

PRODUCTION



Indian Minerals Yearbook 2015

(Part- I : GENERAL REVIEWS)

54th Edition

PRODUCTION

(FINAL RELEASE)

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

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MINERALS

The total value of mineral production (excluding atomic minerals and also excluding value for February and March in respect of 31 minerals notified as minor minerals w.e.f. 10.02.2015) at ₹ 2,80,332 crore during 2014-15 increased marginally by 1% as compared to the previous year due to increase in the production of coal, lignite, lead concentrate, zinc concentrate, laterite, limestone, magnesite and ochre. The increase in value of mineral is also due to increase in average prices of important minerals like bauxite, sillimanite and wollastonite.

Out of the total value of mineral production, the fuel minerals contributed the major share of about ₹ 1,93,372 crore or 69%. The rest was accrued by metallic minerals ₹ 38,597 crore or about (14%), non-metallic minerals ₹ 7,323 crore or about (3%) and minor minerals ₹ 41,040 crore or about (15%) (Table-1).

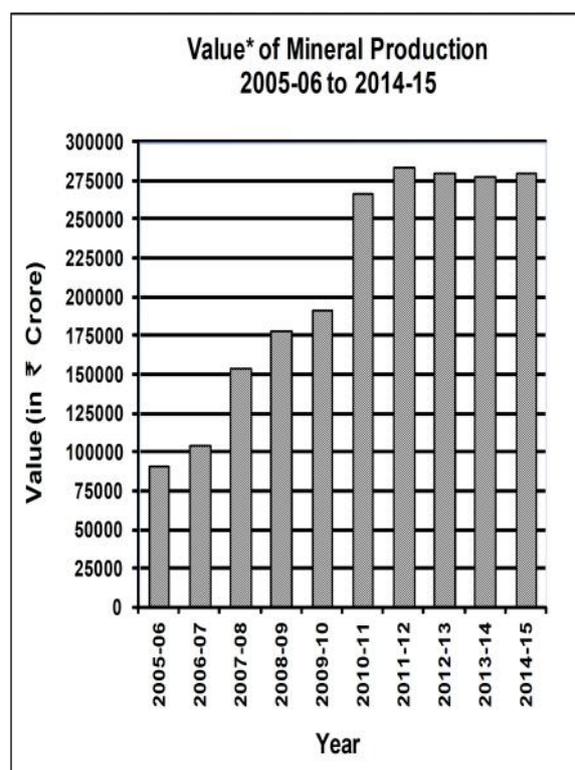
Fuel Minerals

The production value of fuel minerals in 2014-15 at ₹ 1,93,372 crore increased by about 3.7% as compared to the preceding year. The production of **coal** at 609 million tonnes during 2014-15 increased by about 7.7% as compared to the previous year. Chhattisgarh, Jharkhand, Odisha, Madhya Pradesh, Telangana, Maharashtra, West Bengal and Uttar Pradesh continue to be the principal producing states accounting for almost entire production of coal in the country during 2014-15. While, Meghalaya Assam, Arunachal Pradesh and Jammu & Kashmir together reported less than 1% production. The production of **lignite** at 48.3 million tonnes registered an increase of 9% over the previous year and 25.2 million tonnes or 52% of the output was reported from Tamil Nadu while the remaining production of 23.1 million tonnes or 48% was reported from Gujarat and Rajasthan. The production of **petroleum (crude)** at about 37 million tonnes decreased marginally during 2014-15 as compared to the previous year. Offshore regions remain the largest producing area and contributed 51% of total production of petroleum (crude) followed by

Rajasthan 24%, Gujarat and Assam 12% each. The remaining by other few states. During 2014-15 production of **natural gas (utilised)** was reported at 33,656 m cu m which showed a decrease of about 5% as compared to the previous year. Offshore region, the largest source for natural gas in the country accounted for 74% of the total production and by Assam 9 percent. The remaining was contributed by other few states.

Metallic Minerals

The production value of metallic minerals in 2014-15 at ₹ 38,597 crore decreased by about 9% over the previous year due to lower production reported in chromite, copper concentrates, gold (primary), iron ore, manganese ore, silver and tin concentrates. Among the principal metallic minerals, iron ore contributed ₹ 28,534 crore or 74%, lead (concentrates) & zinc (concentrates) together ₹ 3,703 crore or 10%, chromite ore ₹ 1,819 crore or about 5%, manganese ore ₹ 1,363 crore or about 4%, silver ₹ 1,195 crore or 3%, bauxite ₹ 1,077 crore or 3% and the remaining value was from copper concentrates, gold and tin concentrates.



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The production of **iron ore** at about 129 million tonnes in 2014-15 decreased by 15% over the previous year. Almost entire production of iron ore (94%) was contributed from Odisha (40%), Chhattisgarh (23%), Karnataka (16%) and Jharkhand (15%) during the year. The remaining production was reported from Andhra Pradesh, Madhya Pradesh, Maharashtra, Rajasthan and Telangana.

The production of **chromite** at 2.16 million tonnes in 2014-15 decreased by 25% as compared to the previous year. Odisha reported almost entire output of chromite in the country. A nominal production was reported from Karnataka. The production of **copper ore** at 3.59 million tonne was 5% lower while that of **copper concentrate** at 108 thousand tonnes in 2014-15 decreased by 23% as compared to the previous year. Average metal content in copper conc. was 23.13% Cu. The production of **manganese ore** at 2.35 million tonnes in 2014-15, decreased by about 11% as compared to that in the previous year. Of the total production of manganese ore in 2014-15, Madhya Pradesh contributed 38%, Maharashtra 29%, Odisha 14%, Andhra Pradesh 11% and Karnataka 8% while a nominal quantity was reported from Jharkhand, Rajasthan and Telangana too.

The production of **gold** at 1,440 kg (excluding gold recovery from imported concentrates) in 2014-15 was lower by 8% as compared to the previous year. Karnataka was the leading producer of gold accounting for almost entire output. A nominal quantity was also reported from Jharkhand. The production of **bauxite** at 22.23 million tonnes in 2014-15 decreased marginally as compared to the previous year. During the year under review, Odisha accounted for 42% of the total output followed by Gujarat 25%, Maharashtra 12%, Jharkhand 9%, Chhattisgarh 7% and Madhya Pradesh 4 percent. The remaining production was reported from Goa, Karnataka and Tamil Nadu. During 2014-15, the production of **lead concentrate** at 198 thousand tonnes increased by about 2% and that of **zinc concentrate** at 1,502 thousand tonnes increased marginally over the previous year. Average metal content in lead concentrate was 56.29% Pb and in zinc concentrate it was 51.48% Zn. Rajasthan was the only state reporting production of lead concentrate and zinc concentrate during 2014-15.

