Indian Mineral Industry at a Glance

2020-21

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Indian Bureau of Mines
Nagpur

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Nagpur

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PREFACE

"Indian Mineral Industry at a Glance 2020-21" is the 40th edition in its series. This is a combined issue composing updated data for 2018-19, 2019-20 & 2020-21 to overcome the slippage of data during covid-19 period. 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 for ease of reference. 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 features of the mining sector. It is stated that some of the figures of GDP/GVA, consumption, foreign trade, employment, mineral based product etc. pertaining to previous years are updated based on latest data. To overcome the slippage of data some additional tables have been included in this issue only.

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 may include re-exports and import data may include re-imports

for the years 2009-10 to 2020-21.

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.

During the year 2014-15, 31 non-metallic minerals were notified as minor minerals by the Central Government w.e.f. 10.02.2015. The figures of such minerals for the year 2014-15 were available for the period from April 2014 to January 2015. Therefore, the figures of these minerals are of the period of 10 months (April 2014 to January 2015) and not comparable with those of previous years.

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 mining and mineral sector.

Place : Nagpur
Dated: April 18th, 2024

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 Tonne
m.t.	Million Tonne
m.cu.m.	Million Cubic Metres
R.O.M.	Run-of-mine
Av.	Average
m.m.	Millimetre
h.p.	Horsepower

Section – 1

General

Section-1

General

The value of mineral production in India covering fuel, metallic, non-metallic and minor minerals rose spectacularly during the last 8 decades since 1950 and touched the level of Rs. 1,65,326 crores in 2019-20 and the level of Rs 1,58,869 crores in 2020-21 respectively (*Table-12*). The increase in the value was attributable to both rises in mineral production as well as in mineral prices.

The production of principal minerals like coal, lignite, petroleum (crude), bauxite, chromite, copper ore and concentrates, iron ore, lead and zinc concentrates, manganese ore, silver, diamond, limestone, phosphorite, sillimanite etc. had gone up whereas that of gold, kyanite etc. declined as compared with 1959 to the year 2019-20 simultaneously as compared with the year 1950 to the year 2020-21 respectively (*Table -114 & 115*).

The index of mineral production (base 2011-12=100) has decreased from 109.6 in 2019-20 to 101.0 in 2020-21 showing with decrease of 7.8 % as compared to the previous year (*Table -17*).

During the year 2020-21, the value of production of metallic minerals was Rs.72,199 crores or about 89% while that of non-metallic minerals it was Rs. 9,236 crores or 11% of the total of the total value of MCDR minerals. The Public

Sector of the total value of MCDR minerals in India was accounted for around 34% whereas private sector contributed 66% of the total value of MCDR minerals (*Table -16*). The total number of mines in 2020-21 (excluding atomic, fuel and minor minerals) was reported 1353 (Metallic-608 & Non-metallic-745 mines). While the total number of mines in 2019-20 (excluding atomic, fuel and minor minerals) was reported 1370 (Metallic-601 & Non-metallic-769 mines) (*Table -8*).

Growth during 1950 to 2020-2021

The mining sector has shown significant growth since 1950. The value of mineral production (excluding atomic and fuel minerals) touched at Rs. 1,65,326 crore in 2019-20 from Rs. 144 crore in 1959 and at Rs 1,58,869 crore in 2020-21 from Rs. 70 crore in 1950 (Table-10 & 11). This was due to significant achievements made in the production of almost all metallic, non-metallic minerals and minor minerals. The value of metallic minerals rose from Rs. 14 crore and that of non-metallic minerals (including minor minerals) from Rs. 7 crore in 1950 to Rs. 72,199 crore and to Rs. 86,670 crore respectively in the year 2020-2021.

The performance of some important minerals such as fuel, metallic and non-metallic minerals in the last 70 years is shown under Appendix-I (c) at the end of this publication (*Table -115*).

Fuel Minerals:

During the year 2020-21, the production of coal at 716 million tonne in 2020-21 was more than 21 times of its production at 33 million tonne in 1950. The production of lignite at 38 million tonne was substantially higher than that of 21 thousand tonne in 1950. The production of petroleum (crude) at 30 million tonne was also recorded more than 117 times of its production at 259 thousand tonnes in 1950. Natural gas (utilised) was recorded a production of 28673 m.cu.m. gas, which had no production in 1950 (*Table -115*).

Metallic Minerals:

The production of all metallic minerals, except gold, registered a spectacular growth during the last 70 years. The production of iron ore increased from 3.1 million tonne in 1950 to 205 million tonne in 2020-21. The production of bauxite increased from 65 thousand tonne in 1950 to 20 million tonne in 2020-21, chromite from 17 thousand tonne to 2.8 million tonne, manganese ore from 935 thousand tonne to 2.7 million tonne, lead concentrates from 2 thousand tonne to 377 thousand tonne and zinc concentrates from 1 thousand tonne to 1514 thousand tonne, copper ore from 366 thousand tonnes to 3273 thousand tonnes. The production of silver, a by-product in the country, was at 705796 kg. in 2020-21 as compared to 488 kg. in 1950. However, the production of primary gold

decreased from 6125 kilogram in 1950 to 1127 kilogram in 2020-21(*Table -115*).

Non-Metallic Minerals:

In the non-metallic minerals, the production of limestone at 349 million tonne in 2020-21 was more than about 71 times of its production 4.9 million tonnes in 1950. The production of apatite & phosphorite rose from 3 thousand tonne in 1950 to 1456 thousand tonne in 2020-21, magnesite from 54 thousand tonne to 75 thousand tonne in last 70 years. The production of diamond also increased from 3 thousand carat in 1950 to 14 thousand carat. In 2020-21 while the production of kyanite was declined from 36 thousand tonne in the year 1950 to 5 thousand tonne in the year 2020-21(*Table -115*).

Table -1 **Mineral Reserves and Resources**				
Mineral	Unit	As on 01.04.2020 (P)		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Alexandrite	--	N.E.	N.E.	N.E.
Andalusite	1000 Tonnes	-	126050	126050
Antimony				
Ore	Tonne	7503	11180	18683
Metal	Tonne	75	180	255
Apatite	Tonne	29395	21080904	21110299
Asbestos	Tonne	-	22908067	22908067
Bauxite	1000 Tonne	646493	4311754	4958248
Borax	Tonne	0	74204	74204
Chromite	1000 Tonnes	78535	253150	331685
Cobalt (Ore)	Million Tonnes	-	45	45
Copper				
Ore	1000 Tonne	163891	1496979	1660870
Metal	1000 Tonne	2162	10036	12197
Diamond	Carats	847559	30876432	31723991
Diatomite	1000 Tonnes	-	2885	2885
Emerald	Kilogram	-	55869	55869
Fluorite	Tonne	404241	20588239	20992480
Garnet	Tonne	8590472	47416654	56007126

Mineral Reserves and Resources (Contd…)

Mineral	Unit	As on 01.04.2020 (P)		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Gold				
Ore(Primary)	Tonne	23728100	494506270	518234370
Metal(Primary)	Tonne	93	515	607
Ore (Placer)	Tonne	-	26121000	26121000
Metal (Placer)	Tonne	-	6	6
Graphite	Tonne	8563411	203060176	211623587
Iron Ore (Haematite)	1000 Tonnes	6209034	17848870	24057905
Iron Ore (Magnetite)	1000 Tonnes	202823	11024791	11227614
Kyanite	Tonne	846865	104835455	105682321
Lead-Zinc				
Ore	1000 Tonnes	103275	663222	766497
Lead Metal	1000 Tonnes	1900	10970	12870
Zinc Metal	1000 Tonnes	7438	25732	33170
Lead+Zinc Metal	1000 Tonnes	-	143	143
Limestone	1000 Tonnes	19028470	208560789	227589259
Magnesite	1000 Tonnes	66070	393047	459117
Manganese Ore	1000 Tonnes	75041	428583	503624
Marl	Tonne	68145000	31053477	99198477

Mineral Reserves and Resources (Contd…)

Mineral	Unit	As on 01.04.2020 (P)		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Molybdenum				
Ore	Tonne	-	27203398	27203398
Contained MoS2	Tonne	-	16891	16891
Nickel Ore	Million Tonnes	-	189	189
Perlite	1000 Tonnes	-	2406	2406
Platinum group of metals (PGM)	Tonnes of Metal Contained	-	21	21
Potash	Million Tonnes	-	23091	23091
Pyrite	1000 Tonnes	-	1674401	1674401
Rare Earth Elements (REE)	Tonne	-	459727	459727
Rock Phosphate	Tonne	30876093	280377392	311253485
Rock Salt	1000 Tonnes	3860	8920	12780
Ruby	Kilogram	-	5349	5349
Sapphire	Kilogram	-	450	450
Sillimanite	Tonne	8262300	64005091	72267391
Silver				
Ore	Tonne	170446020	398197732	568643752
Metal	Tonne	7707	22561	30268

Mineral Reserves and Resources (Contd…)

Mineral	Unit	As on 01.4.2020 (P)		
		Reserves (A)	Remaining Resources (B)	Total (A+B)
Sulphur (Native)	1000 Tonnes	-	210	210
Tin				
Ore	Tonne	2101	83720794	83722895
Metal	Tonne	974	102783	103757
Titanium	Tonne	15998625	411108526	427107150
Tungsten				
Ore	Tonne	-	89432464	89432464
Metal	Tonne	-	144650	144650
Vanadium				
Ore	Tonne	-	24633855	24633855
Contained V2O5	Tonne	-	64594	64594
Vermiculite	Tonne	1590996	765227	2356223
Wollastonite	Tonne	2680978	22427488	25108466
Zircon	Tonne	669466	1674435	2343901

***Source**: National Mineral Inventory as on 01.04.2020*
(P): provisional N.E : Not estimated
Note: Figures are rounded-off.

Table -2 **Mining Leases as on 31-3-2021[@] (p) (By Principal Minerals)**				
Mineral	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**3314**	**100**	**306398.76**	**100**
Limestone	1960	59.14	171079.05	55.84
Iron ore	359	10.83	56020.35	18.28
Bauxite	352	10.62	26082.24	8.51
Manganese ore	249	7.51	14340.48	4.68
Vermiculite	56	1.69	892.75	0.29
Siliceous earth	39	1.18	271.57	0.09
Graphite	38	1.15	1557.85	0.51
Magnesite	35	1.06	2308.65	0.75
Garnet	30	0.91	176.95	0.06
Chromite	24	0.72	7629.79	2.49
Others	**172**	**5.19**	**26039.08**	**8.50**

Source: *Data as received from respective State Government Departments (DGMs/DMGs etc).*

@: Excluding fuel, atomic & minor minerals

(p): provisional

Mining Leases of principal minerals as on 31.03.2021

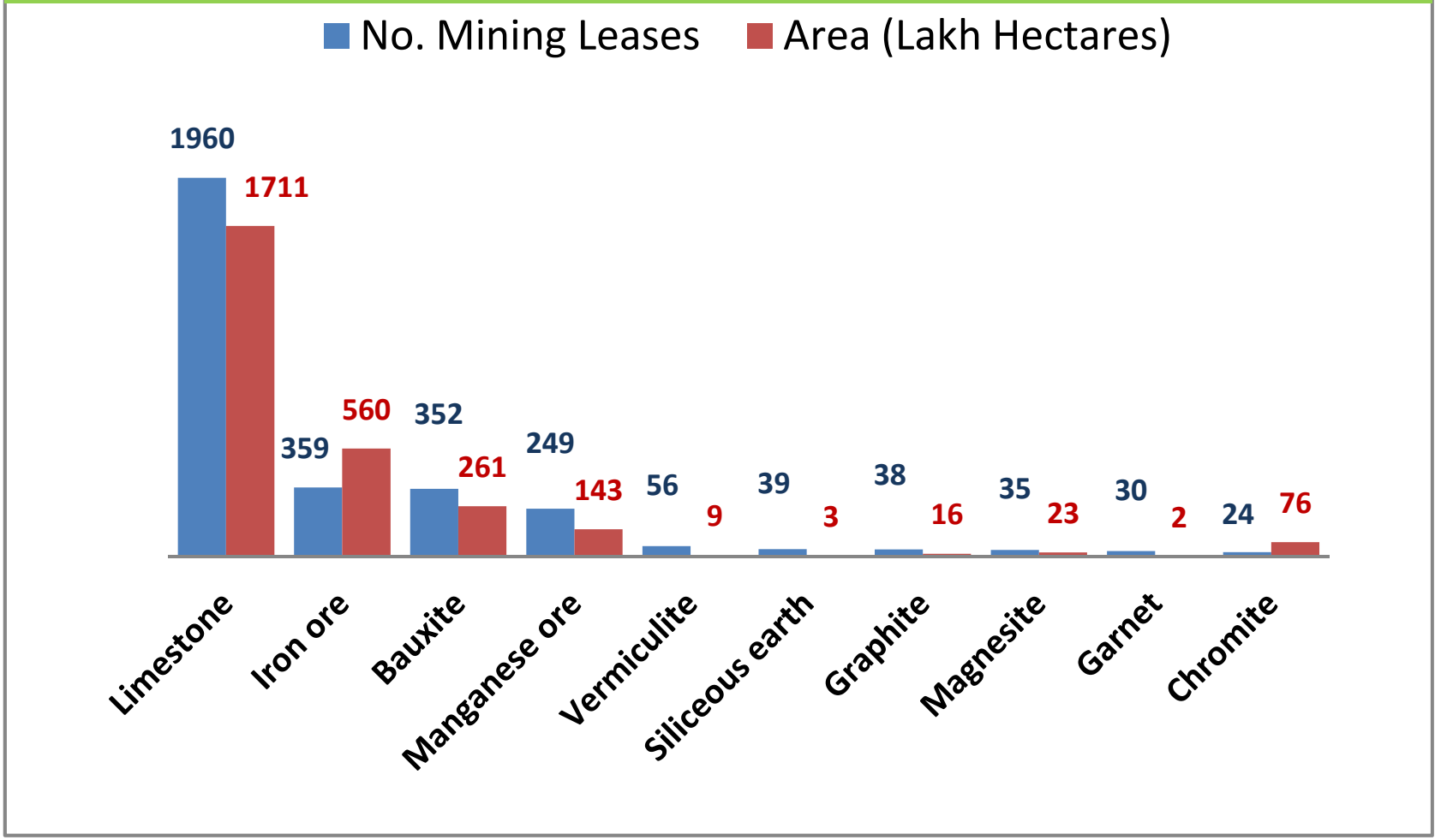


Table -3 **Mining Leases as on 31-3-2021[@](p) (By Principal States)**				
State	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
All States	**3314**	**100**	**306398.76**	**100**
Madhya Pradesh	714	21.54	44342.37	14.47
Tamil Nadu	463	13.97	9170.16	2.99
Gujarat	415	12.52	27535.8	8.99
Andhra Pradesh	400	12.07	26743.81	8.73
Karnataka	313	9.44	34984.36	11.42
Chhattisgarh	181	5.46	25062.33	8.18
Maharashtra	164	4.95	14540.58	4.75
Rajasthan	163	4.92	33561.83	10.95
Odisha	154	4.65	49587.23	16.18
Jharkhand	122	3.68	19902.95	6.50
Others	225	6.80	20967.34	6.84

Source: *Data as received from respective State Government Departments (DGMs/DMGs etc).*
@ Excluding fuel, atomic & minor minerals
(p): provisional

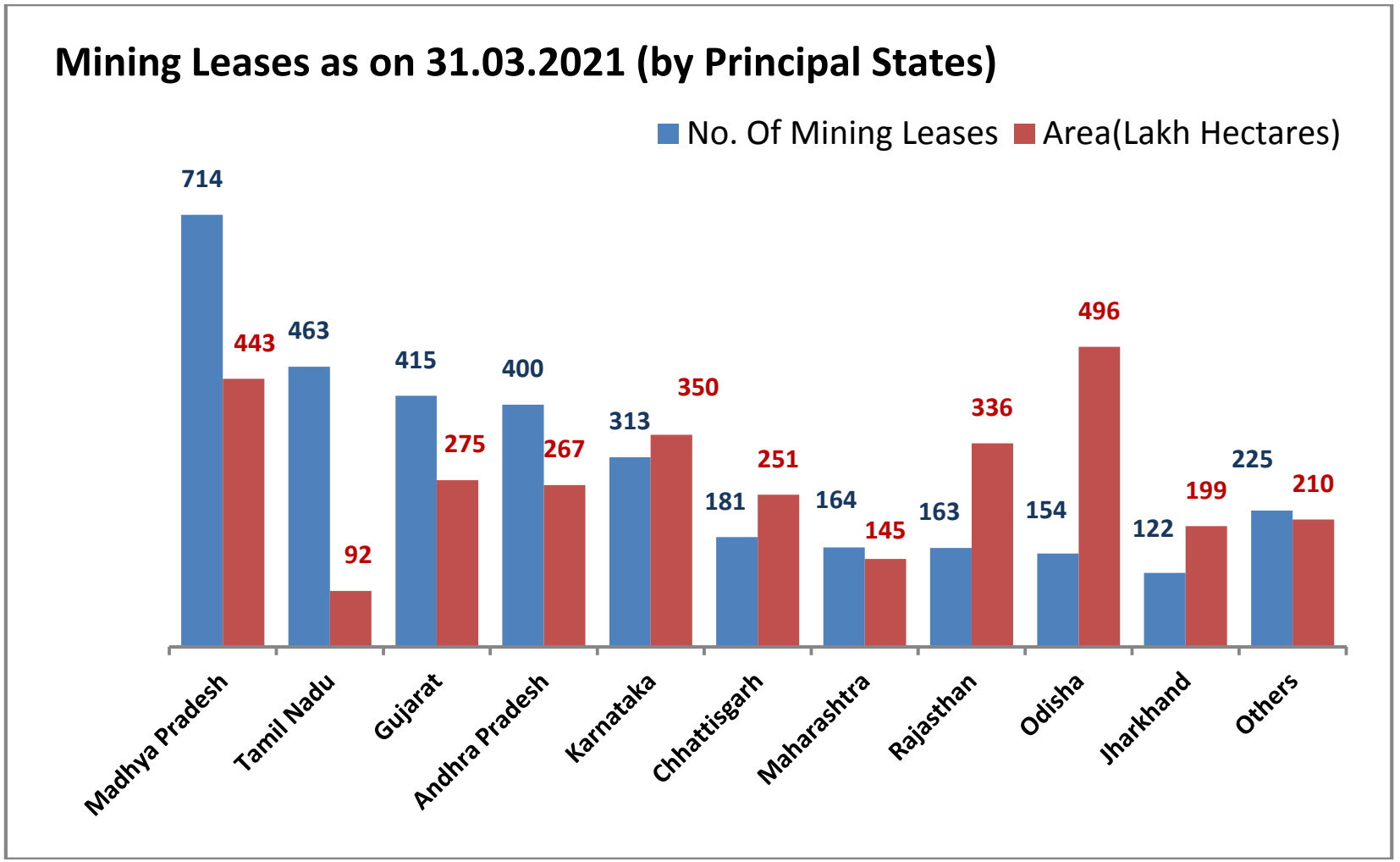

Mining Leases as on 31.03.2021 (by Principal States)
No. Of Mining Leases
Area(Lakh Hectares)
714
443
463
92
415
275
400
267
313
350
181
251
164
145
163
336
154
496
122
199
225
210
Madhya Pradesh
Tamil Nadu
Gujarat
Andhra Pradesh
Karnataka
Chhattisgarh
Maharashtra
Rajasthan
Odisha
Jharkhand
Others

