

STATE REVIEWS



Indian Minerals Yearbook 2015

(Part - I: General Reviews)

54th Edition

STATE REVIEWS

(FINAL RELEASE)

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES**

Indira Bhavan, Civil Lines,
NAGPUR – 440 001

PHONE/FAX NO. (0712) 2565471
PBX : (0712) 2562649, 2560544, 2560648
E-MAIL : cme@ibm.gov.in
Website: www.ibm.gov.in

July, 2017

11 State Reviews

Analytical Summary

The value of mineral production (excludes atomic minerals and value for the month of February and March in respect of 31 minerals declared as minor mineral vide Gazette Notification dated 10.02.2015) in India in 2014-15 at ₹ 280,332 crores increased by 1% as compared to the previous year. Mineral production was reported from 32 States, Union Territories and Offshore regions during the year, of which the bulk value of mineral production of about 98% was confined to fifteen States (including Offshore regions). Offshore regions continued to be the leading contributor in terms of the value of mineral production in the country and accounted for 20% of the value of national mineral output. Next in order with reference to value of mineral production was Rajasthan with a share of 12%, followed by Odisha (10%), Chhattisgarh (9%), Jharkhand (8%), Gujarat (7%), Andhra Pradesh & Madhya Pradesh (5% each), Telangana & Assam (4% each) and Maharashtra, Karnataka, Tamil Nadu, Uttar Pradesh & West Bengal (3% each). Other 17 States/Union Territories having individual share of less than one percent reported the remaining value during the year under review.

Statewise analysis revealed that during 2014-15, the value of mineral production in Eleven important states (including Offshore regions) was on higher side as compared to that in the previous year. The value of mineral production for West Bengal increased by 91% as compared to the preceding year. Similar increase was observed in Telangana by 45%, Tripura 39%, Chhattisgarh 29%, Himachal Pradesh and Maharashtra (14% each), Tamil Nadu 12%, Karnataka 8%, Uttarakhand 3%, whereas a nominal

increase in the value of mineral output was observed in Rajasthan and Offshore regions.

A marginal decline in the value of mineral production was observed in Haryana, Jammu & Kashmir, Kerala, Goa and Madhya Pradesh. The value of mineral production decreased in Gujarat & Bihar (2% each), Assam (3%), Andhra Pradesh (4%), Uttar Pradesh (5%), Odisha (12%), Jharkhand (18%), Arunachal Pradesh (27%) and Meghalaya (63%) (Tables- 1 & 2).

The index of mineral production (with base year 2004-05=100) excluding atomic minerals stood at 126.5 in 2014-15 showing a growth of 1.4% as compared to the previous year.

The total number of mines which reported mineral production (excluding atomic minerals, petroleum (crude), natural gas and minor minerals) at all India level was 3,529 in 2014-15 as against 3,979 in the previous year. Out of the 3529 reporting mines, Rajasthan reported the maximum of 541 mines followed by Andhra Pradesh (421), Gujarat (413), Madhya Pradesh (375), Tamil Nadu (292), Jharkhand (224), Chhattisgarh (215), Telangana (201), Karnataka (183), Odisha (172), Maharashtra (165), West Bengal (118), Goa (71), Kerala (53), Himachal Pradesh, Meghalaya & Uttar Pradesh (17 each), Uttarakhand (15), Jammu & Kashmir (8), Assam (6), Bihar (3) and Arunachal Pradesh & Haryana (1 each) (Table- 3).

Mineral wise reserves/resources in the country as on 01.4.2010/1.4.2013 are furnished in Table - 4.

The present status of each mineral-based industry as mentioned in the tables of respective State reviews is, however, not available.