Non-Metallic Minerals

The value of production of non-metallic minerals at ₹ 7,323 crore during 2014-15 decreased by 3% as compared to the previous year. Limestone with a contribution of 71% of the total

value of non-metallic minerals, retained its leading position in 2014-15 in the group. The other important non-metallic minerals in value terms, were phosphorite/rock phosphate (5%) and barytes (4%).

The production of **limestone** at 293 million tonnes in 2014-15 increased by 4% over the previous year. Limestone is widely produced in 18 states of the country. As much as 87% of the total output in 2014-15 was contributed by eight principal states viz. Rajasthan (21%), Madhya Pradesh (13%), Andhra Pradesh (12%), Gujarat (9%), Karnataka, Telangana, Chhattisgarh and Tamil Nadu (8% each). The remaining 13% of the total production was shared by other limestone producing states.

The production of **phosphorite/rock phosphate** at 1,580 thousand tonnes increased by 9% in 2014-15 as compared to the previous year. The Jhamarkotra mine of Rajasthan State Mines & Minerals Ltd in Rajasthan reported 86% of the total production of phosphorite/rock phosphate during 2014-15. The production of **magnesite** at 276 thousand tonnes during 2014-15 increased by 40% as compared to the previous year.

Reporting Mines

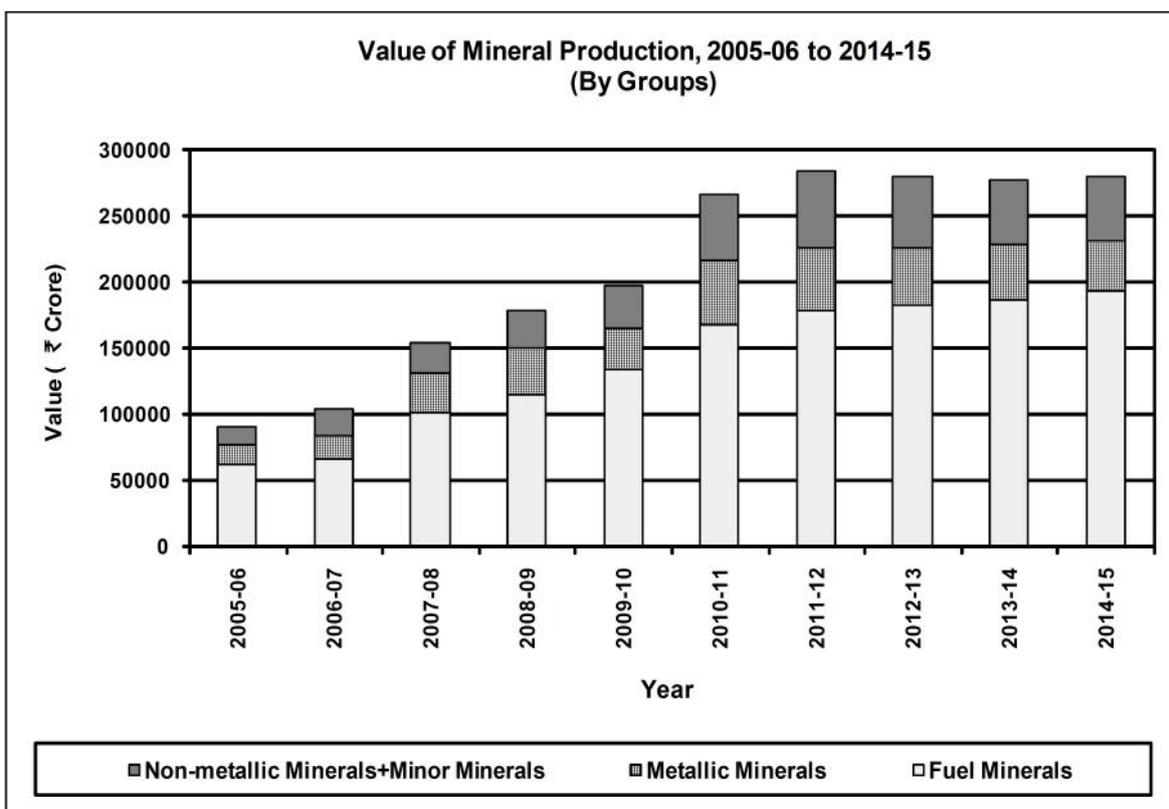
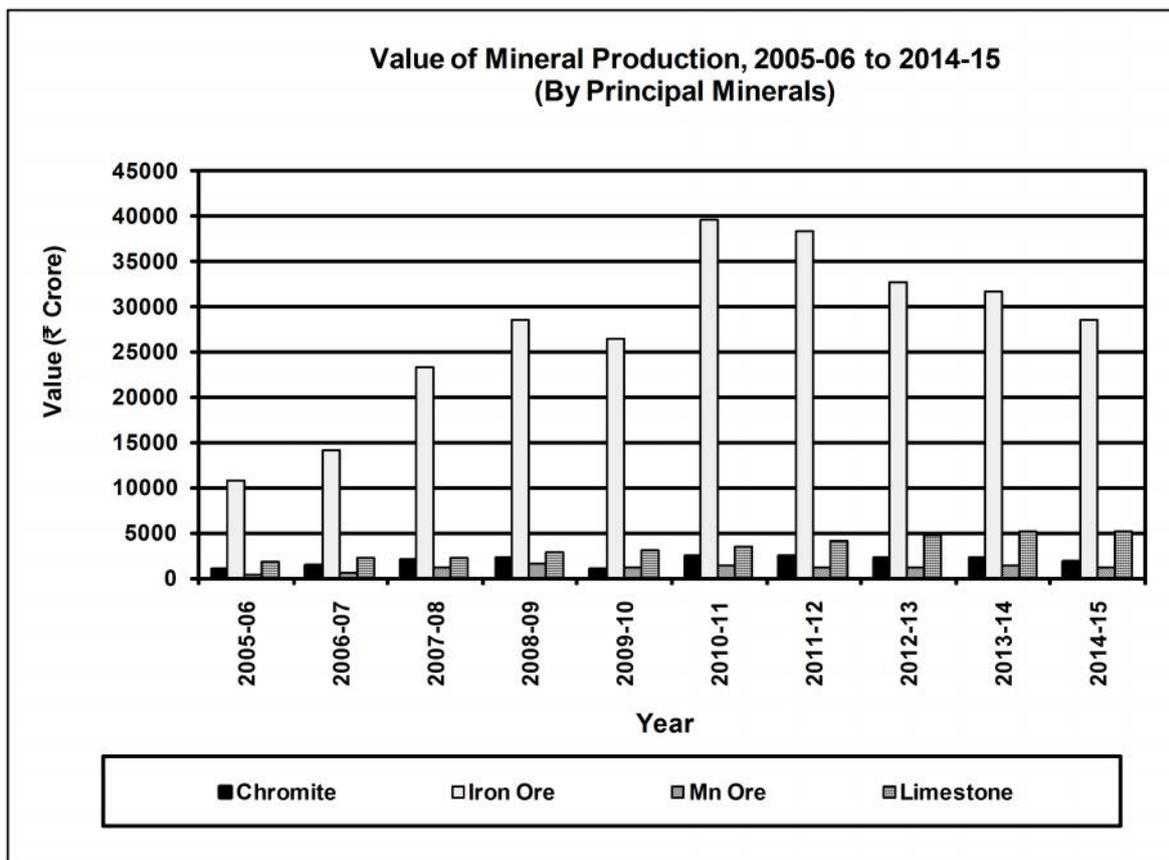
Reporting mine is defined as “A mine reporting production or reporting ‘nil’ production during a year but engaged in developmental work such as, overburden removal, underground driving, winzing, sinking work, exploration by pitting, trenching or drilling as evident from the MCDR returns”.

