Western Offshore	48.21	51.21	38.52	56.57	7,396.43	52,749.62
Total	66.88	66.48	57.80	74.79	21,279.51	92,059.14

Annexure-II

Annexure to be referred in reply to Lok Sabha Unstarred Question No. 2495 dated 09.05.2016

OIL India Limited: Crude Oil and Natural Gas Production, Reserve Accretion and Expenditure thereon in last three years

State/Source	Crude oil production (2013-16) (MMT)	Natural gas production (2013-16) (BCM)	Ultimate oil reserves accretion (2013-16) (MMT)	Ultimate gas reserves accretion (2013-16) (BCM)	Exploration Expenditure (2013-16) (Rs Crore)	Production Expenditure (2013-16) (Rs Crore)
Andhra Pradesh					346.56	
Arunachal Pradesh	0.03	0.04		0.15	174.81	185.64
Assam	10.07	7.54	6.57	10.11	2077.6	3850.64
Gujarat					49.28	
Mizoram					360.96	
Rajasthan		0.61	0.01	0.02	149.65	141.55
Tamil Nadu					35.71	
Eastern Offshore					199.78	
Western Offshore					37.53	
Total	10.10	8.19	6.57	10.29	3431.88	4177.83

Annexure-III

Annexure to be referred in reply to Lok Sabha Unstarred Question No. 2495 dated 09.05.2016

Private/JV Companies: Crude Oil and Natural Gas Production, Reserve Accretion and Expenditure thereon in last three years

State/Source	Crude oil production (2013-16) (MMT)	Natural gas production (2013-16) (BCM)	Ultimate oil reserves accretion (2013-16) (MMT)	Ultimate gas reserves accretion (2013-16) (BCM)	Exploration Expenditure (2013-16) (Rs crore)	Development Expenditure (2013-16) (Rs crore)
Andhra Pradesh			4.13	0.17	1649.19	
Arunachal Pradesh	0.21	0.06			38.47	80.40
Assam				3.82	146.27	4.39
Bihar					2.56	
Gujarat	0.43	0.31	0.62		673.10	263.34
Madhya Pradesh					3.19	
Manipur					1.44	
Mizoram					205.88	
Nagaland					0.93	
Rajasthan	26.63	2.87		25.34	4489.88	6716.41
Tamil Nadu	0.01	0.00	0.34		217.90	
Tripura				1.42	391.84	
Uttar Pradesh					33.39	
West Bengal					231.63	
CBM-West Bengal		0.41		1.86	875.31	664.64
CBM- Madhya Pradesh					106.12	588.26
CBM- Jharkhand		0.01		1.46	100.55	57.30
Eastern Offshore	3.92	14.83	18.96	57.79	10971.46	5629.90
Western Offshore	4.02	7.79	1.72	1.77	2689.97	2712.91
Total	35.22	26.27	25.78	93.63	22829.08	16717.55

Note: Exploration and Production Expenditure as well as reserves figures are provisional and does not include figures of 2015-16

Annexure-IV

Annexure to be referred in reply to Lok Sabha Unstarred Question No. 2495 dated 09.05.2016
ONGC: Survey Conducted/Proposed, Hydrocarbon Discoveries and Ultimate Reserves state-wise

State	Company	Survey Conducted as on 1.4.2016			Survey work proposed in next three years (2016-19)*			Oil and gas Discovered* as on 01.04.2016			Production
		2D seismic LKM	3D seismic Sq. km.	Exploratory wells	2D seismic LKM	3D seismic Sq. km.	Exploratory wells	No of oil discoveries made	No of gas discoveries made	Ultimate oil and gas reserves (MMTOE)	Crude oil and natural gas production in 2015-16 (MMTOE)
Andhra Pradesh	ONGC	39165.64	8064.14	456		1210	9	23	52	90.481	0.91
Assam	ONGC	31326.57	4219.91	735	30	320	16	46	9	212.412	1.37
Bihar	ONGC	6566		6							
Chattisgarh	ONGC	202									
Gujarat	ONGC	104712.34	10261.45	2582		825	19	121	14	517.288	5.71
Himachal Pradesh	ONGC	3784.53		15	100		1				
Haryana	ONGC	1038									
Jammu & Kashmir	ONGC	2563		4							
Madhya Pradesh	ONGC	10021.12	469.61	17		160	4		2		
Meghalaya	ONGC	204.55		3							
Mizoram	ONGC	35		2							
Nagaland	ONGC	602.18	5.75	25				3		4.001	
Odisha	ONGC	313									
Punjab	ONGC	4078		4		100	2				
Rajasthan	ONGC	20570.55	1210.01	78					8	2.637	0.01
Tamil Nadu	ONGC	41030.7	8269.27	508			12	32	10	88.543	1.26
Tripura	ONGC	6201.78	883.63	159	85	145	6		17	40.886	1.34
Uttar Pradesh	ONGC	26797.99		7							
Uttarakhand	ONGC	1522									
West Bengal	ONGC	29226.54	595.96	33							
Eastern Offshore	ONGC	117514.63	7292.09	259		570	8	19	19	71.115	0.24
Western Offshore	ONGC	434939.56	72186.9	932		3610	26	85	44	1793.793	32.71
Grand Total	ONGC	882415.68	113458.72	5825	215	6940	103	329	175	2821.156	43.54