Table -4 **Concentration of Mining Leases as on 31-3-2021[@] (p) (By Potential)**					
Potential Bearing Districts	No. of Districts	No. of Mining Leases Granted/ Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**197**	**3314**	**100.00**	**306398.76**	**100.00**
Low	184	1922	58.00	242212.54	79.05
Medium	8	567	17.11	24675.36	8.05
High	5	825	24.89	39510.86	12.9

Source: *Data as received from respective State Government Departments (DGMs/DMGs etc).*

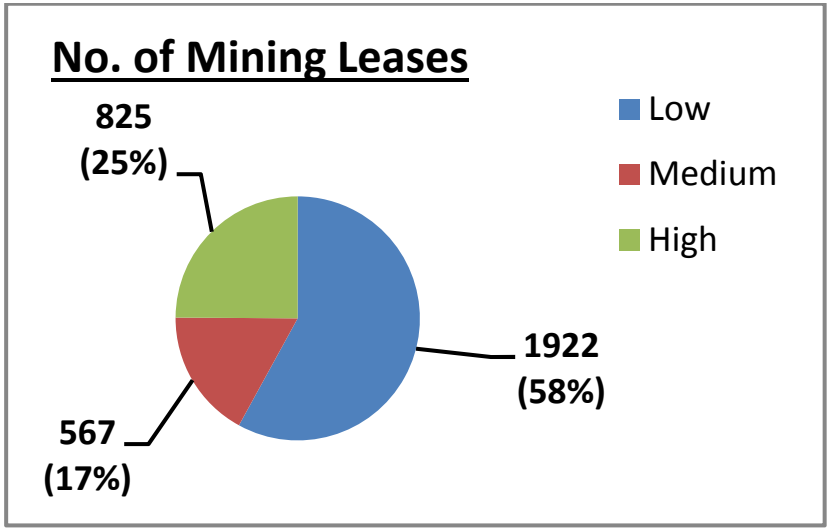
@ Excluding fuel, atomic & minor minerals

(p): provisional

High : > 100 mining leases in a district

Medium: 51 – 100 mining leases in a district

Low : 1– 50 mining leases in a district



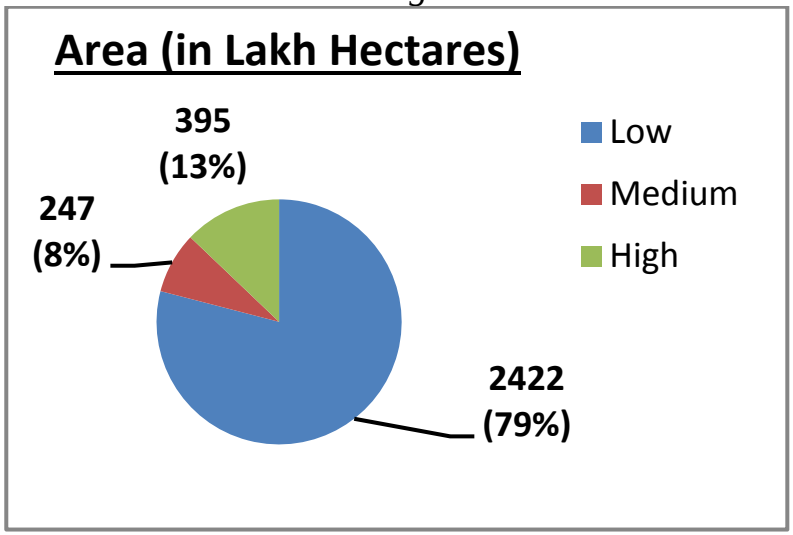
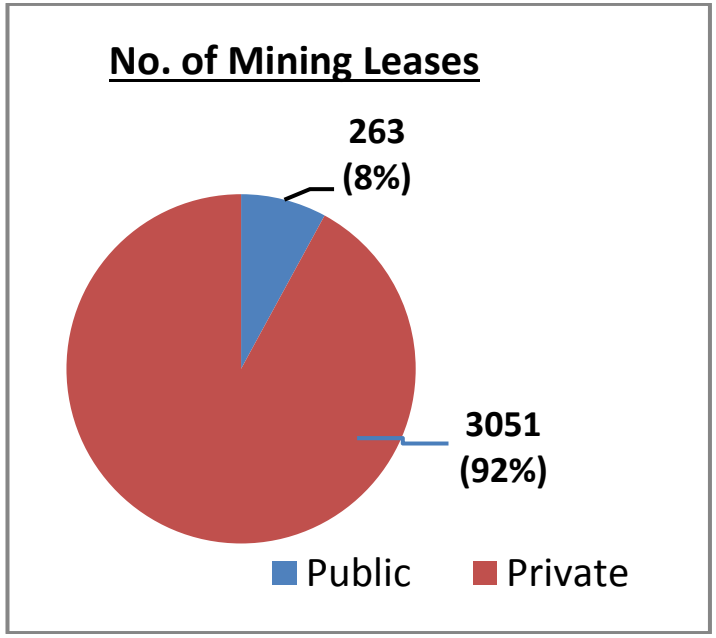


Table -5 **Distribution of Mining Leases as on 31-3-2021[@] (p) (By Sectors)**				
Sector	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	3314	100	306398.76	100
Public	263	7.94	85355.41	27.86
Private	3051	92.06	221043.35	72.14

Source: *Data as received from respective State Government Departments (DGMs/DMGs etc).*
Note: The data received from respective regional offices of IBM have also been taken in account wherever necessary. (p): provisional



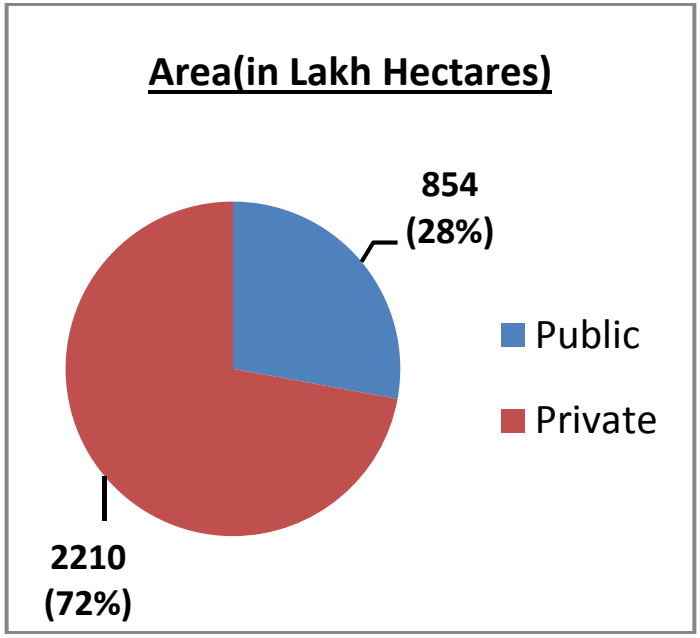


Table -6 **Distribution of Mining Leases as on 31-3-2021[@] (p) (By Lease Groups)**				
Frequency Groups (No. of Leases)	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**3314**	**100**	**306398.76**	**100**
> 0 to 2	387	11.68	506.08	0.16
> 2 to 5	888	26.80	3446.4	1.12
> 5 to 10	403	12.16	2972.81	0.97
> 10 to 20	369	11.13	5456.64	1.78
> 20 to 50	440	13.28	14331.58	4.68
> 50 to 100	254	7.66	18192.1	5.94
> 100 to 200	186	5.61	26796.84	8.75
> 200 to 500	212	6.40	69744.92	22.76
Above 500	175	5.28	164951.39	53.84

Source: *Data as received from respective State Government Departments (DGMs/DMGs etc).*
Note: The data received from respective regional offices of IBM have also been taken in account wherever necessary.
(p): provisional

Table -7 **Distribution of Mining Leases as on 31-3-2021[@] (p) (By Area Groups)**

Frequency Groups (Area in ha.)	No. of Minerals	No. of Mining Leases Granted/Executed	% to Total Leases	Area ('000 ha)	% to Total Area
Total	**38**	**3314**	**100**	**306398.76**	**100**
1 to 50	33	338	10.20	37983.89	12.40
51 to 100	1	56	1.69	892.75	0.29
101 to 200	-	-	-	-	-
201 to 300	1	249	7.51	14340.48	4.68
301 to 500	2	711	21.45	82102.59	26.80
501 to 1000	-	-	-	-	-
Above 1000	1	1960	59.14	171079.05	55.84

Source: *Data as received from respective State Government Departments*

@ Excluding fuel, atomic & minor minerals

(P): Provisional

Table -8 **Number of Reporting Mines, 2009-10 to 2020-21 (By Mineral Groups)**				
Year	Total*	Coal & Lignite	Metallic Minerals	Non-Metallic Minerals
2009-10	3055	573	701	1781
2010-11	3118	573	719	1826
2011-12	3473	573	668	2232
2012-13	3978	575	708	2695
2013-14	3979	552	711	2716
2014-15	2117	558	693	866
2015-16	2131	512	715	904
2016-17	2112	495	686	931
2017-18	1981	472	665	844
2018-19	1901	473	611	817
2019-20	1831	461	601	769
2020-21	1815	462	608	745

** Excluding Petroleum (crude), Natural Gas (ut.), 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*

Table -9

Number of Underground Mines (By Principal Minerals)

Mineral	2018-19@			2019-20@			2020-21@		
	Total	'A' Category	'B' Category	Total	'A' Category	'B' Category	Total	'A' Category	'B' Category
Total	**51**	**38**	**13**	**49**	**38**	**11**	**50**	**39**	**11**
Apatite	1	-	1						
Chromite	7	7	-	7	7	-	7	7	-
Copper Ore	6	6	-	6	6	-	6	6	-
Garnet	-	-	-	1	-	1	1	-	1
Gold	7	6	1	6	6	-	5	5	-
Lead & Zinc Ore	10	9	1	10	9	1	10	9	1
Manganese Ore	19	10	9	18	10	8	20	12	8
Salt (Rock)	1	-	1	1	-	1	1	-	1

@ Excluding fuel, atomic & minor minerals

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

'B' Other than 'A'

Table -10 **Decennial Growth in the Value of Mineral Production, (By Groups)**

(Rs. Crore)

1958 to 2018-19@				
Year	Total	Fuels	Metallic Minerals	Non-Metallic and Minor Minerals
1958	134	93	28	13
1968	417	299	53	65
1978	1584	1138	202	244
1988	14084	12070	853	1161
1998-99	45418	37238	3310	4870
2008-09	178900	114717	35076	29107
2018-19$	149224	N.A.	64215	85009
1959 to 2019-20@				
Year	Total	Fuels	Metallic Minerals	Non-Metallic and Minor Minerals
1959	144	98	29	17
1969	467	339	55	73
1979	1931	1419	223	289
1989	16859	14455	1054	1350
1999-00	52317	42677	3550	6090
2009-10	192108	133658	31734	26716
2019-20$	165326	N.A.	68298	97028

@ Excluding atomic minerals, $: Excludes the value of fuel minerals for 2018-19 & 2019-20.

Table -11 **Decennial Growth in the Value of Mineral Production, (By Groups)**

(Rs. Crore)

1950 to 2020-21[@]				
Year	Total	Fuels	Metallic Minerals	Non-Metallic and Minor Minerals
1950	70	49	14	7
1960	166	113	32	21
1970	489	348	62	79
1980	2311	1715	252	344
1990-91	17344	14812	1127	1405
2000-01	58753	47901	3729	7123
2010-11	267032	168581	47639	50812
2020-21[$]	158869	N.A.	72199	86670

@ Excluding atomic minerals, $: Excludes the value of fuel minerals for 2020-21

Table -12 **Value of Mineral Production, 2009-10 to 2020-21[@] (By Mineral Groups)**

(Rs. Crore)

Year	All Minerals	Fuels[$]	Metallic Minerals	Non-Metallic and Minor Minerals
2009-10	192108	133658	31734	26716
2010-11	267032	168581	47639	50812
2011-12	284149	178922	47025	58202
2012-13	280006	182689	43164	54153
2013-14	277360	186467	42390	48503
2014-15[#]	194665	97450	37909	59306
2015-16[$]	95188	N.A.	33622	61566
2016-17[$]	109508	N.A.	39760	69748
2017-18[$]	129279	N.A.	50975	78304
2018-19[$]	149224	N.A.	64215	85009
2019-20[$]	165326	N.A.	68298	97028
2020-21[$]	158869	N.A.	72199	86670

@ Excluding atomic minerals

#: Excludes the data of 31 minerals for February and March 2015, declared as Minor Minerals vide Notification dated 10th February 2015

$: Excludes the value of fuel minerals

Table -13

Value of Mineral Production (By Minerals)

(Rs. Crore)

Minerals	2008-09	2009-10	2010-11	2018-19[$]	2019-20[$]	2020-21[$]
All Minerals	**178900**	**192108**	**267032**	**149224**	**165326**	**158869**
Coal	45537	51318	62021	N.A	N.A	N.A
Lignite	3688	3776	4331	N.A	N.A	N.A
Natural Gas (ut.)	12107	17775	33425	N.A	N.A	N.A
Petroleum(crude)	53385	60789	68804	N.A	N.A	N.A
Iron Ore	28544	26462	39614	45347	49643	52729
Limestone	2922	3248	3635	8958	8889	8648
Lead & Zinc	1083	1482	1993	7240	7870	8194
Silver	215	339	544	2582	2562	4266
Chromite	2263	1045	2596	3685	3213	2186
Manganese Ore	1774	1191	1468	2164	1885	1742
Bauxite	470	489	512	1784	1630	1679
Copper Conc.	409	381	473	885	845	853
Gold	315	343	435	527	650	548
Apatite &	310	312	502	388	473	469
Others	25876	23158	46678	75664	87664	77552

$: Excludes the value of fuel minerals for the year

Table -14 **Value of Mineral Production[@] (By States)**

(Rs. Crore)

State	2008-09	2009-10	2010-11	2018-19[$]	2019-20[$]	2020-21[$]
India	**178900**	**192108**	**267032**	**149224**	**165326**	**158869**
Rajasthan	6909	8902	19985	22973	25703	30826
Odisha	17728	17164	25938	30654	34351	30381
Telangana	*	*	*	18426	14907	17733
Chhattisgarh	13270	10053	13692	11735	11811	15348
Andhra Pradesh	16498	17955	21865	11955	16622	13099
Karnataka	6696	6071	9300	10032	10058	12749
Maharashtra	6173	5864	13290	5905	8247	7487
Madhya Pradesh	10850	11288	12347	8256	14702	6359
Uttar Pradesh	3634	4297	4778	5699	5707	5704
Gujarat	12434	13841	26214	7490	7688	5446
Bihar	134	284	346	4286	4298	4302
Jharkhand	10811	12836	20520	3159	3228	3085
West Bengal	3432	4746	2995	2071	2139	1831
Kerala	954	1211	1279	3881	3112	1649
Tamil Nadu	4070	4516	4676	982	977	851
Himachal	104	114	256	322	393	419
Meghalaya	1318	2137	2624	328	343	315
Off-shore	44297	53985	66745	-	-	-
Others	**19588**	**16844**	**20182**	**1070**	**1040**	**1285**

@ Excluding atomic minerals, $: Excludes the value of fuel minerals

** State came into existence w.e.f. 2nd June 2014*

Table -15 **Value of Mineral Production,[@] 2009-10 to 2020-21 (By Sectors)**

(Rs. Crore)

Year	Total	Public Sector	Private Sector
2009-10	192108	121799	70309
2010-11	267032	141000	126032
2011-12	284149	152452	131697
2012-13	280006	156695	123311
2013-14	277360	167886	109474
2014-15[#$]	194665	106446	86800
2015-16[$$]	95188	13357	81831
2016-17[$$]	109508	15120	94388
2017-18[$$]	129279	19567	109712
2018-19[$$]	149224	22516	126708
2019-20[$$]	165326	20668	144658
2020-21[$$]	158869	27659	131210

@ Excluding atomic minerals

#: Excludes the data of 31 minerals for February and March 2015, declared as Minor Minerals vide Notification dated 10th February 2015

$: Excludes the value of Petroleum (crude) & Natural Gas (utilised)

$$: Excludes the value of fuel minerals

Table -16 **Value of Mineral Production & Number of Mines (By Sectors)**

	2018-19			2019-20			2020-21		
	Total *	Public Sector	Private Sector	Total *	Public Sector	Private Sector	Total *	Public Sector	Private Sector
No. of Mines	1428	156	1272	1370	148	1222	1353	160	1193
Total Value #	73955	22516	51439	77802	20668	57134	81435	27659	53776
Metallic #	64215	21564	42651	68298	19721	48577	72199	26816	45383
Non-metallic #	9740	952	8788	9504	947	8557	9236	843	8393

** Excluding fuel, atomic & minor minerals*

#: Value in Rs. crore

Table -17 **Index of Mineral Production, 2009-10 to 2020-21**
(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
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
2011-12	128.5	129.4	115.4	150.6
2012-13	125.5	127.7	98.1	158.4
2013-14	124.7	125.5	106.7	162.1
2014-15	126.5	129.1	92.1	175.4

(Base 2011-12 = 100)

2015-16	97.3	98.1	94.0	106.5
2016-17	102.5	98.7	114.6	107.8
2017-18	104.9	100.3	119.0	117.4
2018-19	107.9	102.6	123.5	128.1
2019-20	109.6	99.6	141.3	120.9
2020-21	101.0	95.5	117.7	117.4