There were 3,529 reporting mines (excluding atomic & minor minerals and petroleum (crude) & natural gas) in India located in 23 states during 2014-15. Among them, 558 mines belonged to coal & lignite, 637 to metallic minerals and 2,334 to non-metallic minerals. There were 732 mines in public sector and the rest of 2,797 mines were in private sector.

Employment

The estimated average daily employment of labour engaged in mining sector (excluding atomic and minor minerals) was 5,08,925 in 2014-15. Of this, 3,92,702 or 77% were in public sector and 1,16,223 or 23% in private sector. Fuel minerals accounted for 75%, metallic minerals 15% and non-metallic minerals 10% of the total labour force during the year.

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**Table - 1 : Mineral* Production in India, 2012-13 to 2014-15
(By Mineral Groups & Minerals)**

(Value ₹'000)

Mineral	Unit	2012-13		2013-14		2014-15* (P)	
		Quantity	Value	Quantity	Value	Quantity	Value
All Mineral			2800056812		2774133089		2803324353
Fuel Mineral			1826892354		1864669332		1933720761
Coal	'000t	556400	747186600	565800	825347500	609200	892871700
Lignite	'000t	46500	55114100	44300	59675300	48300	81627000
Natural gas (utilised)	m c m	40679	336420537	35407	292820422	33656	278339428
Petroleum (crude)	'000t	37862	688171117	37788	686826110	37461	680882633
Metallic Mineral			431639230		423899538		385965710
Bauxite	t	16507960	7960767	22319148	9996894	22226062	10769338
Chromite	t	2833895	22627633	2878320	23759458	2163942	18185545
Copper ore	t	3635751	-	3777772	-	3586028	-
Copper conc.	t	123654	6288969	139307	6681011	107541	5445661
Gold ore	t	502831	-	420429	-	448671	-
Gold	kg	1588	5172517	1564	4225317	1440	3607600
Iron ore	'000t	136618	328244402	152183	316491777	128909	285336637
Lead & zinc ore	t	8633411	-	9281807	-	9346349	-
Lead conc.	t	184486	3300883	194426	4372536	197668	5596580
Zinc conc.	t	1492781	23948683	1490662	27389284	1501586	31436595
Manganese ore	t	2342169	12836200	2626291	15181757	2345361	13625514
Silver	kg	374046	21234214	349774	15778713	327647	11947042
Tin conc.	kg	47774	24962	34862	22791	24689	15198
Non-Metallic Mineral			74679799		75160537		73234200
Agate	t	493	247	100	50	-	-
Apatite	t	572	1208	1300	2768	930	2021
Phosphorite	t	1941158	6807233	1453580	4754755	1579561	3905087
Asbestos	t	389	17057	172	7271	-	-
Ball clay	t	1750559	780732	2130995	1055362	1910060	920542
Barytes	t	1789431	5314116	1170522	3561386	910963	2693456
Calcite	t	74488	27309	92122	32620	91783	34079
Chalk	t	175516	88301	142696	72900	94467	49974
Clay (others)	t	2680726	353628	2506662	382002	2248184	384286
Corundum	kg	5000	75	-	-	-	-
Diamond	crt	31988	366471	37517	614087	35724	613504
Diaspore	t	16222	25742	14599	29166	12207	25480
Dolomite	t	7233958	2618906	7310599	2683923	6209476	2251761
Dunite	t	88274	92841	64917	97848	75050	108474
Felspar	t	1459008	428633	1512982	439282	1343366	360546
Fireclay	t	999925	182739	920809	185684	712792	131090
Felsite	t	1266	909	551	475	324	242
Fluorite	t	3092	13818	2487	11402	2947	13849
Flint Stone	t	633	192	459	136	294	59
Garnet (abrasive)	t	768248	924683	483559	1113231	78924	702729
Graphite (r.o.m.)	t	134735	84133	146390	102471	116512	76535
Gypsum	t	3556723	1699808	3115363	1545061	2477849	1283871
Kaolin	t	4258697	1157392	4853420	1240484	3861380	1100154

(Contd.)

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Table - 1 (Concl'd.)

