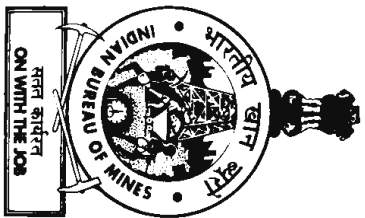


STATE REVIEWS



Indian Minerals Yearbook 2012 (Part- I : General Reviews)

51st Edition

**STATE REVIEWS
(FINAL RELEASE)**

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

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11 State Reviews

Analytical Summary

The value of mineral production in India in 2011-12 was at ₹ 255,677 crore showing an increase of 2.5% in comparison with the previous year. During 2011-12, mineral production was reported from 32 States, union territories and offshore regions of which, the major value of mineral production of about 85% was confined to ten States (including Offshore regions) only. Offshore regions continued to be in leading position, in terms of value of mineral production in the country and had the share of about 24% in the national output. Next in order, was Odisha with a share of 11% followed by Rajasthan and Andhra Pradesh (9% each), Chhattisgarh (7%), Jharkhand and Gujarat (6% each), Assam (5%), Madhya Pradesh (4%), West Bengal, Goa, Uttar Pradesh and Maharashtra (about 3% each), Tamil Nadu, Meghalaya and Karnataka (about 2% each) and Kerala (about 1%) in the total value of mineral production while other 15 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 2011-12, the value of mineral production in most of the important States was more as compared to that in the previous year. The value of mineral production for West Bengal has increased by more than double as compared to the preceding year. The value of mineral production also increased in Meghalaya 88%, Uttar Pradesh 40%, Chhattisgarh 28%, Tamil Nadu 21%, Rajasthan 19%, Odisha 13%, Arunachal Pradesh 10%, Assam and Tripura 6% each, Andhra Pradesh 4% and Jammu & Kashmir 2 percent. A marginal decline in the value of mineral production was observed in Kerala,

Uttarakhand and Gujarat whereas it decreased in Maharashtra 2%, Bihar 4%, Goa 7%, offshore regions 8%, Madhya Pradesh 9%, Himachal Pradesh 17%, Jharkhand 21% and in Karnataka 52% during the year under review as compared to that of the previous year (Tables 1 & 2).

The index of mineral production (base 2004-05=100) excluding atomic minerals stood at 128.45 in 2011-12 showing a decrease of about 2% over the previous year (Table - 3).

The total number of mines which reported mineral production (excluding atomic minerals, petroleum (crude), natural gas and minor minerals) at all India level added to 3234 in 2011-12 as against 3118 in the previous year. Out of the 3234 reporting mines 492 were located in Andhra Pradesh followed by Gujarat (380), Rajasthan (377), Madhya Pradesh (367), Jharkhand (289), Tamil Nadu (278), Chhattisgarh (187), Karnataka (185), Odisha (174), Maharashtra (154), West Bengal (117) and Goa (73). These 12 states together accounted for 95% or 3073 of total number of mines in the country in 2011-12. The number of reporting mines increased in Tamil Nadu (86), Rajasthan (69), Madhya Pradesh (50), Andhra Pradesh (36), Chhattisgarh (20), Kerala (9), West Bengal (8) and Meghalaya (3). Arunachal Pradesh, Himachal Pradesh and Jammu & Kashmir had the same number of reporting mines in both the years. However, a sharp decline of 66 mines was observed in Karnataka followed by Gujarat (49), Odisha (18), Jharkhand (8), Maharashtra (7), Goa (6) Uttarakhand (5), Bihar (4) and Uttar Pradesh Assam (1 each) (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