STATE REVIEWS

**Table – 1 : Value* of Mineral Production, 2012-13 to 2014-15
(By States & Union Territories)**

(In ₹ '000)

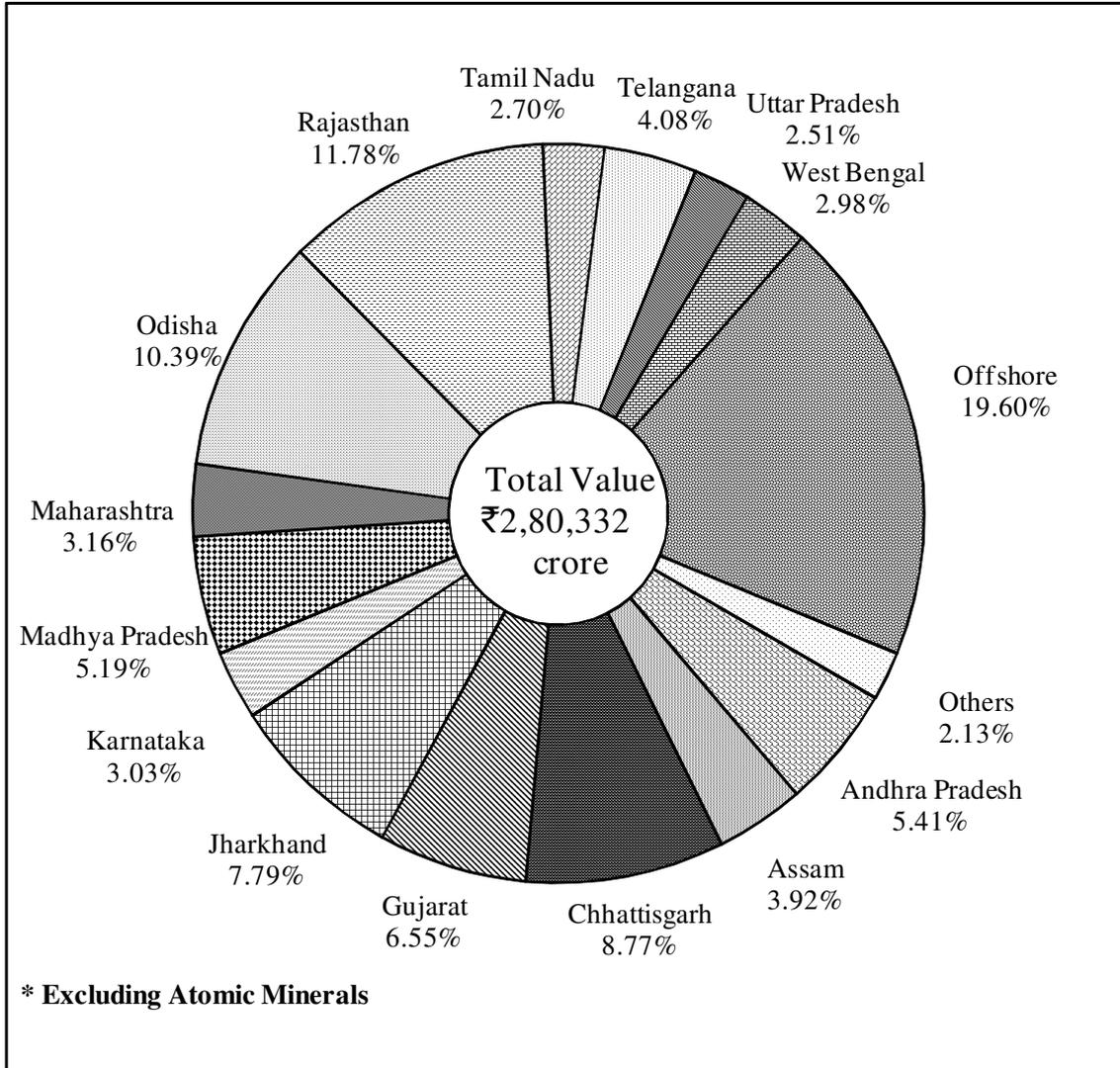
State/Union Territory/Region	2012-13	2013-14	2014-15 (P)
India	2800056812	2774133089	2803324353
Andhra Pradesh #	167703097	158660646	151576048
Arunachal Pradesh	3186826	2585578	1891535
Assam	116458740	113083701	109887663
Bihar	1997065	4240107	4140602
Chhattisgarh	188400750	190922002	245884613
Goa	25859191	6251655	6231085
Gujarat	229520813	187363387	183648296
Himachal Pradesh	2674558	2146927	2445647
Haryana	1487461	1487530	1487395
Jammu & Kashmir	5367581	2027739	2005166
Jharkhand	199970583	267708722	218365103
Karnataka	60873185	78827441	84828055
Kerala	14621046	15635219	15609380
Manipur	2866	2866	2866
Meghalaya	39455101	40391047	15144264
Mizoram	16242	21483	21483
Madhya Pradesh	113990301	146183988	145619029
Maharashtra	129953596	78014910	88725297
Nagaland	1774	1774	1774
Odisha	236941763	331117211	291186441
Punjab	94448	94448	94448
Rajasthan	312342126	325542682	330252261
Sikkim	18787	18787	18787
Telangana #	96830482	78976294	114393060
Tamil Nadu	61925152	67419325	75741359
Tripura	5379953	6827225	9457126
Uttar Pradesh	75209010	74510706	70429213
Uttarakhand	889969	828023	853954
West Bengal	110869851	43759612	83498534
Andaman & Nicobar Islands	191970	327632	327632
Puducherry	-	2527	2527
Offshore	597822525	549151895	549553710

