

GOVERNMENT OF INDIA
MINISTRY OF MINES
LOK SABHA
UNSTARRED QUESTION NO. 1534
TO BE ANSWERED ON 26.07.2018

LIGNITE RESOURCES

1534. SHRI R.P. MARUTHARAJAA

Will the Minister of MINES be pleased to state that the details of total geological resources of Lignite in the country in Million tones as on date, State and depth-wise?

ANSWER

THE MINISTER OF STATE FOR MINES AND COAL
(SHRI HARIBHAI PARTHIBHAI CHAUDHARY)

As per the information furnished by Geological Survey of India (GSI), the total geological resource of lignite in the country stands at **45,663.58** million tonnes as on **01.04.2018**. State wise break-up of the resource is as follows

Sl No.	State	Lignite Resource (in million tonne)
1	Tamilnadu	36134.71
2	Rajasthan	6349.08
3	Gujarat	2722.05
4	Pondicherry	416.61
5	Jammu and Kashmir	27.55
6	Kerala	9.65
7	West Bengal	3.93
Total		45663.58

The detailed state-wise and depth-wise break up of lignite resource of the country, as on 01.04.2018, is at Annexure.

Annexure								
INVENTORY OF GEOLOGICAL RESOURCE OF INDIAN LIGNITE								
(As on 01.04.2018)								
(Resource in million tonne)								
State/District	Area/Block	Depth (m)	Measured (331)	Indicated (332)	Inferred (333)	Total	Grand Total	
<u>Neyveli lignite field</u>								
Pondicherry	*Bahur	0-150	0.00	405.61	0.00	405.61	405.61	
	*West of Bahur	0-150	0.00	0.00	11.00	11.00	11.00	
Total for Pondicherry			0.00	405.61	11.00		416.61	
Tamilnadu								
Cuddalore	*Bahur	0-150	0.00	168.78	0.00	168.78	168.78	
	*West of Bahur	0-150	0.00	0.00	102.19	102.19	102.19	
	Bhuvanagiri-Kullanchavadi	150-300	0.00	0.00	385.40	385.40	385.40	
	Chidambaram	0-150	0.00	0.00	18.85	18.85	43.73	
		150-300	0.00	0.00	24.29	24.29		
		>300	0.00	0.00	0.59	0.59		
	East of Sethiatope	0-150	0.00	24.71	0.00	24.71	91.12	
		150-300	0.00	44.95	0.00	44.95		
		>300	0.00	21.46	0.00	21.46		
	Eastern part of Neyveli	150-300	0.00	218.65	37.68	256.33	562.32	
		>300	0.00	156.86	149.13	305.99		
	Eastern part of NLC leasehold area	>150	0.00	0.00	55.00	55.00	55.00	
	NLC leasehold areas (Mine-I & Expansion, Mine IA, Mine-II & Expansion, Mine-III, Block-B, Devangudi, and areas locked up between Mine-I, Mine-II, Mine-III and river)	0-150	2831.00	134.00	138.00	3103.00	3127.00	