***Note**: (i) 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*

(ii) Minor Minerals are excluded from Item Basket for Base Year 2011-12

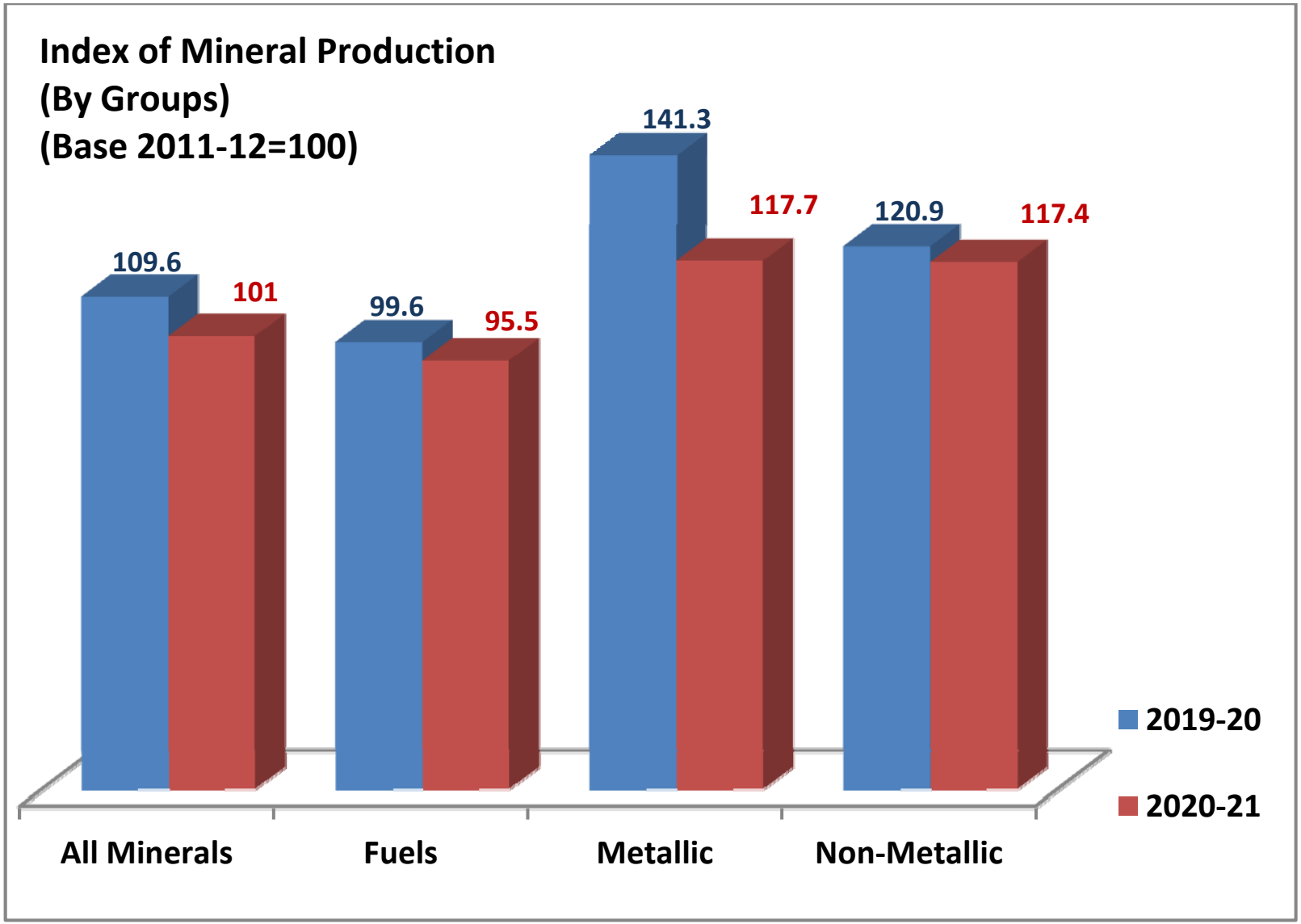

Index of Mineral Production
(By Groups)
(Base 2011-12=100)
109.6
101
99.6
95.5
141.3
117.7
120.9
117.4
All Minerals
Fuels
Metallic
Non-Metallic
2019-20
2020-21

Table -18 **Wholesale Price Index, 2009-10 to 2020-21**
(By Groups)

(Base 2004-05 = 100)

Year	All Commodities	Minerals	Metallic Minerals	Other Minerals	Mineral Oils
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
					(Base 2011-12=100)
2012-13	106.9	118.2	112.1	139.5	110.9
2013-14	112.5	114.4	105.2	146.8	121.6
2014-15	113.9	118.6	112.2	140.7	108.7
2015-16	109.7	105.6	91.7	154.1	73.9
2016-17	111.6	113.1	98.4	164.4	73.3
2017-18	114.9	122.5	109.1	169.3	82.5
2018-19	119.8	136.5	123.0	183.5	96.7
2019-20	121.8	154.5	147.4	179.0	92.3
2020-21	123.4	164.9	159.8	183.1	79.2

Source: Office of Economic Adviser, DPIIT

Table -19 **Gross Domestic Product (GDP) at Current Prices**

(Rs. Crore)

Year	Total GDP	Mining & Quarrying	Percentage
2009-10	6108903	159304	2.6
2010-11	7248860	204866	2.8
2011-12	8391691	222716	2.7
2012-13	9252051	284771	3.1

Gross Value Added (GVA) at Current Prices

(Rs. Crore)

Year	Total GVA	Mining & Quarrying	Percentage
2013-14 (NS)	10380813	295978	2.9
2014-15 (NS)	11481794	314177	2.7
2015-16 (NS)	12566646	301230	2.4
2016-17 (NS)	13935917	321872	2.3
2017-18 (NS)	15513122	357788	2.3
2018-19 (NS)	17161213	377171	2.2
2019-20 (NS)	18461343	355833	1.9
2020-21 (PE)	17915167	292120	1.6

(NS): New series

(PE): Provisional estimates

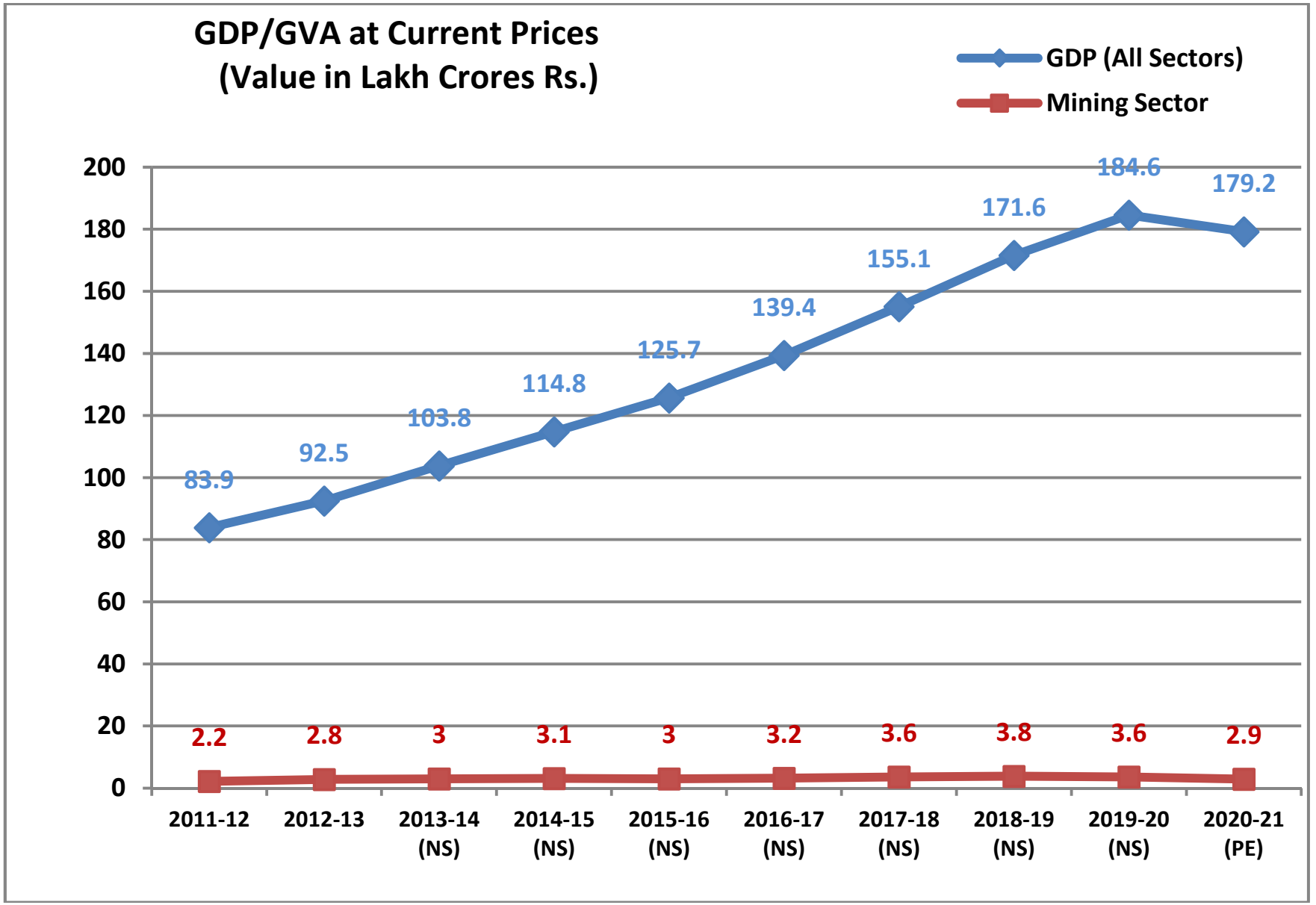

GDP/GVA at Current Prices
(Value in Lakh Crores Rs.)
GDP (All Sectors)
Mining Sector
200
180
160
140
120
100
80
60
40
20
0
83.9
92.5
103.8
114.8
125.7
139.4
155.1
171.6
184.6
179.2
2.2
2.8
3
3.1
3
3.2
3.6
3.8
3.6
2.9
2011-12
2012-13
2013-14 (NS)
2014-15 (NS)
2015-16 (NS)
2016-17 (NS)
2017-18 (NS)
2018-19 (NS)
2019-20 (NS)
2020-21 (PE)

Table -20 **Exports Total Merchandise: Minerals & Metals**

(Rs. Crore)

Year	Total Merchandise	Minerals	% Share	Metals	% Share
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	1905011	194784	10	153156	8
2014-15	1896445	178019	9	167296	9
2015-16	1716384	170946	10	152913	9
2016-17	1849434	200131	11	182186	10
2017-18	1956249	199469	10	190334	10
2018-19	2307726	219168	9	174287	8
2019-20	2219854	189683	9	166099	7
2020-21	2159043	196654	9	207222	10

Source: DGCI & S, Kolkata

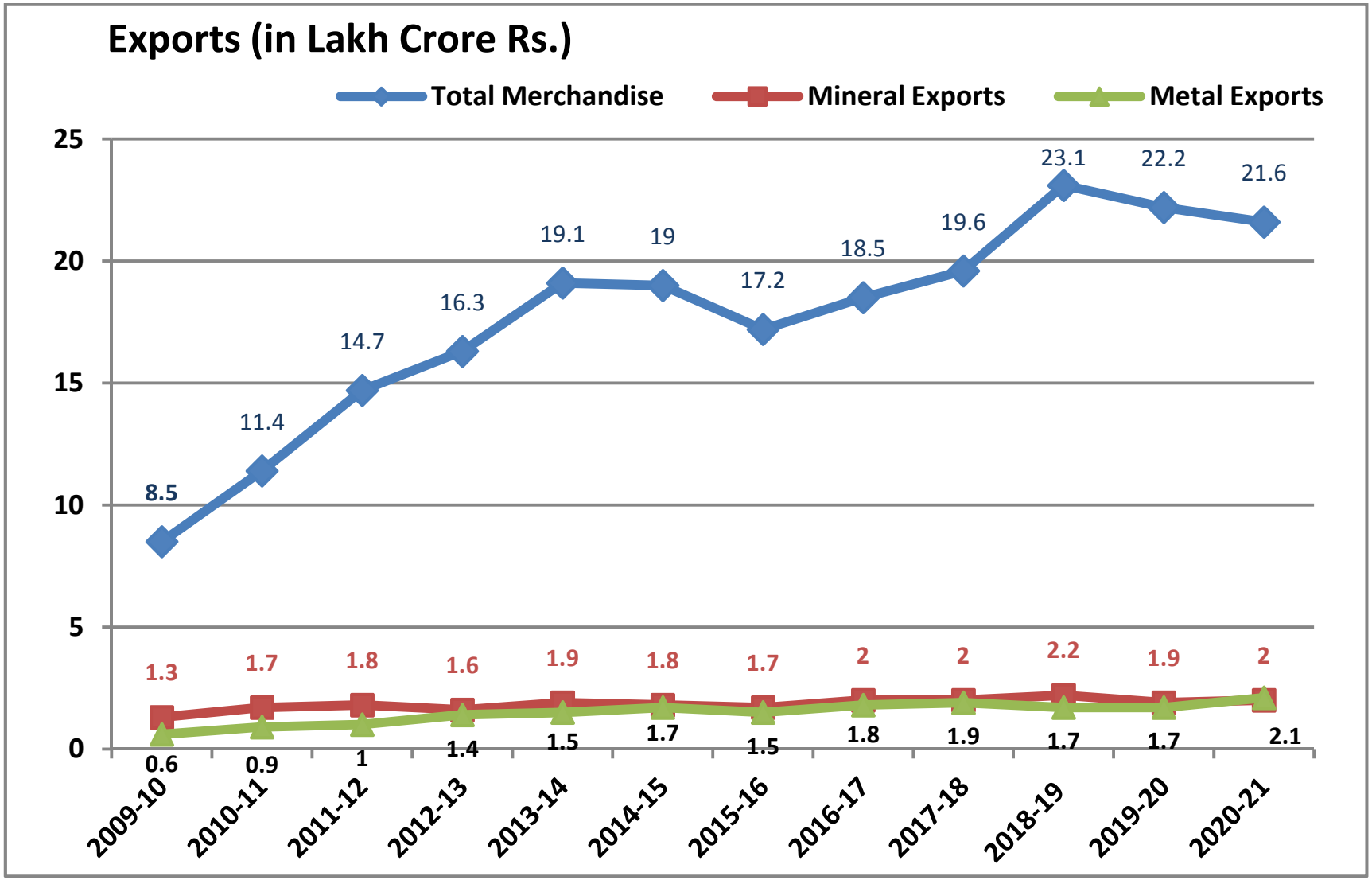

Exports (in Lakh Crore Rs.)
Total Merchandise
Mineral Exports
Metal Exports
25
20
15
10
5
0
8.5
11.4
14.7
16.3
19.1
19
17.2
18.5
19.6
23.1
22.2
21.6
1.3
1.7
1.8
1.6
1.9
1.8
1.7
2
2
2.2
1.9
2
0.6
0.9
1
1.4
1.5
1.7
1.5
1.8
1.9
1.7
1.7
2.1
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21

Table -21 **Imports Total Merchandise: Minerals & Metals**

(Rs. Crore)

Year	Total Merchandise	Minerals	% Share	Metals	% Share
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	2715434	1215827	45	321356	12
2014-15	2737087	1071733	39	401259	15
2015-16	2490305	738789	30	390372	16
2016-17	2577675	809445	31	337788	13
2017-18	3001033	1028529	34	411826	14
2018-19	3594675	1299186	36	477843	13
2019-20	3360954	1151530	34	416727	12
2020-21	2915958	791320	27	435611	15

Source: DGCI & S, Kolkata

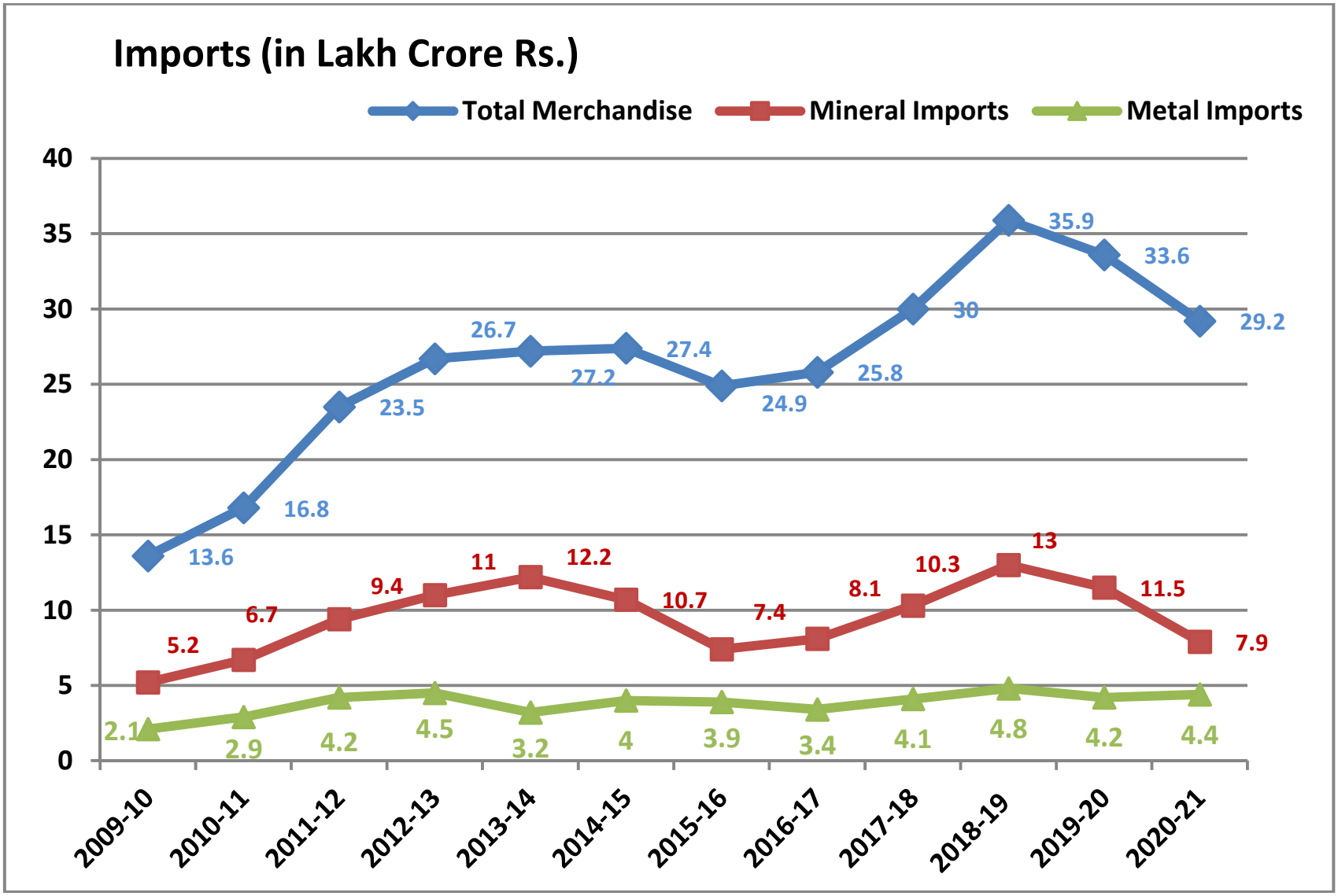

Imports (in Lakh Crore Rs.)
Total Merchandise
Mineral Imports
Metal Imports
40
35
30
25
20
15
10
5
0
13.6
16.8
23.5
26.7
27.2
27.4
24.9
25.8
30
35.9
33.6
29.2
5.2
6.7
9.4
11
12.2
10.7
7.4
8.1
10.3
13
11.5
7.9
2.1
2.9
4.2
4.5
3.2
4
3.9
3.4
4.1
4.8
4.2
4.4
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21

