Government of India
Ministry of Mines
INDIAN BUREAU OF MINES
NAGPUR

Indian Mineral Industry — At a Glance 2013-14

Indian Mineral Industry-At a Glance
2013-14

Issued by

Controller General
Indian Bureau of Mines
Nagpur

Printed at IBM Press, 250/103/October, 2015

Indian Bureau of Mines

Nagpur

Controller General

K. Thomas

MINING & MINERAL STATISTICS DIVISION

Deputy Director General (Statistics)	K. Thomas	
Directors (Statistics)	Saji George	Junaid Farooqui
Deputy Mineral Economists (Statistics)	R. Kumar	S.K. Deshpande
Assistant Mineral Economists (Statistics)	M.V.Sonkusale	Badal Kumar
	S.L.Khadgi	Smt.Supriya Saxena

Compilation, Processing and Computer Designing

Senior Statistical Officer	M. M. Chaskar	Smt. Sashi Pasin

PUBLICATION SECTION

Chief Editor	A.K. Singh
Editor	N.U. Kadu
Sr. Tech. Asstt. (Pub)	P.L.Masram
Jr. Tech. Asstt. (Pub)	A.P.Mishra

PREFACE

"Indian Mineral Industry at a Glance 2013-14" is the thirty-fifth edition in its series. For easy reference, the publication has been divided into eight sections viz., General, Mineral Production, Production of Metals and Alloys, Foreign Trade, Employment in Mines, Consumption of Minerals, Production of Mineral-based Products and Mining Machinery. The salient features of the data presented in each section are highlighted at the beginning of the section. The Indian Mineral Industry at a Glance pocket book is handy and a ready reckoner with important diagrams. It is stated that some of the figures of GDP, consumption, foreign trade, mineral based product etc. pertaining to previous years are updated based on latest data.

The publication has been brought out by the Mining and Mineral Statistics Division of the Bureau. This Division, in addition to the extensive data available with it, has also utilised the data furnished by the Mineral Development and Regulation Division on Afforestation for Section-1 and Mining Machinery for Section-8. Similarly, Mineral Economics Division has furnished data on Mineral Resources and Mining Leases for Section-1 and on Consumption of Minerals for Section-6.

The foreign trade data on minerals, metals and selected mineral-based products is received from the Director General of Commercial Intelligence & Statistics (DGCI&S), Kolkata. The export data includes re-exports for the years

2004-05 to 2013-14. Country-wise break-up of some of the minerals and metals at 8-digit customs tariff / ITC (HS) code level is not available for few items. The entire data of such minerals and metals have been grouped under country-item ‘unspecified’, which has been clubbed with 'others'. The data for the remaining countries in respect of tables of such minerals have limitations to that extent.

The Bureau is thankful to the Ministry of Petroleum and Natural Gas, New Delhi; Office of the Coal Controller, Kolkata; Joint Plant Committee, Kolkata; The Director General of Commercial Intelligence and Statistics, Kolkata; The Department of Industrial Policy & Promotion, Office of the Economic Advisor, Ministry of Commerce & Industry, Ministry of Chemical and Fertiliser and Central Statistical Office for providing the valuable information for this publication.

This publication is compiled as a reference material on mining and minerals related information to all those who are directly or indirectly associated with the mineral sector.

Nagpur
Dated: 24th September, 2015

Controller General
Indian Bureau of Mines

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Note: *(i) Figures for the previous year have been revised wherever necessary. Figures for the latest year are provisional and subject to revision.*

(ii) In certain cases sum of individual items may not tally with the total of the table due to rounding off the figures.

Symbols and Abbreviations

(e)	Estimated
N.A.	Not Available
(R)	Revised
++	Negligible
-	Nil
(P)	Provisional
%	Percentage
kg.	Kilogram
t	Tonne
’000 t	Thousand Tonnes
m.t.	Million Tonnes
m.cu.m.	Million Cubic Metres
R.O.M.	Run-of-mine
Av.	Average
m.m.	Millimetre
h.p.	Horsepower

Section – 1

General

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Section-1

General

The value of mineral production in India covering fuel, metallic, non-metallic and minor minerals rose spectacularly during the last 6 decades since 1953 and touched the level of Rs. 282724 crores in 2013-14. The increase in the value was attributable to both rises in mineral production as well as in mineral prices.

During 2013-14, production of principal minerals like coal, lignite, petroleum (crude), bauxite, chromite, copper concentrates, iron ore, lead and zinc concentrate, manganese ore, diamond, dolomite, gypsum, kaolin, limestone, phosphorite, steatite etc. has gone up whereas that of gold, kyanite and mica (crude) declined when compared with that of 1953.

The index of mineral production in new series (base 2004-05=100) has declined from 125.5 in 2012-13 to 124.7 in 2013-14 showing a marginal decrease as compared to previous year.

Fuel minerals contributed a major share of 66% in the value of mineral production in 2013-14 while metallic minerals contributed about 15% and non-metallic minerals (including minor minerals) about 19 percent. Offshore regions continued to be in leading position, in terms of value of mineral production in the country and had the share of about 19% in the value of national output. Next in order were Odisha and Rajasthan with a share of 12% each, followed by Jharkhand and

Andhra Pradesh (9% each); Gujarat (8%); Chhattisgarh (7%), Madhya Pradesh (5%); Maharashtra and Assam (4% each); Karnataka (3%); Tamil Nadu, Uttar Pradesh and West Bengal (2% each) and Meghalaya(1%) in the total value of mineral production while other 15 States/Union Territories having individual nominal share reported the remaining value during the year under review.

Off-shore region was the major source for supply of petroleum (crude) and natural gas (utilised) during the decade contributing a substantial amount to the exchequer.

The value of mineral production in India in 2013-14 was at Rs. 282724 crore showing an increase of 1% in comparison with the previous year. Public sector accounted for around 59% of the total value of mineral production during the year. The total number of reporting mines in 2013-14 (excluding those of petroleum (crude), natural gas (utilised), atomic and minor minerals was 3699. Of these, 552 mines belonged to coal & lignite, 663 to metallic minerals and 2484 to non-metallic minerals.

Growth during 1953 to 2013-14

The mining sector has shown significant growth since 1953. The value of mineral production reached the level of Rs. 282724 crore in 2013-14 from Rs. 88 crore in 1953. This was mainly due to significant achievements made in the production of fuel, metallic & non-metallic minerals. The value of fuel minerals increased from Rs. 55 crore in 1953 to Rs. 186467 crore in 2013-14. Similarly, the value of metallic minerals rose from Rs. 26 crore to Rs. 42654 crore and that of non-

metallic minerals including minor minerals from Rs. 7 crore to Rs. 53603 crore during the same period.

The performance of some important minerals such as fuel, metallic and non-metallic minerals in the last 60 years is shown under Appendix-I at the end of this publication.

Fuel Minerals

The production of coal at 566 million tonnes in 2013-14 was more than 15 times of its production at 37 million tonnes 1953. The production of lignite at 44 million tonnes was substantially higher than that of 35 thousand tonnes in 1953. The production of petroleum (crude) at 38 million tonnes during 2013-14 was also significantly higher than that of the 272 thousand tonnes in 1953. Natural gas (utilised), which had no production in 1953, recorded a production of 35407 m.cu.m. in 2013-14.

Metallic Minerals

The production of all metallic minerals, except gold, registered a spectacular growth during the last 60 years. The production of iron ore increased from 5 million tonnes in 1953 to 152 million tonnes in 2013-14. The production of bauxite increased from 72 thousand tonnes in 1953 to 21667 thousand tonne in 2013-14, chromite from 66 thousand tonnes to 2853 thousand tonnes, manganese ore from 2084 thousand tonnes to 2588 thousand tonnes, lead concentrates from 3 thousand tonnes to 194 thousand tonnes and zinc concentrates from 4 thousand tonnes to 1491

thousand tonnes. The production of silver, a by-product in the country, was at 349774 kg. in 2013-14 as compared to 455 kg. in 1953.

Non-Metallic Minerals

In the non-metallic group of minerals, the production of limestone at 279 million tonnes in 2013-14 was about 47 times of the output recorded in 1953. The production of apatite & phosphorite rose from 4 thousand tonne in 1953 to 1385 thousand tonnes during 2013-14, barytes from 10 thousand tonnes to 1137 thousand tonnes, dolomite from 17 thousand tonnes to 7109 thousand tonnes, gypsum from 595 thousand tonnes to 2930 thousand tonnes, kaolin from 96 thousand tonnes to 4753 thousand tonnes, magnesite from 94 thousand tonnes to 195 thousand tonnes and steatite from 30 thousand tonnes to 865 thousand tonnes in the same period of 60 years.

Mineral Reserves and Resources				
Mineral	Unit	As on 1.4.2010		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Andalusite	'000 t	-	18450	18450
Antimony #				
Ore	tonnes	-	10588	10588
Metal	tonnes	-	174	174
Apatite #	'000 t	31	22630	22661
Asbestos	'000 t	2511	19656	22167
Ball Clay	'000 t	16778	66616	83394
Barytes	'000 t	31584	41150	72734
Bauxite	'000 t	592938	2886682	3479620
Bentonite	'000 t	25060	543307	568367
Borax	tonnes	-	74204	74204
Calcite	'000 t	2664	18281	20945
Chalk	'000 t	4332	585	4917
Chromite #	'000 t	107221	214530	321751
Cobalt (Ore) #	m. tonnes	-	44.91	44.91
Copper #	'000 t			
Ore		237573	1273445	1511018
Metal		2996.97	9221.56	12218.53
Corundum #	tonnes	597	267218	267815
Diamond #	th. carats	985	30876	31861

Mineral Reserves and Resources (Contd…)

Mineral	Unit	As on 1.4.2010		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Diaspore	'000 t	2860	3125	5985
Diatomite	'000 t	-	2885	2885
Dolomite	'000 t	738185	6992372	7730557
Dunite	'000 t	17137	168232	185369
Felspar	'000 t	44503	87832	132335
Fireclay	'000 t	30104	683415	713519
Fluorite #	'000 t	4574	13614	18188
Fullers Earth	'000 t	58	256594	256652
Garnet	'000 t	19325	37638	56963
Gold #				
Ore (Primary)	'000 t	14616	480188	494804
Metal (Primary)	tonnes	71.91	568.48	640.39
Ore (Placer)	'000 t	-	26121	26121
Metal (Placer)	tonnes	-	5.86	5.86
Granite (Dimension stone)	'000 cu.m	263692	45966608	46230300
Graphite	'000 t	8032	166818	174850
Gypsum	'000 t	39096	1247402	1286498

Mineral Reserves and Resources (Contd…)

Mineral	Unit	As on 1.4.2010		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Iron Ore & Conc.	’000 t			
Hematite #		6608287	13967420	20575707
Magnetite #		34592	10712763	10747355
Kaolin	’000 t	177158	2528049	2705207
Kyanite	’000 t	1575	101671	103246
Laterite #	’000 t	58151	477309	535460
Lead & Zinc #	’000 t			
Ore		102795	606248	709043
Lead Metal		2114.91	9888.89	12003.80
Zinc Metal		10893.10	24963.00	35856.10
Lead & Zinc Metal		-	140.82	140.82
Limestone	m.t.	14926	170009	184935
Magnesite #	’000 t	20782	307339	328121
Manganese Ore	’000 t	141977	288003	429980
Marble	’000 t	276495	1654968	1931463
Marl	’000 t	139976	11705	151681
Mica	tonnes	190741	341496	532237

Mineral Reserves and Resources (Contd…)

Mineral	Unit	As on 1.4.2010		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Molybdenum #				
Ore	tonnes	-	19371698	19371698
Contained MOS_2	tonnes	-	12668.37	12668.37
Nickel #	m.t.	-	188.71	188.71
Ochre	'000 t	54942	89319	144261
Perlite	'000 t	428	1978	2406
PGM (Metals)	Tonnes of Metal Content	-	15.7	15.7
Phosphorite/Rock Phosphate #	'000 t	65392	249120	314512
Potash	m.t.	-	21816	21816
Pyrites	'000 t	-	1674401	1674401
Pyrophyllite	'000 t	23275	32808	56083
Quartz & Silica Sand	'000 t	429223	3069808	3499031
Quartzite	'000 t	86599	1164649	1251248
Ruby	kg.	236	5112	5348
Salt (Rock)	'000 t	16026	-	16026
Sapphire	kg	-	450	450
Shale	'000 t	15331	580	15911

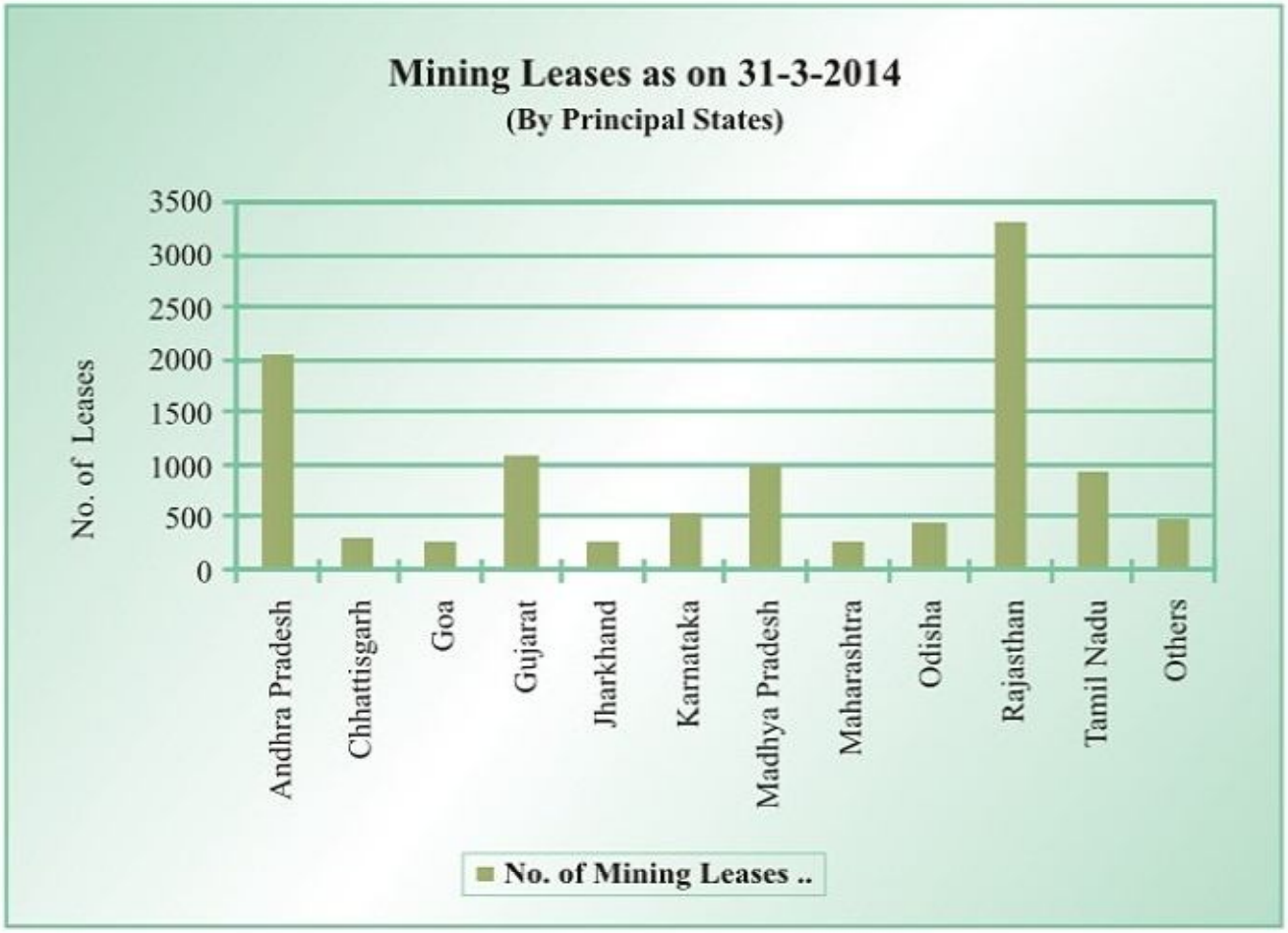
Mineral Reserves and Resources (Concld…)				
Mineral	Unit	As on 1.4.2010		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Sillimanite	'000 t	4085	62902	66987
Silver #				
Ore	'000 t	118281	401289	519570
Metal	tonnes	7907.97	21880.38	29788.35
Slate	'000 t	-	2369	2369
Sulphar (Native)	'000 t	-	210	210
Talc/Steatite/Soap Stone	'000 t	90026	178996	269022
Tin #				
Ore	'000 t	7	83719	83726
Metal	tonnes	1181.19	101093.65	102274.84
Titanium Minerals	'000 t	22030	371966	393996
Tungstun #				
Ore	tonnes	-	87387464	87387464
Contained WO_3	tonnes	-	142094.35	142094.35
Vanadium #				
Ore	tonnes	-	24633855	24633855
Contained V_2O_5	tonnes	-	64594	64594
Vermiculite	tonnes	1704007	803003	2507010
Wollastonite	tonnes	2487122	14082751	16569873
Zircon	tonnes	1347470	1786482	3133952

: Provisional as on 01.4.2013

Mining Leases as on 31-3-2014[@] (By Principal Minerals)				
Mineral	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**10982**	**100**	**455**	**100**
Quartz*	2507	23	20	4
Limestone	1923	18	151	33
Iron ore	664	6	86	19
China clay**	677	6	16	4
Silica sand***	530	5	16	4
Dolomite	543	5	8	2
Steatite	428	4	13	3
Bauxite	339	3	29	6
Manganese ore	308	3	20	4
Mica	244	2	4	1
Fireclay	235	2	4	1
Others	2584	23	88	19

@ Excluding fuel, atomic and minor minerals.