		150-300	0.00	0.00	24.00	24.00		
	Kudikadu	0-150	0.00	0.00	133.38	133.38	133.38	
	Kullanchavadi	>150	0.00	0.00	175.00	175.00	175.00	
	South of Vellar (Srimushnam)	0-150	353.13	147.87	0.00	501.00	510.00	
150-300		5.17	3.83	0.00	9.00			
Vayalampur	0-150	0.00	0.00	29.40	29.40	58.72		
	150-300	0.00	0.00	4.50	4.50			
	>300	0.00	0.00	24.82	24.82			
Veeranam (Lalpettai)	150-300	0.00	1341.17	0.00	1341.17	1342.45		
	>300	0.00	1.28	0.00	1.28			
Ariyalur	Jayamkondacholapuram	0-150	904.23	302.50	0.00	1206.73	1206.73	
	Meensuruti	0-150	0.00	0.00	458.00	458.00	458.00	
	Michaelpatti	0-150	0.00	0.00	23.07	23.07	23.07	
	Michaelpatti Extension	0-150	0.00	0.00	31.30	31.30	31.30	
			4093.53	2566.06	1814.60		8474.19	
Neyveli lignite field			4093.53	2971.67	1825.60		8890.80	
<i>*(Both Bahur and West of Bahur blocks cover parts of Tamilnadu and Pondicherry state).</i>								
<u>Mannargudi lignite field</u>								
Thanjavur and Thiruvarur	Mannargudi central	150-300	0.00	3159.00	0.00	3159.00	5002.55	
		>300	0.00	1843.55	0.00	1843.55		
	Mannargudi NE	150-300	0.00	275.26	0.00	275.26	6142.54	
		>300	0.00	5867.28	0.00	5867.28		
	Mannargudi North East Extn.	>300	0.00	0.00	3057.95	3057.95	3057.95	
	Mannargudi SE	150-300	0.00	553.00	0.00	553.00	6058.37	
		>300	0.00	5505.37	0.00	5505.37		
Melnattam-Agraharam	150-300	0.00	44.60	65.51	110.11	110.11		
Thanjavur	Cholapuram	150-300	0.00	15.46	83.67	99.13	99.13	
	Mannargudi NW	150-300	0.00	575.57	0.00	575.57	996.67	
		>300	0.00	421.10	0.00	421.10		
	Mannargudi SW	150-300	0.00	481.80	0.00	481.80	481.80	
	Maharajapuram	150-300	0.00	23.95	0.00	23.95	23.95	
	Madukkur-Anaikadu	150-300	0.00	17.41	28.35	45.76	45.76	
	Orattanadu-Pattukottai	150-300	0.00	10.80	44.31	55.11	55.11	
	Vadaseri(Orattanadu-Pattukottai)	0-150	0.00	9.37	0.00	9.37	755.20	
		150-300	0.00	745.83	0.00	745.83		
	Veppanagulam-Kasangadu	150-300	0.00	4.88	0.00	4.88	4.88	
Thanjavur and Nagappattinam	Alangudi	150-300	0.00	24.98	48.01	72.99	158.02	
		>300	0.00	29.31	55.72	85.03		
	Kadalangudi	0-150	0.00	0.00	0.43	0.43	392.43	
		150-300	0.00	0.00	317.74	317.74		
		>300	0.00	0.00	74.26	74.26		
Pandannallur	150-300	0.00	6.48	12.94	19.42	73.67		
	>300	0.00	18.14	36.11	54.25			