Mineral	Unit	2012-13		2013-14		2014-15 (P)	
		Quantity	Value	Quantity	Value	Quantity	Value
Kyanite	t	1048	1248	3679	8071	6260	10716
Sillimanite	t	43736	352062	67265	408247	66025	470599
Laterite	t	4224842	736542	3475368	687807	4650597	888225
Limestone	'000t	285030	47973173	280863	51332006	292810	52117464
Lime Kankar	t	192426	43564	140088	28435	111382	21089
Limeshell	t	24044	41930	18750	35162	16150	36183
Magnesite	t	224315	459178	196940	445622	275678	668139
Marl	t	4337009	269366	3254486	280571	2179489	256240
Mica (crude)	t	1256	39963	1660	47838	636	21892
Mica (waste & scrap)**	t	16255	-	19752	-	11852	-
Ochre	t	1833783	582998	1580675	495087	2203708	816164
Pyrophyllite	t	247968	156004	224677	186193	147431	121085
Pyroxenite	t	58562	17980	2985	806	-	-
Quartz	t	1384155	341129	1488743	392258	1381406	351054
Quartzite	t	501399	276777	584235	342453	583095	325692
Silica Sand	t	4303883	1002046	3724241	966210	3047485	877497
Moulding Sand	t	3118	564	29963	4877	6383	1672
Sand (others)	t	2638424	201821	2577869	244899	2100563	243975
Shale	t	3067718	165924	3006945	170761	2792904	224542
Slate	t	278	263	351	332	218	197
Steatite	t	971778	888390	887925	983272	774281	950316
Selenite	t	7577	10226	531	706	207	456
Sulphur***	t	449004	-	390325	-	429258	-
Vermiculite	t	7947	5010	11851	9470	15327	11094
Wollastonite	t	145667	127468	192712	157090	186519	162170
Minor Minerals@		-	466845429	-	410403682	-	410403682

* Excluding the minerals declared as prescribed substances under the Atomic Energy Act, 1962.

: Excludes the data of 31 minerals for February and March 2015, declared as minor minerals vide notification dated 10th February 2015.

** Includes mine waste and waste obtained while dressing of crude mica at the mine site.

*** Obtained as by-product from fertilizer plants and oil refineries.

@ Figures for earlier years have been repeated as estimates, wherever necessary, because of non-receipt of data.

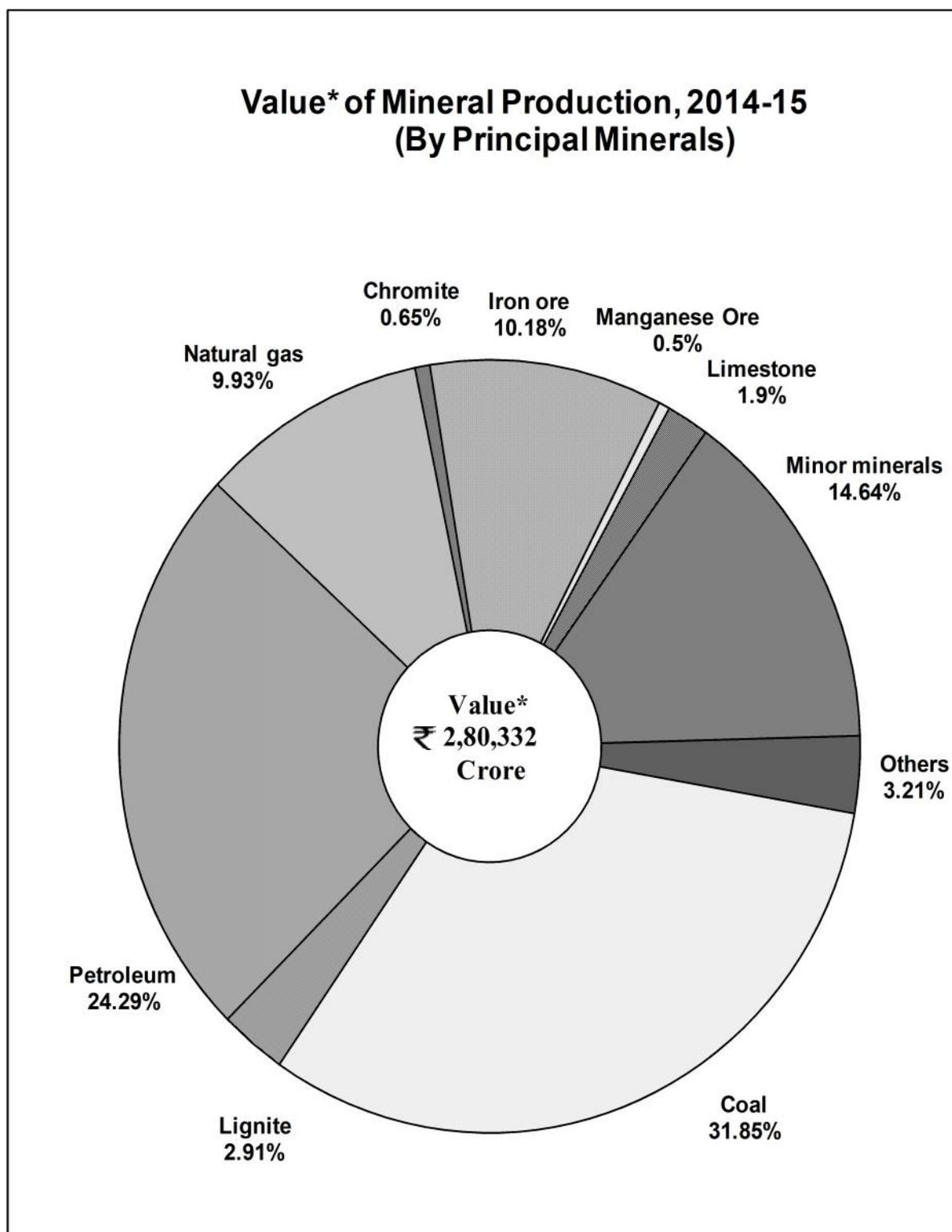
Role of Public Sector

The value of mineral production (excluding atomic minerals and the value for February and March 2015 in respect of 31 minerals notified as minor minerals w.e.f. 10.02.2015) in public sector was at ₹ 1,74,806 crore or 62% in the overall value of mineral production in 2014-15. The share of public sector in the total value of fuel minerals was 80%, in metallic minerals 46% and 18% in non-metallic minerals during the year.

The entire production of copper ore & conc. among metallic minerals and diamond, fluorite, selenite and sulphur in respect of non-metallic minerals was reported from the public sector. By and large, the entire production of lignite, gold (primary), gypsum and sand (others) came from public sector during 2014-15. Public Sector also had a sizeable contribution in production of coal and tin conc. (93% each), phosphorite/rock phosphate (91%), barytes (90%), natural gas (ut.) (74%), petroleum (crude) (69%) graphite (62%) and magnesite (60%) (Table-2).