* Quartz - (Quartz + Quartzite) ** China Clay - (China Clay + Ball Clay + Clay Others);
*** Silica Sand - (Silica Sand + Moulding Sand + Sand Others)


Mining Leases as on 31-3-2014
(By Principal States)
No. of Leases
3500
3000
2500
2000
1500
1000
500
0
Andhra Pradesh
Chhattisgarh
Goa
Gujarat
Jharkhand
Karnataka
Madhya Pradesh
Maharashtra
Odisha
Rajasthan
Tamil Nadu
Others
No. of Mining Leases ..

Mining Leases as on 31-3-2014[@] (By Principal States)				
State	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
All States	**10982**	**100**	**455**	**100**
Andhra Pradesh	2038	19	62	14
Chhattisgarh	300	3	22	5
Goa	267	2	20	4
Gujarat	1100	10	30	7
Jharkhand	282	3	30	7
Karnataka	545	5	48	11
Madhya Pradesh	1001	9	33	7
Maharashtra	260	2	15	3
Odisha	461	4	74	16
Rajasthan	3306	30	84	18
Tamil Nadu	931	9	10	2
Others	491	4	27	6

@ Excluding fuel, atomic and minor minerals.

Concentration of Mining Leases as on 31-3-2014@ (By Potential)					
Potential Bearing Districts	No. of Districts	No. of Mining Leases Granted/ Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**283**	**10982**	**100**	**455**	**100**
Low	229	2995	27	186	41
Medium	28	1913	18	73	16
High	26	6074	55	196	43

@ Excluding fuel, atomic and minor minerals.

High : > 100 mining leases in a district
Medium : 51 – 100 mining leases in a district
Low : 1– 50 mining leases in a district

Distribution of Mining Leases as on 31-3-2014[@] (By Sectors)				
Sector	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**10982**	**100**	**455**	**100**
Public	441	4	127	28
Private	10541	96	328	72

Distribution of Mining Leases as on 31-3-2014 [@] (By Lease Groups)					
Frequency Groups (No. of Leases)	Minerals Covered	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**64**	**10982**	**100**	**455**	**100**
1 to 50	40	504	5	55	12
51 to 100	6	529	5	9	2
101 to 200	5	680	6	23	5
201 to 300	3	687	6	11	2
301 to 500	5	2017	18	88	19
501 to 1000	2	1207	11	94	21
Above 1000	3	5358	49	175	39

@ Excluding fuel, atomic and minor minerals.

Distribution of Mining Leases as on 31-3-2014 @ (By Area Groups)				
Frequency Groups (Area in ha.)	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
All Groups	**10982**	**100**	**455**	**100**
0-10	7411	67	30	6
10-20	949	9	14	3
20-50	1098	10	36	8
50-100	718	7	53	12
100-200	363	3	50	11
200-500	257	2	82	18
Above 500	186	2	190	42

@ Excluding fuel, atomic and minor minerals.

Number of Reporting Mines, 2004-05 to 2013-14 (By Mineral Groups)				
Year	Total*	Coal & Lignite	Metallic Minerals	Non-Metallic Minerals
2004-05	3215	571	625	2019
2005-06	2999	556	636	1807
2006-07	3005	570	639	1796
2007-08	3025	570	693	1762
2008-09	3150	574	719	1857
2009-10	3055	573	701	1781
2010-11	3118	573	719	1826
2011-12	3609	573	682	2354
2012-13	3978	575	708	2695
2013-14(P)	3699	552	663	2484

**Excluding Petroleum (crude), Atomic and Minor minerals.*

***Reporting mine** : 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.*

Number of Underground Mines, 2013-14 @ (By Principal Minerals)			
Mineral	Total	'A' Category	'B' Category
Total	**83**	**34**	**49**
Apatite	1	-	1
Asbestos	3	1	2
Barytes	6	-	6
Chromite	6	6	-
Copper Ore	4	4	-
Gold	4	3	1
Lead & Zinc	8	8	-
Manganese Ore	13	8	5
Mica	21	2	19
Steatite	17	2	15

@ Excluding fuel, atomic & minor minerals.

'A' Mechanised Mines: > 150 labours in all
> 75 labours in workings below ground

'B' Other than 'A'

Decennial Growth in the Value of Mineral Production, 1953 to 2013-14[@] (By Groups)

(Rs. Crore)

Year	Total	Fuels	Metallic Minerals	Non-Metallic and Minor Minerals
1953	88	55	26	7
1963	242	169	31	42
1973	575	381	87	107
1983	6778	5800	402	576
1993-94	27040	22502	2056	2482
2003-04	71062	55033	6392	9637
2013-14(P)	282724	186467	42654	55603

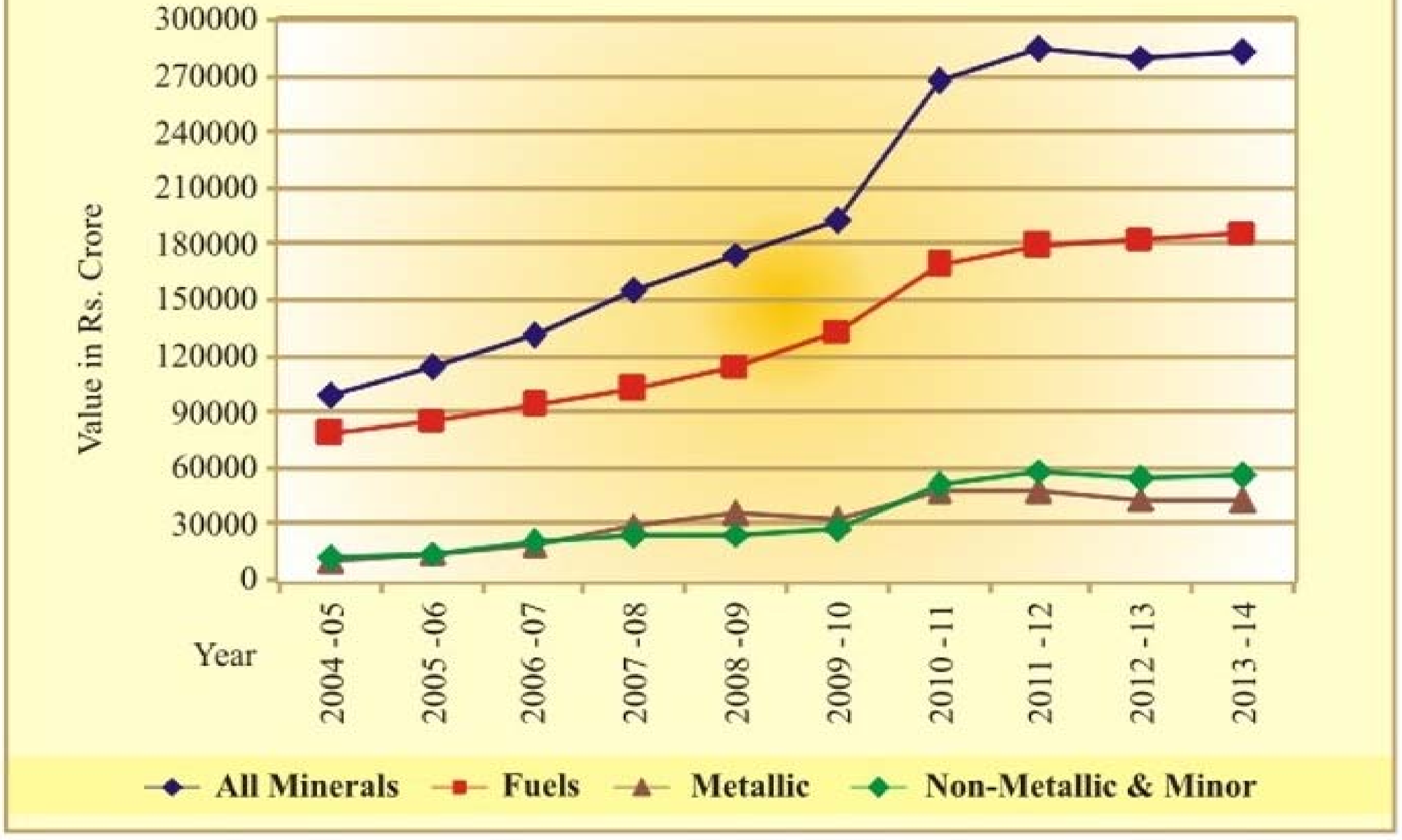
@ Excluding atomic minerals.

Value of Mineral Production, 2004-05 to 2013-14[@] (By Mineral Groups) (Rs. Crore)				
Year	All Minerals	Fuels	Metallic Minerals	Non-Metallic and Minor Minerals
2004-05	98934	77654	9941	11339
2005-06	113354	85616	13903	13835
2006-07	131023	92905	18286	19832
2007-08	154622	102119	29182	23321
2008-09	174133	114717	35076	24340
2009-10	192108	133658	31734	26716
2010-11	267032	168581	47639	50812
2011-12	284579	178922	47032	58625
2012-13	279999	182689	43167	54143
2013-14(P)	282724	186467	42654	55603

@ Excluding atomic minerals.

Value of Mineral Production

(By Groups)



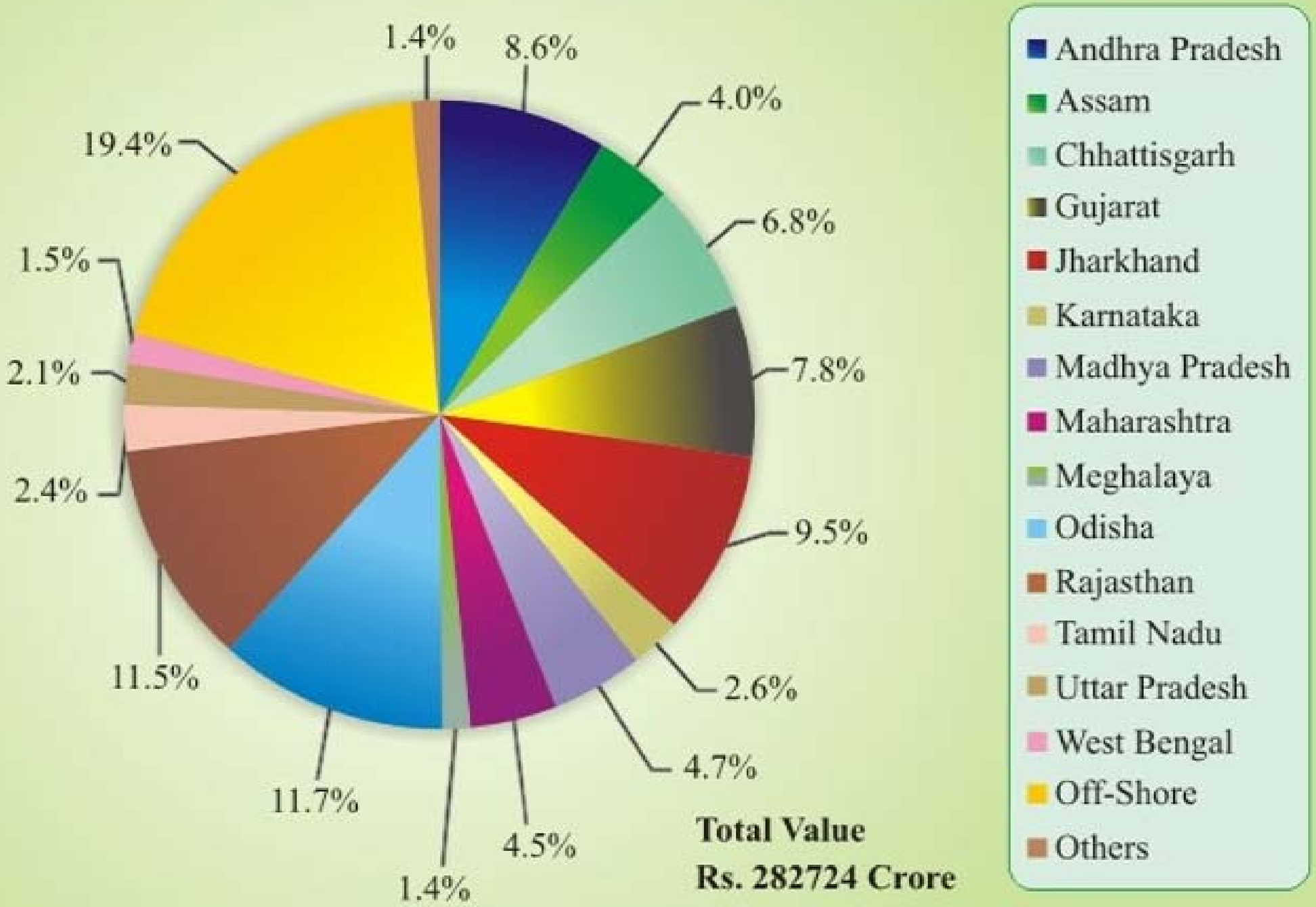
Value of Mineral Production[@] (By Minerals) (Rs. Crore)		
Minerals	2004-05	2013-14(P)
All Minerals	**98934**	**282724**
Coal	30434	82535
Petroleum (crude)	36080	68683
Natural Gas (utilised)	8940	29282
Iron Ore	7403	32031
Lignite	2201	5968
Limestone	1794	4690
Lead & Zinc Concentrates	465	3172
Chromite	850	2318
Silver	8	1578
Manganese Ore	555	1499
Apatite & Phosphorite	294	439
Bauxite	252	951
Copper Concentrates	213	680
Barytes	51	360
Gold	194	423
Dolomite	92	258
Gypsum	50	139
Kaolin	109	116
Others	8949	47602

@ Excluding atomic minerals.

Value of Mineral Production[@] (By States) (Rs. Crore)		
State	2004-05	2013-14(P)
India	**98934**	**282724**
Andhra Pradesh	6946	24379
Assam	5512	11308
Bihar	1092	142
Chhattisgarh	5784	19144
Goa	935	454
Gujarat	8656	21969
Jharkhand	7036	26847
Karnataka	2634	7350
Kerala	450	1457
Madhya Pradesh	5896	13350
Maharashtra	3890	12603
Meghalaya	798	4033
Odisha	6499	33189
Rajasthan	3338	32601
Tamil Nadu	2608	6689
Uttar Pradesh	2849	5935
West Bengal	3077	4374
Off-Shore	30430	54915
Others	504	1985

@ Excluding atomic minerals.

Value of Mineral Production (By States), 2013-14



Value of Mineral Production,[@] 2004-05 to 2013-14
(By Sectors)

(Rs. Crore)

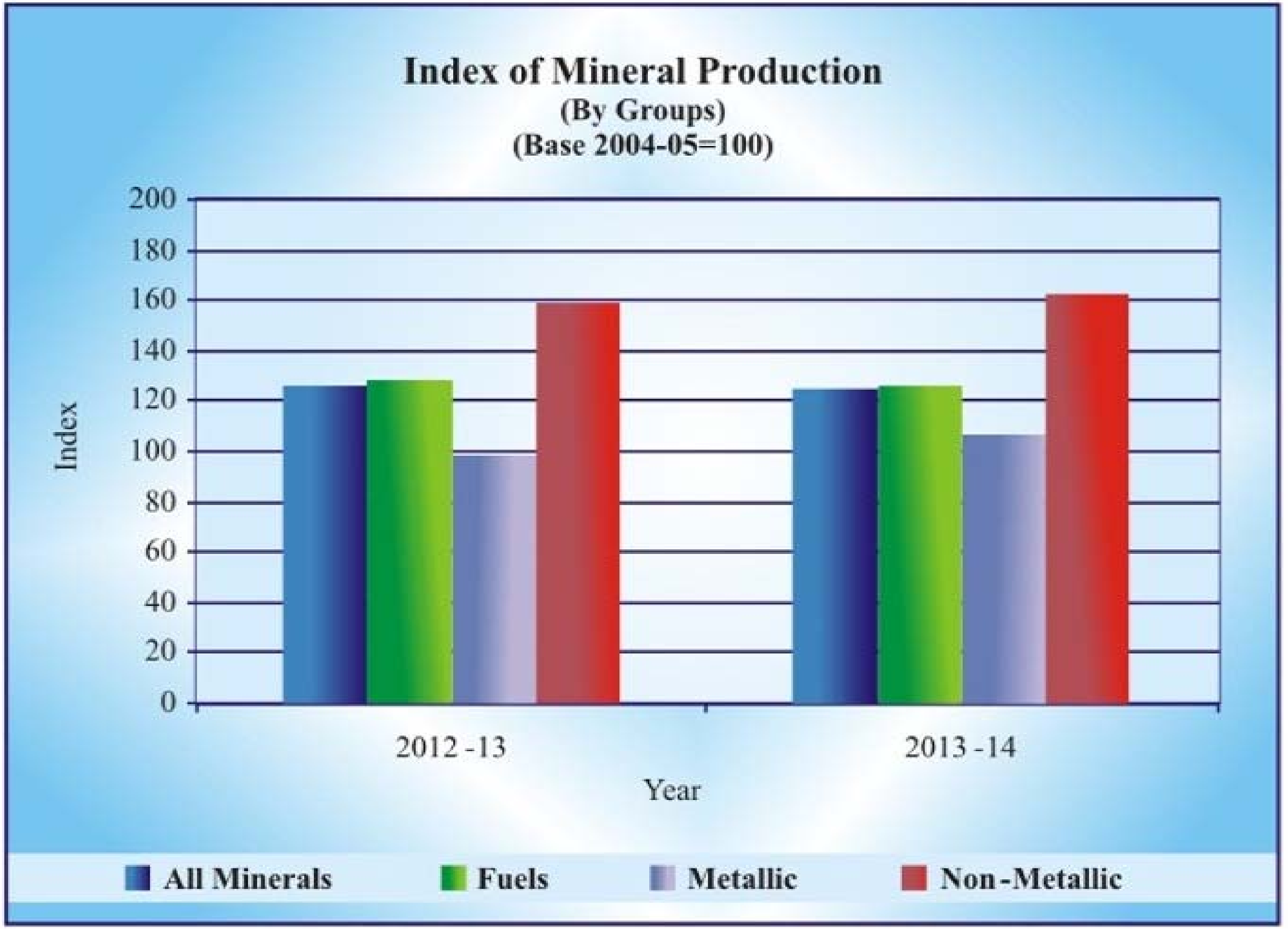
Year	Total	Public Sector	Private Sector
2004-05	98934	74659	24275
2005-06	113354	82241	31113
2006-07	131023	89788	41235
2007-08	154622	100762	53860
2008-09	174133	115240	58893
2009-10	192108	121794	70314
2010-11	267032	141000	126032
2011-12	284579	152452	132127
2012-13	279999	156695	123304
2013-14(P)	282724	167985	114739

@ Excluding atomic minerals.

