

**GOVERNMENT OF INDIA
MINISTRY OF MINES**

**LOK SABHA
STARRED QUESTION NO.103
TO BE ANSWERED ON THE 2nd May, 2016**

MINERAL EXPLORATION

***103. SHRI VINAYAK BAURAO RAUT
DR. SHRIKANT EKNATH SHINDE:**

Will the Minister of **MINES** be pleased to state:

- (a) whether the Government proposes to carry out mineral exploration in a planned and time-bound manner and if so, the details of mineral exploration targets fixed during 2015-16 and 2016-17 and achievement made, mineral-wise;
- (b) whether the Government is aware of the role being played by the geoscientists in upscaling the level of exploration in the country and if so, the details thereof; and
- (c) the steps/ initiatives taken/being taken by the Government to encourage the geoscientists to contribute their best for harnessing natural resources for development of the country?

A N S W E R

**MINISTER OF STEEL & MINES
(SHRI NARENDRA SINGH TOMAR)**

(a) to (c) : A Statement is laid on the Table of the House.

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**STATEMENT REFERRED IN REPLY TO LOK SABHA STARRED QUESTION NO.103
REGARDING MINERAL EXPLORATION ASKED BY SHRI VINAYAK BAURAO RAUT AND
DR. SHRIKANT EKNATH SHINDE FOR ANSWER ON 2ND MAY 2016**

a) Yes. Geological Survey of India (GSI), an attached office of the Ministry of Mines, takes up mineral exploration work through its annual field season programs (FSP). GSI also ensures that regional and detailed exploration is carried out systematically in a time bound manner following the United Nations Framework Classification (UNFC) guidelines (G4, G3, G2 & G1 stages of exploration). Further, GSI carries out off shore mineral investigation in the territorial waters (TW) and exclusive economic zone (EEZ) of India using its research vessels as per its annual field season programs.

Apart from GSI, the Atomic Minerals Directorate for Exploration and Research (AMDER), a constituent of Department of Atomic Energy (DAE), is carrying out exploration in a planned and time-bound manner to identify and evaluate reserves of minerals, such as, uranium etc. required for successful implementation of Nuclear Power Program of the country.

Besides, Mineral Exploration Corporation Limited (MECL), a PSU under Ministry of Mines is also carrying out exploration by promotional funding of Ministry of Mines and Ministry of Coal as per plans and timelines set by the government.

The details of the target and achievements of above three agencies are given below.

Mineral wise Target vs Achievement of GSI for FS 2015-16, and Target for FS 2016-17 is Annexed.

Mineral-wise physical targets and achievements of AMD, DAE

Activities		Target (2015-16)	Achievement (2015-16) As on Feb 2016	Target (2016-17)
Uranium investigations				
1.	Airborne Survey (L. km.)	90,000	15,392.20	1,10,000
2.	Reconnaissance Survey (sq. km.)	3,900	3,904	3,100
3.	Geochemical Survey (sq. km.)	2,600	2,825	2,000
4.	Detailed Survey (sq. km.)	225	203.20	207
5.	Ground Geophysical Survey (sq. km.)	500	577.72	500
6.	Drilling (m)	1,92,200	1,65,412	1,57,400
Rare Metal and Rare Earth investigations				
1.	Reconnaissance Survey (sq. km.)	400	510	400
2.	Detailed Survey (sq. km.)	4	13.34	4
Beach Sand Heavy Minerals investigations				
1.	Reconnaissance Survey (sq. km.)	100	111.92	75
2.	Detailed Survey (sq. km.)	8	9.66	4
3.	Drilling (m)	8,000	12,192	6,500

Mineral-wise physical targets and achievements of MECL

Sl. No.	Mineral	FY 2015-16		FY 2016-17
		Target	Actual Achievement	Target
		Drilling (in m)	Drilling (in m)	
Through promotional funding of Ministry of Coal				
1	Coal	62,500	35,216	40,000
2	Lignite	24,750	52,304	25,000
Through promotional funding of Ministry of Mines, Mineral Exploration Fund (MEF) and National Mineral Exploration Trust (NMET)				
3	Gold	2560	2868	3,000