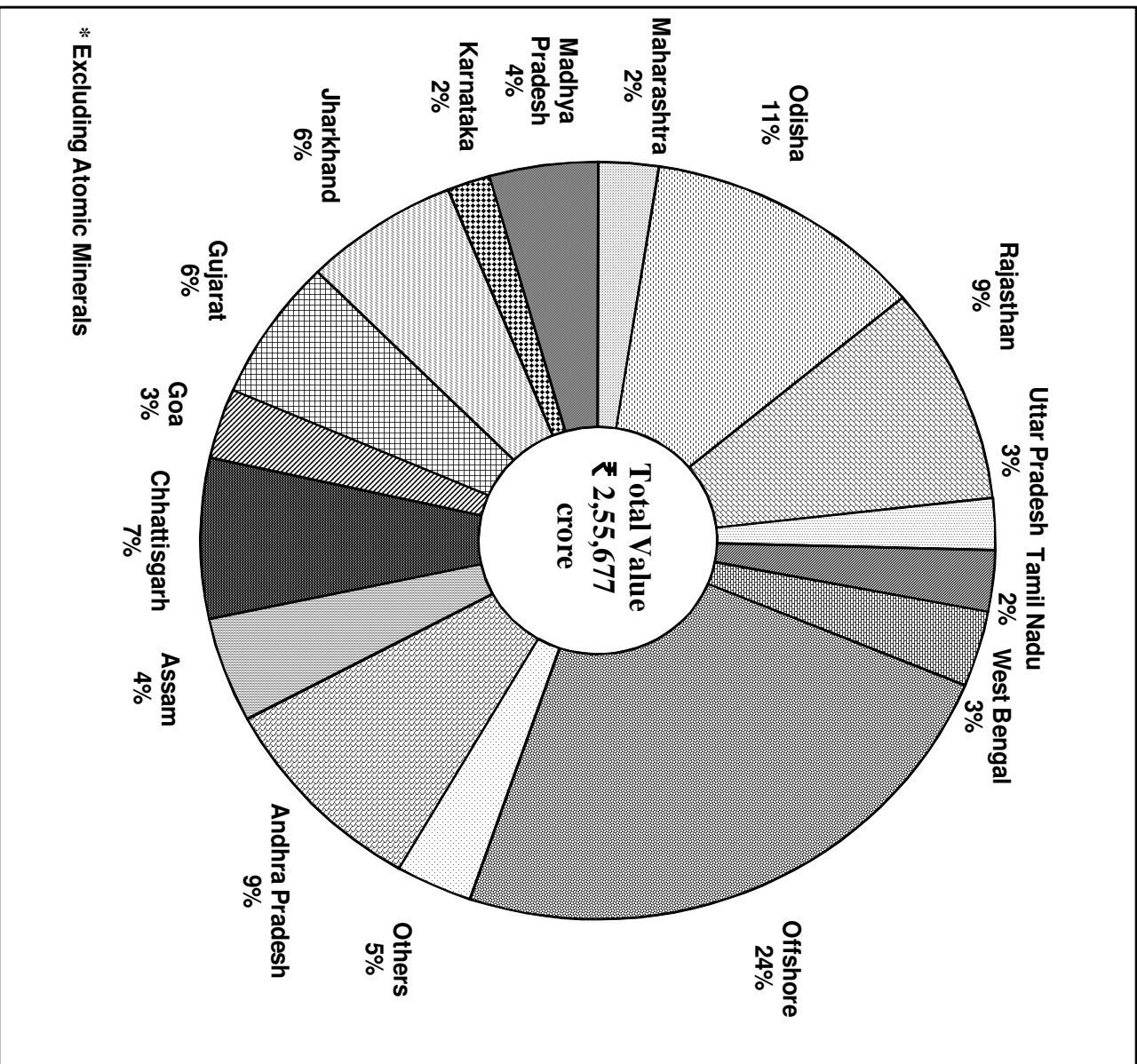
Table – 1 : Value* of Mineral Production, 2009-10 to 2011-12
(By States & Union Territories)

(In ₹ '000)