			(Resource in million tonne)				
State/District	Area/Block	Depth (m)	Measured (331)	Indicated (332)	Inferred (333)	Total	Grand Total
	Thirumangalam	>300	0.00	233.22	295.30	528.52	528.52
	Tirumangaichcheri	150-300	0.00	21.05	43.90	64.95	133.19
		>300	0.00	26.03	42.21	68.24	
Thiruvarur and Nagappattinam	Nachiyarkudi	>300	0.00	0.00	574.05	574.05	574.05
	Mannargudi lignite field		0.00	19913.44	4780.46		24693.90
	Ramanathapuram lignite field						
Ramanathapuram	Bogalur	>300	0.00	48.28	76.34	124.62	124.62
	Bogalur East	>300	0.00	0.00	469.58	469.58	469.58
	Misal	>300	0.00	23.92	28.79	52.71	52.71
	Tiyanur	>300	0.00	96.63	167.30	263.93	263.93
	Uttarakosamangai	150-300	0.00	0.00	1.54	1.54	468.76
		>300	0.00	0.00	467.22	467.22	
	Kalari North	>300	0.00	0.00	221.90	221.90	221.90
	Kalari West	>300	0.00	0.00	379.91	379.91	379.91
Ramnad	Rajasing Mangalam	>300	0.00	0.00	964.97	964.97	964.97
Ramnad & Sivaganga	Sattanur	>300	0.00	0.00	20.24	20.24	20.24
	Ramanathapuram lignite field		0.00	168.83	2797.79		2966.62
	Total for Tamil Nadu		4093.53	22648.33	9392.85		36134.71
Rajasthan							
Bikaner	Ambasar-Gigasar	0-150	0.00	12.33	0.00	12.33	12.33
	Badhnu	0-150	0.00	0.00	1.87	1.87	1.87
	Bangarsar-Jaimalsar	0-150	0.00	0.00	13.74	13.74	19.11
		150-300	0.00	0.00	5.37	5.37	
	Bania	0-150	0.00	0.49	0.00	0.49	0.49
	Bapeau	0-150	0.00	0.00	35.58	35.58	35.58
	Barsinghsar	0-150	77.83	0.00	0.00	77.83	77.83
	Bholasar	0-150	0.00	0.00	3.90	3.90	3.90
	Bigga-Abhaysingpura	0-150	0.00	0.00	25.26	25.26	44.64
		150-300	0.00	0.00	19.38	19.38	
	Bithnok East Ext.	0-300	0.00	39.44	0.00	39.44	39.44
	Bithnok Main	0-150	43.28	0.00	0.00	43.28	99.12
		150-300	55.84	0.00	0.00	55.84	
	Borana	0-150	0.00	0.10	0.41	0.51	0.51
	Chak-Vijaisinghpura	0-150	2.80	0.00	0.00	2.80	2.80
	Deshnok-Ramsar-Sinthal	0-150	0.00	0.00	52.85	52.85	53.77
		150-300	0.00	0.00	0.92	0.92	
	Diyatra	0-150	0.00	57.53	0.00	57.53	124.87
		150-300	0.00	67.34	0.00	67.34	
	East of Riri	0-150	0.00	0.00	1.76	1.76	1.76
	Gadiyala	0-300	0.00	0.00	36.98	36.98	36.98
	Gigasar-Kesardesar	0-150	0.00	0.65	0.00	0.65	0.65
	Girirajsar	0-300	0.00	26.48	8.99	35.47	35.47
	Girirajsar Extn.	150-300	0.00	0.00	24.81	24.81	24.81
	Gurha East	0-150	33.81	0.00	0.00	33.81	38.11
		150-300	4.30	0.00	0.00	4.30	
	Gurha West	0-150	40.65	0.00	0.00	40.65	41.65
		150-300	1.00	0.00	0.00	1.00	
	Hadda	150-300	0.00	0.22	0.00	0.22	0.22
	Hadda North & West	0-150	0.00	2.82	7.35	10.17	13.67
		150-300	0.00	1.06	2.44	3.50	
	Hadla	0-150	59.30	0.00	0.00	59.30	59.30
	Hira Ki Dhani	0-150	0.00	0.00	0.66	0.66	0.66
	Kenya-ki-basti & S. of Bhane-ka-gaon	0-150	0.00	0.96	0.00	0.96	1.02
		150-300	0.06	0.00	0.00	0.06	
	Khar Charan	0-150	0.00	0.00	3.70	3.70	3.70
	Kuchore (Napasar)	0-150	0.00	0.00	1.00	1.00	1.00
	Kuchaur-Athuni	0-150	0.00	0.18	0.00	0.18	0.18
	Lalamdesar	0-150	0.00	0.09	0.00	0.09	0.09
	Lalamdesar Bada	0-150	1.51	0.49	0.00	2.00	2.00
	Mandal Charnan	0-150	0.00	17.70	0.00	17.70	17.70
	Palana	0-150	23.57	0.00	0.00	23.57	23.57
	Palana East	0-150	0.00	1.46	0.00	1.46	1.46
	Panch-Peeth-Ki-Dhani	0-150	0.00	0.09	0.00	0.09	0.09
	Pyau	0-150	0.00	0.00	45.56	45.56	62.18
		150-300	0.00	0.00	16.62	16.62	
	Raneri	0-150	33.92	0.00	0.00	33.92	33.92
	Riri	0-150	159.68	0.00	0.00	159.68	182.43
		>150	22.75	0.00	0.00	22.75	
	Sarupdesar-Palana west	0-150	0.00	0.67	0.00	0.67	0.67