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**Value* of Mineral Production, 2014-15
(By Principal Minerals)**



* Excluding the minerals declared as prescribed substances under the Atomic Energy Act, 1962.

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**Table - 2 : Mineral Production (Quantity), 2013-14 and 2014-15
(By Sectors)**

Mineral	Unit	All India		Public sector		Private sector		% share of public sector in total production		Overall increase (+) or decrease (-) in production in 2014-15 over 2013-14(%)
		2013-14	2014-15*(P)	2013-14	2014-15*(P)	2013-14	2014-15*(P)	2013-14	2014-15*(P)	
Fuel Minerals										
Coal	'000 t	565800	609200	528100	567032	37700	42168	93.34	93.08	7.67
Lignite	'000 t	44300	48300	44110	48100	190	200	99.57	99.57	9.01
Natural gas (utilised)	m.c.m.	35407	33656	25910	24744	9497	8912	73.18	73.52	-4.95
Petroleum (crude)	'000 t	37788	37461	25711	25676	12077	11785	68.04	68.54	-0.87
Metallic Minerals										
Bauxite	tonne	22319148	22226062	6690534	6349879	15628614	15876183	29.98	28.57	-0.42
Chromite	tonne	2878320	2163942	692221	795052	2186099	1368890	24.05	36.74	-24.82
Copper conc.	tonne	139307	107541	139307	107541	-	-	100.00	100.00	-22.80
Copper ore	tonne	3777772	3586028	3777772	3586028	-	-	100.00	100.00	-5.08
Gold (Total)	kg	1564	1440	1556	1429	8	11	99.49	99.24	-7.93
Gold ore	tonne	420429	448671	412877	444439	7552	4232	98.20	99.06	6.72
Iron ore (Total)	'000 t	152183	128909	58690	59472	93493	69437	38.57	46.13	-15.29
Lead & zinc ore	tonne	9281807	9346349	-	-	9281807	9346349	-	-	0.70
Lead conc.	tonne	194426	197668	-	-	194426	197668	-	-	1.67
Manganese ore	tonne	2626291	2345361	1148511	1154976	1477780	1190385	43.73	49.25	-10.70
Silver	kg	349774	327647	154	139	349620	327508	0.04	0.04	-6.33
Tin conc.	kg	34862	24689	33275	23001	1587	1688	95.45	93.16	-29.18
Zinc conc.	tonne	1490662	1501586	-	-	1490662	1501586	-	-	0.73
Non-Metallic Minerals										
Agate	tonne	100	-	-	-	100	-	-	-	-
Apatite	tonne	1300	930	-	-	1300	930	-	-	-28.46
Asbestos	tonne	172	-	-	-	172	-	-	-	-
Ball clay	tonne	2130995	1910060	4464	760	2126531	1909300	0.21	0.04	-10.37
Barytes	tonne	1170522	910963	1066797	818561	103725	92402	91.14	89.86	-22.17
Calcite	tonne	92122	91783	-	-	92122	91783	-	-	-0.37
Chalk	tonne	142696	94467	-	-	142696	94467	-	-	-33.80
Clay (others)	tonne	2506662	2248184	-	-	2506662	2248184	-	-	-10.31
Diamond	carat	37517	35724	37517	35724	-	-	100.00	100.00	-4.78
Diaspore	tonne	14599	12207	-	-	14599	12207	0.00	0.00	-16.38
Dolomite	tonne	7310599	6209476	2062455	1457073	5248144	4752403	28.21	23.47	-15.06
Dunite	tonne	64917	75050	53188	32763	11729	42287	81.93	43.65	15.61
Felsite	tonne	551	324	-	-	551	324	-	-	-41.20
Felspar	tonne	1512982	1343366	19021	17855	1493961	1325511	1.26	1.33	-11.21
Fireclay	tonne	920809	712792	5917	2965	914892	709827	0.64	0.42	-22.59
Flourite graded	tonne	2487	2947	2487	2947	-	-	100.00	100.00	18.50
Flint stone	tonne	459	294	-	-	459	294	-	-	-35.95

(Contd.)

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Table - 2 (Concl'd.)

Mineral	Unit	All India		Public sector		Private sector		% share of public sector in total production		Overall increase (+) or decrease (-) in production in 2014-15 over 2013-14(%)
		2013-14	2014-15 [#]	2013-14	2014-15 [#]	2013-14	2014-15 [#]	2013-14	2014-15 [#]	
Garnet (abrasive)	tonne	483559	78924	25269	22396	458290	56528	5.23	28.38	-83.68
Graphite R.O.M.	tonne	146390	116512	87995	71706	58395	44806	60.11	61.54	-20.41
Gypsum	tonne	3115363	2477849	3080239	2439821	35124	38028	98.87	98.47	-20.46
Kaolin (Total)	tonne	4853420	3861380	7832	4913	4845588	3856467	0.16	0.13	-20.44
Kyanite	tonne	3679	6260	142	-	3537	6260	3.86	-	70.15
Laterite	tonne	3475368	4650597	158953	110216	3316415	4540381	4.57	2.37	33.82
Lime Kankar	tonne	140088	111382	-	-	140088	111382	-	-	-20.49
Limeshell	tonne	18750	16150	8390	3263	10360	12887	44.75	20.20	-13.87
Limestone	'000 t	280863	292810	11635	11877	269228	280933	4.14	4.06	4.25
Magnesite	tonne	196940	275678	121609	164567	75331	111111	61.75	59.70	39.98
Marl	tonne	3254486	2179489	-	-	3254486	2179489	-	-	-33.03
Mica (crude)	kg	1660	636	-	-	1660	636	-	-	-61.71
Mica (waste & scrap)	kg	19752	11852	-	-	19752	11852	-	-	-39.99
Moulding sand	tonne	29963	6383	-	-	29963	6383	-	-	-78.70
Ochre	tonne	1580675	2203708	-	-	1580675	2203708	-	-	39.42
Phosphorite/ Rock phosphate	tonne	1453580	1579561	1273586	1437988	179994	141573	87.62	91.04	8.67
Pyrophyllite	tonne	224677	147431	2971	820	221706	146611	1.32	0.56	-34.38
Pyroxenite	tonne	2985	-	-	-	2985	-	-	-	-
Quartz	tonne	1488743	1381406	11676	11262	1477067	1370144	0.78	0.82	-7.21
Quartzite	tonne	584235	583095	-	-	584235	583095	-	-	-0.20
Sand (others)	tonne	2577869	2100563	2572038	2093331	5831	7232	99.77	99.66	-18.52
Shale	tonne	3006945	2792904	24100	45500	2982845	2747404	0.80	1.63	-7.12
Silica Sand	tonne	3724241	3047485	149501	111821	3574740	2935664	4.01	3.67	-18.17
Sillimanite	tonne	67265	66025	16914	26276	50351	39749	25.15	39.80	-1.84
Selenite	tonne	531	207	531	207	-	-	100.00	100.00	-61.02
Slate	tonne	351	218	-	-	351	218	-	-	-
Steatite	tonne	887925	774281	-	-	887925	774281	-	-	-12.80
Sulphur	tonne	390325	429258	390325	429258	-	-	100.00	100.00	9.97
Vermiculite	tonne	11851	15327	2201	2201	9650	13126	18.57	14.36	29.33
Wollastonite	tonne	192712	186519	-	-	192712	186519	-	-	-3.21