Table -22 **Consumption of Explosives 2018-19@, 2019-20@ and 2020-21@ (By Principal Minerals)**

(In tonne)

Mineral	2018-19			2019-20			2020-21		
	Gun Powder	LOX	High Explosive	Gun Powder	LOX	High Explosive	Gun Powder	LOX	High Explosive
Total	**-**	**468**	**91298**	**1053**	**310**	**96867**	**-**	**225**	**85223**
Limestone	-	-	51360	-	-	48848	-	-	49634
Iron Ore	-	242	25113	1053	310	25754	-	225	24938
Lead & Zinc Ore	-	-	5455	-	-	8388	-	-	5054
Manganese Ore	-	-	788	-	-	1982	-	-	2075
Bauxite	-	225	2238	-	-	2565	-	-	1827
Copper Ore	-	-	3827	-	-	4074	-	-	1110
Chromite	-	-	148	-	-	1234	-	-	360
Wollastonite	-	-	102	-	-	103	-	-	92
Magnesite	-	-	108	-	-	71	-	-	85
Gold	-	1	550	-	-	676	-	-	26
Diamond	-	-	65	-	-	29	-	-	14
Phosphorite	-	-	1541	-	-	3143	-	-	3
Graphite	-	-	1	-	-	++	-	-	2
Fluorite	-	-	-	-	-	-	-	-	++
Kyanite	-	-	1	-	-	++	-	-	++
Vermiculite	-	-	-	-	-	-	-	-	++
Rock Salt	-	-	-	-	-	-	-	-	-

@ Excluding fuel, atomic and minor minerals

Table -23 **Consumption of Explosives 2018-19@, 2019-20@ and 2020-21@ (By Principal Minerals)**

(In thousands)

Mineral	2018-19				2019-20			
	Detonators (Nos.)		Fuses (Meters)		Detonators (Nos.)		Fuses (Meters)	
	Ordinary*	Electric	Ordinary*	Electric	Ordinary*	Electric	Ordinary*	Electric
Total	**1843**	**4043**	**1041**	**12893**	**1542**	**5174**	**531**	**14553**
Bauxite	91	65	151	1460	127	3	173	1536
Chromite	2	34	1	36	1	29	1	137
Copper Ore	12	521	3	1062	2	571	4	1210
Diamond	++	-	-	11	++	-	++	8
Fluorite	-	-	-	-	-	-	-	-
Gold	-	471	23	326	-	398	-	788
Graphite	-	-	-	3	1	-	-	-
Iron Ore	286	373	517	1982	115	397	35	3053
Kyanite	3	-	-	-	-	1	-	-
Lead & Zinc Ore	794	532	-	1360	872	989	-	1213
Limestone	459	1557	299	5316	381	1476	256	4827
Magnesite	2	3	3	44	15	40	23	33
Manganese Ore	194	400	44	123	28	1243	39	552
Phosphorite	-	62	-	1070	-	2	-	1102
Rock Salt	-	-	-	-	-	-	-	-
Vermiculite	-	-	-	-	-	-	-	-
Wollastonite	-	26	-	101	-	25	-	94

@ Excluding fuel, atomic and minor minerals

** Includes other detonators, ++ Negligible*

Table -24 **Consumption of Explosives 2018-19@, 2019-20@ and 2020-21@ (By Principal Minerals)**

(In thousands)

Mineral	2020-21			
	Detonators (Nos.)		Fuses (Meters)	
	Ordinary*	Electric	Ordinary*	Electric
Total	**1927**	**3532**	**689**	**10892**
Bauxite	85	2	157	745
Chromite	5	23	++	107
Copper Ore	216	130	4	1090
Diamond	++	-	-	3
Fluorite	-	2	-	0
Gold	-	27	-	25
Graphite	++	++	++	2
Iron Ore	157	343	85	2388
Kyanite	-	++	-	-
Lead & Zinc Ore	927	534	-	1124
Limestone	355	1145	369	4690
Magnesite	17	25	51	73
Manganese Ore	138	1277	24	534
Phosphorite	27	-	-	-
Rock Salt	-	++	++	2
Vermiculite	-	1	-	-
Wollastonite	-	24	-	111

@ Excluding fuel, atomic and minor minerals

** Includes other detonators, ++ Negligible*

Table -25 **Afforestation in Metalliferrous Mines during 2020-21**

(By Principal Minerals)

Mineral	Total Mines Covered	Area Covered (ha)	Trees		Survival	
			Planted (Nos.)	Survived (Nos.)	Percentage	('000 trees) per ha
Bauxite	86	108	383200	304596	79	2.84
Chromite	10	29	30055	23466	78	0.83
Copper	3	1	1525	1485	97	2.20
Gold	6	5	4500	2970	66	0.64
Iron Ore	144	185	602183	495885	82	2.68
Iron & Mn	15	37	83524	62770	75	1.67
Lead & Zinc	4	14	58700	52830	90	3.77
Limestone	780	829	1278811	1051598	82	1.27
Manganese	52	37	71443	54847	77	1.50
Magnesite	3	0	1450	1160	80	2.58
Others	14	6	8081	5871	73	0.93

Section – 2

Mineral Production

Production, Value, Employment and Reporting Mines, 2009-10 to 2020-21, (Principal Minerals)

Section-2

Mineral Production

Fuel Minerals: The steady rise in the production of coal continued during the decade under review and reached at Rs 731 million for the year 2019-20 and at Rs 716 million tonne for the year 2020-21 respectively. The production of lignite was recorded at Rs 42.1 million tonnes in the year 2019-20 and also recorded at Rs 37.9 million tonne in the year 2020-21. The production of lignite during the decade was shown in fluctuation trend. The production of petroleum (crude) was shown a declining trend since 2011-12 during the decade and was at 32 million tonne in 2019-20 from 34 million tonne in 2009-10.while during the year 2020-21 its production was at 30 million tonne from 38 million tonne in 2010-11. The output of natural gas (utilised), after attaining the highest level at 52219 m.cu.m in 2010-11 starts gradual decline during the decade and touched at 31184 m.cu.m. in 2019-20 and at 28673 m.cu.m. in 2020-21respectively (Tables -26, 27, 28 and 29).

Metallic Minerals: The production of bauxite was at 22 million tonne in 2019-20 and 20 million tonne in the year 2020-21 respectively. Its production during the decade was shown in a fluctuating trend. The production of chromite was highest at 4.3 million tonne in the 2010-11 during the decade and its production was recorded 2.8 million tonnes in 2020-21 with decrease about 28 % as compared to previous

year. The output of copper ore and concentrates had a fluctuating trend during the decade and their respective production was at 3273 thousand tonne and 109 thousand tonne for the year 2020-21 with decrease of about 17% and 13% respectively over the preceding year. The production of iron ore touched highest level 244 million tonnes in 2019-20 during the decade but its production was shown in fluctuation trend during the decade and recorded at 205 million tonnes in 2020-21 with 16 % decrease over the preceding year. The production of manganese ore showed fluctuating trend during the decade and touched at 2703 thousand tonnes in 2020-21 with decrease 7% as compared to previous year. The production of lead and zinc ores at 15455 thousand tonne, lead concentrates at 377 thousand tonne and that of zinc concentrates at 1514 thousand tonne in 2020-21, showing an overall increase in lead & zinc ore, lead & zinc concentrates as compared to the previous year and touched highest level during the decade. However the production of primary gold was touched the lowest level at 1127 kilogram during the decade of ending year 2020-21 (Tables -30 to 36).

Non-Metallic Minerals: The production of phosphorite was recorded at 1456 thousand tonnes in 2020-21 with increase 4% as compared to previous year and its production was shown in fluctuation trend during the decade. The production of diamond, with a mixed production trend, was touched lowest level at 14 thousand carat in 2020-21 during decade except the year 2010-11 and also decreased by about

52 % over the preceding year. The production of limestone had shown a fluctuating trend during the decade ending 2020-21. Its production was at 349 million tonne in 2020-21 which was 3% lower over the preceding year 2019-20.The production of magnesite showed mixed trend during the decade. Its production was recorded lowest level at 75 thousand tonne during the decade in 2020-21which was 27% lower over the preceding year 2019-20. However, the production of sillimanite was also touched lowest level at 11 thousand tonne during the decade ending 2020-21 with decrease 15% as compared to previous year (Tables -37 to 42).

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Table -26	**Production of Coal, 2009-10 to 2020-21**			
Year	No. of* Mines	Quantity (Lakh tonne)	Value (Rs. Crore)	Labour* Employed (Av. Daily)**
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	536	5658	82535	338896
2014-15	539	6092	89287	343548
2015-16	493	6392	N.A.	328751
2016-17	476	6579	N.A.	N.A.
2017-18	455	6754	N.A.	N.A.
2018-19	454	7287	N.A.	N.A.
2019-20	442	7309	N.A.	N.A.
2020-21	442	7161	N.A.	N.A.

** Excluding Meghalaya*

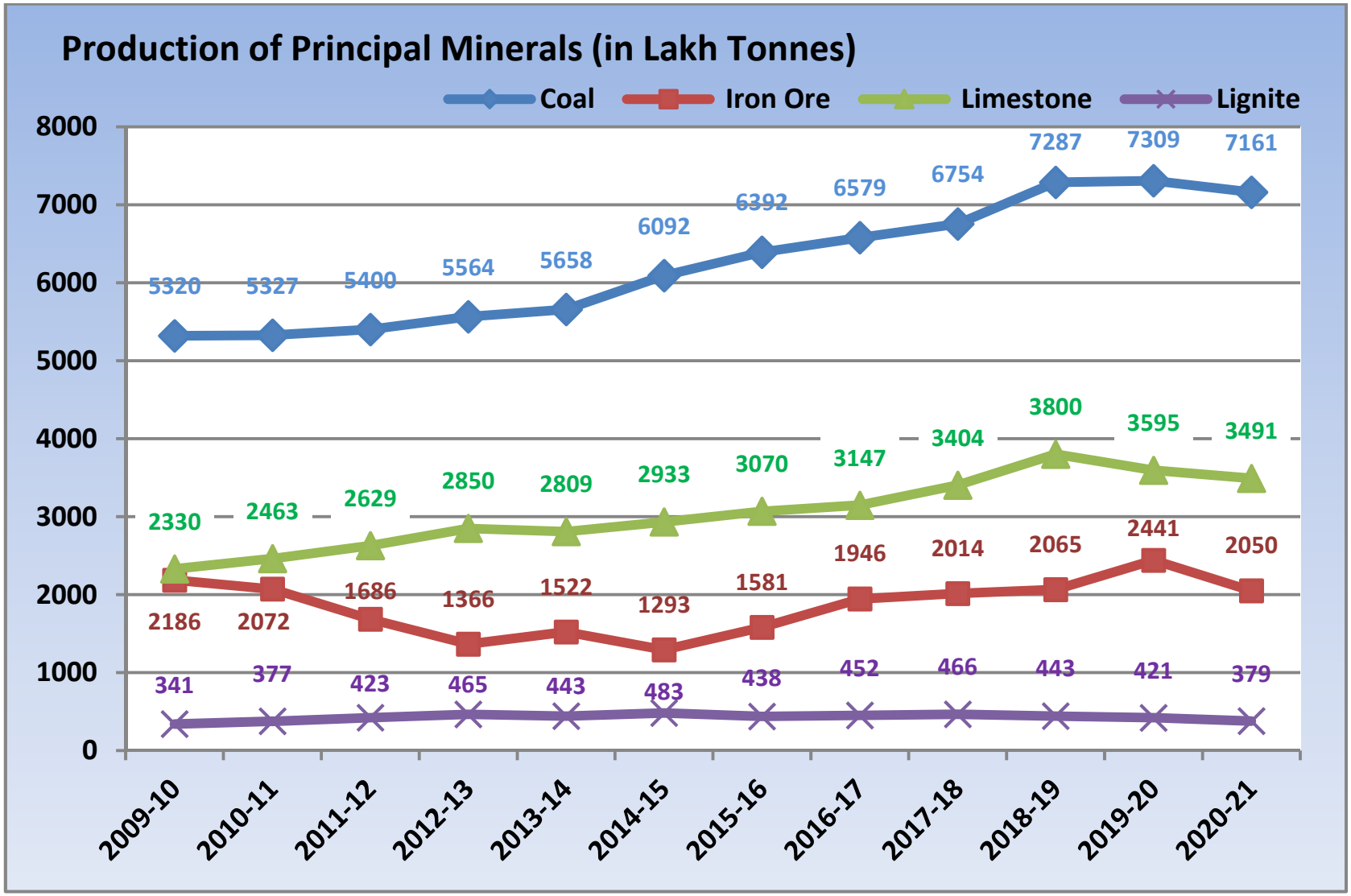
***Data relates to Calendar Year*

Table -27 **Production of Lignite, 2009-10 to 2020-21**

Year	No. of Mines	Quantity (Lakh tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
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	16	443	5968	13976
2014-15	19	483	8163	12356
2015-16	19	438	N.A.	11473
2016-17	19	452	N.A.	N.A.
2017-18	17	466	N.A.	N.A.
2018-19	19	443	N.A.	N.A.
2019-20	19	421	N.A.	N.A.
2020-21	20	379	N.A.	N.A.

Table -28 **Production of Petroleum (Crude), 2009-10 to 2020-21**		
Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	33690	60789
2010-11	37684	68804
2011-12	38090	69202
2012-13	37862	68817
2013-14	37788	68683
2014-15	37462	N.A.
2015-16	36942	N.A.
2016-17	36009	N.A.
2017-18	35684	N.A.
2018-19	34203	N.A.
2019-20	32170	N.A.
2020-21	30494	N.A.

Table -29	**Production of Natural Gas (Utilised), 2009-10 to 2020-21**	
Year	Quantity (m.cu.m.)	Value (Rs. Crore)
2009-10	47496	17775
2010-11	52219	33425
2011-12	47559	34211
2012-13	40679	33642
2013-14	35407	29282
2014-15	33659	N.A.
2015-16	32249	N.A.
2016-17	31897	N.A.
2017-18	32649	N.A.
2018-19	32873	N.A.
2019-20	31184	N.A.
2020-21	28673	N.A.


Production of Principal Minerals (in Lakh Tonnes)
Coal
Iron Ore
Limestone
Lignite
8000
7000
6000
5000
4000
3000
2000
1000
0
5320
5327
5400
5564
5658
6092
6392
6579
6754
7287
7309
7161
2330
2463
2629
2850
2809
2933
3070
3147
3404
3800
3595
3491
2186
2072
1686
1366
1522
1293
1581
1946
2014
2065
2441
2050
341
377
423
465
443
483
438
452
466
443
421
379
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21

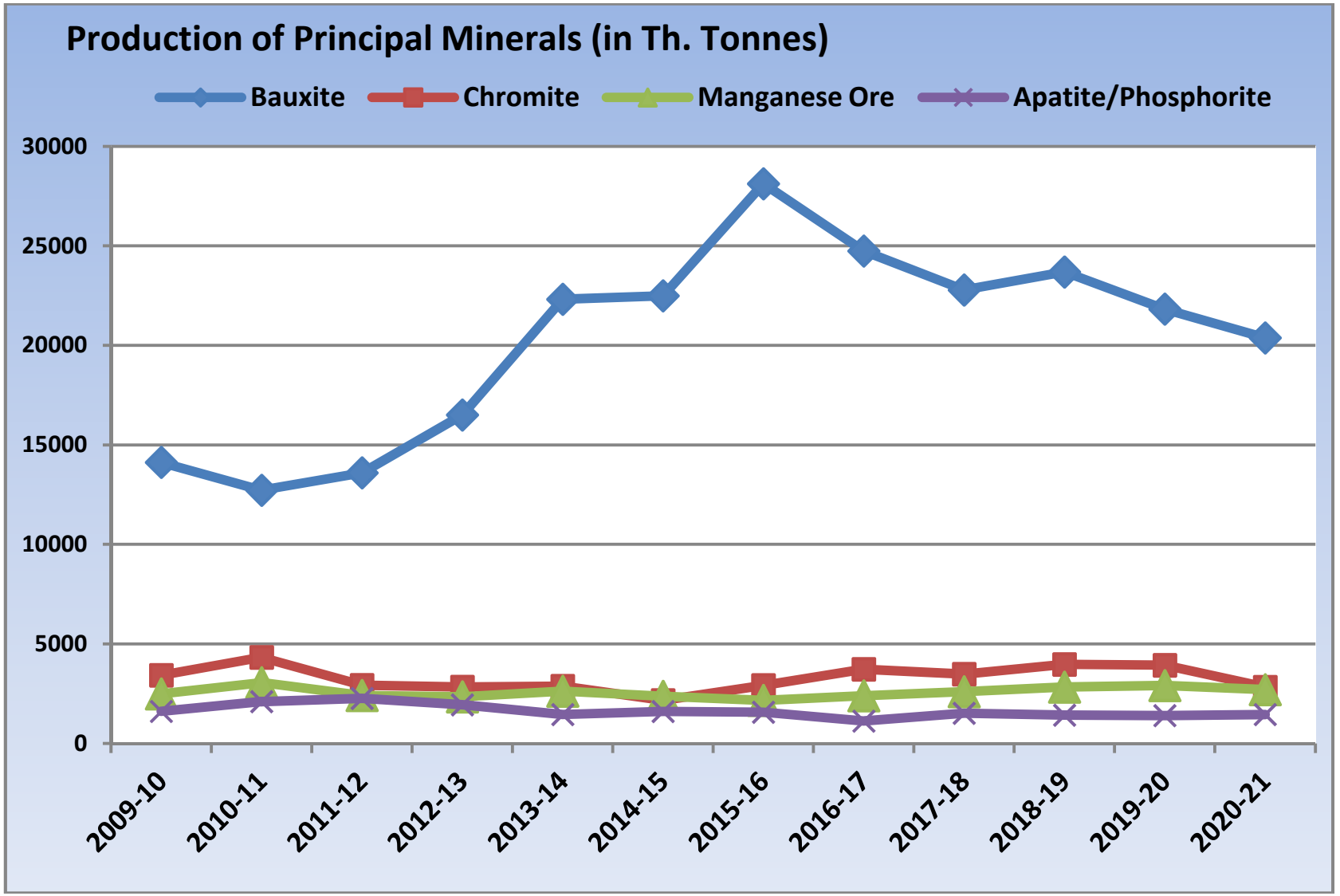

Production of Principal Minerals (in Th. Tonnes)
Bauxite
Chromite
Manganese Ore
Apatite/Phosphorite
30000
25000
20000
15000
10000
5000
0
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21