				(Resource in million tonne)			
State/District	Area/Block	Depth (m)	Measured (331)	Indicated (332)	Inferred (333)	Total	Grand Total
	Shambu-Ki-Burj	0-150	0.00	0.00	0.04	0.04	0.04
	Sowa	0-150	0.00	0.23	0.00	0.23	0.23
Barmer	Baytu	0-150	0.00	0.00	2.19	2.19	69.64
		150-300	0.00	0.00	21.31	21.31	
		>300	0.00	0.00	46.14	46.14	
	Bharka	0-150	0.00	8.45	0.00	8.45	9.45
		150-300	0.00	1.00	0.00	1.00	
	Bhurtiya	0-150	0.00	12.86	2.12	14.98	132.04
		150-300	0.00	66.60	0.40	67.00	
		>300	0.00	50.06	0.00	50.06	
	Bothia-Bharka-Dunga	0-300	0.00	9.35	0.00	9.35	9.35
	Bothia (Jalipa N Ext.)	0-300	0.00	151.67	0.00	151.67	151.67
	Chokla North	0-300	0.00	0.00	234.77	234.77	234.77
	Giral	0-150	20.00	81.90	0.00	101.90	101.90
	Hodu	0-300	0.00	78.17	80.55	158.72	165.57
		>300	0.00	0.00	6.85	6.85	
	Jalipa	0-150	224.28	0.00	0.00	224.28	324.83
		150-300	100.55	0.00	0.00	100.55	
	Jogeshwartala	0-150	0.00	31.52	0.00	31.52	34.52
		150-300	0.00	3.00	0.00	3.00	
	Kawas Gravity Block	150-300	0.00	0.00	53.03	53.03	53.03
	Kapurdi	0-150	150.40	0.00	0.00	150.40	150.40
Barmer	Kurla	0-150	0.00	0.00	68.67	68.67	68.67
	Kurla East	0-150	0.00	11.47	0.00	11.47	768.51
	(covering Kurla East North & South sub blocks)	150-300	0.00	48.47	0.00	48.47	
		>300	0.00	458.44	250.13	708.57	
	Magne-ki-Dhani	0-150	0.00	0.00	8.78	8.78	12.73
		150-300	0.00	0.00	3.91	3.91	
		>300	0.00	0.00	0.04	0.04	
	Mahabar-Shivkar	0-150	0.00	9.22	24.30	33.52	44.06
		150-300	0.00	2.93	7.61	10.54	
	Matasartala	150-300	0.00	0.00	34.14	34.14	88.03
		>300	0.00	0.00	53.89	53.89	
	Mithra	0-150	0.00	0.09	0.39	0.48	2.46
		150-300	0.00	0.45	1.53	1.98	
	Munabao	150-300	0.00	0.00	9.85	9.85	9.85
	Nagurda	0-150	0.00	103.68	0.00	103.68	232.25
		150-300	0.00	127.87	0.00	127.87	
		>300	0.00	0.70	0.00	0.70	
	Nagurda(East)	0-150	0.00	18.46	0.00	18.46	21.69
		150-300	0.00	3.23	0.00	3.23	
	Nimbalkot	0-100	0.00	0.00	8.97	8.97	109.60
		100-300	0.00	0.00	85.49	85.49	
		>300	0.00	0.00	15.14	15.14	
	Nimbalkot North	0-100	0.00	0.00	1.93	1.93	27.72
		100-300	0.00	0.00	22.34	22.34	
		>300	0.00	0.00	3.45	3.45	
	Sachha-Sauda	0-300	0.00	28.70	0.00	28.70	28.70
	Sindhari East	>150	0.00	262.65	0.00	262.65	262.65
	Sindhari West	>150	0.00	894.93	339.25	1234.18	1234.18
	Sonari	0-300	0.00	43.59	0.00	43.59	43.59
	South of Nimbla	0-150	0.00	0.00	96.39	96.39	109.60
		150-300	0.00	0.00	13.21	13.21	
Jaisalmer & Bikaner	Panna	0-150	0.00	0.00	2.21	2.21	2.21
	Charanwala	0-150	0.00	0.00	5.62	5.62	9.26
		150-300	0.00	0.00	3.64	3.64	
Jaisalmer & Barmer	Khuri	0-300	0.00	0.00	13.80	13.80	13.80
Jaisalmer	Bhanda	0-150	0.00	0.00	2.66	2.66	2.66
	Khuiyala	0-150	0.00	0.00	22.52	22.52	22.52
	Ramgarh	0-150	0.00	0.00	40.96	40.96	45.26
		150-300	0.00	0.00	4.30	4.30	
Jalore	Sewara	150-300	0.00	0.00	33.43	33.43	76.08
		>300	0.00	0.00	42.65	42.65	
Nagaur	Deswal	150-300	0.00	0.00	16.37	16.37	16.37
	Gangardi	150-300	0.00	166.91	11.44	178.35	178.35
	Indawar	0-150	12.00	0.00	0.00	12.00	12.00
	Kapriion-Ka-Dhani	0-150	17.00	0.00	0.00	17.00	17.00
	Kasnau-Igiar	0-150	64.90	0.00	0.00	64.90	64.90
	Kuchera	0-150	0.00	0.00	1.00	1.00	1.00
	Lunsara	0-300	0.00	7.17	0.00	7.17	7.17
	Matasukh	0-150	10.10	0.00	0.00	10.10	10.10
	Merta Road & Meeranagar	0-150	0.00	23.90	59.35	83.25	83.25