Value of Mineral Production & Number of Mines, 2013-14(P) (By Sectors)			
	Total *	Public Sector	Private Sector
No. of Mines	**3147**	**217**	**2930**
Total Value #	**49578**	**18404**	**31174**
Metallic #	42654	16951	25703
Non-metallic #	6924	1453	5471

** Excluding fuel, atomic & minor minerals.*

 # Value in Rs. Crore.


Index of Mineral Production
(By Groups)
(Base 2004-05=100)
Index
200
180
160
140
120
100
80
60
40
20
0
2012 -13
2013 -14
Year
All Minerals
Fuels
Metallic
Non -Metallic

Index of Mineral Production, 2004-05 to 2013-14
(By Mineral Groups)

(Base 1993-94 = 100)

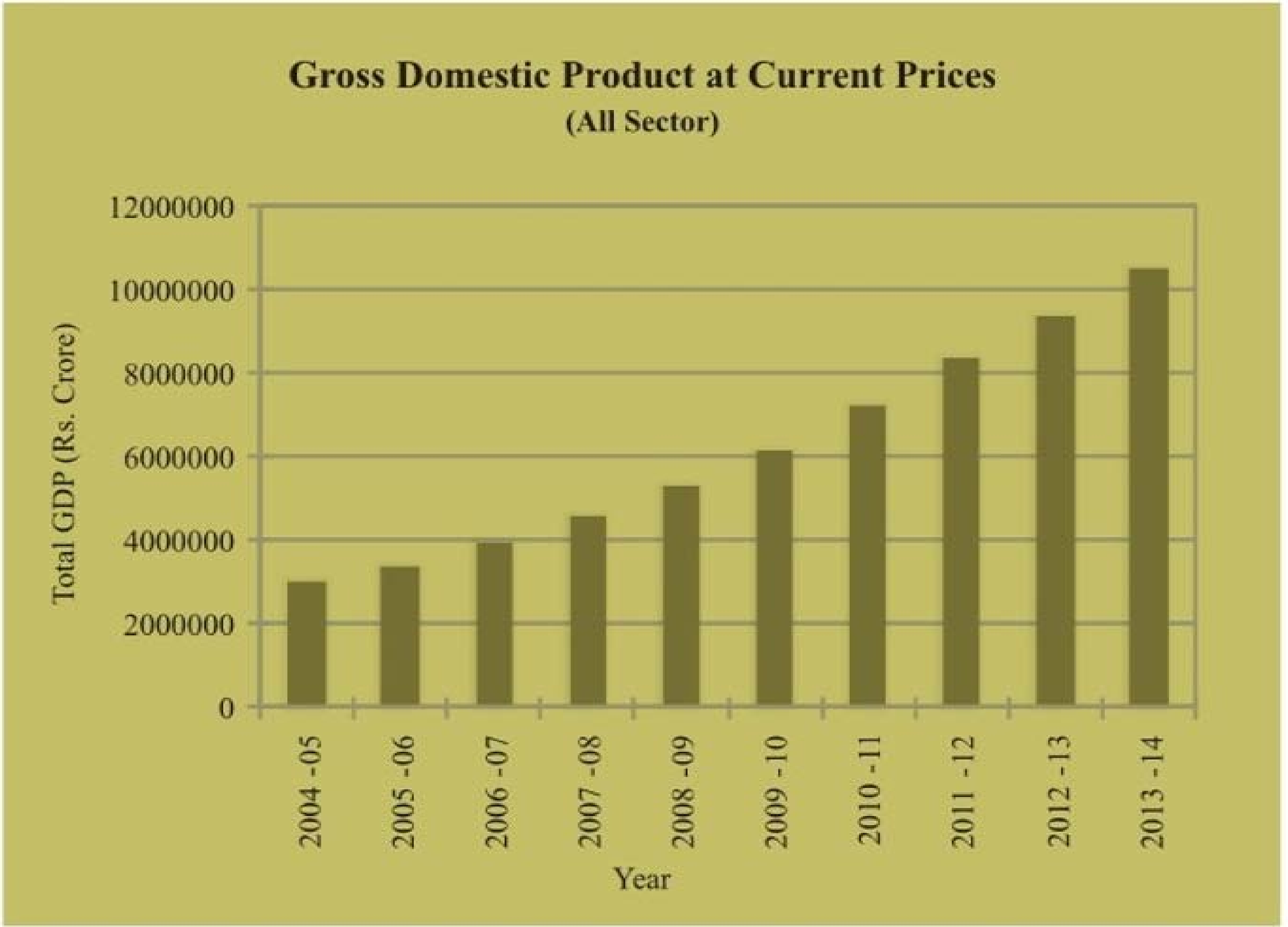
	All Minerals	Fuels	Metallic Minerals	Non-Metallic Minerals
Year/Weight	1000.000	857.180	80.765	42.327
2003-04	146.93	142.21	187.31	167.10
2004-05	154.16	146.59	221.07	184.66
2005-06	157.40	148.25	240.17	191.18
2006-07	167.08	154.48	283.36	211.30
2007-08	173.55	159.43	311.28	210.63
2008-09	175.96	162.80	302.26	215.48
2009-10	193.36	183.00	291.38	239.14
2010-11	204.95	194.98	298.57	256.87

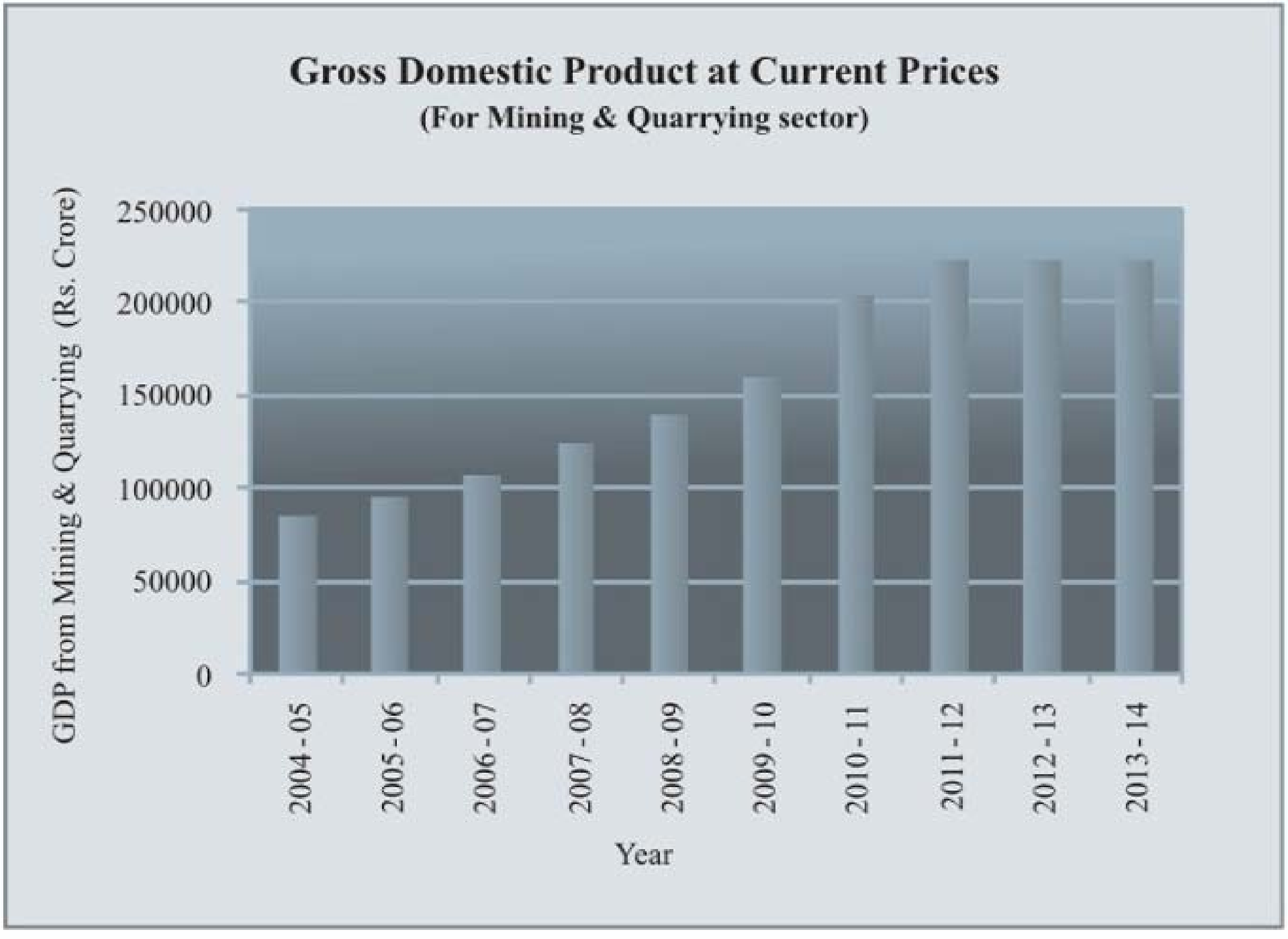
(Base 2004-05 = 100)

Year/Weight	1000.000	812.328	103.983	27.414
2010-11	131.1	130.2	136.5	142.5
2011-12	128.5	129.4	115.4	150.6
2012-13	125.5	127.7	98.1	158.4
2013-14(P)	124.7	125.5	106.7	162.1

***Note**: - Weight of minor minerals production in the index of mineral is 19.728 for base year 1993-94 = 100 and it is 56.275 for base year 2004-05=100.*

Wholesale Price Index, 2004-05 to 2013-14 (By Groups) (Base 2004-05 = 100)					
Year	All Commodities	Minerals	Metallic Minerals	Other Minerals	Mineral Oils
2004-05	100.00	100.00	100.00	100.00	100.00
2005-06	104.47	115.15	127.92	104.78	116.73
2006-07	111.35	136.61	162.14	108.38	127.40
2007-08	116.63	152.78	192.77	116.14	126.25
2008-09	126.02	186.52	266.15	144.19	141.84
2009-10	130.81	202.92	258.32	145.98	135.75
2010-11	143.32	253.28	373.78	153.37	157.47
2011-12	156.13	320.65	411.52	165.88	184.02
2012-13	167.62	346.91	438.95	204.72	202.45
2013-14(P)	177.64	346.49	387.34	213.20	225.95


Gross Domestic Product at Current Prices
(All Sector)
Total GDP (Rs. Crore)
12000000
10000000
8000000
6000000
4000000
2000000
0
2004 -05
2005 -06
2006 -07
2007 -08
2008 -09
2009 -10
2010 -11
2011 -12
2012 -13
2013 -14
Year


Gross Domestic Product at Current Prices
(For Mining & Quarrying sector)
GDP from Mining & Quarrying (Rs. Crore)
250000
200000
150000
100000
50000
0
2004 - 05
2005 - 06
2006 - 07
2007 - 08
2008 - 09
2009 - 10
2010 - 11
2011 - 12
2012 - 13
2013 - 14
Year

Gross Domestic Product (GDP) at Current Prices (Rs. Crore)			
Year	Total GDP	Mining & Quarrying	Percentage
2004-05	2971465	85028	2.9
2005-06	3390503	94462	2.8
2006-07	3953276	106787	2.7
2007-08	4582086	124812	2.7
2008-09	5303566	139828	2.6
2009-10	6108903	159304	2.6
2010-11	7248860	204866	2.8
2011-12	8391691	222716	2.7
2012-13	9388876	222416	2.4
2013-14(P)	10472807	222652	2.1

Exports Total Merchandise: Minerals & Metals (Rs. Crore)					
Year	Total Merchandise	Minerals	% Share	Metals	% Share
2004-05	375340	70468	18	36410	9
2005-06	456418	79790	17	39657	9
2006-07	571779	80931	14	62621	11
2007-08	655864	95022	14	66361	10
2008-09	840755	109296	13	82239	10
2009-10	845534	127831	15	57975	7
2010-11	1136964	174370	15	94052	8
2011-12	1465959	175310	12	102500	7
2012-13	1634318	160101	10	140614	9
2013-14(P)	1905011	194784	10	153156	8


Exports
Total Merchandise : Minerals & Metals
Value (Rs. Crore)
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
Year
2004-05
2005-06
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
Total Merch (Exp)
Minerals Exports
Metal Exports

Imports
Total Merchandise : Minerals & Metals

Imports Total Merchandise : Minerals & Metals **(** Rs. Crore**)**					
Year	Total Merchandise	Minerals	% Share	Metals	% Share
2004-05	501065	184758	36	77313	15
2005-06	660409	243839	37	92149	14
2006-07	840506	305028	36	123461	15
2007-08	1012312	349507	35	141947	14
2008-09	1374436	514509	37	199489	15
2009-10	1363736	524830	38	214425	16
2010-11	1683467	669010	40	286835	17
2011-12	2345463	944430	40	418310	18
2012-13	2669162	1100800	41	446566	17
2013-14(P)	2715434	1215827	45	321356	12

Consumption of Explosives, 2012-13@ (By Principal Minerals) (In tonnes)		
Mineral	Gun Powder	High Explosives
Total:	**58**	**47797**
Limestone	++	22067
Iron Ore	58	11804
Copper Ore	-	4584
Lead & Zinc Ore	-	3573
Bauxite	-	2199
Dolomite	-	821
Manganese Ore	-	738
Barytes	-	737
Steatite	-	484
Gold	-	427
Magnesite	-	271
Others	-	**92**

@ *Excluding fuel, atomic and minor minerals.*

Consumption of Explosives, 2012-13@
(By Principal Minerals)

(In thousands)

Mineral	Detonators (Nos.)		Fuses (Meters)	
	Ordinary*	Electric	Safety	Cordtex
Total	**2304**	**2842**	**1764**	**11238**
Bauxite	239	36	351	1669
Chromite	1	5	36	14
Copper Ore	7	226	31	859
Gold	92	282	0	166
Iron Ore	159	22	56	1890
Lead & Zinc Ore	684	484	0	1096
Manganese Ore	14	550	62	503
Barytes	1	58	2	20
Dolomite	326	360	332	447
Limestone	425	725	408	4195
Magnesite	145	-	106	154
Mica	18	31	17	0
Quartzite	23	45	1	5
Steatite	157	7	338	209
Other	**13**	**11**	**24**	**11**

@ Excluding fuel, atomic and minor minerals. **Includes other detonators*

Afforestation in Metalliferrous Mines during 2013-14 (By Principal Minerals)						
Mineral	**Total Mines Covered**	**Area Covered (ha)**	**Trees**		**Survival**	
			Planted (Nos.)	**Survived (Nos.)**	**Percentage**	**('000 trees) per ha**
Total	**997**	**1719**	**2604716**	**1982725**	**76.12**	**1.15**
Bauxite	87	160	270930	214957	79.3	1.34
Chromite	10	6	16190	14134	87.3	2.32
Copper	8	33	302500	180725	59.7	5.41
Dolomite	36	27	11434	7801	68.2	0.3
Iron ore	105	67	306613	202913	66.2	3.05
Iron & mn	3	6	17500	11092	63.4	1.77
Lead & Zinc	4	24	28500	24810	87.1	1.3
Limestone	531	1225	1510536	1238126	82	1.01
Manganese	12	5	6280	4298	68.4	0.87
Magnesite	4	35	20000	14170	70.9	0.4
Others	197	131	114233	69699	61	0.53

Section – 2

Mineral Production

Production, Value, Employment and Reporting Mines, 2004-05 to 2013-14, (Principal Minerals)	Coal	: 38
	Lignite	: 39
	Petroleum (Crude)	: 40
	Natural gas (Utilised)	: 41
	Bauxite	: 42
	Chromite	: 43
	Copper Ore & Concentrates	: 44
	Gold Ore and Gold	: 45
	Iron Ore	: 46
	Lead & Zinc Ore and Concentrates	: 47
	Manganese Ore	: 48
	Apatite & Phosphorite	: 49
	Barytes	: 50
	Diamond	: 51

Dolomite : 52
Fireclay : 53
Gypsum : 54
Kaolin : 55
Kyanite : 56
Limestone : 57
Magnesite : 58
Mica (Crude) : 59
Sillimanite : 60
Steatite : 61

Section-2

Mineral Production

Fuel Minerals

The steady rise in the production of coal continued during the decade under review and reached the level of 566 million tonnes during 2013-14. The production of lignite also had a rising trend during the decade ending 2013-14 except in 2005-06, 2008-09 and during 2013-14. The production of petroleum (crude) at 38 million tonnes in 2013-14 was almost at the same level of the previous year. The output of natural gas (utilised) in 2010-11 at 52219 m.cu.m. attained the highest level of the decade but declined thereafter and reached to 35407 m.cu.m. in 2013-14.