4	Copper	5260	3439	5,000
5	Lead - Zinc & Copper	1280	108	-
6	Molybdenum	-	2894	1,000
7	Potash	-	166	5,000
8	Iron	-	-	7,500
9	Limestone	-	-	1,500
Through contractual funding by various agencies				
10	Coal	2,56,682	2,82,787	3,82,000
11	Lignite	-	567	-
12	Iron	13,668	17,694	46,000
13	Bauxite	10,000	2,074	-
14	Copper	3,300	2,359	4,000
15	Limestone	5,000	0	-
	Total	3,85,000	4,02,476	5,20,000

- b) Yes. GSI continuously upgrades the knowledge and skill of its geoscientists and upgrades its equipment of field survey and laboratories as per the global practice. Besides, DAE with its conceptual geoscientific modelling and innovative multi-faceted exploration strategy is augmenting atomic mineral resources on a regular basis.
- c) Geoscientists of GSI are provided with the state-of-the-art training, the logistic support, latest field equipment and laboratory support for achieving the objectives of the projects or activity they are involved in as per the field season programs (FSP). Besides, the government also encourages collaborations with global exploration agencies for knowledge sharing and technological upgradation. DAE encourages its geoscientists through award of degrees, merit based promotions, additional increments and various training programs. It also lays emphasis on collaborative programs between the DAE personnel and scientific community outside DAE.

Further, for encouraging geoscientists, the prestigious National Geoscience Awards in various categories are also given every year by the Ministry of Mines for outstanding contribution in various fields of Geoscience including mineral discoveries and exploration.

ANNEXURE REFERRED IN REPLY TO LOK SABHA STARRED QUESTION NO.103 REGARDING MINERAL EXPLORATION ASKED BY SHRI VINAYAK BAURAO RAUT ANDDR. SHRIKANT EKNATH SHINDE FOR ANSWER ON 2ND MAY 2016

Commodity wise Target vs Achievement of GSI for FS 2015-16 and Target for FS 2016-17

		Target vs Achievement for FS 2015-16						Target FS 2016-17				
Group	Commodity	No. of Programs	LSM in sq km		DM in sq km		Drilling in m		No. of Programs	LSM in sq km	DM in sq km	Drilling in m
			Target	Achvmt.	Target	Achvmt.	Target	Achvmt.				
Ferrous	Iron	13	624.00	730.00	7.34	6.70	12500	5150.05	24	5,500	103	1,13,000
	Manganese	2			3.50	3.50			8			
	Chromite / Chromium	2	50.00	50.00					2			
Non-Ferrous	Basemetal	25	835.00	872.00	11.95	12.18	17100	12022.60	25			
	Bauxite	5	50.00	50.00	6.50	6.55	1980	2022.25	12			
Precious	Gold	22	775.00	805.00	11.50	10.43	8106.70	6450.55	24			
	Diamond	9	50.00	50.00					4			
	PGE	8	400.00	400.00	1.50	1.50	2800.	2607.65	2			
	Cobalt	1	100.00	102.00					-			
Strategic	Tin, Tungsten, Molybdenum	8	200.00	208.00	8.90	9.05	3500	2492.85	6			
	REE & RM	14	935.00	946.00	6.50	6.90	1500	921.70	13			
Fertilizer	Potash	1	150.00	97.00			300	130.00	2			
	Glauconite	3	200.00	200.00	1.00	1.00	1000	1015.00	2			
	Gypsum	3	225.00	227.00	1.00	1.00			-			
	Phosphorite	1	100.00	100.00	0.75	1.85	200	0.00	-			
Industrial	Dunite	1			5.00	5.00	800	757.95	-			
	Graphite	3	55.00	55.00	0.75	0.76	3000	3378.05	2			
	Limestone	8	225.00	204.00	38.50	38.05	11200	9870.75	22			
	Pyrophyllite	1	100.00	100.00					-			
	Andalusite	1			1.00	1.22	2000.00	1994.05	2			
	Sandstone	1	50.00	51.00					-			
	Dimension Stone	1	50.00	55.00					-			
	Glass Sand								1			
	Barite								1			
	Quartzite								1			
Clay								1				
Coal & Lignite	Coal	28	699.98	614.98			47500.25	45149.11	19			
	Lignite						7800.00	8852.40				
TOTAL		160	5873.98	5916.98	105.69	105.69	1,21,286.95	1,02,814.96	173	5,500	103	1,13,000
Preliminary Mineral Investigation within EEZ (in sq km)		11	15,000			15,819			17	25,000		

LSM – Large Scale Mapping, DM – Detailed Mapping, PGE – Platinum Group of Elements, REE & RM – Rare Earth Elements & Rare Metals, EEZ – Exclusive Economic Zone