*Note: Reserve figures does not include acretion in 2015-16

Annexure-V

Annexure to be referred in reply to Lok Sabha Unstarred Question No. 2495 dated 09.05.2016

OIL: Survey Conducted/Proposed, Hydrocarbon Discoveries and Ultimate Reserves state-wise

State	Company	Survey Conducted as on 1.4.2016			Survey work proposed in next three years (2016-19)*			Oil and Gas Discovered**			Production
		2D seismic LKM	3D seismic Sq. km.	Exploratory wells	2D seismic LKM	3D seismic Sq. km.	Exploratory wells	No of oil discoveries made	No of gas discoveries made	Ultimate oil and gas reserves (MMTOE)*	Crude oil and natural gas production in 2015-16 (MMTOE)
Arunachal Pradesh	OIL			60				3		2.63	0.02
Assam	OIL	25638.64	7034.55	1364	200	200	42	95	25	410.99	5.84
Rajasthan	OIL	11923	410	63			2	2	3	3.25	0.21
Total		37561.64	7444.55	1487	200	200	44	100	28	416.8735827	6.06

*Note: Reserve figures does not include accretion in 2015-16

Annexure to be referred in reply to Lok Sabha Unstarred Question No. 2495 dated 09.05.2016

Private/JV Companies: Survey Conducted/Proposed, Hydrocarbon Discoveries and Ultimate Reserves state-wise

State	Company	Survey Conducted as on 31.12.2015			Survey work proposed in next years (2016-17)			Oil and Gas Discovered as on 01.04.2016			Production
		2D seismic LKM	3D seismic Sq. km.	Exploratory wells	2D seismic LKM	3D seismic Sq. km.	Exploratory wells	No of oil discoveries made	No of gas discoveries made	Ultimate oil and gas reserves* (MMTOE)	Crude oil and natural gas production in 2015-16 (MMTOE)
Andhra Pradesh	Pvt/JV	1466.00	1497.37	15	0.00	0.00	4	2	1	4.30	0.00
Arunachal Pradesh	Pvt/JV	52.00	114.00	2	0.00	0.00	1	0	0	2.79	0.07
Assam	Pvt/JV	3311.76	1629.00	15	0.00	0.00	5	0	1	6.09	0.00
Bihar	Pvt/JV	2423.15	947.17	3	0.00	0.00	0	0	0	0.00	0.00
Chattisgarh	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Gujarat	Pvt/JV	7449.26	7288.87	228	0.00	49.00	30	57	6	25.70	0.24
Himachal Pradesh	Pvt/JV	810.00	0.00	1	0.00	0.00	0	0	0	0.00	0.00
Haryana	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Jammu & Kashmir	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Jharkhand	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Madhya Pradesh	Pvt/JV	2339.00	304.00	2	0.00	0.00	0	0	0	0.00	0.00
Maharashtra	Pvt/JV	476.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Meghalaya	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Manipur	Pvt/JV	210.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Mizoram	Pvt/JV	1526.05	613.00	3	0.00	1681.00	2	0	1	0.00	0.00
Nagaland	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Odisha	Pvt/JV	470.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Punjab	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
Rajasthan	Pvt/JV	17214.00	16743.54	311	0.00	76.00	6	36	7	108.39	9.73
Tamil Nadu	Pvt/JV	1709.70	2763.33	22	0.00	0.00	3	3	2	0.34	0.01

Tripura	Pvt/JV	1512.00	13.59	10	0.00	40.00	3	0	5	1.42	0.00
Uttar Pradesh	Pvt/JV	2859.60	211.00	3	0.00	0.00	0	0	0	0.00	0.00
Uttranchal	Pvt/JV	0.00	0.00	0	0.00	0.00	0	0	0	0.00	0.00
West Bengal	Pvt/JV	4375.70	3590.91	3	0.00	0.00	7	0	0	0.00	0.00
Eastern Offshore	Pvt/JV	226000.8 8	193620.35	251	0.00	380.00	5	15	71	570.86	5.59
Western Offshore	Pvt/JV	105023.5 3	62190.43	115	6000.00	0.00	5	6	19	161.70	3.56
Grand Total		379228.6 2	291526.57	984	6000.00	2226.00	71	119	113	881.60	19.20