Metallic Minerals

The production of bauxite during the decade was highest in 2007-08, then declined till 2010-11 and thereafter increased gradually to 22 million tonnes in 2013-14 showing 30% increase over the previous year. The production of at 2.9 million in 2013-14 has increased marginally as compared to the previous year. The output of copper ore and concentrates had a fluctuating trend during the decade and their respective production in 2013-14 was 3778 thousand tonnes and 139 thousand tonnes with an increase of about 4% and 12% respectively over the preceding year. During

the decade ending 2013-14, the production of iron ore touched the highest level of 219 million tonnes in 2009-10. Thereafter it declined till 2012-13 and was at 152.4 million tonnes in 2013-14 with 12% increase over the preceding year. The production of manganese ore showed fluctuating trend during the decade touched the highest level of 3.1 million tonnes in 2010-11 and was at 2.6 million tonnes in 2013-14 with an increase of about 11% as compared to the previous year. The production of lead and zinc ores at 9252 thousand tonnes and lead concentrates at 194 thousand tonnes in 2013-14 was at the highest level in the decade while that of zinc concentrates at 1491 thousand tonnes was almost at the same level as compared to the previous year.

Non-Metallic Minerals

During the decade ending 2013-14, the production of apatite & phosphorite touched the highest level of 2.3 million tonnes in 2011-12 and it was 1385 thousand tonnes in 2013-14 recording a decrease of 29% over the previous year. The production of barytes also fluctuated during the decade and at 1137 thousand tonnes in 2013-14, it reported a decrease of 36% as compared to the previous year. The production of diamond also showed declining trend in the initial years of the decade and has shown increase in last three years of it. With 38 thousand carats of diamond, 19% increase in production was reported in the year 2013-14. The production of dolomite showed fluctuating trend in the decade and at 7.1 million tonnes in 2013-14, it decreased by 2 % as compared to the previous year.

The trend in production of fireclay was fluctuating during the decade

ending 2013-14 and its output at 707 thousand tonnes at the end of the decade was 29% lower as compared to the highest level attained in the previous year. The output of gypsum had a mixed trend during the decade ending 2013-14, in 2010-11 it was highest at 4918 thousand tonnes and at the end of the decade it was lowest at 2930 thousand tonnes. The output of kaolin had an increasing trend during the decade except in 2010-11 and it reached from 934 thousand tonnes in 2004-05 to highest level of 4753 thousand tonnes in 2013-14. The output of kyanite maintained a fluctuating trend of production during the decade and was at two thousand tonnes in 2013-14.

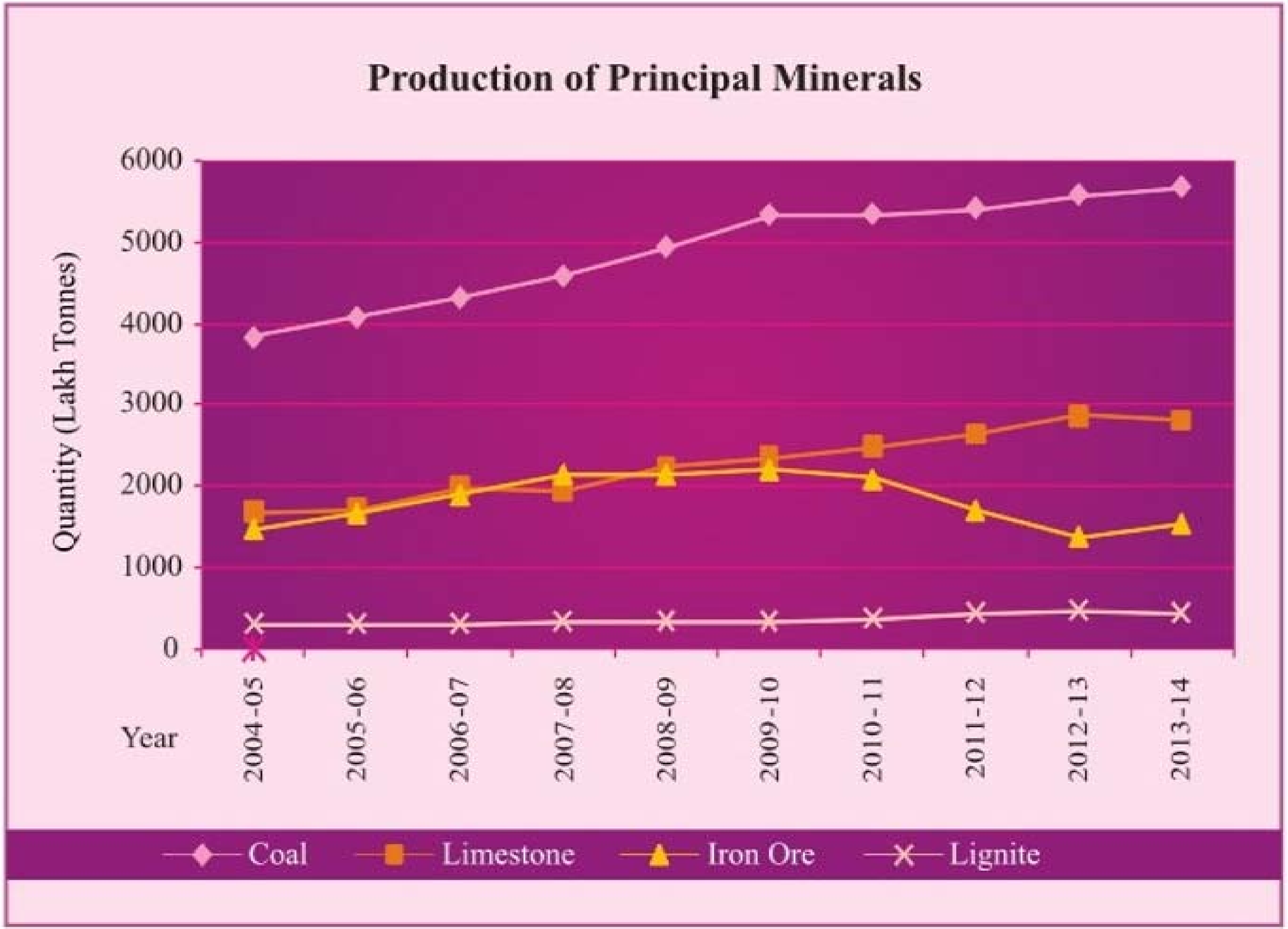
The production of limestone showed an increasing trend during the decade ending 2013-14 except a decrease of 2% in 2007-08 and 2013-14. Its production at 279 million tonnes in 2013-14 was 2% lower over the highest level of the decade in preceding year. The production of magnesite showed mixed trend during the decade ending 2013-14 and it was 195 thousand tonnes during 2013-14, showing a decrease of 13% as compared to previous year. The output of mica (crude) also showed a fluctuating trend during the decade ending 2013-14 and was 1.6 thousand tonnes at the end of it. The output of steatite with a decrease of 11% was at 865 thousand tonnes during the year 2013-14.

Production of Coal, 2004-05 to 2013-14				
Year	No. of* Mines	Quantity (Lakh tonnes)	Value (Rs. Crore)	Labour* Employed (Av. Daily)**
2004-05	563	3826	30434	393513
2005-06	547	4070	33675	384644
2006-07	561	4308	34837	371490
2007-08	559	4571	38465	357467
2008-09	561	4928	45537	356848
2009-10	560	5320	51318	360705
2010-11	559	5327	62021	355721
2011-12	559	5400	70172	352930
2012-13	559	5564	74719	345302
2013-14(P)	536	5658	82535	345302

** Excluding Meghalaya*

*** Data relates to calendar year*

Production of Principal Minerals



Production of Lignite, 2004-05 to 2013-14				
Year	No. Of Mines	Quantity (Lakh tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	8	305	2201	11698
2005-06	9	301	2153	14246
2006-07	9	313	2626	14246
2007-08	11	340	2961	14246
2008-09	13	324	3688	12566
2009-10	13	341	3776	13245
2010-11	14	377	4331	14406
2011-12	14	423	5338	13107
2012-13	16	465	5511	13212
2013-14(P)	16	443	5968	13212

Production of Petroleum (Crude), 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	34015	36080
2005-06	32190	40479
2006-07	33988	45679
2007-08	34118	49694
2008-09	33508	53385
2009-10	33690	60789
2010-11	37684	68804
2011-12	38090	69202
2012-13	37862	68817
2013-14(P)	37778	68683

Production of Natural Gas (Utilised), 2004-05 to 2013-14		
Year	Quantity (m.cu.m.)	Value (Rs. Crore)
2004-05	30820	8940
2005-06	32202	9308
2006-07	31747	9764
2007-08	32417	11000
2008-09	32845	12107
2009-10	47496	17775
2010-11	52219	33425
2011-12	47559	34211
2012-13	40679	33642
2013-14(P)	35407	29282

Production of Bauxite, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	191	11964	252	9145
2005-06	200	12596	293	8448
2006-07	197	15733	385	8082
2007-08	209	22625	568	8971
2008-09	198	15460	470	8546
2009-10	197	14124	489	8178
2010-11	193	12723	512	7851
2011-12	172	13600	613	7684
2012-13	178	16612	799	7410
2013-14(P)	163	21666	951	6668

Production of Chromite, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs.Crore)	Labour Employed (Av. Daily)
2004-05	19	3621	850	5439
2005-06	18	3714	1093	5514
2006-07	21	5296	1450	6157
2007-08	20	4873	2142	5982
2008-09	24	4073	2263	6359
2009-10	22	3426	1045	6735
2010-11	21	4326	2596	6862
2011-12	22	2923	2424	6845
2012-13	25	2834	2263	6761
2013-14(P)	26	2853	2318	6097

Production of Copper Ore and Concentrates, 2004-05 to 2013-14					
Year	No. of Mines	Copper Ore Quantity ('000 tonnes)	Copper Concentrates		Labour Employed (Av. Daily)
			Quantity ('000 tonnes)	Value (Rs. Crore)	
2004-05	5	2929	137	213	2418
2005-06	5	2643	125	251	1700
2006-07	4	3274	150	312	1661
2007-08	4	3242	150	347	1835
2008-09	4	3452	138	409	2291
2009-10	4	3271	125	381	2611
2010-11	4	3602	137	473	2712
2011-12	4	3479	130	539	2774
2012-13	5	3636	124	629	2898
2013-14(P)	5	3778	139	680	2892

Production of Gold Ore and Gold, 2004-05 to 2013-14							
Year	No. of Mines	Gold Ore Qty. ('000 tonnes)	Gold				Labour Employed (Av. Daily)
			Primary	By Product	Total		
			Qty (Kg.)	Qty (Kg.)	Qty (Kg.)	Value (Rs.Crore)	
2004-05	3	493	3526	-	3526	194	3004
2005-06	3	479	2880	167	3047	282	3085
2006-07	3	513	2361	127	2488	229	2943
2007-08	4	681	2969	-	2969	302	3064
2008-09	4	587	2438	-	2438	315	3210
2009-10	4	518	2084	-	2084	343	3210
2010-11	4	742	2399	-	2399	435	3150
2011-12	4	492	2194	-	2194	531	3100
2012-13	4	503	1588	-	1588	517	3204
2013-14(P)	4	421	1564	-	1564	423	3361

Note :- No. of Mines and labour employed relates to primary gold.

Production of Iron Ore, 2004-05 to 2013-14				
Year	No. of Mines	Quantity (Lakh tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	281	1459	7403	37091
2005-06	284	1652	10804	39450
2006-07	290	1877	14204	39341
2007-08	314	2133	23379	46056
2008-09	328	2130	28544	42702
2009-10	320	2186	26462	43557
2010-11	336	2072	39614	46183
2011-12	313	1686	38357	46752
2012-13	310	1366	32824	42645
2013-14(P)	298	1524	32031	38228

Production of Lead & Zinc Ore and Concentrates, 2004-05 to 2013-14							
Year	No. of Mines	Lead & Zinc Ore Qty. ('000 tonnes)	Lead Concentrates		Zinc Concentrates		Labour Empl-oyed (Av. Daily)
			Qty. ('000 tonnes)	Value (Rs. Crore)	Qty. ('000 tonnes)	Value (Rs. Crore)	
2004-05	6	3929	82	65	666	400	2966
2005-06	7	4801	96	77	889	572	2628
2006-07	7	5140	107	133	947	971	3914
2007-08	7	5783	126	144	1036	939	3991
2008-09	7	6681	134	136	1224	947	4157
2009-10	7	7102	134	177	1280	1306	3859
2010-11	6	7540	148	200	1427	1793	3408
2011-12	6	8042	162	245	1414	1986	3980
2012-13	8	8633	184	330	1493	2395	4665
2013-14(P)	8	9252	194	430	1491	2742	6810

Production of Manganese Ore, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	118	2386	555	13772
2005-06	116	1906	507	12321
2006-07	114	2116	557	12893
2007-08	130	2697	1206	13226
2008-09	149	2789	1774	13796
2009-10	142	2492	1191	13806
2010-11	149	3056	1468	14117
2011-12	155	2412	1178	14587
2012-13	172	2342	1284	15550
2013-14(P)	153	2588	1499	14396

Production of Apatite and Phosphorite,2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	11	1732	294	1635
2005-06	7	2058	296	1614
2006-07	7	2003	195	1535
2007-08	8	1856	215	1672
2008-09	9	1810	310	1501
2009-10	9	1611	312	1507
2010-11	9	2101	502	1749
2011-12	7	2263	750	1604
2012-13	7	1942	681	1350
2013-14(P)	5	1385	439	1410

Production of Barytes, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	17	1159	51	535
2005-06	14	1156	44	503
2006-07	10	1681	95	499
2007-08	12	1076	57	435
2008-09	10	1686	97	480
2009-10	11	2153	260	507
2010-11	8	2339	270	617
2011-12	12	1777	169	606
2012-13	21	1789	531	900
2013-14(P)	21	1137	360	932

Production of Diamond, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 carats)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	2	78	38	200
2005-06	2	44	23	235
2006-07	2	2	1	220
2007-08	2	0.6	1	197
2008-09	2	0.5	0.5	154
2009-10	2	17	12	167
2010-11	2	11	11	163
2011-12	2	18	20	167
2012-13	2	32	37	180
2013-14(P)	2	38	61	159

Production of Dolomite, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	113	4339	92	2905
2005-06	117	4751	116	2987
2006-07	124	5172	113	3091
2007-08	121	5852	146	2922
2008-09	120	5509	155	3060
2009-10	123	5912	167	2554
2010-11	136	5840	187	3047
2011-12	194	5969	174	3426
2012-13	197	7234	262	3986
2013-14(P)	173	7109	258	3412

Production of Fireclay, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	102	663	9	1657
2005-06	79	536	6	1544
2006-07	80	497	7	1077
2007-08	75	545	9	810
2008-09	61	496	8	713
2009-10	51	549	9	548
2010-11	60	857	14	553
2011-12	82	983	16	906
2012-13	74	1000	18	777
2013-14(P)	52	707	16	500

Production of Gypsum, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	33	3685	50	361
2005-06	22	3291	40	222
2006-07	28	3006	49	299
2007-08	31	3400	72	167
2008-09	27	3877	99	144
2009-10	27	3370	100	294
2010-11	30	4918	148	323
2011-12	38	3979	169	334
2012-13	37	3557	170	375
2013-14(P)	39	2930	139	389

Production of Kaolin, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	115	934	109	3163
2005-06	106	1336	205	2904
2006-07	104	1460	162	2927
2007-08	95	1466	57	2907
2008-09	93	2084	64	2718
2009-10	92	2798	68	2226
2010-11	81	2728	74	2078
2011-12	105	3077	65	2347
2012-13	145	4259	116	2818
2013-14(P)	158	4753	116	2431

Production of Kyanite,2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	9	8	0.7	120
2005-06	9	9	0.7	179
2006-07	7	8	0.8	151
2007-08	6	5	0.5	149
2008-09	5	5	0.5	125
2009-10	4	5	0.6	115
2010-11	5	6	0.6	127
2011-12	3	4	0.5	56
2012-13	4	1	0.1	55
2013-14(P)	3	2	0.6	38

Production of Limestone, 2004-05 to 2013-14				
Year	No. of Mines	Quantity (Lakh tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	600	1658	1794	19453
2005-06	550	1700	1906	18164
2006-07	583	1967	2405	18758
2007-08	553	1931	2400	17865
2008-09	601	2216	2922	19446
2009-10	565	2330	3248	21006
2010-11	592	2463	3635	20031
2011-12	719	2629	4086	23138
2012-13	778	2850	4797	22615
2013-14(P)	717	2787	4690	21133

Production of Magnesite, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	15	384	36	2459
2005-06	11	341	39	2104
2006-07	12	239	34	1285
2007-08	10	253	33	880
2008-09	10	253	36	770
2009-10	8	301	44	899
2010-11	10	236	38	899
2011-12	11	224	35	777
2012-13	15	224	46	964
2013-14(P)	14	195	40	800

Production of Mica (Crude), 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	33	1.3	2.6	424
2005-06	29	2.1	3.4	397
2006-07	35	1.4	3.8	411
2007-08	31	4.6	16.1	375
2008-09	35	1.5	4.3	425
2009-10	32	1.1	4.0	403
2010-11	32	1.3	4.5	405
2011-12	35	1.9	6.9	389
2012-13	36	1.3	4.0	451
2013-14(P)	38	1.6	4.6	440

Production of Sillimanite, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	4	31	12	2050
2005-06	4	33	17	2110
2006-07	4	26	10	1940
2007-08	4	41	18	1924
2008-09	4	34	24	2050
2009-10	4	34	26	2066
2010-11	4	49	41	1790
2011-12	4	59	52	1683
2012-13	5	44	35	1767
2013-14(P)	5	62	37	2026

Production of Steatite, 2004-05 to 2013-14				
Year	No. of Mines	Quantity ('000 tonnes)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2004-05	164	684	34	3849
2005-06	154	682	36	3874
2006-07	139	740	40	3461
2007-08	139	923	59	3598
2008-09	135	889	60	4018
2009-10	126	877	71	3731
2010-11	123	903	62	3748
2011-12	138	998	88	3894
2012-13	141	972	89	3685
2013-14(P)	111	865	91	2526

Section–3

Production of Metals & Alloys

Production of Metals and Alloys, 2004-05 to 2013-14	Iron & Steel	: 65
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	Alumina and Aluminium	: 67
	Copper	: 68
	Gold and Silver	: 69
	Lead & Zinc	: 70

Section – 3

Production of Metals & Alloys

Ferrous Metals

There was a continuous upward trend in production of finished steel during the decade ending 2013-14, except in 2008-09. It was 102.1 million tonnes during the year 2013-14 with an increase of 18% over the previous year. Similarly, upward trend in production of semi-finished steel was also observed during the decade ending 2013-14 except in the years 2007-08 and 2008-09. It increased to almost double of the level of the previous year and reached to 59.4 million tonnes in 2013-14.