State/District	Area/Block	Depth (m)	(Resource in million tonne)				Grand Total
			Measured (331)	Indicated (332)	Inferred (333)	Total	
	Mokala	0-150	0.00	29.00	0.00	29.00	29.00
	Nimbri-Chandawatan	0-150	9.00	0.00	0.00	9.00	9.00
	Ucharada	0-150	0.00	4.22	7.11	11.33	128.68
		150-300	0.00	58.29	59.06	117.35	
Nagaur & Pali	Phalki	0-150	0.00	0.18	0.00	0.18	0.50
		150-300	0.00	0.32	0.00	0.32	
	Phalki North	0-150	0.00	0.00	1.98	1.98	13.04
		150-300	0.00	0.00	11.06	11.06	
	Phalodi	0-150	0.00	0.00	0.95	0.95	0.95
		150-300	0.00	0.00	4.70	4.70	4.70
	Total for Rajasthan		1168.53	3029.78	2150.77		6349.08
Gujarat							
Kachchh	AkriMota	0-150	91.78	0.00	0.00	91.78	91.78
	Barkhan Dam	0-150	0.00	0.00	7.19	7.19	7.19
	Hamla-Ratadia	0-150	0.00	0.00	3.00	3.00	3.00
	Jhularai-Wagapadar	0-150	3.00	0.00	0.00	3.00	3.00
	Kaiyari Block-A	0-150	40.36	20.30	0.00	60.66	60.66
	Kaiyari Block-B	0-150	0.00	10.52	0.00	10.52	10.52
	Lakhpath-Dedhdi(Punahrajpur)	0-150	49.00	24.30	0.00	73.30	73.30
	Mata-No-Madh	0-150	34.00	0.00	0.00	34.00	34.00
	Panandhro	0-150	98.00	0.00	0.00	98.00	98.00
	Panandhro Ext.	0-150	0.00	0.00	14.45	14.45	14.45
	Pranpur	0-300	0.00	1.28	8.45	9.73	9.73
	Umarsar	0-150	19.47	0.00	0.00	19.47	19.47
Bhavnagar	Kharsalia, Rampur, Hoidad, Bhuteshwar, Surka etc.	0-300	0.00	0.00	299.17	299.17	299.17
Bharuch	Bhuri	0-150	10.59	31.56	0.00	42.15	42.15
	Valia, Bhaga, Luna, Pansoli, Nani Pardi etc.	0-150	225.88	0.00	0.00	225.88	975.56
		>150	232.50	0.00	0.00	232.50	
		0-300	251.68	87.03	178.47	517.18	
	Bhimpur	0-150	3.60	0.00	0.00	3.60	4.11
		150-300	0.51	0.00	0.00	0.51	
	Rajpardi (GMDC leasehold) by MECL	0-150	0.00	0.00	20.72	20.72	20.72
	Rajpardi (CGM) by MECL	0-300	0.00	0.00	292.04	292.04	292.04
Surat	Dungra	0-300	0.00	0.00	92.52	92.52	92.52
	East of Kamrej-Vesma	150-300	0.00	0.00	7.92	7.92	7.92
	Tadkeswar	0-300	0.00	0.00	123.10	123.10	123.10
	Tadkeswar Block--Mongrol, Mandvi, Vastan, Nani Naroli, Ghala etc.	0-300	218.28	108.71	112.67	439.66	439.66
	Total for Gujarat		1278.65	283.70	1159.70		2722.05
Jammu & Kashmir							
Kupwara	Nichahom	0-150	0.00	20.25	0.00	20.25	20.25
	Nichahom -Budhasung	0-150	0.00	0.00	7.30	7.30	7.30
	Total for J & K		0.00	20.25	7.30		27.55
Kerala							
Kannanur	Madayi	0-150	0.00	0.00	5.60	5.60	5.60
	Nileswaram	0-150	0.00	0.00	2.50	2.50	2.50
	Kadamkottumala	0-150	0.00	0.00	1.00	1.00	1.00
	Kayyur	0-150	0.00	0.00	0.55	0.55	0.55
	Total for Kerala		0.00	0.00	9.65		9.65
West Bengal							
Bardhaman	Rakshitpur	0-150	0.00	0.29	0.86	1.15	1.15
	Gaurangapur-Bankati	0-150	0.00	0.00	0.96	0.96	0.96
Birbhum	Mahalla	150-300	0.00	0.64	0.00	0.64	0.64
	Dhobanpur	150-300	0.00	0.20	0.78	0.98	0.98
	Djara	150-300	0.00	0.00	0.20	0.20	0.20
	Total for West Bengal		0.00	1.13	2.80		3.93
Grand Total for all States			6540.71	26388.80	12734.07		45663.58