State/Union Territory/Region	2009-10	2010-11	2011-12(P)
India	1921084720	2494055063	2556772014
Andhra Pradesh	179548979	218645465	226568826
Arunachal Pradesh	3590280	3871683	4240695
Assam	100069898	107874779	114758020
Bihar	2838436	3461179	3333674
Chhattisgarh	100529786	136924511	174796027
Goa	58954591	81672198	76251731
Gujarat	138408667	155680516	154491820
Himachal Pradesh	1142505	1744796	1454063
Haryana	1487198	1487198	1487198
Jammu & Kashmir	737537	1477065	1501724
Jharkhand	128358703	205198846	161467101
Karnataka	60708085	92997859	44674235
Kerala	12114392	12790336	12783842
Manipur	2866	2866	2866
Meghalaya	21374850	26244680	49244220
Mizoram	6268	15332	15332
Madhya Pradesh	112878992	123469521	112572321
Maharashtra	58641888	63890822	62941524
Nagaland	1774	1774	1774
Odisha	171636707	259380019	292413433
Punjab	392267	422321	422321
Rajasthan	89016446	199853728	237517619
Sikkim	18787	18787	18787
Tamil Nadu	45157727	46756551	56360994
Tripura	2125606	3930818	4148452
Uttar Pradesh	42973146	47781553	66928948
Uttarakhand	867294	882009	880851
West Bengal	47461066	29954033	82726719
Andaman & Nicobar Islands	190464	170580	170580
Chandigarh	1650	3390	3390
Daman & Diu	587	587	587
Offshore	539847278	667449261	612592340

* Excluding atomic minerals.

Share of States in the Value* of Mineral Production, 2011-12



**Table – 2 : Value* of Mineral Production, 2010-11 and 2011-12
(By States & Union Territories/Mineral Groups)**

(In ₹'000)

State/Union Territory/ Region	Total		Fuel minerals		Metallic minerals		Non-metallic minerals		Minor minerals	
	2010-11	2011-12 (P)	2010-11	2011-12 (P)	2010-11	2011-12 (P)	2010-11	2011-12 (P)	2010-11	2011-12 (P)
India	2494055063	2556772014	1685812674	1754974835	476387940	469016162	53983130	54909698	277871319	277871319
Andhra Pradesh	218645465	226568826	95546631	104301408	1005046	1107688	11300040	10365982	110793748	110793748
Arunachal Pradesh	3871683	4240695	3505593	3874605	-	-	-	-	366090	366090
Assam	107874779	114758020	107424147	114330260	-	-	82772	59900	367860	367860
Bihar	3461179	3333674	-	-	-	-	319879	192374	3141300	3141300
Chhattisgarh	136924511	174796027	58256200	70740300	72517122	97724402	3361433	3541569	2789756	2789756
Goa	81672198	76251731	-	-	74924068	69503601	-	-	6748130	6748130
Gujarat	155680516	154491820	135773915	134691553	692303	430400	3472554	3628123	15741744	15741744
Haryana	1487198	1487198	-	-	-	-	-	-	1487198	1487198
Himachal Pradesh	1744796	1454063	-	-	-	-	1496292	1205559	248504	248504
Jammu & Kashmir	1477065	1501724	22400	42500	-	-	38434	42993	1416231	1416231
Jharkhand	205198846	161467101	185716200	139887600	18070477	20345830	1010721	832223	401448	401448
Karnataka	92997859	44674235	-	-	84398112	35658146	2138843	2555185	6460904	6460904
Kerala	12790336	12783842	-	-	-	-	517713	511219	12272623	12272623
Madhya Pradesh	123469521	112572321	93673600	83305500	7752490	7915050	5168209	4476549	16875222	16875222
Maharashtra	63890822	62941524	53628800	53112600	6866432	6155245	1268373	1546462	2127217	2127217
Manipur	2866	2866	-	-	-	-	-	-	2866	2866
Meghalaya	26244680	49244220	25796800	47739800	-	-	375805	1432345	72075	72075
Mizoram	15332	15332	-	-	-	-	-	-	15332	15332
Nagaland	1774	1774	-	-	-	-	-	-	1774	1774
Odisha	259380019	292413433	73545300	96399000	182949356	193479641	2028596	1678025	856767	856767
Punjab	422321	422321	-	-	-	-	-	-	422321	422321
Rajasthan	199853728	237517619	97848201	124565985	27203745	36678854	15188853	16659851	59612929	59612929
Sikkim	18787	18787	-	-	-	-	-	-	18787	18787
Tamil Nadu	46756551	56360994	40172175	49699856	8789	17305	5328030	5396276	1247557	1247557
Tripura	3930818	4148452	3904610	4122244	-	-	-	-	26208	26208
Uttar Pradesh	47781553	66928948	15122300	34369500	-	-	568562	468757	32090691	32090691
Uttarakhand	882009	880851	-	-	-	-	245642	244484	636367	636367
West Bengal	29954033	82726719	28426541	81199784	-	-	72379	71822	1455113	1455113
Andaman & Nicobar Islands	170580	170580	-	-	-	-	-	-	170580	170580
Daman & Diu	587	587	-	-	-	-	-	-	587	587
Chandigarh	3390	3390	-	-	-	-	-	-	3390	3390
Offshore	667449261	612592340	667449261	612592340	-	-	-	-	-	-

* Excluding atomic minerals.