* Excluding atomic minerals and value for the month of February and March in respect of 31 minerals declared as minor mineral vide Gazette Notification dated 10.02.2015.

(1) The figures reported for 2012-13 & 2013-14 are for comparative purpose only by considering the corresponding districts under the newly formed states.

(2) Due to non-availability of district-wise minor mineral data the figures reported against Andhra Pradesh includes that of districts falling under Telangana for 2012-13 to 2014-15.

Share of States in the Value* of Mineral Production, 2014-15



STATE REVIEWS

Table - 2 : Value* of Mineral Production, 2013-14 and 2014-15
(By States & Union Territories/Mineral Groups)

State/Union Territory/ Region	Total			Fuel minerals			Metallic minerals			Non-metallic minerals			Minor minerals		
	2013-14	2014-15 (P)	2013-14	2014-15 (P)	2013-14	2014-15 (P)	2013-14	2014-15 (P)	2013-14	2014-15 (P)	2013-14	2014-15 (P)	2013-14	2014-15 (P)	
	(In ₹ '000)														
India	2774133089	2803324353	1864669332	1933720761	423899538	385965710	75160537	73234200	410403682	410403682	410403682	410403682	410403682	410403682	
Andhra Pradesh*	158660646	151576048	15082524	9090785	1120317	962291	-	10440653	131082319	131082319	131082319	131082319	131082319		
Arunachal Pradesh	2585578	1891535	2356586	1662543	-	-	-	-	228992	228992	228992	228992	228992		
Assam	113083701	109887663	112719518	109455941	-	-	-	-	313805	313805	313805	313805	313805		
Bihar	4240107	4140602	-	-	-	-	50378	117917	3975880	3975880	3975880	3975880	3975880		
Chhattisgarh	190922002	245884613	89275000	139855400	90175640	94022381	264227	164722	6273771	6273771	6273771	6273771	6273771		
Goa	6251655	6231085	-	-	53420	32850	-	-	6198235	6198235	6198235	6198235	6198235		
Gujarat	187363387	183648296	118238289	115106687	2726039	2091034	4602759	4654275	61796300	61796300	61796300	61796300	61796300		
Haryana	1487530	1487395	-	-	-	-	332	197	1487198	1487198	1487198	1487198	1487198		
Himachal Pradesh	2146927	2445647	-	-	-	-	1748816	2047536	398111	398111	398111	398111	398111		
Jammu & Kashmir	2027739	2005166	40400	27600	-	-	36659	26886	1950680	1950680	1950680	1950680	1950680		
Jharkhand	267708722	218365103	240509800	193135100	25733025	24312381	1064449	516174	401448	401448	401448	401448	401448		
Karnataka	78827441	84828055	-	-	55394417	60895600	3251379	3750810	20181645	20181645	20181645	20181645	20181645		
Kerala	15635219	15609380	-	-	-	-	675758	649919	14959461	14959461	14959461	14959461	14959461		
Madhya Pradesh	146183988	145619029	111792700	111478200	10217883	10433449	7647469	7181444	16525936	16525936	16525936	16525936	16525936		
Maharashtra	78014910	88725297	57363500	67045400	8130789	8855810	1959221	2262687	10561400	10561400	10561400	10561400	10561400		
Manipur	2866	2866	-	-	-	-	-	-	2866	2866	2866	2866	2866		
Meghalaya	40391047	15144264	37974500	12670500	-	-	2344472	2401689	72075	72075	72075	72075	72075		
Mizoram	21483	21483	-	-	-	-	-	-	21483	21483	21483	21483	21483		
Nagaland	1774	1774	-	-	-	-	-	-	1774	1774	1774	1774	1774		
Odisha	331117211	291186441	150160600	158984300	177935673	129799057	2164171	1546317	856767	856767	856767	856767	856767		
Punjab	94448	94448	-	-	-	-	-	-	94448	94448	94448	94448	94448		
Rajasthan	325542682	330252261	180110962	183151451	52300247	54471878	20402363	19899822	72729110	72729110	72729110	72729110	72729110		
Sikkim	18787	18787	-	-	-	-	-	-	18787	18787	18787	18787	18787		
Tamil Nadu	67419325	75741359	56884072	65334309	48969	44559	6392833	6269040	4093451	4093451	4093451	4093451	4093451		
Telangana*	78976294	114393060	73998000	109642600	63119	44420	4915175	4706040	-	-	-	-	-		
Tripura	6827225	9457126	6798045	9427946	-	-	-	-	-	-	-	-	-		
Uttar Pradesh	74510706	70429213	20046100	16186900	-	-	-	-	29180	29180	29180	29180	29180		
Uttarakhand	828023	853954	-	-	-	-	-	-	515392	515392	515392	515392	515392		
West Bengal	43759612	83498534	42166841	81911389	-	-	-	-	636367	636367	636367	636367	636367		
Andaman & Nicobar Islands	327632	327632	-	-	-	-	-	-	1455113	1455113	1455113	1455113	1455113		
Puducherry	2527	2527	-	-	-	-	-	-	2527	2527	2527	2527	2527		
Offshore	549151895	549553710	549151895	549553710	-	-	-	-	-	-	-	-	-		