Table -30 **Production of Bauxite, 2009-10 to 2020-21**

Year	No. of Mines	Quantity ('000 tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2009-10	197	14124	489	8178
2010-11	193	12723	512	7851
2011-12	172	13600	613	7684
2012-13	178	16508	796	7410
2013-14	177	22319	1000	6854
2014-15	162	22494	1192	6698
2015-16	190	28124	1544	8652
2016-17	165	24745	1487	6491
2017-18	163	22786	1578	6632
2018-19	157	23690	1784	6093
2019-20	144	21825	1630	6162
2020-21	134	20381	1679	5023

Table -31 **Production of Chromite, 2009-10 to 2020-21**				
Year	No. of Mines	Quantity ('000 tonne)	Value (Rs.Crore)	Labour Employed (Av. Daily)
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	26	2878	2376	6277
2014-15	26	2164	1880	6772
2015-16	25	2916	2121	6645
2016-17	26	3728	3194	6959
2017-18	25	3481	3204	7234
2018-19	26	3971	3685	7245
2019-20	22	3929	3213	5845
2020-21	24	2830	2186	4248

Table -32 **Production of Copper Ore and Concentrates, 2009-10 to 2020-21**

Year	No. of Mines	Copper Ore Quantity ('000 tonne)	Copper Concentrates		Labour Employed (Av. Daily)
			Quantity ('000 tonne)	Value (Rs. Crore)	
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	5	3778	139	668	3324
2014-15	5	3505	108	529	3473
2015-16	5	3908	152	655	3285
2016-17	5	3846	135	651	2791
2017-18	5	3678	142	771	2442
2018-19	5	4135	144	885	3449
2019-20	5	3952	125	845	3928
2020-21	5	3273	109	853	2766

Table -33 **Production of Gold Ore and Gold, 2009-10 to 2020-21**

Year	No. of Mines	Gold Ore Qty. ('000 tonne)	Gold				Labour Employed (Av. Daily)
			Primary	Secondary	Total		
			Qty (kg.)	Qty (kg.)	Qty (kg.)	Value (Rs.Crore)	
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	4	420	1564	-	1564	423	3433
2014-15	5	447	1441	-	1441	360	3429
2015-16	5	563	1323	-	1323	321	3426
2016-17	5	582	1595	-	1595	436	3451
2017-18	5	550	1650	-	1650	477	3235
2018-19	5	567	1672	-	1672	527	3258
2019-20	5	596	1742	-	1742	650	3261
2020-21	5	438	1127	-	1127	548	3247

Note: *No. of mines and labour employed relates to Primary Gold*

Table -34	**Production of Iron Ore, 2009-10 to 2020-21**			
Year	No. of Mines	Quantity (Lakh tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2009-10	320	2186	26462	43557
2010-11	336	2072	39614	46147
2011-12	309	1686	38357	46673
2012-13	310	1366	32824	42645
2013-14	322	1522	31649	39127
2014-15	320	1293	27664	39243
2015-16	330	1581	22321	42065
2016-17	318	1946	25229	45383
2017-18	304	2014	34713	45988
2018-19	252	2065	45347	43125
2019-20	271	2441	49643	45687
2020-21	273	2050	52729	42742

Table -35 **Production of Lead & Zinc Ore and Concentrates, 2009-10 to 2020-21**

Year	No. of Mines	Lead & Zinc Ore Qty. ('000 tonne)	Lead Concentrates		Zinc Concentrates		Labour Empl-oyed (Av. Daily)
			Qty. ('000 tonne)	Value (Rs. Crore)	Qty. ('000 tonne)	Value (Rs. Crore)	
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	8	9282	194	437	1491	2739	7116
2014-15	8	9363	198	564	1489	3157	7222
2015-16	8	10453	262	789	1474	3494	7018
2016-17	8	11881	268	967	1484	4339	7337
2017-18	8	12614	306	1143	1540	4980	8056
2018-19	10	13752	358	1632	1457	5608	8223
2019-20	10	14479	352	1826	1447	6044	10396
2020-21	10	15455	377	1881	1514	6313	9557

Table -36	**Production of Manganese Ore, 2009-10 to 2020-21**			
Year	No. of Mines	Quantity ('000 tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2009-10	142	2492	1191	13806
2010-11	149	3056	1468	13682
2011-12	145	2412	1178	14258
2012-13	172	2342	1284	15550
2013-14	163	2626	1518	16659
2014-15	161	2369	1366	15504
2015-16	146	2167	855	12990
2016-17	153	2395	1625	12505
2017-18	149	2600	1991	12903
2018-19	148	2832	2164	13164
2019-20	137	2910	1885	11775
2020-21	145	2703	1742	10947

Table-37	**Production of Apatite and Phosphorite, 2009-10 to 2020-21**			
Year	No. of Mines	Quantity ('000 tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
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	7	1455	476	1205
2014-15	7	1608	376	1229
2015-16	7	1572	376	1224
2016-17	8*	1124	300	1280
2017-18	8*	1516	367	1322
2018-19	8*	1421	388	1201
2019-20	6	1400	473	961
2020-21	6	1456	469	969

** Includes 2 mines of Apatite for 2016-17 & 2017-18 and 1 mine for 2018-19 reporting only labour.*

Table -38	**Production of Diamond, 2009-10 to 2020-21**			
Year	No. of Mines	Quantity ('000 carats)	Value (Rs. Crore)	Labour Employed (Av. Daily)
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	2	38	61	157
2014-15	2	36	61	176
2015-16	2	36	62	156
2016-17	2	36	64	157
2017-18	2	40	37	135
2018-19	2	38	54	131
2019-20	2	29	35	161
2020-21	2	14	15	137

Table -39 **Production of Kyanite, 2009-10 to 2020-21**

Year	No. of Mines	Quantity ('000 tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
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	4	4	0.8	64
2014-15	3	6	1.2	57
2015-16	5	3	1.4	98
2016-17	5	3	1.3	69
2017-18	5	8	2.3	80
2018-19	4	5	1.6	64
2019-20	5	3	1.3	69
2020-21	4	5	0.9	57

Table-40	**Production of Limestone, 2009-10 to 2020-21**			
Year	No. of Mines	Quantity (Lakh tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
2009-10	565	2330	3248	21006
2010-11	592	2463	3635	19213
2011-12	686	2629	4086	22328
2012-13	778	2850	4797	22615
2013-14	779	2809	5133	22978
2014-15	785	2933	5800	23801
2015-16	807	3070	6867	23987
2016-17	832	3147	7388	23892
2017-18	758	3404	8100	22019
2018-19	725	3800	8958	21633
2019-20	691	3595	8889	21335
2020-21	665	3491	8648	18838

Table -41 **Production of Magnesite, 2009-10 to 2020-21**

Year	N9. Of Mines	Quantity ('000 tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
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	14	197	45	818
2014-15	19	285	75	935
2015-16	20	328	83	1258
2016-17	19	299	75	1331
2017-18	10	195	59	937
2018-19	11	147	41	811
2019-20	12	103	35	711
2020-21	12	75	31	673

Table -42 **Production of Sillimanite, 2009-10 to 2020-21**

Year	No. of Mines	Quantity ('000 tonne)	Value (Rs. Crore)	Labour Employed (Av. Daily)
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	5	67	41	2166
2014-15	4	66	46	1720
2015-16	4	70	51	1759
2016-17	5	68	54	1776
2017-18	5	82	67	1678
2018-19	6	70	56	2042
2019-20	2	13	4	36
2020-21	1	11	1	4

Section–3

Production of Metals & Alloys

Section – 3

Production of Metals & Alloys

Ferrous Metals: The output of finished steel was at 102 million tonnes for the year 2019-2020 and at 95 million tonnes for the year 2020-21 respectively. It was nearly 7% lower as compared to the previous year. The production of finished steel had a fluctuating trend during the decade. The production of semi-finished steel in the year 2019-20 was at 109 million tonnes which was achieved at highest level during the decade. While output of semi-finished steel in the year 2020-21 was at 103 million tonnes and it was 6% lower as compare to the previous year. It had also a fluctuating trend during the decade (Table -43).

Ferro-Alloys: The production of ferro-chrome was at 921 thousand tonnes in the year 2019-20 and at 868 thousand tonnes in the year 2020-21 respectively. It was 6% lower as compare to the previous year. During the decade it settled to maintain the level of 944 thousand tonnes in the latest 7 years from 2012-13 to 2018-19. The output of ferro-mangenese and ferro-silicon was recorded non-available during the year 2019-20 & 2020-21 respectively. But the production of ferro-mangenese and ferro-silicon had settled to maintain the level of 518 thousand tonnes and level of 90 thousand tonnes respectively in the last 7 years (Table -44).

Non-ferrous Metals: The non-ferrous metals, India had achieved self-sufficiency in aluminium and zinc. The production of alumina was steadily increased during the decade from 2009-10. It reached the highest level of the decade at 4978 tonnes in 2019-20 but it was at 4878 tonnes in the year 2020-21 which was lover 2% compared to the previous year. The production of aluminium was increased steadily till the year 2018-19 during the decade but thereafter declined subsequently two years from 2019-20 & 2020-21. It was at 3635 thousand tonnes in the year 2019-20 and at 3619 thousand tonnes in the year 2020-21respectively (Table -45).

The production of copper (blister/anode) showed mixed trend in the decade and it was at 4 thousand tonne during 2019-20. The production of copper (cathode) and copper (CCWR) was at 408 thousand tonne and 349 thousand tonnes respectively which were less by 10% and 1% compared to the preceding year. Whereas during the year of 2020-21 the production of copper (blister/anode) was recorded nil during the decade. The production of copper (cathode) and copper (CCWR) was at 364 thousand tonne and 342 thousand tonnes respectively in the year of 2020-21 which were again less by 11% and 2% compared to the preceding year (Table -46).

A fluctuating trend was observed in the production of gold (including by-product recovery from imported copper cathodes) during the decade and it

was 7387 kg. in 2020-21 which was declined by 34% from the year of 2009-10 and also decreased with 12% compare to previous year. But in case of production of silver, it was observed frequently increase during the decade except for the year of 2013-14. The production of silver, a by-product, reached the peak level at 706 tonne in 2020-21 and was 16% higher as compared to the previous year (Table -47).

The output of lead (primary) showed increasing trend during the decade ending 2020-21. The production of lead (primary) was also reached peak level at 214 thousand tonne which was 18% higher than that of previous year. The output of zinc ingots had a fluctuating trend of production during the decade ending 2020-21. The production zinc ingots were at 715 thousand tonnes with increase 4% as compared to previous year (Table -48).

Table -43 **Production of Iron and Steel, 2009-10 to 2020-21**

('000 tonne)

Year	Semi-finished Steel[@]	Finished Steel*
2009-10	23561	65428
2010-11	25273	71775
2011-12	27928	80352
2012-13	29984	86381
2013-14	59379	102090
2014-15	65793	106052
2015-16	37445	97340
2016-17	38236	108950
2017-18	38357	112783
2018-19	106565	131573
2019-20	109216	102058
2020-21	103044	95122

Source: *Joint Plant Committee, Kolkata*

[@] *Including Steel ingots*

**Including C.R. Sheets*

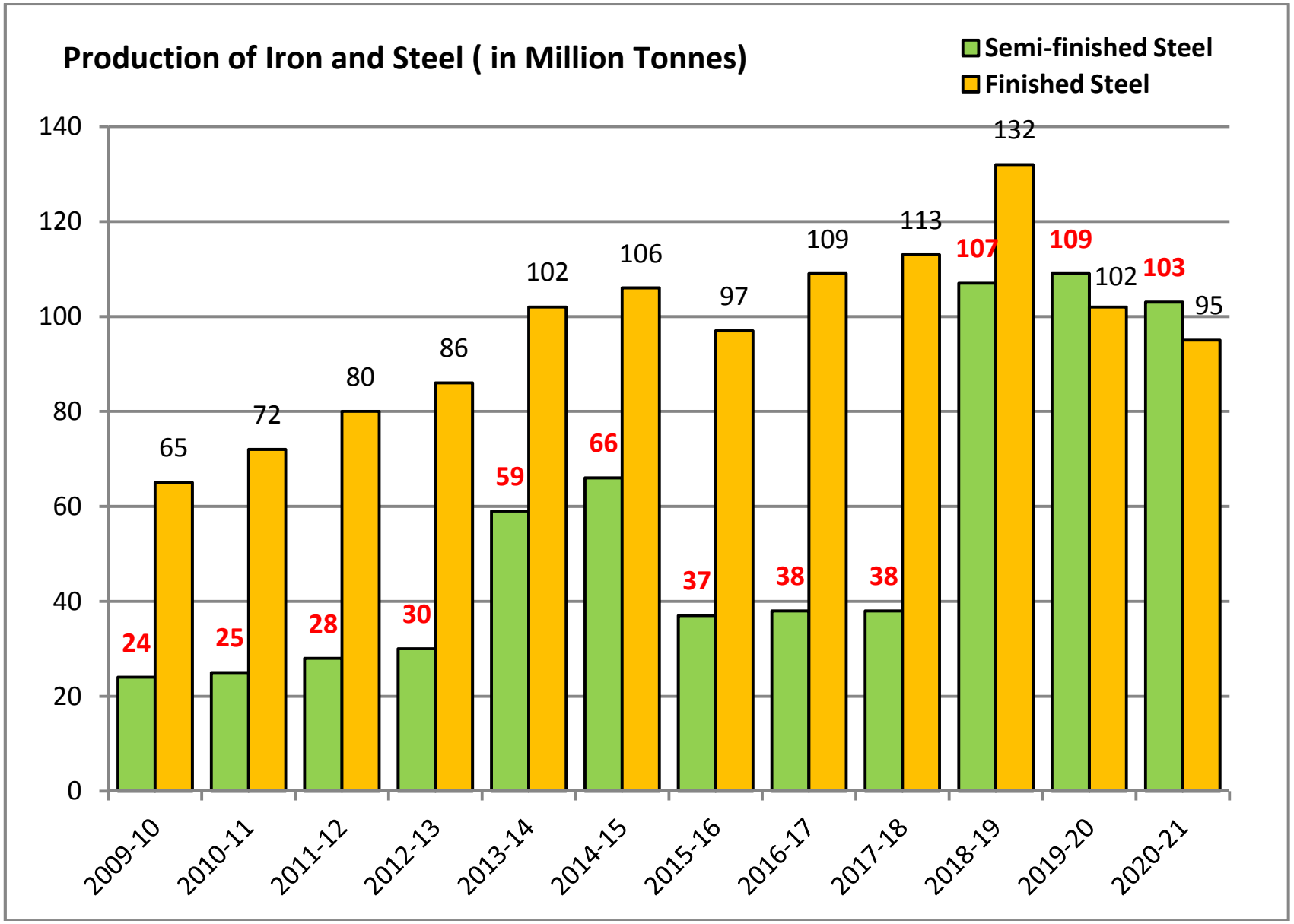

Production of Iron and Steel (in Million Tonnes)
Semi-finished Steel
Finished Steel
140
120
100
80
60
40
20
0
24
65
25
72
28
80
30
86
59
102
66
106
37
97
38
109
38
113
107
132
109
102
103
95
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21

Table -44 **Production of Principal Ferro-Alloys, 2009-10 to 2020-21**

('000 tonne)

Year	Ferro-Chrome	Ferro-Manganese	Ferro-Silicon
2009-10	922	513	81
2010-11	938	511	81
2011-12	943	517	89
2012-13	944	518	90
2013-14	944	518	90
2014-15	944	518	90
2015-16	944	518	90
2016-17	944	518	90
2017-18	944	518	90
2018-19	944	518	90
2019-20	921	N.A.	N.A.
2020-21	868	N.A.	N.A.

Source: *Joint Plant Committee, Kolkata*

Table -45 **Production of Alumina & Aluminium, 2009-10 to 2020-21**

('000 tonne)

Year	Alumina	Aluminium
2009-10	3433	1481
2010-11	3577	1621
2011-12	3931	1654
2012-13	3610	1720
2013-14	3779	1667
2014-15	4024	2027
2015-16	4172	2355
2016-17	4576	2897
2017-18	4620	3401
2018-19	4893	3696
2019-20	4978	3635
2020-21	4878	3619

Table -46 **Production of Copper, 2009-10 to 2020-21**

('000 tonne)

Year	Blister/ Anode	Cathode	CCWR
2009-10	18	533	312
2010-11	14	512	300
2011-12	19	505	288
2012-13	17	494	285
2013-14	17	644	283
2014-15	16	766	338
2015-16	17	790	390
2016-17	15	788	372
2017-18	15	831	380
2018-19	13	454	354
2019-20	4	408	349
2020-21	-	364	342

CCWR: *Continuous Cast Wire Rod*

Table-47 **Production of Gold* and Silver*, 2009-10 to 2020-21**

(Kilograms)

Year	Gold	Silver
2009-10	11198	183656
2010-11	9360	193376
2011-12	11286	263910
2012-13	8304	434569
2013-14	9209	349774
2014-15	9988	402467
2015-16	10412	426443
2016-17	10082	460811
2017-18	12500	557691
2018-19	12623	679386
2019-20	8382	609340
2020-21	7387	705796

** Includes production reported from HINDALCO Industries Ltd*

Table-48 **Production of Lead and Zinc, 2009-10 to 2020-21**

('000 tonne)

Year	Lead (Primary)	Zinc Ingots
2009-10	64	614
2010-11	57	740
2011-12	92	784
2012-13	118	704
2013-14	123	767
2014-15	127	733
2015-16	145	759
2016-17	142	672
2017-18	168	791
2018-19	198	696
2019-20	181	688
2020-21	214	715

Section – 4

Foreign Trade

Section-4

Export

The value of exports of minerals excluding petroleum (crude) from India showed a fluctuating trend during the decade ending 2020-21. It was Rs. 196654 crore during 2020-21 which was nominally increased by 4% as compared to its value of previous year 2019-20. Diamond (mostly cut) accounted for 64% of the total value of exports of minerals during 2020-21 followed by granite, iron ore and alumina 6%, 18% & 1% respectively (Table-68).