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Table – 3 : Index of Mineral Production, 2010-11 and 2011-12
(By States*)

(Base 2004-05=100)

State/Region	2010-11	2011-12 (P)
India	131.06	128.45
Andhra Pradesh	137.36	138.63
Arunachal Pradesh	158.90	161.64
Assam	103.96	109.18
Bihar	370.30	221.98
Chhattisgarh	153.58	155.33
Goa	156.64	147.00
Gujarat	93.36	91.72
Himachal Pradesh	165.67	149.63
Jammu & Kashmir	82.67	92.49
Jharkhand	139.52	138.96
Karnataka	101.69	43.00
Kerala	193.68	176.17
Madhya Pradesh	134.35	133.61
Maharashtra	114.12	113.63
Meghalaya	132.70	140.66
Odisha	156.95	147.53
Rajasthan	165.69	179.63
Tamil Nadu	109.32	117.32
Tripura	122.98	129.84
Uttar Pradesh	92.43	96.05
Uttarakhand	141.42	128.60
West Bengal	91.87	102.76
OffShore	122.36	112.18

* Excluding atomic minerals and minor minerals.

Table – 4 : Number of Reporting Mines*, 2009-10 to 2011-12
(By States)

State	2009-10	2010-11	2011-12 (P)
India	3055	3118	3234
Andhra Pradesh	456	456	492
Arunachal Pradesh	1	1	1
Assam	11	11	10
Bihar	6	10	6
Chhattisgarh	152	167	187
Goa	75	79	73
Gujarat	446	429	380
Himachal Pradesh	26	24	24
Jammu & Kashmir	11	10	10
Jharkhand	299	297	289
Karnataka	233	251	185
Kerala	30	30	39
Meghalaya	9	10	13
Madhya Pradesh	287	317	367
Maharashtra	158	161	154
Odisha	220	192	174
Rajasthan	289	308	377
Sikkim	-	-	-
Tamil Nadu	175	192	278
Uttar Pradesh	25	24	23
Uttarakhand	34	40	35
West Bengal	112	109	117

* Excluding atomic minerals and minor minerals.