Ferro-Alloys

Increasing trend in production of ferro-chrome was observed during the decade ending 2013-14 and its production at 944 thousand tonnes was same as that of the previous year. The output of ferro-manganese showed mixed trend in the decade and it was 518 th. tonnes during 2013-14. The production of ferro-silicon also had an increasing trend and was 90 thousand tonnes during year 2013-14.

Non-ferrous Metals

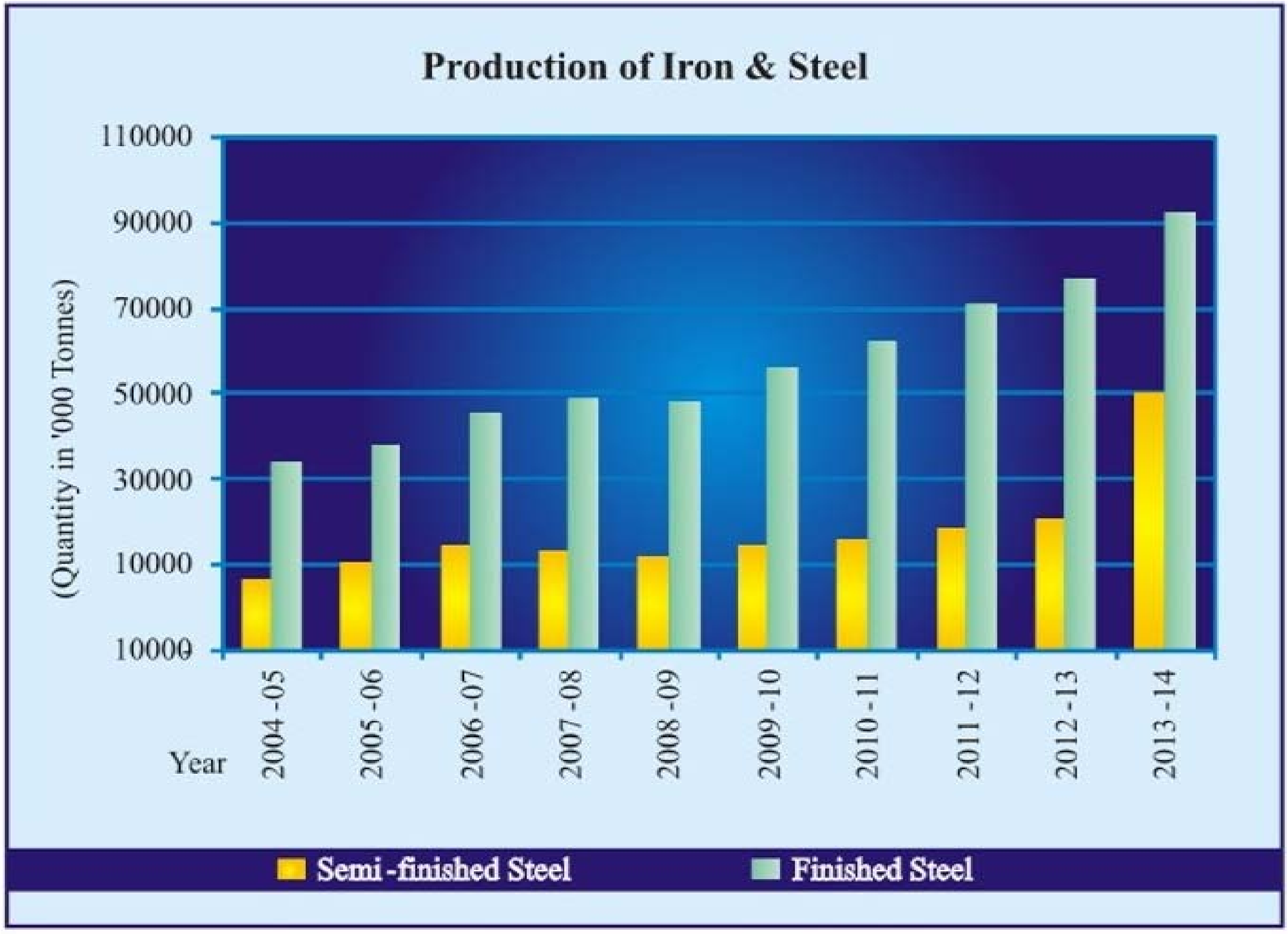
Among the non-ferrous metals, India has achieved self-sufficiency in aluminium and zinc. The production of alumina rose steadily from 2900 thousand tonnes in 2004-05 to the highest of decade at 3931 thousand tonnes in 2011-12. Registering an increase of 5% as compared to that in the previous year, its production

was 3779 thousand tonnes in 2013-14. The production of aluminium increased steadily during the decade and at 1667 thousand tonnes in 2013-14, it reported 3% decrease as compared to the previous year.

The production of copper (blister)/anode was highest at 311 thousand tonnes in 2005-06 and then declined sharply to 17 thousand tonnes in 2013-14. The production of copper (cathode) at 644 thousand tonnes in 2013-14 registered an increase of 30% and that of copper (CCWR) at 283 thousand tonnes was marginally lower than that of the previous year.

There was a fluctuating trend in the production of gold (including by product recovery from imported copper cathodes) during the decade and at 9209 kg. in 2013-14, it was 11% higher than that of the preceding year. The production of silver, a by-product, at 412 tonnes in 2013-14 was 5% lower as compared to the previous year.

The output of lead (primary) showed increasing trend during the decade except in 2010-11 and during 2013-14 the production of lead (primary) at 123 thousand was 4% higher than then the previous year. The output of zinc ingots also maintained a rising trend during the decade except in 2012-13. During 2013-14 it was 767 thousand tonnes, 9% higher as compared to the previous year.


Production of Iron & Steel
110000
90000
70000
50000
30000
10000
10000
(Quantity in '000 Tonnes)
Year
2004 -05
2005 -06
2006 -07
2007 -08
2008 -09
2009 -10
2010 -11
2011 -12
2012 -13
2013 -14
Semi -finished Steel
Finished Steel

Production of Iron and Steel, 2004-05 to 2013-14 ('000 tonnes)		
Year	Semi-finished Steel[@]	Finished Steel*
2004-05	15967	43470
2005-06	20143	47486
2006-07	23692	55287
2007-08	22685	58263
2008-09	21367	57659
2009-10	23561	65428
2010-11	25273	71775
2011-12	27928	80352
2012-13	29984	86381
2013-14(P)	59379	102090

[@] *Including Steel ingots*

** Including C.R. Sheets*

Source: Joint Plant Committee, Kolkata

Production of Principal Ferro-Alloys, 2004-05 to 2013-14 ('000 tonnes)			
Year	Ferro-Chrome	Ferro-Manganese	Ferro-Silicon
2004-05	292	193	47
2005-06	327	184	55
2006-07	363	156	69
2007-08	383	163	69
2008-09	618	332	81
2009-10	922	513	81
2010-11	938	511	81
2011-12	943	517	89
2012-13	944	518	90
2013-14(P)	944	518	90

Source: Joint Plant Committee, Kolkata.

Production of Alumina & Aluminium, 2004-05 to 2013-14 ('000 tonnes)		
Year	Alumina	Aluminium
2004-05	2900	884
2005-06	3086	931
2006-07	2811	1114
2007-08	3320	1240
2008-09	3620	1347
2009-10	3433	1481
2010-11	3577	1621
2011-12	3931	1654
2012-13	3610	1720
2013-14(P)	3779	1667

Production of Copper, 2004-05 to 2013-14 ('000 tonnes)				
Year	Blister/ Anode	Electrolytic Wire Bar	Cathode	CCWR
2004-05	190	-	413	241
2005-06	311	1	529	289
2006-07	51	-	511	276
2007-08	45	-	501	284
2008-09	29	-	514	314
2009-10	18	-	533	312
2010-11	14	-	512	300
2011-12	19	-	505	288
2012-13	17	-	494	285
2013-14(P)	17	-	644	283

CCWR: Continuous Cast Wire Rod.

Production of Gold* and Silver*, 2004-05 to 2013-14 (Kilograms)		
Year	Gold	Silver
2004-05	8680	47550
2005-06	9760	63038
2006-07	12823	101633
2007-08	12104	133635
2008-09	7309	142590
2009-10	11198	183656
2010-11	9360	193376
2011-12	11286	263910
2012-13	8304	434569
2013-14(P)	9209	411504

**Includes production reported from HINDALCO Industries Ltd.*

Production of Lead and Zinc, 2004-05 to 2013-14 ('000 tonnes)		
Year	Lead (Primary)	Zinc Ingots
2004-05	16	239
2005-06	24	296
2006-07	45	381
2007-08	58	457
2008-09	60	579
2009-10	64	614
2010-11	57	740
2011-12	92	784
2012-13	118	704
2013-14(P)	123	767

Section – 4

Foreign Trade

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Direction of Trade

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Section-4

Export

The value of exports of minerals excluding petroleum (crude) from India, showed increasing trend in the decade except in 2012-13 and increased by 22% to Rs. 194784 crore during 2013-14 as compared to its value in 2012-13.Diamond accounted for 81% of the total value of exports of minerals during 2013-14 followed by iron ore and granite 5% each.

India imports diamond (uncut) and after cutting & polishing exports the same thus earning substantial foreign exchange by value addition. The share of diamond in the value of exports of minerals increased from 67% to 81% during the period 2009-10 to 2013-14.

The export of iron ore had a fluctuating trends throughout the decade ending 2013-14 and at 16.3 million tonnes during 2013-14 it was lowest of the decade.

Granite is one of the leading foreign exchange earners during the decade. The value of its exports at Rs. 9869 crore in 2013-14 registered an increase of about 24% as compared to 2012-13.

The exports of manganese ore has decreased from 318 thousand tonnes in 2004.05 to 66 in 2013-14. The value of exports of manganese ore also declined

continuously from 121 crore in 2008-09 to 19 crore in 2013-14.

Other notable mineral items exported from India during 2013-14 were alumina, barytes, bauxite, chromite, coal, garnet (abrasive), marble, titanium ores & conc., emerald (cut & uncut) and some precious & semi-precious stones, zinc ore & concentrates, etc.

Imports

The value of imports of minerals and metals went up steeply from Rs. 262071 crore in 2004-05 to the level of Rs. 1537183 crore in 2013-14. During the year 2013-14, the share of petroleum (crude) in the total value of imports of minerals was 72% and that of diamond 11%, coal 8%, natural gas 4% and copper ore & concentrates 3%. The value of import of petroleum (crude) was Rs. 869657 crores in 2013-14 and that of diamond was Rs. 134916 crore.

India imported 167 million tonnes of coal valued at Rs. 92335 crore in 2013-14. The quantity of imports of petroleum (crude) went up steadily from 97 million tonnes in 2004-05 to 189 million tonnes in 2013-14.

The imports of rock phosphate fluctuated during the decade ending 2013-14. The quantity of imports of rock phosphate at 7.16 million tonnes decreased by 12% in the year 2013-14 while the value of its imports decreased 25% as compared to the year 2012-13.

The imports of sulphur (excluding precipitated, sublimed and colloidal) were at the level at 1.4 million tonnes in 2004-05, fluctuated during the decade and it was 1.29 million tonnes during 2013-14. The value of its imports was Rs. 1100 crore in 2013-14.

Coke, copper ores & concentrates, asbestos, emerald (cut & uncut), precious and semi-precious stones, manganese ore, marble and molybdenum ores & concentrates etc. were the other important minerals imported into India in 2013-14.

Exports of Chromite, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	1117	799
2005-06	693	631
2006-07	1203	794
2007-08	907	1223
2008-09	1899	974
2009-10	689	801
2010-11	173	286
2011-12	225	489
2012-13	196	311
2013-14(P)	195	347

Exports of Granite, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	2609	2726
2005-06	2841	3491
2006-07	3292	4725
2007-08	3701	4287
2008-09	3959	4815
2009-10	3828	4994
2010-11	4500	5593
2011-12	4605	6382
2012-13	6061	7942
2013-14(P)	6802	9869

Value of Exports of Granite, 2009-10 to 2013-14 (By Principal Countries) (Rs. Crore)					
Country	2009-10	2010-11	2011-12	2012-13	2013-14(P)
All Countries	**4994**	**5593**	**6382**	**7942**	**9869**
China	1221	1904	1920	2681	3266
USA	685	742	934	1206	1613
Turkey	189	229	277	346	392
Germany	279	248	309	312	349
UK	215	190	233	262	304
Italy	242	288	288	244	281
Libya	37	33	12	125	277
UAE	222	172	185	230	271
Belgium	209	179	201	216	210
Poland	100	112	144	152	205
Chinese Taipei/ Taiwan	129	101	165	157	
Other	1413	1399	1698	2168	2701

Exports of Iron Ore, 2004-05 to 2013-14		
Year	Quantity (Lakh tonnes)	Value (Rs. Crore)
2004-05	873	14727
2005-06	840	16829
2006-07	914	17656
2007-08	685	23400
2008-09	689	21725
2009-10	1015	28366
2010-11	469	21416
2011-12	472	22184
2012-13	181	8985
2013-14(P)	163	9481

Value of Exports of Iron Ore, 2009-10 to 2013-14
(By Principal Countries)

(Rs. Crore)

Country	2009-10	2010-11	2011-12	2012-13	2013-14(P)
All Countries	**28366**	**21416**	**22184**	**8985**	**9481**
China P Rp	24264	19900	20100	7698	7338
Japan	1484	533	1264	1013	1487
Korea Rp	299	406	478	76	307
Oman	N.A.	19	N.A.	N.A.	180
Egypt A Rp	N.A.	N.A.	N.A.	N.A.	46
Iran	N.A.	N.A.	N.A.	N.A.	34
Netherlands	41	63	153	94	N.A.
Italy	7	-	10	14	14
Bangaladesh	41	++	-	-	-
Others	2230	495	179	90	75

Exports of Manganese Ore, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	318	70
2005-06	237	46
2006-07	157	45
2007-08	208	83
2008-09	205	121
2009-10	289	117
2010-11	99	80
2011-12	75	44
2012-13	72	27
2013-14(P)	66	19

Exports of Marble, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	242	223
2005-06	259	249
2006-07	290	281
2007-08	311	408
2008-09	307	363
2009-10	276	305
2010-11	522	327
2011-12	325	386
2012-13	371	543
2013-14(P)	338	570

Exports of Mica, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	98	90
2005-06	80	106
2006-07	81	109
2007-08	100	125
2008-09	191	180
2009-10	94	162
2010-11	127	226
2011-12	132	289
2012-13	128	346
2013-14(P)	128	376

Imports of Asbestos, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	177	272
2005-06	236	415
2006-07	253	519
2007-08	312	590
2008-09	347	874
2009-10	331	939
2010-11	366	1003
2011-12	378	1199
2012-13	460	1900
2013-14(P)	286	1330

Imports of Coal, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	28949	10266
2005-06	38587	14909
2006-07	43079	16689
2007-08	49792	20739
2008-09	59004	41341
2009-10	73257	39180
2010-11	68918	41549
2011-12	102841	78827
2012-13	145790	86851
2013-14(P)	166861	92335

Imports of Petroleum (Crude), 2004-05 to 2013-14		
Year	Quantity (Lakh tonnes)	Value (Rs. Crore)
2004-05	967	118932
2005-06	993	172429
2006-07	1068	213088
2007-08	1153	257462
2008-09	1300	346845
2009-10	1536	365901
2010-11	1531	421616
2011-12	1657	643689
2012-13	1855	785602
2013-14(P)	1892	869657