: Excludes the data of 31 minerals for February and March 2015, declared as minor minerals vide notification dated 10th February 2015.

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Minor Minerals

The value of minor minerals at ₹ 41,040 crore in 2013-14 was lower by 12% as compared to that in the previous year.

Andhra Pradesh with a share of 31.9% in total value of minor minerals produced in the country occupied the top position. Rajasthan with a share of 17.7% in the value of minor minerals was at second place. Next in the order were Gujarat 15.1%, Uttar Pradesh 13.1%, Karnataka 4.9%, Madhya Pradesh 4%, Kerala 3.6%, Maharashtra 2.6%, Chhattisgarh & Goa 1.5% each and Tamil Nadu & Bihar about 1.0% each. The other states and UTs with individual contribution of less than 1% accounted for the remaining value of minor minerals.

Mineral-wise analysis revealed that granite had the largest share of 20% of the total value of minor minerals followed by road metal 19.2%, brickearth 15.3%, other building stone 11.6%, ordinary sand 8.2%, boulder 4.2%, marble 3.8%, gravel 3.7%, limestone 3.3%, murram 2.6%, ordinary earth 2.3%, kankar 1.8%, quartzite & sandstone 1.6%. The remaining minerals with individual share of less than 1.0%, together contributed 2.4% of value of minor minerals.

The share of minor minerals in the value of mineral production was about 14.8% in 2013-14 & 16.7% in 2012-13 (Tables -3 to 5).

Table – 3 : Share of Minor Minerals in Total Value of Mineral Production 2011-12 to 2013-14

(Value in ₹'000)			
Year	All minerals	Minor minerals	% share of minor minerals
2011-12	2841489920	524905743	18.5
2012-13	2800056812	466845429	16.7
2013-14 (P)	2774133089	410403682	14.8

Table – 4 : Value of Production of Minor Minerals 2011-12 to 2013-14 (By States)

(In ₹'000)			
State	2011-12	2012-13	2013-14 (P)
India	524905743	466845429	410403682
Andhra Pradesh	123363315	138113486	131082319
Arunachal Pradesh	300100	164882	228992
Assam	313805	313805	313805
Bihar	1254900	1714921	3975880
Chhattisgarh	3349506	4390430	6273771
Goa	8642394	4433452	6198235
Gujarat	120647712	94490254	61796300
Haryana	1487198	1487198	1487198
Himachal Pradesh	907200	904200	398111
Jammu & Kashmir	1611656	5287184	1950680
Jharkhand	401448	401448	401448
Karnataka	20487499	16083008	20181645
Kerala	31042862	13922040	14959461
Madhya Pradesh	19354008	4804597	16525936
Maharashtra	76644279	58569144	10561400
Manipur	2866	2866	2866
Meghalaya	72075	72075	72075
Mizoram	22199	16242	21483
Nagaland	1774	1774	1774
Odisha	856767	856767	856767
Punjab	327395	94448	94448
Rajasthan	67615290	75569100	72729110
Sikkim	18787	18787	18787
Tamil Nadu	3894860	4093451	4093451
Tripura	29180	29180	29180
Uttar Pradesh	39922149	38727240	53726921
Uttarakhand	636367	636367	636367
West Bengal (1)	1455113	1455113	1455113
Andaman & Nicobar Islands	189039	191970	327632
Puducherry	54000	-	2527

Source: State/Union Territory Government.

(1) Excluding data in respect of quarry permits issued by district authorities.

Note: Earlier year's figures have been repeated as estimates, wherever necessary, due to non-receipt of data.

PRODUCTION

**Table – 5 : Value of Production of Minor Minerals
2011-12 to 2013-14
(By Minerals)**

(In ₹'000)			
Mineral	2011-12	2012-13	2013-14 (P)
All Minerals	524905743	466845429	410403682
Bentonite	71307	907770	817825
Boulder	1783324	1365685	17334043
Brick-earth	27079703	72676476	62797000
Building Stones	114897183	120062792	129976200
Granite	54198761	66764237	82182957
Other Building stones	60698422	53298555	47793243
Chalcedony or impure quartz pebbles ⁽¹⁾	21804	9312	7793
Fuller's Earth	242420	309502	346219
Gravel	16100876	16131578	15034230
Kankar ⁽²⁾	11025966	12582749	7246729
Limeshell ⁽²⁾	43367	11607	247
Limestone ⁽²⁾	10920803	12138165	13369120
Marble	16012403	19129861	15419081
Murram	10789691	11392938	10801664
Ordinary clay	1654357	2807607	3599405
Ordinary earth ⁽³⁾	6926586	6305743	9484682
Ordinary sand ⁽⁴⁾	86601425	66107655	33615081
Quartzite and sand stone ⁽⁵⁾	7737267	7612211	6529443
Reh-matti	-	6682	3400
Road metal	203262171	111348703	78773861
Salt petre	3895	965	1075
Shale ⁽⁶⁾	-	62578	-
Shingle	312045	228383	547446
Slate ⁽⁶⁾	67187	20332	17834
Stones ⁽⁷⁾	2591474	2593902	1814252
Other Minerals (Not included above) ⁽⁸⁾	6760489	3032233	2867052

Source: State/Union Territory Government.

(1) Used for ball mill purposes or for filling for bore wells or for decorative purposes in buildings.