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 decreased from 74% to 64% during the period 2019-20 to 2020-21 (Table-68).

The export of iron ore had fluctuating trend throughout the decade ending 2020-21 and it was at peak level at 57.7 million tonnes except the year 2009-10 and valued at Rs. 36256 crore during the decade. Granite was also one of the leading foreign exchange earners during the decade and it was also at highest level of its production at 7522 tonne and as well as its value Rs 11328 crore in the year 2020-21 during the decade. The production of its exports and its value were increased by 13% and 11% respectively as compared to the previous year

2019-2020 (Tables -52 & 50).

The exports of manganese ore decreased from 289 thousand tonne in 2009-10 to 82 thousand tonne in 2020-21. The value of exports of manganese ore also declined continuously from Rs. 117 crores in 2009-10 to 97 crore in 2020-21 (Tables-54). The export of its production and value was observed with mixed fluctuating trend.

Other notable mineral items exported from India during 2020-21 were alumina, barytes, bauxite, chromite, garnet (abrasive), marble, titanium ores & conc., emerald (cut & uncut) and precious & semi-precious stones, etc.

Imports

The value of imports of minerals and metals went up steeply from Rs. 739255 crore in 2009-10 to the level of Rs. 1226931 crore in 2020-21. The value of its import was shown in fluctuation trend during the decade ending 2020-21(Tables-66).

During the year 2020-21, the share of petroleum (crude), diamond (uncut), coal, nature gas, copper ore & concentrates and coke in the total value of imports of minerals was 56%, 16%, 15%, 7%, 1% and 1% respectively in 2020-2021(Tables-69).

The value of import of petroleum (crude) was Rs 439656 crore in 2020-21 which was observed more value than others value of imports of other minerals and accounted for 56% in the total value of imports of minerals in 2020-21(Table-59).

India imports uncut diamond and re-exports after cutting and polishing and value of imports of diamond (uncut) was Rs.128351 crore in the year 2020-21 with decrease 14% as compared to previous year (Table -71).

India imported 215 million tonnes of coal value at Rs 11605 crore which accounted for 15 % of the value of imports of all minerals (Table-58).

The imports of rock phosphate were shown fluctuated during the decade ending 2020-21. The quantity of imports of rock phosphate at 7.8 million tonne increased by 1.65 % in the year 2020-21 and the value of its imports was Rs. 5371 crores (Table-60).

The imports of sulphur were at level at 1.5 million tonne and the value of its import was Rs. 1095 which was increased by 33% as compared to previous year (Table-61).

Other important minerals like Coke, asbestos, precious and semi precious stones, manganese ore, etc. were imported into India during the year 2020-21.

Table-49 **Exports of Chromite, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	689	801
2010-11	173	286
2011-12	225	489
2012-13	196	311
2013-14	195	347
2014-15	25	66
2015-16	72	131
2016-17	231	366
2017-18	82	174
2018-19	39	134
2019-20	34	87
2020-21	3	7

Source: DGCI & S, Kolkata

Table-50 **Exports of Granite, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	3828	4994
2010-11	4500	5593
2011-12	4605	6382
2012-13	6061	7942
2013-14	6802	9869
2014-15	6563	9832
2015-16	5675	9272
2016-17	6094	9337
2017-18	6525	9249
2018-19	6812	10201
2019-20	6678	10225
2020-21	7522	11328

Source: DGCI & S, Kolkata

Table -51 **Value of Exports of Granite, 2014-15 to 2020-21 (By Principal Countries)**

(Rs. Crore)

Country	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
All Countries	**9832**	**9272**	**9337**	**9249**	**10201**	**10225**	**11328**
China P Rp	3022	2590	2669	2863	3000	3056	3386
USA	1600	1641	1670	1458	1563	1509	1854
Vietnam Soc Rp	162	316	401	549	899	1011	1116
Germany	405	357	386	392	404	383	421
Turkey	431	343	326	325	198	218	202
UAE	315	262	271	292	334	254	273
Poland	261	207	230	228	267	282	327
Italy	312	255	244	221	204	198	214
UK	295	280	258	212	192	171	160
Others	**3029**	**3021**	**2882**	**2709**	**3140**	**3143**	**3375**

Source: DGCI & S, Kolkatal

Table -52 **Exports of Iron Ore, 2009-10 to 2020-21**

Year	Quantity (Lakh tonne)	Value (Rs. Crore)
2009-10	1015	28366
2010-11	469	21416
2011-12	472	22184
2012-13	181	8985
2013-14	163	9481
2014-15	73	3144
2015-16	54	1264
2016-17	307	10293
2017-18	242	9490
2018-19	161	9263
2019-20	366	18609
2020-21	577	36256

Source: DGCI & S, Kolkata

Table -53 **Value of Exports of Iron Ore, 2014-15 to 2020-21 (By Principal Countries)**

(Rs. Crore)

Country	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
All Countries	**3144**	**1264**	**10293**	**9490**	**9263**	**18609**	**36256**
China P Rp	1190	1032	9729	7039	6704	15143	31442
Japan	1125	-	155	1224	605	1284	1505
Korea Rp	305	-	29	581	744	719	571
Oman	4	-	215	228	175	393	628
Vietnam Soc Rep	-	-	-	126	107	31	104
Indonesia	-	-	-	72	75	42	538
Malaysia	-	-	-	62	157	168	661
Korea Dp Rp	-	-	-	30	89	-	-
U K	-	-	-	29	269	146	-
UAE	-	10	-	24	1	63	15
Iran	-	203	-	-	-	-	-
Nepal		7	-	7	10	13	19
Others	**520**	**12**	**165**	**68**	**327**	**607**	**773**

Source: DGCI & S, Kolkata

Table -54 **Exports of Manganese Ore, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	289	117
2010-11	99	80
2011-12	75	44
2012-13	72	27
2013-14	66	19
2014-15	11	7
2015-16	++	2
2016-17	++	1
2017-18	44	51
2018-19	56	14
2019-20	58	25
2020-21	82	97

Source: DGCI & S, Kolkata

++: negligible

Table-55 **Exports of Marble, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	276	305
2010-11	522	327
2011-12	325	386
2012-13	371	543
2013-14	338	570
2014-15	326	599
2015-16	290	600
2016-17	327	705
2017-18	356	767
2018-19	385	876
2019-20	311	901
2020-21	295	1008

Source: DGCI & S, Kolkata

Table-56 **Exports of Mica, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	94	162
2010-11	127	226
2011-12	132	289
2012-13	128	346
2013-14	128	376
2014-15	141	426
2015-16	136	423
2016-17	135	456
2017-18	155	619
2018-19	152	620
2019-20	117	491
2020-21	144	573

Source: DGCI & S, Kolkata

Table -57 **Imports of Asbestos, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	331	939
2010-11	366	1003
2011-12	378	1199
2012-13	460	1900
2013-14	286	1330
2014-15	396	1717
2015-16	356	1487
2016-17	311	1128
2017-18	357	1160
2018-19	364	1225
2019-20	361	1243
2020-21	309	1185

Source: DGCI & S, Kolkata

Table -58 **Imports of Coal, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	73257	39180
2010-11	68918	41549
2011-12	102841	78827
2012-13	145790	86851
2013-14	166861	92335
2014-15	212106	104530
2015-16	204000	86107
2016-17	191014	100316
2017-18	208254	138485
2018-19	235355	170932
2019-20	248545	152748
2020-21	215260	116051

Source: DGCI & S, Kolkata

Table-59 **Imports of Petroleum (Crude), 2009-10 to 2020-21**

Year	Quantity (Lakh tonne)	Value (Rs. Crore)
2009-10	1536	365901
2010-11	1531	421616
2011-12	1657	643689
2012-13	1855	785602
2013-14	1892	869657
2014-15	1879	709379
2015-16	2023	429400
2016-17	2149	474219
2017-18	2181	563098
2018-19	2265	798158
2019-20	2209	728112
2020-21	1882	439656

Source: DGCI & S, Kolkata

Table-60 **Imports of Rock Phosphate, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	5684	3275
2010-11	5194	3211
2011-12	9730	8315
2012-13	8161	7310
2013-14	7161	5518
2014-15	8273	6189
2015-16	8038	6529
2016-17	7511	4951
2017-18	7703	4546
2018-19	7519	5638
2019-20	7655	5421
2020-21	7781	5371

Source: DGCI & S, Kolkata

Table-61 **Imports of Sulphur*, 2009-10 to 2020-21**

Year	Quantity ('000 tonne)	Value (Rs. Crore)
2009-10	1534	681
2010-11	1357	1098
2011-12	2038	2283
2012-13	1547	1736
2013-14	1290	1100
2014-15	1626	1745
2015-16	1433	1417
2016-17	1346	875
2017-18	1206	1063
2018-19	1347	1522
2019-20	1235	824
2020-21	1463	1095

***Excluding sublimed, ppt and colloidal*

Source: DGCI & S, Kolkata

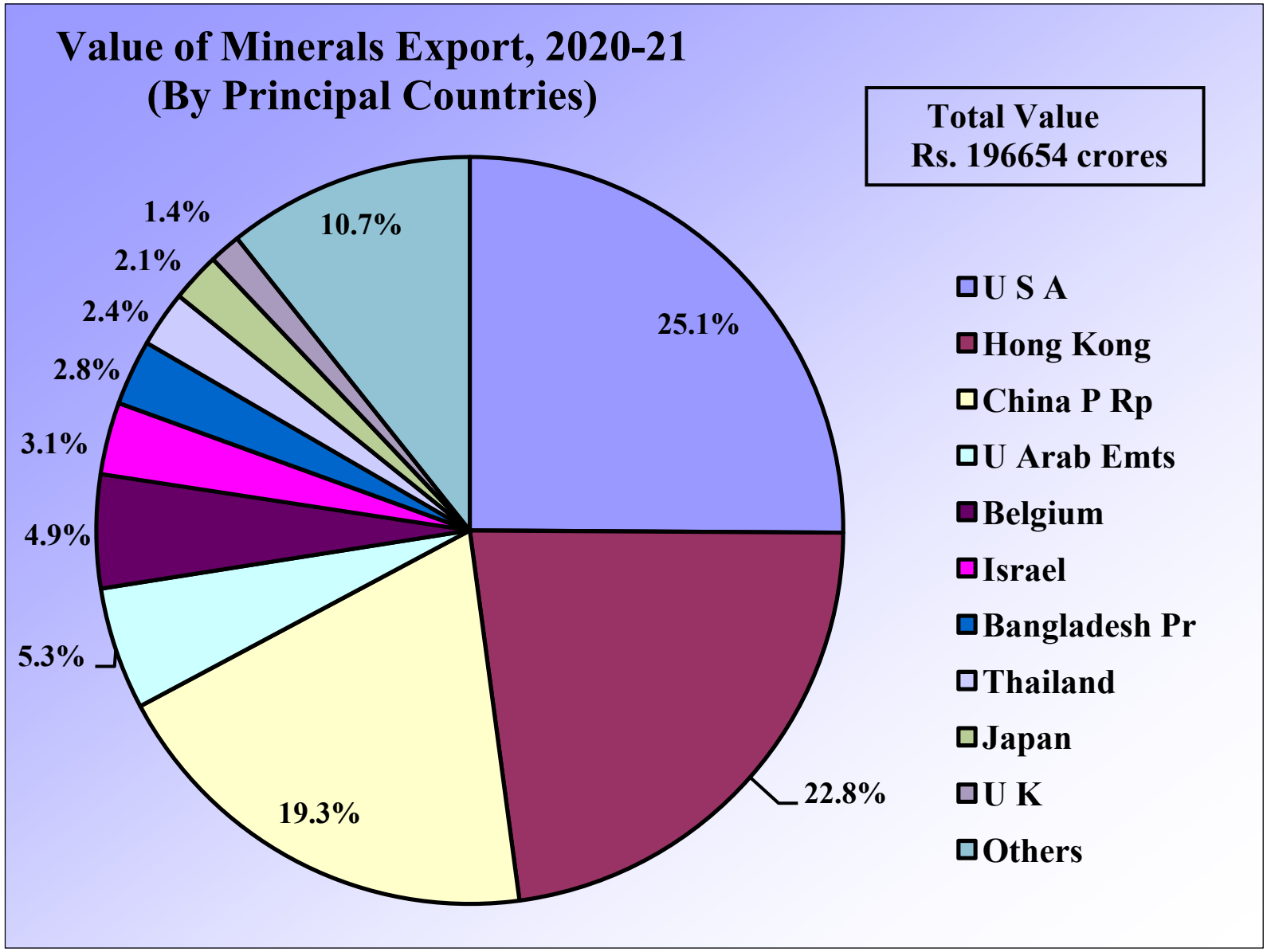

Value of Minerals Export, 2020-21
(By Principal Countries)
Total Value
Rs. 196654 crores
25.1%
22.8%
19.3%
5.3%
4.9%
3.1%
2.8%
2.4%
2.1%
1.4%
10.7%
U S A
Hong Kong
China P Rp
U Arab Emts
Belgium
Israel
Bangladesh Pr
Thailand
Japan
U K
Others

Table-62 **Value of Exports of Minerals 2018-19, 2019-20 and 2020-21 (By Principal Countries)**

Country	2018-19		2019-20		2020-21	
	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution
Total	**219168**	**100**	**189683**	**100**	**196654**	**100**
U S A	61656	28.13	52871	27.87	49350	25.09
Hong Kong	68099	31.07	47021	24.79	44795	22.78
China P Rp	15150	6.91	21941	11.57	38008	19.33
U Arab Emts	13552	6.18	11416	6.02	10434	5.31
Belgium	16976	7.75	15126	7.97	9656	4.91
Israel	7068	3.22	6481	3.42	6143	3.12
Bangladesh Pr	1500	0.68	1721	0.91	5574	2.83
Thailand	4368	1.99	4560	2.40	4766	2.42
Japan	4000	1.83	4442	2.34	4205	2.14
U K	2518	1.15	2286	1.21	2673	1.36
Others	**24281**	**11.08**	**21818**	**11.50**	**21050**	**10.70**

Source: DGCI & S, Kolkata

Table-63 **Value of Exports of Metals 2018-19, 2019-20 and 2020-21 (By Principal Countries)**

Country	2018-19		2019-20		2020-21	
	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution
Total	**174287**	**100**	**166099**	**100**	**207222**	**100**
China P Rp	5086	2.92	7460	4.49	28214	13.62
U S A	20450	11.73	18331	11.04	18115	8.74
Malaysia	8729	5.01	11357	6.84	12585	6.07
Korea Rp	9567	5.49	10473	6.31	11773	5.68
U Arab Emts	9818	5.63	9953	5.99	9472	4.57
Vietnam Soc Rep	4294	2.46	8760	5.27	8999	4.34
Italy	9375	5.38	7478	4.50	8866	4.28
Nepal	9803	5.62	8848	5.33	8631	4.17
U K	4061	2.33	3440	2.07	6719	3.24
Belgium	5469	3.14	4143	2.49	5089	2.46
Taiwan	4010	2.30	3644	2.19	4613	2.23
Germany	4772	2.74	4359	2.62	4294	2.07
Thailand	3616	2.07	3354	2.02	4271	2.06
Others	**75237**	43.17	**64497**	**38.83**	**75581**	**36.47**

Source: DGCI & S, Kolkata

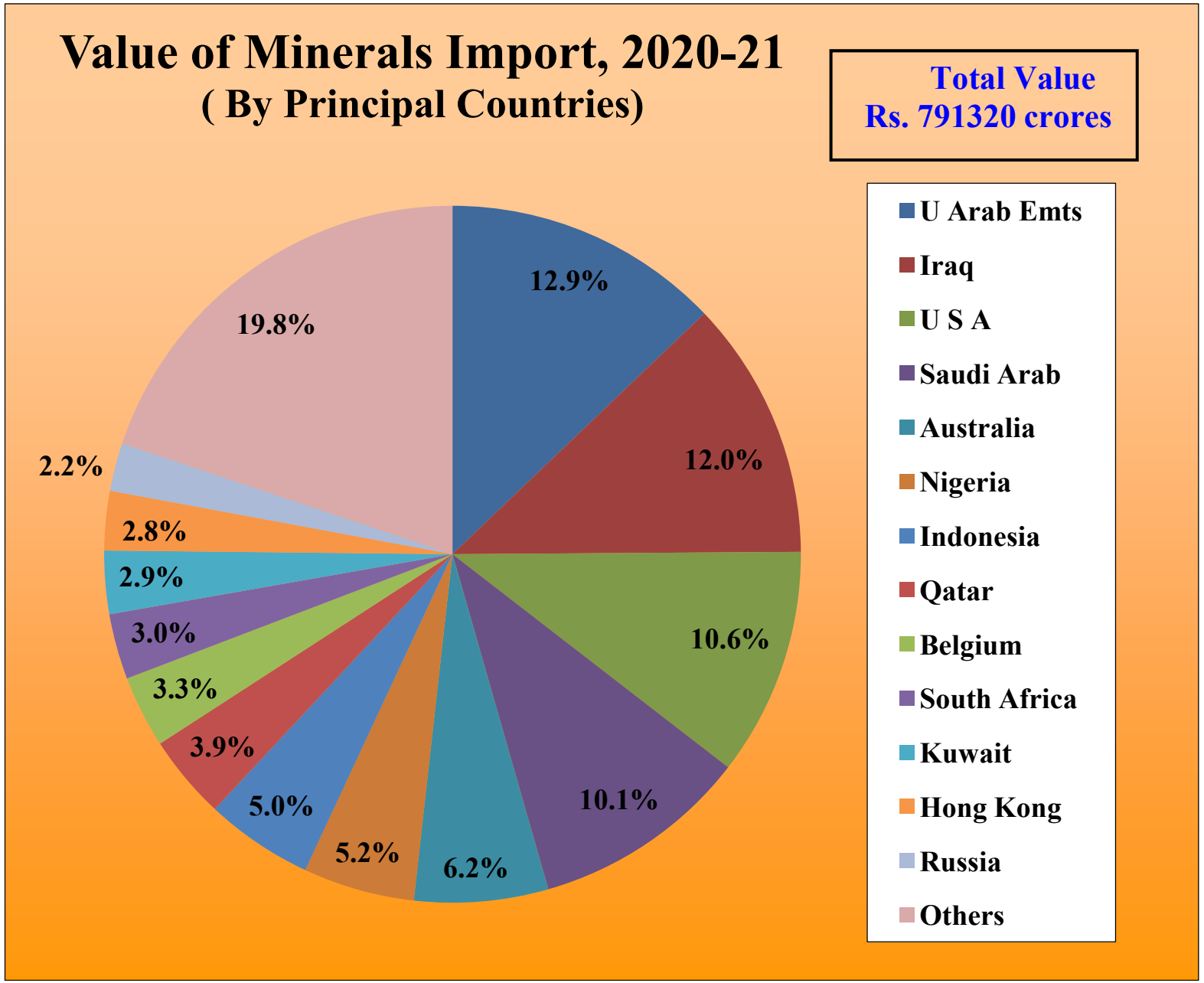

Value of Minerals Import, 2020-21
(By Principal Countries)
Total Value
Rs. 791320 crores
12.9%
12.0%
10.6%
10.1%
6.2%
5.2%
5.0%
3.9%
3.3%
3.0%
2.9%
2.8%
2.2%
19.8%
U Arab Emts
Iraq
U S A
Saudi Arab
Australia
Nigeria
Indonesia
Qatar
Belgium
South Africa
Kuwait
Hong Kong
Russia
Others