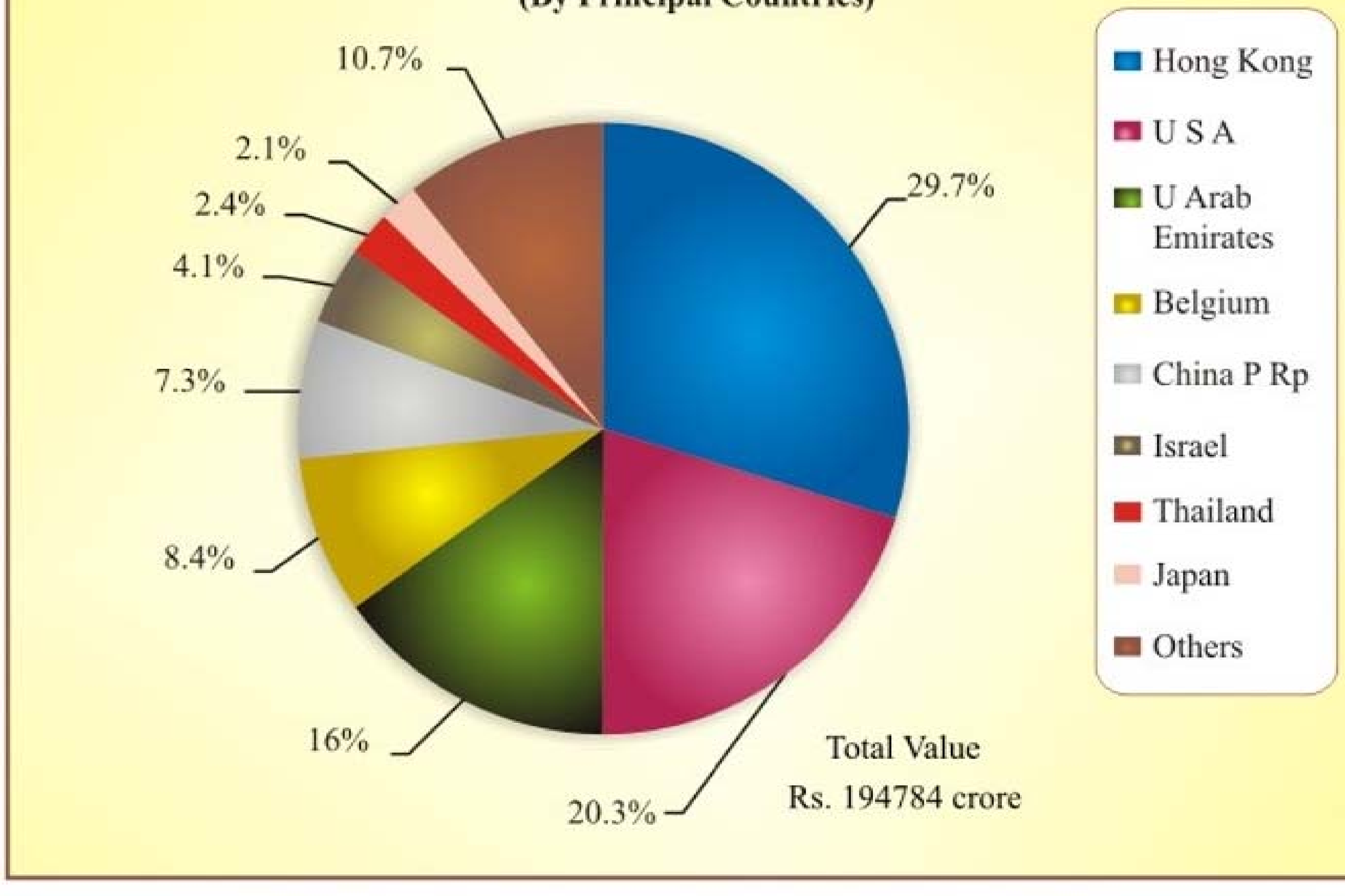
Imports of Rock Phosphate, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	4290	1291
2005-06	4478	1391
2006-07	5009	1614
2007-08	5018	1853
2008-09	5010	4840
2009-10	5684	3275
2010-11	5194	3211
2011-12	9730	8315
2012-13	8161	7310
2013-14(P)	7161	5518

Imports of Sulphur*, 2004-05 to 2013-14		
Year	Quantity ('000 tonnes)	Value (Rs. Crore)
2004-05	1433	575
2005-06	1390	602
2006-07	1402	494
2007-08	1406	1456
2008-09	1286	2994
2009-10	1534	681
2010-11	1357	1098
2011-12	2038	2283
2012-13	1547	1736
2013-14(P)	1290	1100

***** *Excluding sublimed, ppt and colloidal.*

Value of Minerals Export, 2013-14

(By Principal Countries)

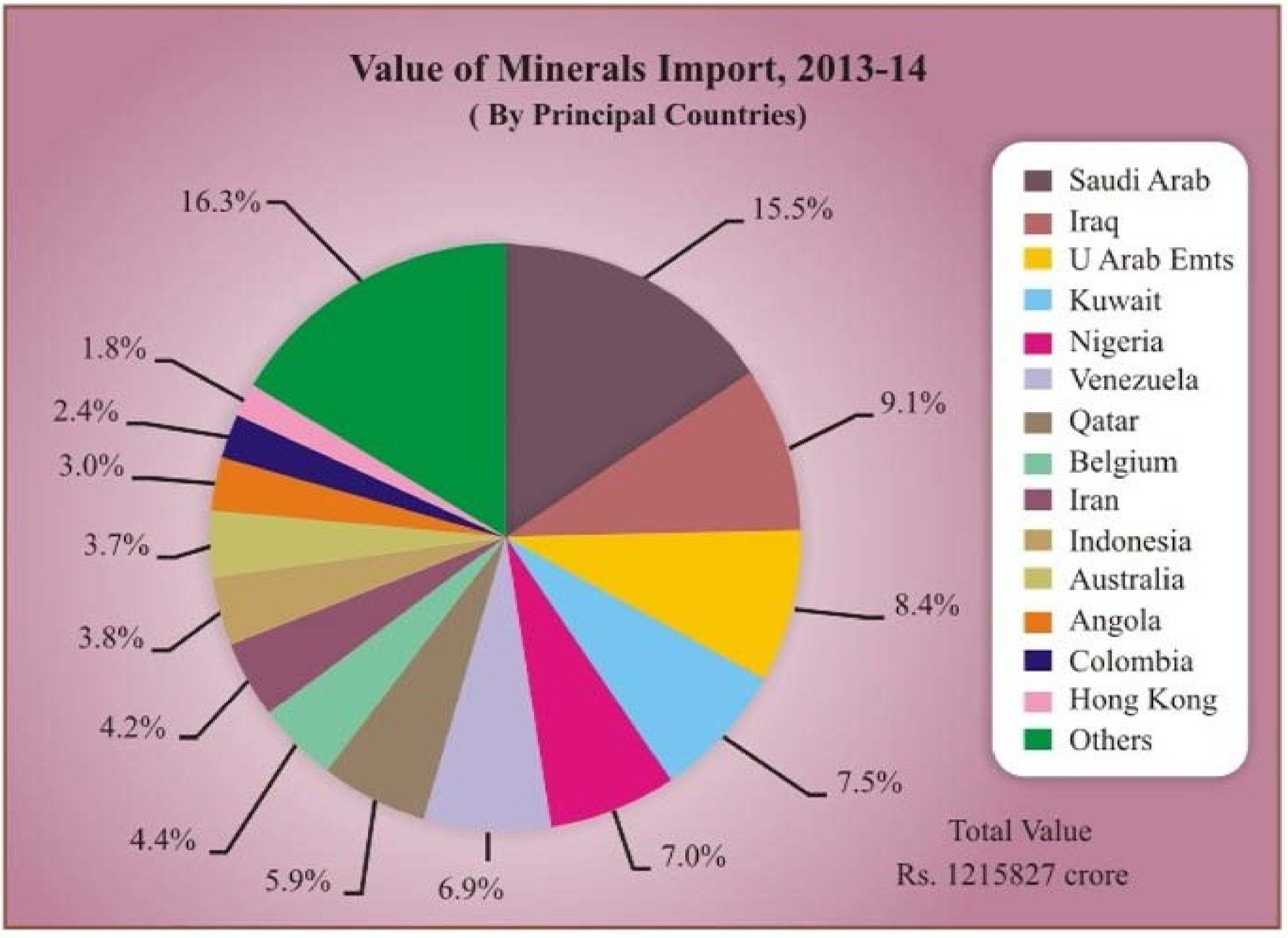


Value of Exports of Minerals, 2013-14(P) (By Principal Countries)		
Country	Value (Rs. Crore)	Percentage Contribution
Total	**194784**	**100**
Hong Kong	57870	30
U S A	39593	20
U Arab Emirates	29295	15
Belgium	16282	8
China P Rp	14277	7
Israel	8011	4
Thailand	4629	2
Japan	4077	2
Switzerland	1776	1
U K	1653	1
Singapore	1557	1
Bangladesh	1222	1
Australia	1156	1
Others	13386	7

Value of Exports of Metals, 2013-14(P) (By Principal Countries)		
Country	Value (Rs. Crore)	Percentage Contribution
Total	**153156**	**100.0**
U Arab Emirates	30401	19.8
China P Rp	15106	9.9
U S A	13637	8.9
Korea Rp	5952	3.9
Italy	4305	2.8
Saudi Arabia	4038	2.6
Germany	4038	2.6
UK	3618	2.4
Mexico	3018	2.0
Nepal	2988	2.0
Singapore	2972	1.9
Thailand	2876	1.9
Vietnam Soc. Rep.	2860	1.9
Belgium	2816	1.8
Chinese Taipei/Taiwan	2677	1.7
Netherlands	2420	1.6
Japan	2303	1.5
Others	47132	30.8

Value of Minerals Import, 2013-14

(By Principal Countries)



Value of Imports of Minerals, 2013-14(P) (By Principal Countries)		
Country	Value (Rs. Crore)	Percentage Contribution
Total	**1215827**	**100**
Saudi Arab	188763	16
Iraq	110623	9
U Arab Emts	102247	8
Kuwait	91327	8
Nigeria	84968	7
Venezuela	84363	7
Qatar	71531	6
Belgium	53801	4
Iran	51628	4
Indonesia	45721	4
Australia	44568	4
Angola	36317	3
Colombia	29307	2
Hong Kong	22060	2
Others	198601	16

Value of Imports of Metals, 2013-14(P) (By Principal Countries)		
Country	Value (Rs. Crore)	Percentage Contribution
Total	**321356**	**100.0**
Switzerland	100386	31.2
U Arab Emts	41350	12.9
China P Rp	24357	7.6
South Africa	18793	5.8
U K	16283	5.1
Korea Rp	14431	4.5
U S A	13293	4.1
Japan	11029	3.4
Australia	8774	2.7
German F Rep	7231	2.3
Russia	7033	2.2
Malaysia	5681	1.8
Other	61484	16.4

Exports, Imports and Net Trade in Minerals and Metals, 2004-05 to 2013-14

(Rs. Crore)

Year	Minerals and Metals (Including Petroleum)			Minerals (Excluding Petroleum Crude)		
	Exports	Imports	Difference	Exports	Imports	Difference
2004-05	106878	262071	-155193	70345	65826	+4519
2005-06	119447	335988	-216541	79657	71410	+8247
2006-07	143552	428489	-284937	80606	91940	-11334
2007-08	161383	491454	-330071	94913	92045	+2868
2008-09	191536	713998	-522462	109156	167664	-58508
2009-10	185807	739255	-553448	127742	158929	-31187
2010-11	268423	955845	-687422	174370	247394	-73024
2011-12	277809	1362740	-1084931	175238	300741	-125503
2012-13	300715	1547366	-1246651	160101	315198	-155097
2013-14(P)	347940	1537183	-1189243	194784	346170	-151386

Exports, Imports and Net Trade in Minerals and Metals, 2004-05 to 2013-14 (Rs. Crore)						
Year	Petroleum Crude			Metals		
	Exports	Imports	Difference	Exports	Imports	Difference
2004-05	123	118932	-118809	36410	77313	-40903
2005-06	133	172429	-172296	39657	92149	-52492
2006-07	325	213088	-212763	62621	123461	-60840
2007-08	109	257462	-257353	66361	141947	-75586
2008-09	140	346845	-346705	82239	199489	-117250
2009-10	89	365901	-365812	57975	214425	-156450
2010-11	++	421616	-421616	94052	286835	-192783
2011-12	72	643689	-643617	102500	418310	-315810
2012-13	-	785602	-785602	140614	446566	-305952
2013-14(P)	-	869657	-869657	153156	321356	-168200

Share of Principal Minerals in the Value of Mineral Exports, 2009-10 to 2013-14

Exports

Year	Exports of all Minerals (Rs. Crore)	Percentage Share of Principal Minerals						
		Diamond*	Iron Ore	Granite	Alumina	Emerald (Cut & Uncut)	Precious & Semi-Precious Stones (Cut & Uncut)	Others
2009-10	127831	67	22	4	1	++	1	5
2010-11	174370	77	12	3	2	++	1	5
2011-12	175310	77	13	4	1	++	1	4
2012-13	160101	79	6	5	1	2	1	6
2013-14(P)	194784	81	5	5	1	1	1	6

** Includes mostly cut, industrial and powder.*

Share of Principal Minerals in the Value of Mineral Imports, 2009-10 to 2013-14 Imports								
Year	Imports of All Minerals (Rs. Crore)	Percentage Share of Principal Minerals						
		Petroleum (Crude)	Diamond*	Coal	Natural Gas	Copper Ore & Conc.	Coke	Others
2009-10	524830	70	14	7	2	4	1	2
2010-11	669010	63	23	6	2	3	++	3
2011-12	944430	68	14	8	3	3	1	3
2012-13	1100800	71	11	8	4	3	1	2
2013-14(P)	1215827	72	11	8	4	3	1	1

** Includes mostly cut, industrial and powder.*

Share of Principal Countries in the Value of Exports of Diamond, 2009-10 to 2013-14 Exports of Diamond (Mostly Cut)									
Year	Value of Exports (Rs. Crore)	Percentage Share of Principal Importing Countries							
		Hong Kong	USA	UAE	Belgium	Israel	Thai-land	Singa-pore	Others
2009-10	85126	30	18	29	9	4	1	2	7
2010-11	134064	25	13	35	7	3	1	++	16
2011-12	133881	32	18	22	12	5	2	1	8
2012-13	126568	35	22	19	10	5	2	1	6
2013-14(P)	158005	35	23	17	10	5	3	1	6

Share of Principal Countries in the Value of Imports of Diamond, 2009-10 to 2013-14 Imports of Diamond (Mostly Cut)									
Year	Value of Imports (Rs. Crore)	Percentage Share of Principal Exporting Countries							
		Belg-ium	UAE	Hong Kong	Israel	UK	USA	Rus-sia	Oth-ers
2009-10	74299	29	35	18	4	5	5	N.A.	4
2010-11	152657	21	40	21	4	3	5	N.A.	6
2011-12	132181	30	26	25	5	5	4	N.A.	5
2012-13	117568	38	25	16	6	6	4	3	2
2013-14(P)	134117	40	25	14	5	3	3	3	7

Production, Exports/Imports and Apparent Consumption as Percentage of Total Availability, 2013-14(P) (By Selected Minerals)

Mineral	Total Availability* ('000 tonnes)	Percentage Share of			
		Gross Production	Imports	Exports	Apparent Consumption
Barytes	1143	100	0	93	7
Sulphur & Pyrites	1680	23	77	34	66
Steatite	868	100	0	17	83
Bauxite	22088	98	2	16	84
Iron Ore	152802	100	0	11	89
Chromite	3114	92	8	6	94
Magnesite	261	75	25	2	98
Manganese Ore	4768	54	46	1	99
Limestone	291939	95	5	1	99
Coal	732626	77	23	0	100
Silica sand	3444	97	3	0	100
Asbestos	286	0	100	0	100
Rock Phosphate	8546	16	84	0	100
Petroleum (crude)	226964	17	83	0	100

** Total Availability = Apparent Consumption + Exports = Production + Imports*

Section – 5

Average Daily Employment in Mines

Average Daily Employment in Mines

Average Daily Employment in Mines (By Groups), 2004-05 to 2013-14 : 103

Average Daily Employment in Metallic Minerals Mines, 2013-14 (By Sectors) : 104

Average Daily Employment in Non-Metallic Minerals Mines, 2013-14 (By Sectors) : 105

Average Daily Employment in Mines (By Category / Sector), 2013-14 : 106

Section-5

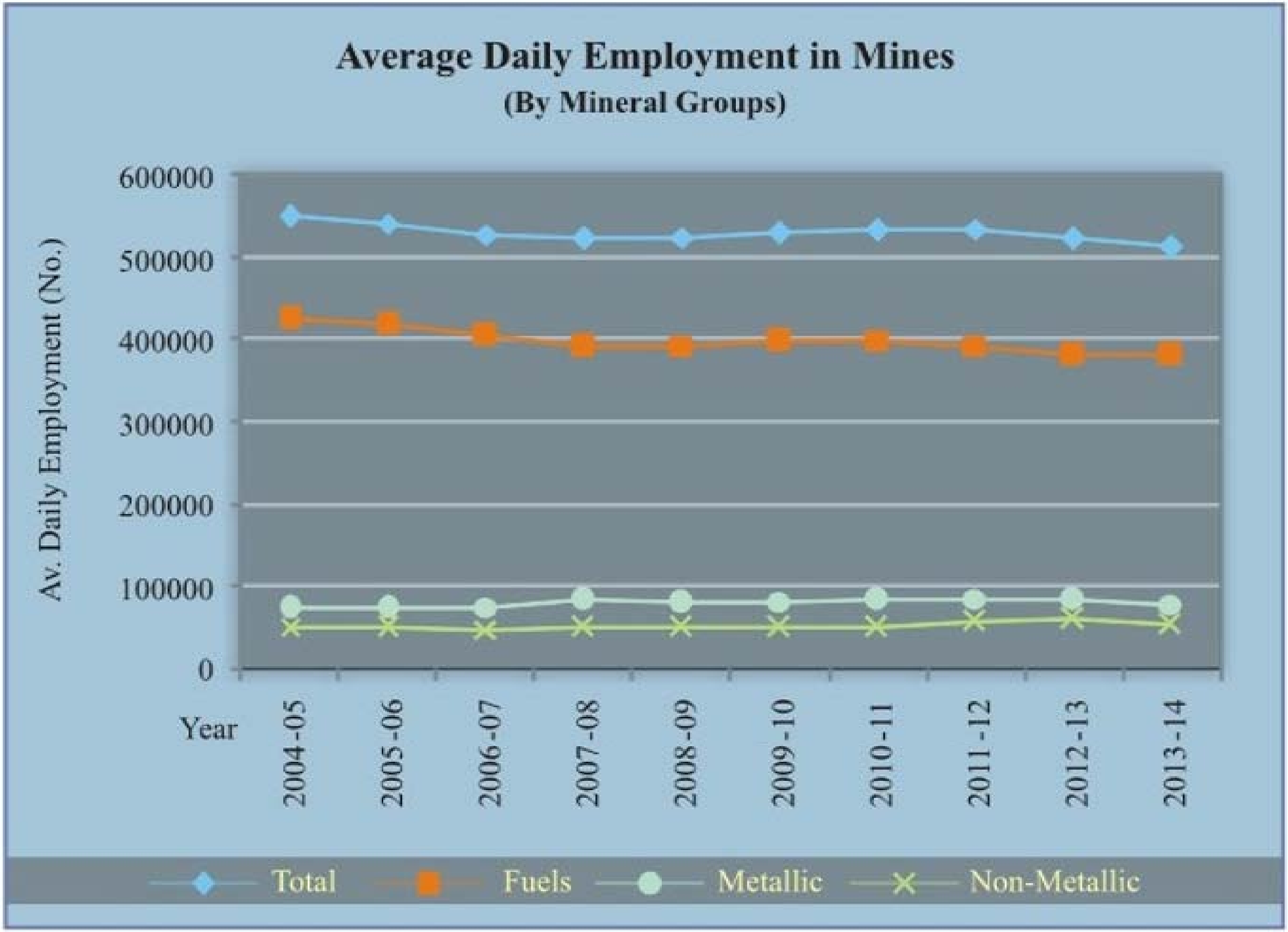
Average Daily Employment in Mines

The average daily employment of labour at around 5.49 lakh persons during 2004-05 decreased to 5.12 lakh persons in 2013-14. Among the major group of minerals, fuel accounted for 74% to the total employment during 2013-14, metallic minerals 15% and non-metallic minerals about 11 percent. The average daily employment of labour in 2013-14 was 512270 which was 2% lower as compared to the preceding year.