(2) Used in kilns for manufacturing lime used as building material

(3) Used for levelling or filling purposes in constructions of embankments, roads, railways, buildings etc.

(4) Other than sand used for prescribed purposes; as (i) refractory and manufacture of ceramic; (ii) metallurgical purposes;

(iii) optical purposes; (iv) purposes of stowing in coal mines; (v) for manufacture of silvicate cement;

(vi) for manufacture of sodium silicate; (vii) for manufacture of pottery and glass.

(5) Used for purposes of building or for making road metals and house-hold utensils.

(6) Used for building material

(7) Used making house-hold utensils.

(8) Items included are those for which value is available from the state govt. but quantity and name of item is not available.

PRODUCTION

Index of Mineral Production

The index of mineral production (excluding atomic minerals) (with base year 2004-05=100) for 2014-15 at

126.5 displayed a growth of 1.4% as compared to the previous year (Table - 6).

**Table - 6 : Index of Mineral Production, 2012-13 to 2014-15
(Excluding Atomic Minerals)**

(Base 2004-05=100)

Year	Index of mineral production (1000)	Coal & lignite (323.25)	Crude petroleum & natural gas (489.08)	Metallic minerals (103.98)	Non-metallic minerals (27.41)	Minor minerals (56.28)
2012-13	125.5	145.3	116.0	98.1	158.4	128.54
2013-14	124.7	147.1	111.2	106.7	162.1	128.54
2014-15 (P)	126.5	159.5	109.1	92.1	175.4	128.54

Note: Figures in parentheses indicate the weights attached to respective groups.

Gross Value Added from

Mining & Quarrying Sector

The Ministry of Statistics & Programme Implementation has released the new series of national accounts, revising the base year from 2004-05 to 2011-12. The industry-wise estimates are now presented as Gross Value Added (GVA) at basic prices. Certain

changes have been made in this series including for Mining & Quarrying industry. During 2014-15 Mining and Quarrying industry accounted for about 2.4 % of the GVA at current prices. The GVA at current and constant prices for the period from 2012-13 to 2014-15 is as under (Tables- 7 & 8).

**Table - 7 : Gross Value Added at Basic Price, 2012-13 to 2014-15
(At Current Prices)**

(in ₹ crore)

Industry	2012-13 (NS)	2013-14 (NS)	2014-15 (PE)	% Change in 2014-15 over the previous
GVA (All)	9252051	10477140	11550240	10.2
Mining & Quarrying	284771	298544	275812	- 7.6

Source : CSO. NS : New Series Estimates PE : Provisional Estimates

**Table - 8 : Gross Value Added at Basic Price, 2012-13 to 2014-15
(At 2011-12 prices)**

(in ₹ crore)

Industry	2012-13 (NS)	2013-14 (NS)	2014-15 (PE)	% Change in 2014-15 over the previous
GVA (All)	8599224	9169787	9827089	7.2
Mining & Quarrying	262253	276380	283062	2.4

Source : CSO. NS: New Series Estimates. PE: Provisional Estimates.

PRODUCTION

METALS

Ferrous Metals

As per the provisional data received from the Office of the Joint Plant Committee, Kolkata, India produced 106 million tonnes of Finished Steel (including C.R. sheets), 65.8 million tonnes of Semi-Finished Steel (including steel ingots), 9.7 million tonnes of Pig Iron, 19.4 million tonnes of Sponge Iron and 0.6 million tonnes of Steel Wires in 2014-15.

The production of Finished Steel (including C.R. sheets), Semi-finished steel (including steel ingots), Pig iron and Sponge iron registered an increase of 3.9%, 10.8%, 33.1% and 29.5% respectively as compared to previous year.

Production of various items of Iron and Steel for the last three years is given in Table - 9.

Ferro-alloys

Indian Bureau of Mines collects production figures of ferro alloys from the producing plants in the country on non-statutory basis. The information on production of ferro-alloys were received from 17 operating plants in 2014-15. The production in respect of ferro-chrome, ferro-manganese and ferro-silicon were collected from Joint Plant Committee,

Kolkata. As such the production data presented here relates to the extent received and may not reflect the entire production of ferro- alloys in the country. Production of ferro-alloys for the years 2012-13 to 2014-15 to the extent received (including partly estimated due to non-receipt of data) is presented in Table - 10.

The data presented in Table - 2, for 2014-15 were received from one plant each for Ferro-Niobium, Ferro Vanadium, Ferro-Aluminium and Ferro-Boron, three plants each for Ferro-Molybdenum, Ferro-Titanium and Magnesium Ferro-Silicon and 10 plants for Silico-Manganese.

**Table – 9 : Production of Ferrous Metals
2012-13 to 2014-15**

(In '000 tonnes)			
Ferrous Metal	2012-13	2013-14	2014-15 (P)
Finished steel (including C.R. sheets)	86381	102090	106052
Semi-finished steel (including steel ingots)	29984	59379	65793
Pig iron	6100	7289	9701
Sponge iron	19769	14972	19386
Steel wire	583	583	583

Source: Office of Joint Plant Committee, Kolkata.

Table – 10 : Production of Ferro-alloys, 2012-13 to 2014-15

(In tonnes)				
Ferro-alloys	Unit of Qty	2012-13	2013-14	2014-15 (P)
Ferro-Chrome	tonne	944000	944000	944000
Ferro-Manganese	tonne	518000	518000	518000
Ferro-Silicon	tonne	90000	90000	90000
Ferro-Boron	kg	42050	21075	42000
Ferro-Molybdenum	kg	1076212	1230710	1200800
Ferro-Niobium	kg	NA	19893	8146
Ferro-Titanium	kg	629758	820526	545100
Ferro-Vanadium	kg	796000	906000	1035000
Ferro-Aluminium	kg	4935315	5496506	3736701
Ferro-Silicon-Zirconium	kg	367	1720	NA
Magnesium Ferro-Silicon	tonne	19205	21964	26123
Silico-Manganese	tonne	236541	225395	249691
Chromium Metal	kg	100	NA	NA

*Note: 1. Figures for the latest available month have been repeated as estimates, wherever necessary, due to non receipt of data.
2. Figures in respect Iron & Steel items as well as Ferro-Chrome, Ferro-Manganese and Ferro-Silicon have been received from JPC Kolkata.*

NA : Not available.