* Excluding atomic minerals and value for the month of February and March in respect of 31 minerals declared as minor mineral vide Gazette Notification dated 10.02.2015.

(1) The figures reported for 2012-13 & 2013-14 are for comparative purpose only by considering the corresponding districts under the newly formed states.

(2) Due to non-availability of district-wise minor mineral data the figures reported against Andhra Pradesh includes that of districts falling under Telangana for 2012-13 to 2014-15.

STATE REVIEWS

Table – 4 : Reserves/Resources of Minerals as on 1.4.2010/1.4.2013* : India

Mineral	Unit	Reserves				Remaining Resources				Total Resources (A+B)		
		Proved STD 111	Probable		Feasibility STD211	Pre-feasibility	Measured STD331	Indicated STD332	Inferred STD333		Reconnaissance STD334	Total Resources (B)
			STD121	STD122								
Andalusite	'000 tonnes	-	-	-	-	-	-	18450	-	18450	18450	
Antimony*	tonne	-	-	-	-	-	-	10588	-	10588	10588	
Ore	tonne	-	-	-	-	-	-	174	-	174	174	
Metal	tonne	-	-	-	-	-	-	174	-	174	174	
Apatite*	tonne	29112	1680	30792	-	491818	1225345	2281521	11481250	6132768	1017646	
Asbestos	tonne	1700152	806101	2510841	109641	3072849	3257941	100687	2527918	10528926	57800	
Ball clay	tonne	12292820	350832	4134190	16777842	6122450	3906958	12387575	268486	41650863	-	
Barytes	tonne	29557972	90844	1935312	31584128	179447	4288189	2608562	207384	1269214	32491229	
Bauxite*	'000 tonnes	401993	52254	375948	830195	134706	131749	348925	653773	431524	1161536	
Bentonite	tonne	-	11415982	13644526	25060508	-	3067	-	26519818	225744237	265309715	
Borax	tonne	-	-	-	-	-	-	-	-	-	74204	
Calcite	tonne	1265135	38525	1360678	2664338	665454	227265	3126218	9122235	1236864	3805598	
China clay	'000 tonnes	124118	11034	42006	177158	24543	22980	71270	284781	412852	1651286	
Chromite*	'000 tonnes	56890	14045	36286	107221	28011	20171	36806	21249	32994	53376	
Cobalt ore*	million tonnes	-	-	-	-	-	-	-	30.63	2	0.28	
Copper*											12	
Ore	'000 tonnes	40650	6521	190401	237573	53789	32161	61061	123569	233913	763892	
Metal	'000 tonnes	370.31	61.44	2565.22	2996.97	511.15	338	625.88	1589.19	2077.81	4064.35	
Corundum*	tonne	100	310	188	597	58469	763	62872	13	38	92389	
Chalk	'000 tonnes	3266	537	528	4332	184	5	127	-	-	269	
Diamond*	carat	984875	-	-	984875	-	-	-	304601	1524317	29047514	
Diaspore	tonne	1469687	1106296	283691	2859674	187821	714316	488395	248880	133360	1306306	
Diatomite	'000 tonnes	-	-	-	-	634	-	-	-	-	2251	
Dolomite*	'000 tonnes	494815	146050	143039	783905	171293	268984	464085	269812	746919	5167039	
Dunite	'000 tonnes	14894	-	2243	17137	130	4717	107597	24516	1164	8637	
Felspar	tonne	24545334	8278221	11679685	445032401	4672107	4427797	12967154	4191330	9874858	41549070	
Fireclay	'000 tonnes	14376	7358	8371	30104	10020	19215	21775	47666	54377	529173	
Fluorite*	tonne	4509488	63860	-	4573348	697519	745390	571311	1713833	6218421	3522537	
Fuller's earth	tonne	-	-	58200	58200	-	-	-	-	912340	255681539	
Garnet	tonne	3252107	4712202	11360484	19324793	9270	81901	207041	117887	10226689	26995243	
Gold*												
Ore (primary)	tonne	10920436	2832000	8635529	14615965	1486133	1260000	1104647	38101248	70136727	223529973	
Metal	tonne	-	-	-	-	-	-	-	-	-	480188061	
(primary)	tonne	56.44	7.72	7.75	71.91	4.98	3.59	4.35	144.50	143.8	206.78	
Ore (placer)	tonne	-	-	-	-	-	-	-	-	2552000	23569000	
Metal	tonne	-	-	-	-	-	-	-	-	-	26121000	
(placer)	tonne	-	-	-	-	-	-	-	-	2.29	3.57	

(Contd.)

Table - 4 (Contd.)