(This inventory dealt with gross geological resources assessed, so far, and did not take into account the mined out reserve. The resource of lignite is based on compilation of data available from Geological Survey of India, Neyveli Lignite Corporation, Mineral Exploration Corporation Limited, DMG, Rajasthan and CGM, Gujarat.)

Note: In addition to the above resources the following prognosticated resources are also recorded.

1. Mannargudi lignite field extending eastward beyond the explored area may also likely to contain considerable resources.
2. About 60 b.t of lignite may likely to be contained within 800-1400m depth in Kalol basin (Mehsana area), Gujarat (Source: ONGC).
3. Exploration by Shell Oil Company in the Barmer and Sanchor basins of Rajasthan indicated the presence of substantial lignite resource at deeper level.
4. Substantial resource of lignite has also been prognosticated in the Cambay basin of Gujarat at deeper level (Source: ONGC).
5. A few more minor lignite deposits were also reported from isolated areas of Kerala, West Bengal and J & K states and lignitic clay from Tripura.
6. 104.13 mt of Reconnaissance (334) Resource is assessed in Charanwala North area of Palana Basin, Jaisalmer and Bikaner districts, Rajasthan (Source: GSI)

Lignite mined out till 31.3.2018 (Source: NLC India Limited)

State	District	Area	Mine	Quantity (in million tonne)	
				Mined out during 2017-18	Mined out As on 01.04.2018 since inception
Tamilnadu	Cuddalore	Neyveli	Mine I & Expansion.	8.15	351.59
			Mine I A	2.75	44.15
			Mine II & Expansion	12.67	291.73
	Total				23.57
Gujarat	Kachchh		Panandhro	1.15	115.39
			Matanomadh	3.92	31.09
			Umarsar	1.60	3.92
	Bharuch	Bhavnagar	Rajpardi Exten	1.06	17.09
			Surkha North	1.28	10.88
	Surat		Alapar(Khadsaliya)	0.06	2.74
			Tadkeshwar	1.59	14.89
			Vastan	0.21	23.84
			Mangrol	0.00	6.35
	Bharuch		Valia	2.91	11.42
Total				13.78	237.61
Rajasthan	Bikaner		Barsingshar	1.58	9.80
			Gurha East	0.43	6.00
	Barmer		Giral	0.38	11.03
			Jalipa	0.11	0.11
			Kapurdhi	6.16	35.06
	Nagaur		Kasnau/Matasukh	0.43	2.21
			Sonari	0.21	2.43
Total				9.30	66.64
Grand Total				46.65	991.72