Table-64 **Value of Import of Minerals 2018-19, 2019-20 and 2020-21 (By Principal Countries)**

Country	2018-19		2019-20		2020-21	
	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution
Total	**1299186**	**100**	**1151530**	**100**	**791320**	**100**
U Arab Emts	114911	8.84	124243	10.79	101789	12.86
Iraq	155844	12.00	161379	14.01	95190	12.03
U S A	82217	6.33	80676	7.01	83695	10.58
Saudi Arab	150384	11.58	144649	12.56	79870	10.09
Australia	77239	5.95	57930	5.03	49151	6.21
Nigeria	74498	5.73	71162	6.18	40934	5.17
Indonesia	54654	4.21	48597	4.22	39592	5
Qatar	46553	3.58	41468	3.6	30901	3.91
Belgium	46357	3.57	36297	3.15	26452	3.34
South Africa	26485	2.04	28591	2.48	24100	3.05
Kuwait	38066	2.93	34282	2.98	23146	2.93
Hong Kong	28650	2.21	23438	2.04	21769	2.75
Russia	18217	1.40	24262	2.11	17681	2.23
Others	**385111**	**29.64**	**274557**	**23.84**	**157049**	**19.85**

Source: DGCI & S, Kolkata

Table-65 **Value of Import of Metals 2018-19, 2019-20 and 2020-21 (By Principal Countries)**

Country	2018-19		2019-20		2020-21	
	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution	Value (Rs. Crore)	Percentage Contribution
Total	**477843**	**100**	**416727**	**100**	**435611**	**100**
Switzerland	109073	22.83	103973	24.95	120180	27.59
U Arab Emts	34251	7.17	31056	7.45	41109	9.44
China P Rp	36699	7.68	29823	7.16	25310	5.81
South Africa	12805	2.68	13446	3.23	24665	5.66
U S A	28802	6.03	23444	5.63	19985	4.59
Korea Rp	27978	5.86	24431	5.86	19163	4.4
Japan	16605	3.47	17751	4.26	16220	3.72
Singapore	8432	1.76	6299	1.51	14639	3.36
Peru	15433	3.23	10148	2.44	11122	2.55
U K	21556	4.51	16588	3.98	11073	2.54
Guinea	2118	0.44	1792	0.43	10567	2.43
Hong Kong	13807	2.89	9948	2.39	8731	2
Bolivia	5967	1.25	5981	1.44	8511	1.95
Others	**144317**	**30.20**	**122048**	**29.29**	**104335**	**23.95**

Source: DGCI & S, Kolkata

Table -66 **Exports, Imports and Net Trade in Minerals and Metals, 2009-10 to 2020-21**

(Rs. Crore)

Year	Minerals and Metals (Including Petroleum)			Minerals (Excluding Petroleum Crude)		
	Exports	Imports	Difference	Exports	Imports	Difference
2009-10	185806	739255	-553449	127742	158929	-31187
2010-11	268422	955845	-687423	174370	247394	-73024
2011-12	277810	1362740	-1084930	175238	300741	-125503
2012-13	300715	1547366	-1246651	160101	315198	-155097
2013-14	347940	1537183	-1189243	194784	346170	-151386
2014-15	345315	1472992	-1127677	178019	362354	-184335
2015-16	323859	1129161	-805302	170946	309389	-138443
2016-17	382317	1147234	-764917	200131	335226	-135095
2017-18	389803	1440355	-1050552	199469	465431	-265962
2018-19	393455	1777030	-1383575	219168	501028	-281860
2019-20	355782	1568257	-1212475	189683	423418	-233735
2020-21	403876	1226931	-823055	196654	351664	-155010

Source: DGCI & S, Kolkata

Table -67 **Exports, Imports and Net Trade in Minerals and Metals, 2009-10 to 2020-21**

(Rs. Crore)

Year	Petroleum Crude			Metals		
	Exports	Imports	Difference	Exports	Imports	Difference
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	-	869657	-869657	153156	321356	-168200
2014-15	-	709379	-709379	167296	401259	-233963
2015-16	-	429400	-429400	152913	390372	-237459
2016-17	-	474219	-474219	182186	337788	-155602
2017-18	-	563098	-563098	190334	411826	-221492
2018-19	-	798158	-798158	174287	477843	-303556
2019-20	-	728112	-728112	166099	416727	-250628
2020-21	-	439656	-439656	207222	435611	-228389

Source: DGCI & S, Kolkata

++ Negligible

Table-68 **Share of Principal Minerals in the Value of Mineral Exports, 2014-15 to 2020-21**

Exports

Year	Exports of all Minerals (Rs. Crore)	Percentage Share of Principal Minerals						
		Diamond*	Granite	Iron Ore	Alumina	Emerald (Cut & Uncut)	Precious & Semi-Precious Stones (Cut & Uncut)	Others
2014-15	178019	83	6	2	2	1	1	5
2015-16	170946	83	5	1	2	1	1	7
2016-17	200131	81	5	5	2	1	1	5
2017-18	199469	81	5	5	2	1	1	5
2018-19	219168	80	5	4	2	1	1	7
2019-20	189683	74	5	10	2	1	1	7
2020-21	196654	64	6	18	1	++	1	10

Source: DGCI & S, Kolkata

**Includes mostly cut, industrial and powder*

++ Negligible

Table-69 **Share of Principal Minerals in the Value of Mineral Imports, 2014-15 to 2020-21**

Imports

Year	Imports of All Minerals (Rs. Crore)	Percentage Share of Principal Minerals						
		Petroleum (Crude)	Diamond*	Coal#	Natural Gas	Copper Ore & Conc.	Coke	Others
2014-15	1071733	66	12	10	5	3	++	4
2015-16	738789	58	15	12	6	4	++	5
2016-17	809445	59	16	12	5	2	1	5
2017-18	1028529	55	18	13	5	3	1	5
2018-19	1299186	61	14	13	6	1	1	4
2019-20	1151530	63	13	13	6	1	1	3
2020-21	791320	56	16	15	7	1	1	4

Source: DGCI & S, Kolkata

** Includes mostly cut, industrial and powder, # Excluding Lignite*

++ Negligible

Table-70 **Share of Principal Countries in the Value of Exports of Diamond, 2014-15 to 2020-21**

Exports of Diamond (Mostly Cut)

Year	Value of Exports (Rs. Crore)	Percentage Share of Principal Importing Countries							
		Hong Kong	USA	Belgium	UAE	Israel	Thailand	Singapore	Others
2014-15	148056	27	38	11	10	5	3	1	5
2015-16	142664	30	36	10	10	5	3	1	5
2016-17	162567	30	38	10	9	4	2	1	6
2017-18	162022	30	40	9	8	4	2	1	6
2018-19	175817	33	38	9	6	4	2	1	7
2019-20	140034	35	33	11	6	5	3	1	6
2020-21	125821	36	34	7	7	5	3	++	8

Source: DGCI & S, Kolkata

++ Negligible

Table-71 **Share of Principal Countries in the Value of Imports of Diamond, 2014-15 to 2020-21**

Imports of Diamond (Mostly Cut)

Year	Value of Imports (Rs. Crore)	Percentage Share of Principal Exporting Countries							
		UAE	Belgium	Russia	Hong Kong	Bots-wana	Canada	Israel	Others
2014-15	125035	20	44	4	11	4	1	5	11
2015-16	110378	22	39	7	11	3	2	6	10
2016-17	129443	23	26	12	11	7	3	6	12
2017-18	190204	15	14	12	11	6	4	3	35
2018-19	177971	22	26	2	14	4	1	4	27
2019-20	148735	24	24	3	13	4	2	3	27
2020-21	128351	29	20	4	13	3	++	4	27

Source: DGCI & S, Kolkata

++ Negligible

Table-72 **Production, Exports/Imports and Apparent Consumption as Percentage of Total Availability, 2018-19**
(By Selected Minerals)

Mineral	Total Availability* ('000 tonne)	Percentage Share of			
		Gross Production	Imports	Exports	Apparent Consumption
Bauxite	25944	91	9	6	94
Chromite	4133	96	4	1	99
Coal	964073	76	24	++	100
Iron Ore	219301	94	6	7	93
Kyanite	6	83	17	5	95
Limestone	404371	94	6	1	99
Magnesite	611	24	76	1	99
Manganese Ore	5617	50	50	1	99
Petroleum(crude)	260655	13	87	-	100
Phosphorite	8940	16	84	++	100
Sulphur	2237	40	60	21	79

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

Table-73 **Production, Exports/Imports and Apparent Consumption as Percentage of Total Availability, 2019-20**
(By Selected Minerals)

Mineral	Total Availability* ('000 tonne)	Percentage Share of			
		Gross Production	Imports	Exports	Apparent Consumption
Bauxite	24072	91	9	2	98
Chromite	4054	97	3	1	99
Coal	979419	75	25	++	100
Iron Ore	245328	99	1	15	85
Kyanite	5	76	24	3	97
Limestone	385104	93	7	1	99
Magnesite	468	22	78	1	99
Manganese Ore	7227	40	60	1	99
Petroleum(crude)	253039	13	87	-	100
Phosphorite	9055	15	85	++	100
Sulphur	2136	42	58	38	62

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

Table -74 **Production, Exports/Imports and Apparent Consumption as Percentage of Total Availability, 2020-21**
(By Selected Minerals)

Mineral	Total Availability* ('000 tonne)	Percentage Share of			
		Gross Production	Imports	Exports	Apparent Consumption
Bauxite	23415	87	13	1	99
Chromite	2987	95	5	++	100
Coal	931343	77	23	++	100
Iron Ore	205807	100	++	28	72
Kyanite	6	80	20	4	96
Limestone	371918	94	6	1	99
Magnesite	439	17	83	1	99
Manganese Ore	6762	40	60	1	99
Petroleum(crude)	218676	14	86	-	100
Phosphorite	9237	16	84	++	100
Sulphur	2201	34	66	36	64

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

Section – 5

Average Daily Employment in Mines

Average Daily Employment in Mines

Section-5

Average Daily Employment in Mines

The average daily employment of labour at around 99 thousand persons was engaged during 2020-21 (excluding labour engaged in fuel minerals). Among the major group of minerals, metallic minerals and non-metallic minerals accounted for 79% and 21% respectively to the total employment during 2020-21. The average daily employment of labour was decreased by about 11% as compared to the previous year (Tables-75).

During the year 2020-21, in metallic group of minerals, iron ore accounted for 55% of the total employment, followed by manganese ore 14%, lead & zinc concentrates 12%, bauxite 6%, chromite 5%, gold 4% and copper concentrates 4% and each (Tables-76). The share of limestone in the labour employed in non-metallic minerals was 89% followed by apatite & phosphorite 5%, magnesite 3% and wollastonite 1% while remaining 2% labour were employed in other non-metallic minerals (Tables-77).

During the year 2019-20, in the case of metallic and non-metallic minerals covered under MCDR, 1988 (which excludes fuel, atomic and

minor minerals) 563 mines of category 'A' employed about 89 thousand persons while 807 mines of 'B' category employed about 22 thousand persons. About 35 thousand persons were engaged in 148 public sector mines and about 76 thousand persons were engaged in 1222 private sector mines in 2019-20. The shares of public and the private sectors in the total value of (metallic and non-metallic) minerals production were 27% and 73% respectively (Tables-78).

Whereas during the year 2020-21, in the case of metallic and non-metallic minerals covered under MCDR, 1988 (which excludes fuel, atomic and minor minerals) 585 mines of category 'A' employed about 83 thousand persons while 738 mines of 'B' category employed about 17 thousand persons. About 33 thousand persons were engaged in 156 public sector mines and 66 thousand persons were engaged in 1167 private sector mines in 2020-21. The shares of public and the private sectors in the total value of (metallic and non-metallic) minerals production were 34% and 66% respectively (Tables-79).

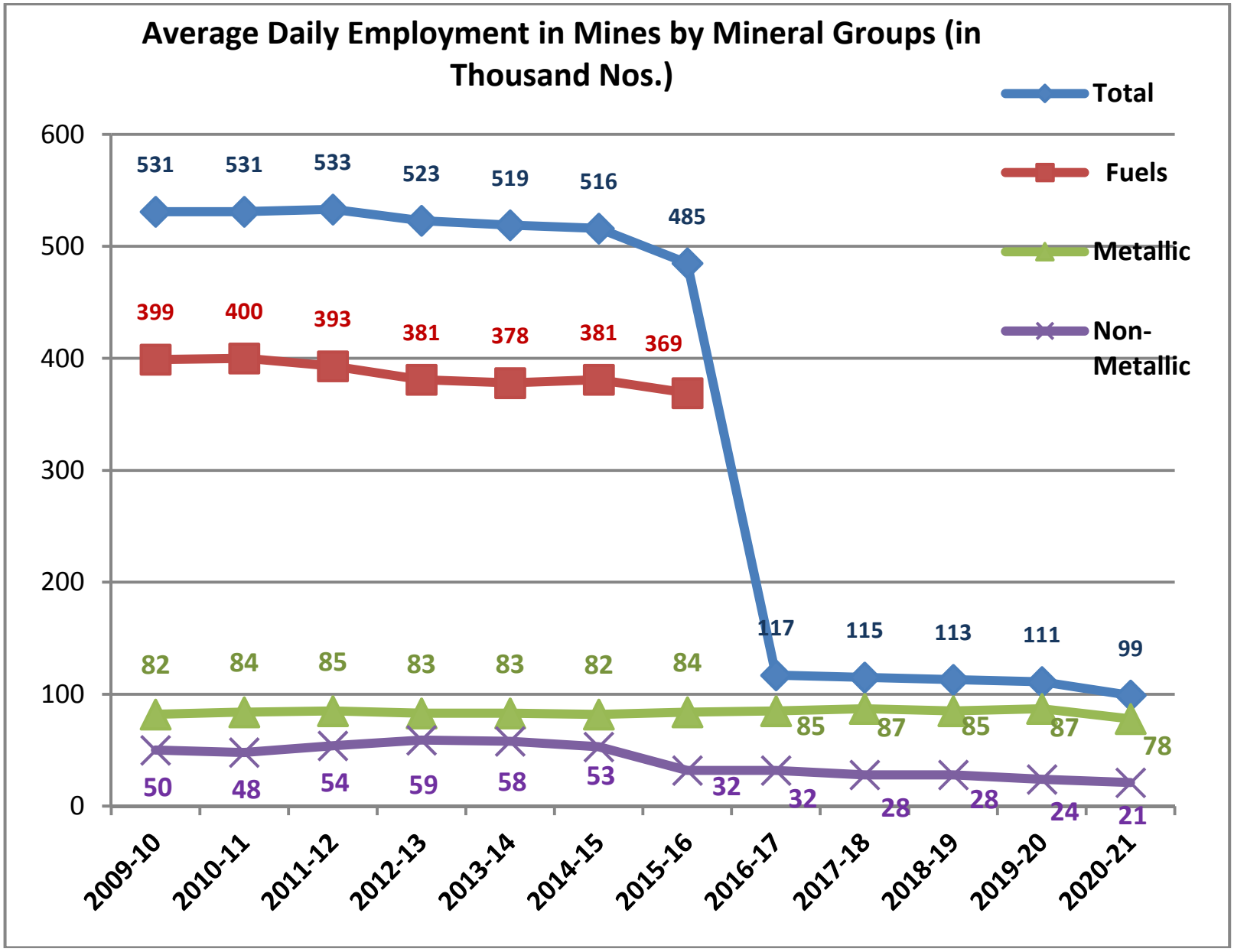

Average Daily Employment in Mines by Mineral Groups (in Thousand Nos.)
Total
Fuels
Metallic
Non-Metallic
600
500
400
300
200
100
0
531 531 533 523 519 516 485 117 115 113 111 99
399 400 393 381 378 381 369
82 84 85 83 83 82 84 85 87 85 87 78
50 48 54 59 58 53 32 32 28 28 24 21
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
2020-21

Table-75 **Average Daily Employment in Mines, 2009-10 to 2020-21 (By Groups)**

Year	Total	Fuels*	Metallic Minerals	Non-metallic Minerals
2009-10	530699	398845	82000	49854
2010-11	531122	399570	83865	47687
2011-12	532552	393384	85361	53807
2012-13	523352	380815	83172	59365
2013-14	518927	378070	82820	58037
2014-15	515834	380719	82375	52740
2015-16	484585	368695	84113	31777
2016-17#	116574	N.A.	84936	31638
2017-18#	114863	N.A.	86506	28357
2018-19#	112831	N.A.	84563	28268
2019-20#	111345	N.A.	87063	24282
2020-21#	99335	N.A.	78079	21256

Source: *Fuel - DGMS, Dhanbad*
Metallic & Non-metallic - Returns received under MCDR, 1988

** Calendar Year*

 # Excluding Fuels

Table-76 **Average Daily Employment in Metallic Minerals Mines, 2018-19, 2019-20 and 2020-21 (By Sectors)**