Mineral	Unit	Reserves					Remaining Resources					Total Resources (A+B)		
		Proved STD 111	Probable STD 121	STD 122	Total Feasibility STD 211	Pre-feasibility STD 221	Measured STD 331	Indicated STD 332	Inferred STD 333	Reconnaissance STD 334	Total (B)			
													STD 111	STD 121
Granite	'000 cu m	35741	201377	26574	263692	38462	51990	8234	837325	2063964	42499338	467296	45966608	46230300
Graphite*	'000 tonnes	5435659	3013	3030005	8468677	9794555	3427932	3629229	738607	7366997	19280299	135967175	180204794	188673471
Gypsum	'000 tonnes	22494	239	16363	39096	8502	73651	17659	8455	710853	428272	10	1247402	1286498
Iron ore*														
Haematite	'000 tonnes	5029221	746910	830431	6606562	2742272	1018515	1009051	1105212	1320700	4358014	2415382	13969145	20575708
Magnetite	'000 tonnes	18180	-	16412	34592	206758	17354	61453	1513195	1984616	6344986	584402	10712763	10747355
Kyanite	tonne	551529	524485	498839	1574853	322622	25917	1238407	578607	3590902	95914312	-	101670767	103245620
Laterite*	'000 tonnes	46710	6111	7077	59898	30992	5025	20989	24	1628	229259	210860	498777	558675
Lead & zinc*														
Ore	'000 tonnes	34289	66200	2306	102795	7654	7341	10507	18465	208111	349641	4530	606248	709043
Lead metal	'000 tonnes	657	1422.3	35.61	2114.91	181.62	230.44	198.23	411.87	2421.79	6444.94	-	9888.89	12003.8
Zinc metal	'000 tonnes	3716.4	7041.1	135.6	10893.1	488.97	330.29	493.21	854.76	8563.08	14131.04	101.65	24963	35856.1
Lead & zinc metals	'000 tonnes	-	-	-	-	-	-	-	-	-	118.45	22.37	140.82	140.82
Limestone	'000 tonnes	8978583	3650574	2297234	14926392	1827583	3739470	6309489	6858999	22040640	124835558	4396981	170008720	184935112
Magnesite*	'000 tonnes	13455	1837	5481	20773	3987	7384	43905	59010	59652	133356	45	307339	328111
Marble	'000 tonnes	103736	172661	98	276495	-	29842	72289	-	107129	1445708	-	1654968	1931463
Marl	tonne	133236150	4650000	2090000	139976150	11704870	-	-	-	-	-	-	1704870	151681020
Mica	tonne	169841	15269	5632	190741	21427	11317	118868	52724	42504	94427	228	341496	532237
Manganese ore*	'000 tonnes	64105	23461	8306	95871	65551	41588	68477	6184	31884	160678	4952	379314	475185
Molybdenum*														
Ore	tonne	-	-	-	-	-	1500000	-	36000	569304	17098594	167800	19371698	19371698
Contained														
MoS ₂	tonne	-	-	-	-	-	1050	-	83	287	11198	50	12668	12668
Nickel ore*	'000 tonnes	-	-	-	-	-	21	21	31	53	63	-	189	189
Ochre	tonne	39863403	683093	14395680	54942176	15897677	13232482	21008598	2477593	3232246	32701243	769250	89319089	144261265
Perlite	'000 tonnes	140	-	288	428	-	683	307	-	-	-	988	1978	2406
Phosphorite/Rock phosphate*	tonne	53370665	1763187	10257699	65391551	7697147	34990335	15432125	2912633	3549750	181859733	2678275	249119998	314511549
Platinum group														
of metals	tonne	-	-	-	-	-	-	7.70	-	-	6.50	1.50	15.70	15.70
Potash	million tonnes	-	-	-	-	-	-	-	-	18142	3652	22	21815	21815
Pyrite	'000 tonnes	-	-	-	-	27129	-	32597	9590	77729	1527356	-	1674401	1674401
Pyrophyllite	tonne	12146045	6888351	4241055	23275450	3256515	4919285	6595687	3976532	3963980	9786686	308766	32807450	56082901
Quartz/														
Silica sand	'000 tonnes	272972	35079	121173	429223	185399	322454	321760	58683	259116	1907994	14402	3069808	3499031
Quartzite	'000 tonnes	59004	1647	25948	86599	33217	105018	147686	93116	113611	669453	2548	1164648	1251247
Rock salt	'000 tonnes	10036	-	5990	16026	-	-	-	-	-	-	-	-	16026
Ruby	kg	143	-	93	236	-	-	3165	286	38	1623	-	5113	5349
Sapphire	kg	-	-	-	-	-	-	-	-	-	450	-	450	450

(Contd.)

STATE REVIEWS

Table - 4 (Concl'd)