Table – 5 : Reserves/Resources of Minerals as on 1.4.2010 : India

Mineral	Unit	Reserves					Remaining resources					Total resources (A+B)		
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333		Reconnaissance STD334	Total (B)
			STD121	STD122			STD221	STD222						
Andalusite	'000 tonnes	-	-	-	-	-	-	-	-	-	18450	-	18450	18450
Antimony Ore	tonne	-	-	-	-	-	-	-	-	-	10588	-	10588	10588
Metal	tonne	-	-	-	-	-	-	-	-	-	174	-	174	174
Apatite	tonne	2088536	-	1680	2090216	-	-	1225345	2281521	11481250	6132768	1017646	22138530	24228746
Asbestos	tonne	1700152	4588	806101	2510841	109641	3072849	3257941	100687	2527918	10528926	57800	19655762	22166603
Ball clay	tonne	12292820	350832	4134190	16777842	6122450	3906958	12387575	268486	2279330	41650863	-	66615662	83393504
Barytes	tonne	29557972	90844	1935312	31584128	179447	4288189	2608562	207384	1269214	32491229	105721	41149746	72733874
Bauxite	'000 tonnes	321258	89223	182457	592938	105894	245091	274165	655673	431006	1155570	19283	2886682	3479620
Bentonite	tonne	-	11415982	13644526	25060508	-	3067	-	26519818	225744237	265309715	25730000	543306838	568367346
Borax	tonne	-	-	-	-	-	-	-	-	-	-	74204	74204	74204
Calcite	tonne	1265135	38525	1360678	2664338	665454	227265	3126218	9122235	1236864	3805598	97476	18281110	20945448
China clay	'000 tonnes	124118	11034	42006	177158	24543	22980	71270	284781	412852	1651286	60338	2528049	2705207
Chromite	'000 tonnes	31652	7165	15153	53970	1371	1407	4431	31787	36525	52497	21359	149376	203346
Cobalt ore	million tonnes	-	-	-	-	-	-	-	30.63	2	0.28	12	44.91	44.91
Copper Ore	'000 tonnes	133388	127100	133884	394372	15781	21323	12429	147989	224976	741588	-	1164086	1558458
Metal	'000 tonnes	1604.73	1508.36	1655.24	4768.33	213.01	223.01	23.45	1453.04	1686.84	3918.99	-	7518.34	12286.67
Corundum	tonne	-	310	288	598	5824	763	115167	13	38	92389	526000	740194	740792
Chalk	'000 tonnes	3266	537	528	4332	184	5	127	-	-	269	-	585	4917
Diamond	carat	1045318	-	-	1045318	-	-	-	304601	1524317	29047514	-	30876432	31921750
Diaspore	tonne	1469687	1106296	283691	2859674	187821	714316	488395	248880	133360	1306306	46068	3125144	5984818
Diatomite	'000 tonnes	-	-	-	-	634	-	-	-	-	2251	-	2885	2885
Dolomite	'000 tonnes	431567	157442	149176	738185	149971	227173	316967	268726	687617	5189186	152732	6992372	7730557
Dunite	'000 tonnes	14894	-	2243	17137	130	4717	107597	24516	1164	21471	8637	168231	185368
Felspar	tonne	24545334	8278221	11679685	44503240	14672107	4427797	12967154	4191330	9874858	41549070	149895	87832212	132335451
Fireclay	'000 tonnes	14376	7358	8371	30104	10020	19215	21775	47666	54377	529173	1190	683415	713519
Fluorite	tonne	4566234	-	146082	4712316	673889	745390	529966	1713833	6218421	3474906	145183	13501588	18213904
Fuller's earth	tonne	-	-	58200	58200	-	-	-	-	912340	255681539	-	256593879	256652079
Garnet	tonne	3252107	4712202	11360484	19324793	9270	81901	207041	117887	10226689	26995243	-	37638032	56962824
Gold Ore (primary)	tonne	16045673	7215335	863529	24124537	1823133	790000	1104647	38101248	70154052	213408962	144188333	469570375	493694912
Metal (primary)	tonne	71.02	31.77	7.75	110.54	5.54	2.49	4.35	144.47	143.92	188.22	60.31	549.30	659.84
Ore (placer)	tonne	-	-	-	-	-	-	-	-	2552000	23569000	-	26121000	26121000
Metal (placer)	tonne	-	-	-	-	-	-	-	-	2.29	3.57	-	5.86	5.86

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STATE REVIEWS

(Contd.)

Table - 5 (Contd.)

Mineral	Unit	Reserves					Remaining resources						Total resources (A+B)	
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334		Total (B)
			STD121	STD122			STD221	STD222						
Granite	'000 cu m	35741	201377	26574	263692	38462	51990	8234	837325	2063964	42499338	467296	45966608	46230300
Graphite	'000 tonnes	3685172	2266174	2080518	8031864	102173	1409511	3078665	224859	6603670	19736371	135662532	166817781	174849645
Gypsum	'000 tonnes	22494	239	16363	39096	8502	73651	17659	8455	710853	428272	10	1247402	1286498
Iron ore														
Hematite	'000 tonnes	5982042	1173324	938180	8093546	515353	756190	494738	540188	1197539	3942673	2341870	9788551	17882098
Magnetite	'000 tonnes	15973	3672	2111	21755	189478	1714	50816	1513168	1984566	6313583	568980	10622305	10644060
Kyanite	tonne	551529	524485	498839	1574853	322622	25917	1238407	578607	3590902	95914312	-	101670767	103245620
Laterite	'000 tonnes	13936	2172	8607	24714	1830	60	2625	-	1107	230865	209632	446119	470833
Lead & zinc														
Ore	'000 tonnes	20215	87569	1196	108980	129	1077	3983	21433	221601	325051	3340	576614	685594
Lead metal	'000 tonnes	398.42	1817.89	28.70	2245.01	-	34.32	50.95	472.37	2915.70	5831.04	-	9304.38	11549.39
Zinc metal	'000 tonnes	1938.37	10460.72	54.17	12453.26	5.20	4.71	86.91	1168.96	9607.12	13237.09	101.65	24211.64	36664.90
Lead & zinc metals	'000 tonnes	-	-	-	-	-	-	-	-	-	118.45	-	118.45	118.45
Limestone	'000 tonnes	8978583	3650574	2297234	14926392	1827583	3739470	6309489	6858999	22040640	124835558	4396981	170008720	184935112
Magnesite	'000 tonnes	20851	7786	13313	41950	1776	2244	32326	59010	59652	138169	45	293222	335172
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	97425	11590	32962	141977	23529	27594	51074	5732	23726	151704	4644	288003	429980
Molybdenum														
Ore	tonne	-	-	-	-	-	1500000	-	36000	569304	17013628	167800	19286732	19286732
Contained MoS ₂	tonne	-	-	-	-	-	1050	-	83	287	11169	50	12640	12640
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	20697294	3352994	10728362	34778650	26826747	21273335	24226125	2912633	3549750	182717111	-	261505701	296284351
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