In the case of fuel minerals, coal and lignite together accounted for 93% of the labour force engaged during 2013-14 in fuel group of minerals. In metallic group of minerals, iron ore accounted for 49% of the total employment, followed by manganese ore 18%, lead & zinc concentrates 9%, bauxite and chromite 8% each and copper concentrates and gold 4% each. The share of limestone in the labour employed in non-metallic minerals was 40% followed by dolomite and garnet (abrasive) (6% each); steatite, kaolin and quartz (5% each); felspar, Sillimanite and silica sand (4% each) and apatite & phosphorite 3% while remaining 18% labour were employed in other non-metallic minerals.

In the case of metallic and non-metallic minerals covered under MCDR,

1988 (which excludes fuel, atomic and minor minerals) 478 mines of category 'A' employed 83 thousand persons while 2669 mines of 'B' category employed about 48 thousand persons in 2013-14. The contribution of category 'A' and category 'B' mines to the total value of MCDR minerals in 2013-14 was 76% and 24% respectively. About 39 thousand persons were engaged in 217 public sector mines and 92 housand persons engaged in 2930 private sector mines in 2013-14. The shares of public and the private sectors in the total value of metallic and non-metallic minerals production were 37% and 63% respectively.


Average Daily Employment in Mines
(By Mineral Groups)
Av. Daily Employment (No.)
600000
500000
400000
300000
200000
100000
0
Year
2004-05
2005-06
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
Total
Fuels
Metallic
Non-Metallic

Average Daily Employment in Mines, 2004-05 to 2013-14 (By Groups)				
Year	Total	Fuels*	Metallic Minerals	Non-metallic Minerals
2004-05	549452	424366	73855	51231
2005-06	541330	418178	73188	49964
2006-07	528434	404960	75039	48435
2007-08	523171	390937	83181	49053
2008-09	525024	392988	81119	50917
2009-10	530699	398845	82000	49854
2010-11	532985	399570	84336	49079
2011-12	534714	393384	85769	55561
2012-13	523548	380815	83172	59561
2013-14(P)	512270	380815	78486	52969

**: Calendar year*

Source: Fuel - DGMS, Dhanbad

Metallic & Non-metallic - Returns received under MCDR, 1988.

Average Daily Employment in Metallic Minerals Mines, 2013-14(P) (By Sectors)			
Mineral	Total	Public	Private
Total	**78486**	**28865**	**49621**
Iron Ore	38228	12268	25960
Manganese Ore	14396	6982	7414
Lead & Zinc Concentrates	6814	-	6814
Bauxite	6668	1072	5596
Chromite	6097	2334	3763
Gold	3361	3317	44
Copper Concentrates	2892	2892	-
Tin Concentrates	30	-	30

Average Daily Employment in Non-Metallic Minerals Mines, 2013-14(P) (By Sectors)			
Mineral	Total	Public	Private
Total	**52969**	**10607**	**42362**
Limestone	21133	2842	18291
Dolomite	3412	818	2594
Garnet (Abrasive)	3299	1373	1926
Steatite	2526	-	2526
Kaolin	2431	261	2170
Quartz	2464	59	2405
Felspar	2168	49	2119
Sillimanite	2026	2026	-
Silica Sand	1878	103	1775
Apatite & Phosphorite	1410	1233	177
Pyrophyllite	1172	18	1154
Chalk	1142	-	1142
Others	7908	1825	6083

Employment in Mines, 2013-14(P) (Metallic & Non-Metallic Minerals) (By Category/Sector)			
Category/Sector	No. of Mines	Average Daily Employment for the Group	Value of Production (Rs. Crore)
Total	**3147**	**131455**	**49578**
Category A	478	83439	37886
Category B	2669	48016	11692
Public Sector	217	39472	18404
Private Sector	2930	91983	31174

Category 'A' *i) Mechanised Mines*
ii) > 150 labours in all
iii) > 75 labours in workings below ground

Category 'B' *: Other than 'A'*

Section – 6

Consumption of Minerals

Consumption of Minerals, 2004-05 to 2013-14	Iron & Steel Industry	: 110
	Cement Industry	: 111
	Refractory Industry	: 112

Section-6

Consumption of Minerals

Iron & Steel Industry

Iron ore is the basic raw material required for iron & steel industry. Besides coal, limestone, dolomite, manganese ore, bauxite, ferro-alloys, fireclay and fluorite are also widely consumed.

During the year 2013-14, upward trend of mineral consumption in above minerals was observed in iron & steel industry except in case of ferro-alloys and flourite. The increase in consumption was noticed in respect of limestone (4.8%), iron ore (3.9%), manganese ore (2.8%) and dolomite (0.8%) as compared to previouis year.

Consumption of bauxite, coal and fire clay maintained almost the same level in 2013-14 as compared to previous year. During the year 2013-14, the consumption of ferro-alloys decreased marginally.

Cement Industry

Important minerals, consumed in cement industry are limestone with other calcareous materials and gypsum. Besides quartz, quartzite & silica sand, bauxite,

coal, kaolin (china clay), fire clay and iron ore are also consumed.

During the year 2013-14 consumption increased in respect of fireclay (15.8%), while considerable decrease was observed in case of quartz/quartzite/silica sand (15.4%), iron ore (8.6%), gypsum (5.8%). The consumption of bauxite, coal, and kaolin were at the same level as compared to previous year.

Refractory Industry

During the year 2013-14 increase in consumption was observed in respect of kyanite and sillimanite (4.8%) and kaolin (3.0%). The consumption of dolomite and bauxite & diaspore in refractory industry decreased by 14.4% and 4.1% respectively during the year.

The consumption of fireclay, magnesite, quartz & quartzite and chromite maintained almost the same level as that in the previous year.

Consumption of Minerals in Iron & Steel Industry, 2004-05 to 2013-14

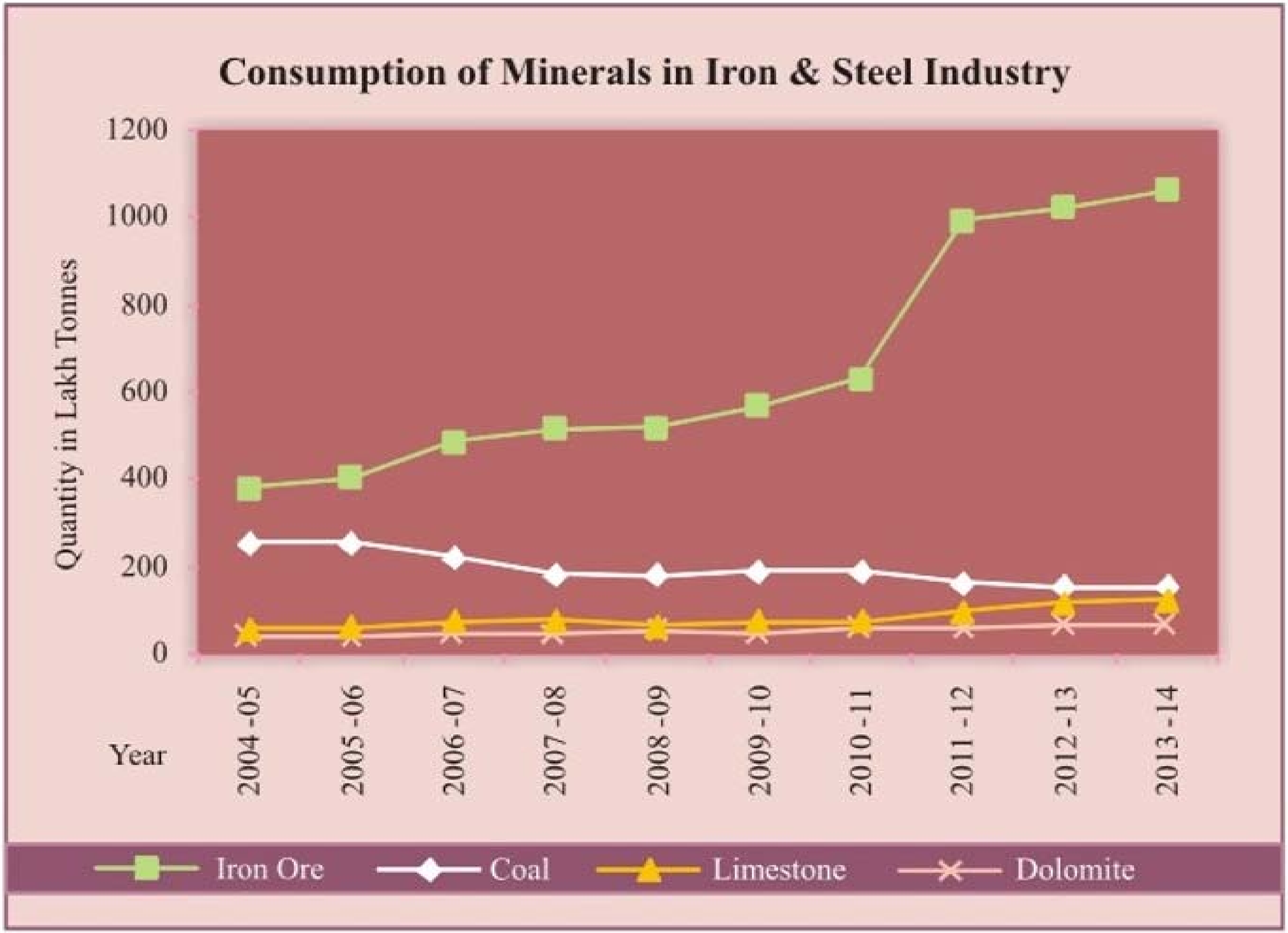
('000 tonnes)

Year	Iron Ore*	Coal*@	Lime-stone*	Dolomite	Manganese Ore	Ferro-Alloys	Bauxite	Fire clay	Fluorite
2004-05	378	252	53	3644	169	259	1	N.A.	N.A.
2005-06	402	252	59	3740	123	395	1	N.A.	N.A.
2006-07	484	217.7	69.6	4330	139	418	1	20	3
2007-08	513.0	179.7	73.2	4580	108	449	1	21	2
2008-09	516.6	177.7	62.3	4790	148	538	1	35	3
2009-10	564.2	185.7	72.5	4360	135	574	1	35	1
2010-11(R)	629.5	186.3	72.5	5290$	151	571	1	29	3
2011-12(R)	990.0	160.5	93.2	5840$	254	630	1	11	2
2012-13(P)	1020.0	150.7 #	114.1	5940$	255	631	1	11	2
2013-14(P)	1060.0	150.7(e)	119.6	5990$	262	630	1	11	2

* *Lakh tonnes. @ Relates to despatches of coal. (R) Revised (P) Provisional*

\# *Provisional coal statistics, 2013-14, Office of the Coal Controller, Kolkata.*

$ *The figures for iron & steel and pelletisation (iron & steel) added.*


Consumption of Minerals in Iron & Steel Industry
1200
1000
800
600
400
200
0
Quantity in Lakh Tonnes
Year
2004 -05
2005 -06
2006 -07
2007 -08
2008 -09
2009 -10
2010 -11
2011 -12
2012 -13
2013 -14
Iron Ore
Coal
Limestone
Dolomite

Consumption of Minerals in Cement Industry, 2004-05 to 2013-14

('000 tonnes)

Year	Limestone*#	Coal*@	Gypsum*	Quartz $	Bauxite	Iron Ore	Kaolin	Fireclay
2004-05	1264	162	43	290	504	985	207	273
2005-06	1320	147	49	289	516	950	238	262
2006-07	1570	147	57	293	693	1066	243	262
2007-08	1680	152.7	59.5	293	615	1022	270	247
2008-09	1720	131.2	65.6	298	1144	1074	339	245
2009-10	2030	131.2	69.8	279	1043	1294	642	245
2010-11(R)	2320	141.8	82.1	332	1082	1494	665	286
2011-12(R)	2400	128.8	86.2	356	1041	1548	665	276
2012-13(R)	2530	135.5 #	92.7	382	969	1586	666	253
2013-14(P)	2530	135.5(e)	87.3	323	961	1449	665	293

* *Lakh tonnes. #: Limestone and other calcareous material. (R) Revised (P) Provisional*

@ *Relates to despatches of coal. $ Includes Quartz, Quartzite and Silica Sand.*

Provisional coal statistics, 2013-14, Office of the Coal Controller, Kolkata.

Consumption of Minerals in Refractory Industry, 2004-05 to 2013-14

('000 tonnes)

Year	Dolomite	Fire clay	Magnesite*	Quartz & Quartzite	Bauxite & Diaspore	Chromite*	Kyanite & Sillimanite	Kaolin
2004-05	372	178	220	48	220	21	20	27
2005-06	373	188	215	61	295	21	24	24
2006-07	373	179	239	59	295	23	28	23
2007-08	63	182	239	53	304	23	20	28
2008-09	63	182	312	54	318	24	17	28
2009-10	63	163	229	65	128	24	18	33
2010-11(R)	213	171	163	43	118	45	15	34
2011-12(R)	213	182	112	46	280	25	15	35
2012-13(R)	375	181	91	69	313	41	21	33
2013-14(P)	321	181	91	69	300	41	22	34

** Includes consumption in iron & steel industry.*

Section – 7

Production of Mineral-based Products

Production of Mineral-based Products, 2004-05 to 2013-14

Cement and Asbestos-Cement Products	: 115
Ceramic Products	: 116
Fertilizers	: 117
Sulphuric Acid	: 118

Section – 7

Production of Mineral-Based Products

Cement and Asbestos-Cement Products

The output of cement in the country has almost doubled during 2013-14 at 2498 lakh tonnes as compared to 1253 lakh tonnes in 2004-05 and it was nearly 4% higher as compared to the level of previous year.

Ceramic Products

The total production of ceramic products consisting of glazed tiles and insulators showed increasing trend from 867 thousand tonnes in 2004-05 to a highest level of 1634 thousand tonnes in the year 2011-12 and then decreased to 1509 thousand tonnes in the year 2013-14. The output of glazed tiles at 827 thousand tonnes in 2004-05 recorded an increasing trend till 2011-12 and was at 1451 thousand tonnes during 2013-14. Production of insulators had a fluctuating trend during the decade and was at the level of 58 thousand tonnes during 2013-14.

Fertilisers and Sulphuric Acid

The output of fertilisers witnessed fluctuations during the decade and reported the production of 16.1 million tonnes in 2013-14.The production of sulphuric acid at 5619 thousand tonnes was 1.9% lower in 2013-14 as compared to the previous year.

Production of Cement and Asbestos-Cement Products, 2004-05 to 2013-14[@]

Year	Cement	Asbestos-Cement Products*
	Production (Lakh tonnes)	Production ('000 tonnes)
2004-05	1253	1736
2005-06	1405	2050
2006-07	1547	2232
2007-08	1676	2448
2008-09	1814	2382
2009-10	2007	2606
2010-11	2097	2468
2011-12	2235	N.A.
2012-13	2406	N.A.
2013-14(P)	2498	N.A.

** Includes the production of asbestos cement sheets and Asbestos cement pressure & building pipes, etc.*

Source: Department of Industrial Policy and Promotion.

@ Production figures pertain to the units included in the sample/frame for Index of Industrial Production with base year 2004-05.

Production of Ceramic Products, 2004-05 to 2013-14[@] ('000 tonnes)		
Year	Glazed Tiles	Insulators (H.T. and L.T.)
2004-05	827	40
2005-06	1077	44
2006-07	1340	41
2007-08	1365	55
2008-09	1381	56
2009-10	1452	61
2010-11	1478	68
2011-12	1573	61
2012-13	1464	56
2013-14(P)	1451	58

Source: Department of Industrial Policy and Promotion.

@ Production figures pertain to the units included in the sample/frame for Index of Industrial Production with base year 2004-05.