Mineral	Unit	Reserves										Remaining Resources									
		Proved		Probable		Feasibility		Pre-feasibility		Measured		Indicated		Inferred		Reconnaissance		Total			
		STD111	STD122	STD121	STD122	STD111	STD122	STD211	STD221	STD222	STD331	STD332	STD333	STD334	STD333	STD334	(B)	(A+B)			
Shale	'000 tonnes	14992	76	263	15331	-	245	-	245	-	-	252	83	252	83	580	15911				
Sillimanite	tonne	1693000	1602228	789824	4085052	317869	124000	20082855	4579816	17795772	16152473	3849600	62902385	66987437							
Silver*																					
Ore	tonne	73381065	-	44900000	118281065	17368349	1484543	81338273	53600000	47676000	199821729	-	-	401288894	519569959						
Metal	tonne	5213.97	-	2694	7907.97	107.38	42.85	403	3625.2	1995.36	15706.59	-	-	21880.38	29788.35						
Slate	'000 tonnes	-	-	113	1187	-	-	1069	-	2369	-	-	-	-	-	-	-				
Sulphur																					
(Native)	'000 tonnes	-	-	-	-	-	-	-	-	-	210	-	-	210	-	210	210				
Talc/ steatite/ soapstone	'000 tonnes	54615	8772	26640	90026	9732	12773	27080	6403	7256	115195	558	178996	269023							
Tin*																					
Ore	tonne	4288	976	1709	6973	22592860	2372	31330038	168457	561080	29064387	-	-	83719193	83726166						
Metal	tonne	958.26	189.56	33.37	1181.19	32230.73	656.84	54033	813.29	231.63	13128.16	-	-	101093.65	102274.84						
Titanium																					
Minerals**	tonne	15271219	4274178	2484826	22030223	5198882	151888	-	2046780	50177023	314391121	-	-	371965694	393995917						
Ilmenite	tonne	13369586	4090393	2209232	19669211	4970726	151888	-	1090326	39870981	269835940	-	-	315919861	335589072						
Rutile	tonne	933502	183785	132553	1249840	228156	-	-	4460	3331042	8584030	-	-	12147688	13397528						
Leucoxene	tonne	674592	-	25625	700217	-	-	-	1994	-	341949	-	-	343943	1044160						
Anatase	tonne	-	-	-	-	-	-	-	-	3345000	-	-	-	3345000	3345000						
Titaniferous																					
Magnetite	tonne	293539	-	117416	410955	-	-	-	950000	3630000	35629202	-	-	40209202	40620157						
Tungsten*																					
Ore	tonne	-	-	-	-	2230000	-	173063	19611152	23435954	25356049	16581246	87387464	87387464							
Contained																					
WO ₃	tonne	-	-	-	-	3568	-	450	9914	20180.92	103415.15	4566.28	142094.35	142094.35							
Vanadium*																					
Ore	tonne	-	-	-	-	276530	1720000	4108100	-	232000	18297225	-	-	24633855	24633855						
Contained																					
V ₂ O ₅	tonne	-	-	-	-	1106.12	2835	6032.4	-	487.2	54133.29	-	-	64594.01	64594.01						
Vermiculite	tonne	1628475	24593	50939	1704007	22733	75790	71744	35195	24930	569012	3600	803003	2507010							
Wollastonite	tonne	2289869	-	197253	2487122	3750545	-	3724191	76088	3325042	3206885	-	-	14082751	16569873						
Zircon**	tonne	1025942	146085	175443	1347470	649938	-	-	81741	338525	716279	-	-	1786483	3133953						

Figures rounded off.

Note: The proved and indicated recoverable reserves of crude oil and natural gas as on 1.4.2015 in India are 763.48 million tonnes and 1,488.47 billion cu m, respectively.

* Resources as on 01.04.2013.

** Resources as per Department of Atomic Energy are provided in the respective Mineral Reviews.

STATE REVIEWS

**Table – 3 : Number of Reporting Mines*, 2012-13 to 2014-15
(By States)**

State	2012-13	2013-14	2014-15 (P)
India	3978	3979	3529
Andhra Pradesh [#]	536	492	421
Arunachal Pradesh	1	1	1
Assam	9	6	6
Bihar	6	5	3
Chhattisgarh	196	215	215
Goa	72	86	71
Gujarat	487	490	413
Himachal Pradesh	20	20	17
Haryana	1	1	1
Jammu & Kashmir	8	7	8
Jharkhand	293	234	224
Karnataka	219	192	183
Kerala	55	53	53
Meghalaya	14	14	17
Madhya Pradesh	421	411	375
Maharashtra	151	173	165
Odisha	192	185	172
Rajasthan	508	629	541
Telangana [#]	238	231	201
Tamil Nadu	368	377	292
Uttar Pradesh	22	19	17
Uttarakhand	34	17	15
West Bengal	127	121	118

* Excluding atomic minerals and minor minerals.

The figures reported for 2012-13 & 2013-14 are for comparative purpose only by considering the corresponding districts under the newly formed States.