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STATE REVIEWS

(Contd.)

Table - 5 (Concl'd)

Mineral	Unit	Reserves				Remaining resources								Total (B)	Total Resources (A+B)
		Proved STD111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334			
			STD121	STD122			STD221	STD222							
Shale	'000 tonnes	14992	76	263	15331	-	-	245	-	-	252	83	580	15911	
Sillimanite	tonne	1693000	1602228	789824	4085052	317869	124000	20082855	4579816	17795772	16152473	3849600	62902385	66987437	
Silver\	tonne	46109414	17655843	123793411	187558668	3375000	1048700	5404862	11140000	86286000	172171729	-	279426291	466984959	
Ore	tonne	1591.85	1949.65	4498.07	8039.57	270.00	27.60	54.30	1045.40	6212.66	11978.72	-	19588.68	27628.25	
Metal	tonne	-	-	113	1187	-	-	1069	-	2369	2369	-	-	-	
Slate	'000 tonn	-	-	113	1187	-	-	1069	-	2369	2369	-	-	-	
Sulphur (Native)	'000 tonnes	-	-	-	-	-	-	-	-	-	210	-	210	210	
Talc/ steatite/ soapstone	'000 tonnes	54615	8772	26640	90026	9732	12773	27080	6403	7256	115195	558	178996	269023	
Tin	tonne	4404	1015	1713	7131	22592692	2326	31330000	168622	561080	29064345	-	83719066	83726197	
Ore	tonne	925.75	189.76	16.92	1132.43	32222.43	652.89	54032.8	894.91	231.63	13107.75	-	101142.41	102274.84	
Metal	tonne	-	-	-	-	-	-	-	-	-	-	-	-	-	
Titanium	tonne	15271219	4274178	2484826	22030223	5198882	151888	-	2046780	50177023	314391121	-	371965694	393995917	
Minerals*	tonne	13369586	4090393	2209232	19669211	4970726	151888	-	1090326	39870981	269835940	-	315919861	335589072	
Ilmenite	tonne	933502	183785	132553	1249840	228156	-	-	4460	3331042	8584030	-	12147688	13397528	
Rutile	tonne	674592	-	25625	700217	-	-	-	1994	-	341949	-	343943	1044160	
Leucoxene	tonne	-	-	-	-	-	-	-	-	-	-	-	3345000	3345000	
Anatase	tonne	293539	-	117416	410955	-	-	-	950000	3630000	35629202	-	40209202	40620157	
Titaniferous Magnetite	tonne	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tungsten	tonne	-	-	-	-	2230000	-	173063	19611152	23435954	25356049	16581246	87387464	87387464	
Ore	tonne	-	-	-	-	-	-	-	-	-	-	-	-	-	
Contained WO ₃	tonne	-	-	-	-	3568	-	450	9914	20180.92	103415.15	4566.28	142094.35	142094.35	
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.

The proved and indicated recoverable reserves of crude oil and natural gas as on 1.4.2012 in India are 759.59 million tonnes and 1330.26 billion cu m, respectively.

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

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STATE REVIEWS