Production of Fertilisers, 2004-05 to 2013-14 (’000 tonnes)		
Year	Phosphatic	Nitrogenous
2004-05	4067	11338
2005-06	4221	11354
2006-07	4517	11578
2007-08	3807	10900
2008-09	3464	10870
2009-10	4321	11900
2010-11	4222	12156
2011-12	4101	12259
2012-13	3541	12194
2013-14*	3714	12378

Source: Annual report 2013-14,
Department of Fertilisers,
Ministry of Chemicals and Fertilisers.
** :Figures reported are estimated.*

Production of Sulphuric Acid, 2004-05 to 2013-14[@] ('000 tonnes)	
Year	Production
2004-05	6665
2005-06	6974
2006-07	7156
2007-08	6569
2008-09	6395
2009-10	7444
2010-11	5670
2011-12	5870
2012-13	5730
2013-14(P)	5619

Source: Department of Industrial Policy and Promotion.

@ Production figures pertain to the units included in the sample/frame for Index of Industrial Production with base year 2004-05.

Section – 8

Mining Machinery

Mining Machinery, 2013-14

Dipper Shovels	: 121
Front- End Loaders	: 122
Bulldozers	: 123
Motor Graders	: 124
Haulers/Dumpers	: 125
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Crushers	: 127
Air Compressors	: 128
Locomotives	: 129
Back Hoes	: 130
Cranes	: 131
Surface Miners	: 132

Section – 8

Mining Machinery

During the reporting year, 2013-14, a total number of 673 opencast mechanised mines were covered for compilation of statement on mining machinery as against 510 mines covered during 2012-13. Hence, there is an increase of 32% on the coverage of mines during the year.

The majority of the mechanised mines covered are of limestone, iron ore, bauxite, garnet (abrasive), gypsum, manganese ore, clay (others), chromite etc. Conventional method of deep-hole blasting with Shovel – Dumper combination is mostly found.

It is observed that there is a decrease in the number of mining machinery like Hauler/Dumper, Front-End Loader, Bulldozer, Back Hoe, Blast Holes Drills, Dipper Shovel (Mech.), Cranes and Locomotives; whereas, an increase in the number of mining machinery like Drills/Blast Holes, Motor Grader, Dipper Shovel (Hydraulic), Crusher, Air Compressor is reported during the year. However, there was an overall increase in the number of mining machinery to the extent of 4.61 percent.

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Dipper Shovels (Mechanical and Hydraulic)

Capacity (Cu.m)	Total			Mechanical			Hydraulic		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
In Use (Nos.)									
< 1.16	83	10	73	5	2	3	78	8	70
1.16-2.30	70	6	64	-	-	-	70	6	64
2.31-3.45	67	11	56	-	-	-	67	11	56
3.46-4.60	173	35	138	13	13	-	160	22	138
>4.60	107	50	57	17	17	-	90	33	57
Total	**500**	**112**	**388**	**35**	**32**	**3**	**465**	**80**	**385**
In Reserve (Nos.)									
< 1.16	6	4	2	2	2	-	4	2	2
1.16-2.30	2	-	2	-	-	-	2	-	2
2.31-3.45	9	3	6	-	-	-	9	3	6
3.46-4.60	30	4	26	3	2	1	27	2	25
>4.60	8	2	6	-	-	-	8	2	6
Total	**55**	**13**	**42**	**5**	**4**	**1**	**50**	**9**	**41**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Front End Loaders

Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	126	17	109	3	-	3
1.16 – 2.30	310	39	271	10	5	5
2.31 – 3.45	94	21	73	21	12	9
3.46 – 4.60	35	6	29	4	2	2
> 4.60	55	12	43	3	2	1
Total	**620**	**95**	**525**	**41**	**21**	**20**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Bulldozers/Ripper Dozers

Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	36	3	33	-	-	-
100-200	89	16	73	4	-	4
201-300	41	6	35	7	1	6
301-400	155	36	119	10	3	7
> 400	120	67	53	4	3	1
Total	**441**	**128**	**313**	**25**	**7**	**18**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14
Motor Graders

Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	7	4	3	-	-	-
100-200	52	10	42	1	-	1
201-300	39	23	16	1	1	-
301-400	8	5	3	2	1	1
> 400	4	4	-	-	-	-
Total	**110**	**46**	**64**	**4**	**2**	**2**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Haulers/Dumpers

Capacity (tonnes)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	1581	135	1446	76	24	52
10-20	1810	321	1489	81	11	70
21-30	1130	408	722	79	15	64
31-40	671	79	592	91	14	77
41-60	406	114	292	40	7	33
61-100	148	77	71	4	1	3
101-150	125	22	103	19	14	5
> 150	50	7	43	32	-	32
Total	**5921**	**1163**	**4758**	**422**	**86**	**336**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Drills/Blast Holes

Capacity in diameter of the hole/bit (m.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	129	20	109	17	1	16
50-100	109	28	81	32	19	13
101-150	417	86	331	57	11	46
151-200	86	28	58	5	1	4
> 200	17	16	1	-	-	-
Total	**758**	**178**	**580**	**111**	**32**	**79**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Crushers

Capacity (tonnes/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	19	1	18	3	-	3
10-50	21	5	16	1	-	1
51-100	68	7	61	3	-	3
101-300	170	22	148	6	1	5
301-500	47	7	40	-	-	-
> 500	140	43	97	7	1	6
Total	**465**	**85**	**380**	**20**	**2**	**18**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Air Compressors (Diesel & Electric)

Capacity (cu.m./min.)	Total			Diesel			Electric		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
In Use (Nos.)									
< 5	130	28	102	97	17	80	33	11	22
5.0 – 10	96	12	84	71	6	65	25	6	19
10.1 – 15	246	53	193	234	53	181	12	-	12
15.1 – 50	82	20	62	65	7	58	17	13	4
50.1 – 100	28	9	19	22	4	18	6	5	1
> 100	129	11	118	120	8	112	9	3	6
Total	**711**	**133**	**578**	**609**	**95**	**514**	**102**	**38**	**64**
In Reserve (Nos.)									
< 5	15	8	7	12	6	6	3	2	1
5.0 – 10	16	2	14	12	1	11	4	1	3
10.1 – 15	42	15	27	41	15	26	1	-	1
15.1 – 50	10	2	8	10	2	8	-	-	-
50.1 – 100	-	-	-	-	-	-	-	-	-
> 100	15	2	13	15	2	13	-	-	-
Total	**98**	**29**	**69**	**90**	**26**	**64**	**8**	**3**	**5**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Locomotives

Pay load capacity (tonnes)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	1	-	1	-	-	-
50-100	5	-	5	-	-	-
101-150	-	-	-	-	-	-
151-200	-	-	-	-	-	-
> 200	10	10	-	2	-	2
Total	**16**	**10**	**6**	**2**	**-**	**2**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14 Back Hoes						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	417	50	367	40	14	26
1.16 – 2.30	402	61	341	21	2	19
2.31 – 3.45	119	17	102	8	1	7
3.46 – 4.60	56	3	53	1	-	1
> 4.60	37	9	28	-	-	-
Total	**1031**	**140**	**891**	**70**	**17**	**53**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14

Cranes

Lifting capacity (tonnes/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	76	30	46	2	-	2
10-20	63	25	38	1	-	1
21-50	33	17	16	1	-	1
51-75	8	2	6	-	-	-
> 75	1	-	1	-	-	-
Total	**181**	**74**	**107**	**4**	**-**	**4**

Mining Machinery in Metalliferrous Opencast Mechanised Mines in India, 2013-14 Surface Miners						
Capacity (tonnes/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 150	10	-	10	-	-	-
150-200	5	-	5	-	-	-
201-250	4	-	4	-	-	-
251-300	9	-	9	-	-	-
> 300	2	-	2	-	-	-
Total	**30**	-	**30**	-	-	-

Appendix - I

Decennial Growth in Production of Important Minerals

Mineral	Unit	1953	1963	1973	1983	1993-94	2003-04	2013-14 (p)
Fuels								
Coal	'000 t	36522	65956	77870	134782	248689	361246	565765
Lignite	'000 t	35	999	3320	7310	18008	27958	44271
Natural Gas (Utilised)	m.cu. m.	-	172	912	3432	16340	30908	35407
Petroleum (Crude)	'000 t	272	1652	7198	25148	27027	33373	37788
Metallic Minerals								
Bauxite	'000 t	72	567	1297	1976	5535	10925	21667
Chromite	'000 t	66	69	289	360	1065	2905	2853
Copper Concentrates	'000 t	N.A.	39	58	175	248	143	139
Copper Ore	'000 t	242	474	1102	3424	5009	3903	3778
Gold	Kg.	6948	4305	3278	2154	2075	3261	1564
Gold Ore	'000 t	N.A.	633	567	480	432	622	421
Iron Ore	'000 t	4861	20602	35563	38089	59645	122838	152433
Lead Concentrates	'000 t	3	6	8	35	54	73	194
Zinc Concentrates	'000 t	4	11	24	75	290	590	1491
Lead & Zinc Ore	'000 t	N.A.	153	434	1230	2387	3644	9252
Manganese Ore	'000 t	2084	1316	1492	1281	1696	1776	2588
Silver	kg.	455	3991	4258	15791	56096	37870	349774

(Contd.)

Decennial Growth in Production of Important Minerals (Concld.)

Mineral	Unit	1953	1963	1973	1983	1993-94	2003-04	2013-14 (p)
Non-Metallic Minerals								
Apatite & Phosphorite	'000 t	4	13	147	791	1048	1446	1385
Barytes	'000 t	10	38	120	381	526	723	1137
Diamond	th. carats	2	1	21	14	19	71	38
Dolomite	'000 t	17	1093	1449	2239	3443	4051	7109
Fire Clay	'000 t	85	471	718	722	428	657	707
Gypsum	'000 t	595	1191	887	1022	1686	2774	2930
Kaolin	'000 t	96	216	374	595	645	897	4753
Kyanite	'000 t	16	32	58	42	11	9	2
Sillimanite	'000 t	6	11	3	9	12	20	62
Laterite	'000 t	12	N.A.	N.A.	N.A.	455	828	3491
Limestone	'000 t	5962	17347	25490	38881	83159	153404	278725
Magnesite	'000 t	94	235	193	439	375	324	195
Mica (Crude)	tonnes	6528*	25429	13830	7504	2126	1076	1610
Steatite	'000 t	30	118	210	300	421	726	865

* Relates to dressed mica.

Appendix – II

Decennial Mineral Production

Mineral	Unit	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (p)
Fuels											
Coal	'000 t	382615	407039	430832	457082	492757	532042	532694	539950	556402	565765
Lignite	'000 t	30475	30066	31285	33980	32421	34071	37733	42332	46453	44271
Natural Gas(Ut.)	m. cu. m.	30820	32202	31747	32417	32845	47496	52219	47559	40679	35407
Petroleum(Crude)	'000 t	34015	32190	33988	34118	33508	33690	37684	38090	37862	37788
Metallic Minerals											
Bauxite	t	11964011	12595803	15732535	22624960	15460202	14124093	12722820	13599566	16611610	21666011
Chromite	t	3621394	3714284	5295551	4872684	4073479	3425580	4325699	2923435	2833895	2852854
Copper Ore	t	2929074	2642706	3273906	3242371	3452406	3271169	3601984	3479189	3635751	3777764
Copper Conc.	t	137003	125392	149584	150187	137514	124577	136856	130456	123654	139306
Gold Ore	t	492748	479353	512609	681243	587215	517520	741522	491562	502831	420777
Gold	kg	3526	3047	2488	2969	2438	2084	2399	2194	1588	1564
Iron Ore	'000 t	145942	165230	187696	213250	212960	218553	207157	168582	136618	152433
Lead &Zinc Ore	t	3928500	4801184	5139915	5783099	6680698	7101872	7539999	8041881	8633411	9252137
Lead Conc.	t	81675	95738	107334	125755	133768	133921	147625	161854	184486	194426
Zinc Conc.	t	666424	889007	947387	1035828	1224077	1279880	1427231	1414009	1492781	1490662
Manganese Ore	t	2386396	1906353	2115507	2696980	2789025	2491950	3056385	2411871	2342169	2588313
Silver	kg	10955	27961	53271	80697	105284	138780	148303	207144	374046	349774
Tin Conc.	kg	23503	98734	100835	63218	59778	59016	60643	48765	47774	34851

Decennial Mineral Production (Contd…)

Mineral	Unit	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (p)
Non-Metallic Minerals											
Agate	t	25	9	38	25	-	11	19	476	493	100
Apatite	t	8596	9053	9464	6691	6415	5992	3846	3053	572	1300
Phosphorite	t	1722983	2049277	1993468	1849188	1803954	1605489	2097490	2259726	1941158	1383998
Asbestos	t	6392	2323	390	269	315	243	268	276	389	227
Ball Clay	t	637022	406675	626801	796134	997676	932993	1086714	1646516	1750559	1874049
Barytes	t	1159031	1156227	1680695	1076290	1686148	2152552	2338806	1776980	1789431	1136814
Calcite	t	66984	73558	105724	86364	67284	49309	38826	54081	74488	92146
Chalk	t	129571	148352	210838	194934	203085	185218	177197	178736	175516	126431
Clay (Others)	t	1240963	805765	1224235	818993	1220783	1056273	730752	1417684	2680726	2360871
Corundum	kg	18560	58000	156000	89920	21000	6600	-	37000	5000	-
Diamond	crt	78316	44170	2180	586	536	16891	11222	18490	31988	37515
Diaspore	t	21008	24494	15944	21236	24642	25569	26082	23818	16222	14781
Dolomite	t	4339306	4750512	5171649	5852296	5509237	5911759	5839710	5968554	7233958	7108696
Dunite	t	20756	36621	29708	57989	50935	71642	23716	38774	88274	65098
Felspar	t	379055	426498	479715	488458	534032	496997	546472	835526	1459008	1412518
Fireclay	t	662633	535735	497402	544973	495781	548748	856741	983155	999925	706639
Felsite	t	683	981	642	550	1238	3049	1670	1117	1266	549

Decennial Mineral Production (Contd…)

Mineral	Unit	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (p)
Fluorite (Graded)	t	6291	5577	2053	3970	3176	105232	59954	5010	3092	2486
Fluorite (Conc.)	t	7717	3764	-	3794	6814	-	-	-	-	-
Flint Stone	t	-	-	-	-	-	-	-	708	633	459
Garnet (Abrasive)	t	642329	671541	865618	1275919	1151241	1580617	2126337	1717904	768248	457626
Garnet (Gem)	kg	90	-	-	-	-	-	-	-	-	-
Graphite (R.O.M.)	t	108150	125651	162293	170813	117767	124625	115697	153339	134735	146009
Gypsum	t	3684758	3291478	3005572	3400050	3876671	3370322	4918170	3978806	3556723	2929912
Iolite	kg	-	-	-	-	-	758	4	-	-	-
Jasper	t	1265	536	-	-	99	-	-	-	-	-
Kaolin	t	933654	1335744	1460363	1466442	2083731	2798340	2727946	3076795	4258697	4752643
Kyanite	t	8208	8869	8059	5102	4620	5495	5954	4064	1048	1922
Sillimanite	t	30711	33119	26366	40537	33702	33687	48784	59206	43736	61597
Laterite	t	949973	1040816	1476260	1478590	1237393	1300772	1220304	2815275	4121192	3491510
Limestone	’000 t	165753	170029	196695	193089	221573	232950	246336	262882	285030	278725
LimeKankar	t	470526	291926	395817	336385	434332	335067	383817	311219	192426	140088
Limeshell	t	138071	110296	103548	128250	97856	62215	30410	33225	24044	18786
Magnesite	t	383953	340674	238981	252849	252880	301070	235762	224104	224315	195105
Marl	t	-	-	-	4155925	4167452	5908226	4399379	4140577	4337009	3254162

Decennial Mineral Production (Concld.)

Mineral	Unit	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (p)
Mica (Crude)	t	1276	2116	1411	4578	1462	1061	1333	1899	1256	1610
Mica(Waste &Scrap)	t	2497	4754	3170	3505	5685	8098	7311	14186	16255	17545
Ochre	t	919018	1007088	1047831	1233221	766382	1258207	1218261	1576265	1833783	1554680
Perlite	t	355	122	68	-	-	-	-	-	-	-
Pyrophyllite	t	271225	182526	147807	203707	255699	240747	240082	255891	247968	208454
Pyroxenite	t	265847	340953	301733	289321	281785	279332	253205	86031	58562	2985
Quartz	t	319004	302259	293660	315281	430734	512320	497546	782575	1384155	1395452
Quartzite	t	97036	109210	102711	95850	97458	112652	118117	272141	501399	529988
Silica Sand	t	1962029	2369977	2663289	4303513	2836804	2545988	3380968	4867667	4303883	3346114
Moulding Sand	t	-	-	-	-	-	-	-	30	3118	29961
Sand (Others)	t	1496160	2277632	1770235	1804306	1808185	2159405	2057119	2625111	2638424	2552918
Salt (Rock)	t	3073	1871	1714	1216	2011	1836	1200	-	-	-
Shale	t	2218004	2683853	2849877	2894922	3047063	3033948	3081622	3439775	3067718	2990579
Slate	t	5825	2527	4	7827	8931	-	-	0	278	339
Steatite	t	684440	681534	739849	922505	888995	876548	902686	998438	971778	865126
Selenite	t	5169	-	-	3864	15224	14598	6736	13047	7577	532
Sulphur	t	113904	152090	204186	227311	269572	263124	236998	381146	449004	390325
Vermiculite	t	3377	6674	11827	8910	12647	11662	19234	10194	7947	10176
Wollastonite	t	170292	128582	131572	118666	111581	132385	183381	184445	145667	192642