PRODUCTION

Non-ferrous Metals

The production of aluminium at 2,027 thousand tonnes in 2014-15 registered an increase of 22% as compared to that in the previous year. Seven plants one in public sector and six in private sector reported production of aluminium during the year.

Smelting and refining of copper is carried out by Hindustan Copper Ltd in their existing plants located at Ghatshila and Raigad. Copper metal is also produced from imported copper concentrates at the plants of Vendanta Ltd (formerly Sterlite Industries (India) Ltd) and Hindalco Industries Ltd. The production of copper (blister) at 16,471 tonnes in 2014-15 decreased by 4% as compared to that in the previous year. The production of copper (cathodes) at 7,65,568 tonnes in 2014-15 increased by 19% as compared to the previous year. The production of copper (continuous cast wire rods) at 3,37,713 tonnes in 2014-15 increased by 19% as compared to that in the previous year.

The production of lead (primary) at 1,27,142 tonnes in 2014-15 increased by about 4% as compared to that in the previous year. No production of lead (secondary) was reported during the last five years. The

production of zinc ingots in 2014-15 was 7,32,792 tonnes as against 7,66,530 tonnes in the previous year showing a decrease of 4 percent.

Precious Metals

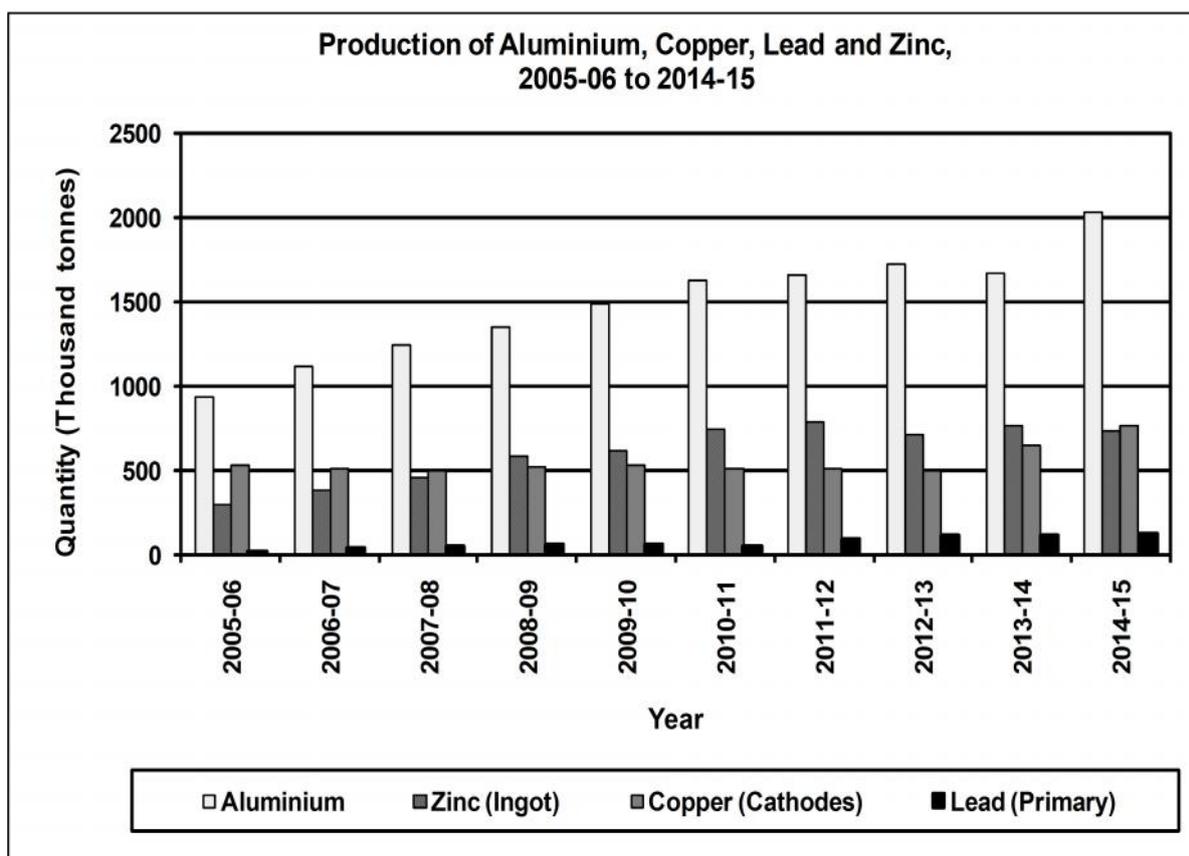
Gold primary is produced from gold ore by HGML in the state of Karnataka. Gold is also recovered as by-product from copper slime of Hindalco Industries Ltd in Gujarat. The total production of gold bullion during the year at 9,987 kg increased by 8% as compared to 9,209 kg in the previous year.

Entire production of silver in India is reported as by-product from lead and zinc concentrates and copper slime and as a co-product of gold refining.

The production of silver at 4,02,467 kg registered a decrease of 2 percent as compared to that in the previous year.

Other Metals

Cadmium is a by-product of zinc smelting. Its production at 69 tonnes in 2014-15 has decreased by 70% as compared to that in the previous year. Production of Selenium has not been reported during last few years (Table - 11).



PRODUCTION

Table – 11 : Production and Value of Non-ferrous Metals, 2012-13 to 2014-15

(Value in ₹'000)

Metal	Unit of quantity	2012-13		2013-14		2014-15 (P)	
		Quantity	Value	Quantity	Value	Quantity	Value
Aluminium	tonnes	1720427	202241542	1667300	186608433	2026803	244049823
Cadmium	tonnes	391	63392	228	36605	69	9610
Copper (blister)	tonnes	17455	N.A	17245	N.A	16471	N.A
Copper (cathode)	tonnes	493519	213917869	644193	279421469	765568	305302465
Copper (continuous cast wire rod)	tonnes	285051	135095998	282969	127327534	337713	140373262
Gold	kg	8304	24693927	9209	24833062	9987	25085847
Lead (primary)	tonnes	118317	16164125	122595	18662521	127142	18759110
Silver	kg	434569	24491376	411504	18457242	402467	14622012
Tin	kg	13938	15666	22799	25717	8674	11709
Zinc ingot	tonnes	704228	89403217	766530	109946139	732792	119987141

Source: Data for metals and alloys are obtained from individual producers/units.