Mineral	2018-19			2019-20			2020-21		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
Total	**84563**	**31736**	**52827**	**87063**	**31276**	**55787**	**78079**	**29796**	**48283**
Iron Ore	43125	12974	30151	45687	13286	32401	42742	14156	28586
Manganese Ore	13164	8381	4783	11775	7338	4437	10947	7240	3707
Lead & Zinc Concentrates	8223	17	8206	10396	-	10396	9557	1	9556
Chromite	7245	2029	5216	5845	1337	4508	4248	1085	3163
Bauxite	6093	1663	4430	6162	2164	3998	5023	1809	3214
Gold	3258	3223	35	3261	3223	38	2788	2739	49
Copper Concentrates	3449	3449	-	3928	3928	-	2766	2766	-
Tin Concentrates	6	-	6	9	-	9	8	-	8

Source: *Returns received under MCDR, 1988*

Table-77 **Average Daily Employment in Non-Metallic Minerals Mines, 2018-19, 2019-20 and 2020-21 (By Sectors)**

Mineral	2018-19			2019-20			2020-21		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
Total	**28268**	**6539**	**21729**	**24282**	**3546**	**20736**	**21256**	**3577**	**17679**
Limestone	21633	1914	19719	21335	1864	19471	18838	1946	16892
Sillimanite	2042	2002	40	36	36	-	4	4	-
Apatite & Phosphorite	1201	1164	37	961	916	45	969	930	39
Magnesite	811	490	321	711	420	291	673	418	255
Garnet (Abrasive)	1267	666	601	39	-	39	51	-	51
Limeshell	290	-	290	244	-	244	-	-	-
Graphite	237	27	210	219	16	203	121	25	96
Wollastonite	265	-	265	244	-	244	215	-	215
Diamond	131	131	-	161	161	-	137	137	-
Others	391	145	246	332	133	199	248	117	131

Source: *Returns received under MCDR, 1988*

Table -78 **Employment in Mines 2018-19, 2019-20 and 2020-21 (Metallic & Non-Metallic Minerals) (By Category/Sector)**

Category/Sector	No. of Mines	Average Daily Employment for the Group	Value of Production (Rs. Crore)
2018-19			
Total	**1428**	**112831**	**73955**
Category 'A'	558	89373	-
Category 'B'	870	23458	-
Public Sector	156	38275	22516
Private Sector	1272	74556	51439
2019-20			
Total	**1370**	**111345**	**77802**
Category 'A'	563	88786	-
Category 'B'	807	22559	-
Public Sector	148	34822	20668
Private Sector	1222	76523	57134

Source:*Returns received under MCDR, 1988*

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

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

Table -79 **Employment in Mines 2018-19, 2019-20 and 2020-21 (Metallic & Non-Metallic Minerals) (By Category/Sector)**

Category/Sector	No. of Mines	Average Daily Employment for the Group	Value of Production (Rs. Crore)
2020-21			
Total	**1323**	**99335**	**81435**
Category 'A'	585	82639	-
Category 'B'	738	16696	-
Public Sector	156	33373	27659
Private Sector	1167	65962	53776

Source: *Returns received under MCDR, 1988*

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

Section-6

Consumption of Minerals

Iron & Steel Industry:

Iron ore is the basic raw material required for iron & steel industry. The coal, limestone and manganese ore are also widely consumed for requirement of iron & steel industry.

During the year 2019-20, the upward trend of mineral consumption in some of the above minerals was observed in iron & steel industry. The consumption of iron ore was recorded from 1582 thousand tonnes in 2019-20, which was increased by 2% as compared to preceding year. The consumption of manganese ore was reported at 204 thousand tonnes with increase of 21% as compared to the previous year and the consumption of limestone was remained same at 127 thousand tonne as previous year (Table-80).

Cement Industry:

Important mineral consumed in cement industry is limestone. Other important minerals consumed in cement industry are bauxite and iron ore etc.

The consumption of limestone was at 3087 thousand tonnes in the year 2019-20 with decrease 6% as compare to the previous year. During the year 2019-2020 consumption of bauxite was at 2036 thousand tonnes with 8% decrease as compare to previous year. While consumption of iron ore was at 825 tonne with decrease by 24 % as compared to previous year (Table-81).

Refractory Industry:

The consumption of magnesite was at 68 thousand tonne and that of kyanite & sillimanite, chromite, and Bauxite & diaspore were 28 thousand tonne, 16 thousand tonne and 37 thousand tonne respectively (Table-82).

Table -80 **Consumption of Minerals in Iron & Steel Industry, 2009-10 to 2020-21**

('000 tonne)

Year	Iron Ore*^	Coal*@	Limestone*	Manganese Ore	Ferro-Alloys	Bauxite	Fluorite
2009-10	564.2	185.7	72.5	135	574	1	1
2010-11	629.5	186.3	72.5	151	571	1	3
2011-12	990	158	93	254	630	1	2
2012-13	1020	160	114	255	416	1	2
2013-14	1068	153	114	255	406	1	2
2014-15	1134	123	122	262	415	N.A.	N.A.
2015-16	1158	124#	115	517	N.A.	N.A.	N.A.
2016-17	1356	125#	136	132	N.A.	N.A.	N.A.
2017-18	1441	N.A.	111	128	N.A.	N.A.	N.A.
2018-19	1544	N.A.	127	168	N.A.	N.A.	N.A.
2019-20	1582	N.A.	127	204	N.A.	N.A.	N.A.
2020-21	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Figures rounded off

* *Lakh tonne@ Relates to despatches of coal*

(R) Revised (P) Provisional

Includes actual reported consumption and/or estimates made wherever required

Paucity of data, hence coverage may not be complete

Source: *Coal Directory of India, 2015-16 and Provisional Coal Statistics, 2017-18*

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

^ *Iron & Steel Industry including sponge iron*

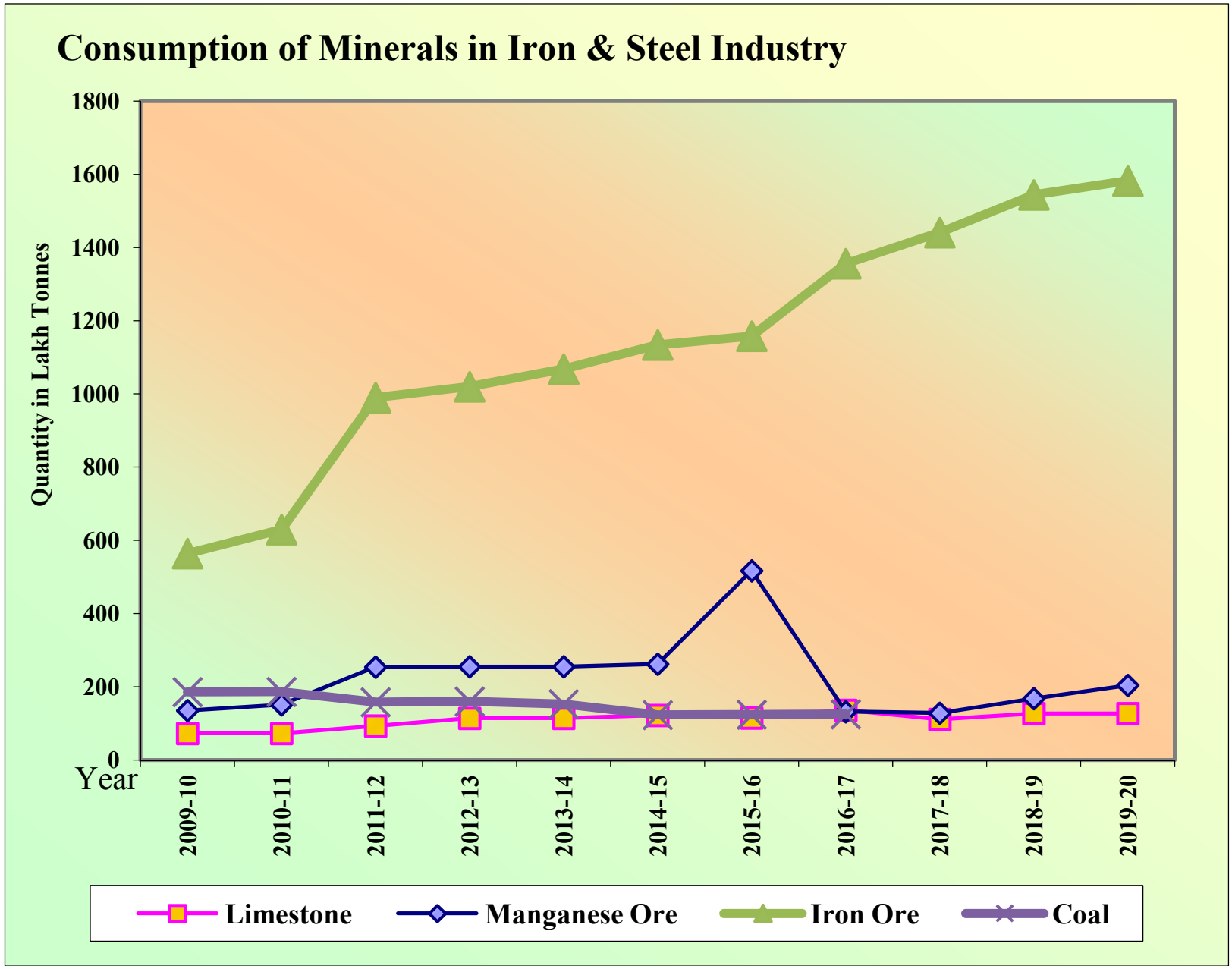

Consumption of Minerals in Iron & Steel Industry
Quantity in Lakh Tonnes
1800
1600
1400
1200
1000
800
600
400
200
0
Year
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18
2018-19
2019-20
Limestone
Manganese Ore
Iron Ore
Coal

Table -81 **Consumption of Minerals in Cement Industry, 2009-10 to 2020-21**

('000 tonne)

Year	Limestone*+	Coal*@	Bauxite	Iron Ore
2009-10	2030	131.2	1043	1294
2010-11	2320	141.8	1082	1494
2011-12	2399	129	1041	1548
2012-13	2533	128	535	1586
2013-14	2558	116	561	1455
2014-15	2790	111	1039	1186
2015-16	2898	90	1406	1254
2016-17	2544	64	1554	869
2017-18	2956	N.A.	1806	826
2018-19	3275	N.A.	2214	1080
2019-20	3087	N.A.	2036	825
2020-21	N.A.	N.A.	N.A.	N.A.

Figures rounded off, * *Lakh tonne*

+: Limestone and other calcareous material. (R) Revised (P) Provisional

Includes actual reported consumption and or estimates made wherever required

Paucity of data, hence coverage may not be complete

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

Source: *Coal Directory of India, 2015-16 and Provisional Coal Statistics, 2017-18*

^ *Excludes other calcareous materials*

Table -82 **Consumption of Minerals in Refractory Industry, 2009-10 to 2020-21**

Year	Magnesite	Bauxite & Diaspore	Chromite*	Kyanite & Sillimanite
2009-10	229	128	24	18
2010-11	163	118	45	15
2011-12	112	280	25	15
2012-13	91	313	42	21
2013-14	58	295	41	22
2014-15	67	301	20	28
2015-16	69	288[$]	9	27
2016-17	60	110[$]	4	22
2017-18	137[#]	65[$]	9	66[#]
2018-19	81	70[$]	17	49
2019-20	68	37[$]	16	28
2020-21	N.A.	N.A.	N.A.	N.A.

Figures rounded off

** Includes consumption in iron & steel industry*

Includes actual reported consumption and/or estimates made wherever required

Paucity of data, hence coverage may not be complete

$: Excludes diaspore

(R): Revised (P): Provisional

#: Consumption estimated from the despatches as reported in Form 'H'

Section – 7

Production of Mineral-Based Products

Production of Mineral-based Products, 2009-10 to 2020-21

Section – 7

Production of Mineral-Based Products

Cement and Asbestos-Cement Products:

The output of cement in the country during the decade was increased by about 71% during 2019-20 at 3434 lakh tonne as compared to 2007 lakh tonne in 2009-10 and it also increased by about 2% as compared to previous year. Whereas The output of cement in the country during the decade was increased by about 43% during 2020-21 at 2999 lakh tonne as compared to 2097 lakh tonne in 2010-11 and it decreased by about 13% as compared to previous year (Table-83)

Ceramic Products:

The total production of ceramic products consisting of glazed tiles and insulators showed in fluctuating trend during the decade. The total production of ceramic products consisting of glazed tiles and insulators was recorded 2009 thousand tonnes in the year 2019-20 and 1649 thousand tonnes in the year 2020-2021respectively. It was decreased by 18% as compared to previous year. The output of glazed tiles was decreased by about 18% as compared to previous year and also the production of insulators was decreased by about 20% as compared to previous year. (Table-84).

Fertilisers and Sulphuric Acid:

The output of fertilizers (including phosphatic and nitrogenous) was showed in fluctuation trend during the decade and reported 18.48 million tonne and 18.45 million tonne of its production for the year 2019-20 & 2020-21 respectively.

During the year 201920, the production of Sulphuric Acid at 5900 thousand tonnes was decreased by about 3% as compared to the previous year. Whereas during the year 2020-21, the production of Sulphuric Acid at 5383 thousand tonnes was also decreased by about 9% as compared to the previous year. (Tables-85 & 86).

Table -83 **Production of Cement and Asbestos-Cement Products, 2009-10 to 2020-21**[@]

Year	Cement	Asbestos-Cement Products*
	Production (Lakh tonne)	Production ('000 tonne)
2009-10	2007	2606
2010-11	2097	2468
2011-12	2235	N.A.
2012-13	2406	N.A.
2013-14	2498	N.A.
2014-15	2613	N.A.
2015-16	2739	N.A.
2016-17	2704	N.A.
2017-18	2991	2625
2018-19	3373	2776
2019-20	3434	2467
2020-21	2999	2706

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

Source: *Department for Promotion of Industry and Internal Trade*

@ Production figures pertain to the units included in the sample/frame for Index of Industrial Production with base year 2004-05/2011-12

Table -84 **Production of Ceramic Products, 2009-10 to 2020-21@**

(’000 tonne)

Year	Glazed Tiles	Insulators (H.T. and L.T.)
2009-10	1452	61
2010-11	1478	68
2011-12	1573	61
2012-13	1464	56
2013-14	2350	68
2014-15	2501	71
2015-16	2584	72
2016-17	2439	68
2017-18	2317	64
2018-19	2142	56
2019-20	1959	50
2020-21	1609	40

Source: *Department for Promotion of Industry and Internal Trade*

@ Production figures pertain to the units included in the sample/frame for Index of Industrial Production with base year 2004-05/2011-12

Table -85 **Production of Fertilisers, 2009-10 to 2020-21**

(’000 tonne)

Year	Phosphatic	Nitrogenous
2009-10	4321	11900
2010-11	4222	12156
2011-12	4101	12259
2012-13	3541	12194
2013-14	3714	12378
2014-15	4121	12394
2015-16	4394	13416
2016-17	4595	13354
2017-18	4723	13383
2018-19	4594	13298
2019-20	4791	13687
2020-21	4739	13715

Source: *Department of Fertilisers, Ministry of Chemicals and Fertilisers*

Table -86 **Production of Sulphuric Acid, 2009-10 to 2020-21**[@]

(’000 tonne)

Year	Production
2009-10	7444
2010-11	5670
2011-12	5870
2012-13	5730
2013-14	5061
2014-15	5407
2015-16	5805
2016-17	6150
2017-18	6156
2018-19	6069
2019-20	5900
2020-21	5383

Source: *Department for Promotion of Industry and Internal Trade*

@ Production figures pertain to the units included in the sample/frame for Index of Industrial Production with base year 2004-05/2011-12

Section – 8

Mining Machinery

Mining Machinery, 2018-19, 2019-20 & 2020-21

Section – 8

Mining Machinery

During the reporting year, 2020-21, a total number of 1008 opencast mechanised mines were covered for compilation and preparation of statement on population of mining machinery as against 1023 mines covered during 2019-20. Hence, there was a decrease of 1.4 percent on the coverage of mines during the year.

The majority of the mechanised mines covered were of limestone, iron ore, bauxite, gypsum, manganese, chromite and others. Conventional methods of Deep-hole blasting with Shovel-Dumper combination were mostly found.

It was observed that there was an increase in the population of mining machinery like Locomotives, Cranes, Hauler/Dumper, Drills/Blastholes, Air Compressor and Motor Grader. However, and a decrease of mining machinery like Front-End Loader, Bull Dozer, Back Hoes, Crusher, Surface Miners and Dipper Shovel (Hydraulic) during the reporting year. But, in overall, there was a decrease in the mining machinery population to the extent of 1% during the year under review.

Table -87 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19**

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	55	12	43	-	-	-	55	12	43
1.16-2.30	75	4	71	-	-	-	75	4	71
2.31-3.45	57	10	47	4	-	4	53	10	43
3.46-4.60	123	18	105	1	1	-	122	17	105
>4.60	116	34	82	12	12	-	104	22	82
Total	**426**	**78**	**348**	**17**	**13**	**4**	**409**	**65**	**344**
In Reserve (Nos.)									
< 1.16	7	2	5	-	-	-	7	2	5
1.16-2.30	-	-	-	-	-	-	-	-	-
2.31-3.45	5	-	5	-	-	-	5	-	5
3.46-4.60	11	1	10	-	-	-	11	1	10
>4.60	10	-	10	-	-	-	10	-	10
Total	**33**	**3**	**30**	-	-	-	**33**	**3**	**30**

Table -88 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2019-20**

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	101	15	86	41	9	32	60	6	54
1.16-2.30	93	16	77	34	10	24	59	6	53
2.31-3.45	92	17	75	36	4	32	56	13	43
3.46-4.60	141	16	125	55	6	49	86	10	76
>4.60	147	63	84	61	30	31	86	33	53
Total	**574**	**127**	**447**	**227**	**59**	**168**	**347**	**68**	**279**
In Reserve (Nos.)									
< 1.16	6	3	3	5	2	3	1	1	-
1.16-2.30	7	2	5	2	2	-	5	-	5
2.31-3.45	4	-	4	-	-	-	4	-	4
3.46-4.60	11	-	11	1	-	1	10	-	10
>4.60	9	2	7	4	2	2	5	-	5
Total	**37**	**7**	**30**	**12**	**6**	**6**	**25**	**1**	**24**

Table -89 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2020-21**

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	103	9	94	33	3	30	70	6	64
1.16-2.30	117	10	107	31	4	27	86	6	80
2.31-3.45	80	13	67	11	1	10	69	12	57
3.46-4.60	100	14	86	19	5	14	81	9	72
>4.60	132	48	84	41	20	21	91	28	63
Total	**532**	**94**	**438**	**135**	**33**	**102**	**397**	**61**	**336**
In Reserve (Nos.)									
< 1.16	11	4	7	7	2	5	4	2	2
1.16-2.30	10	2	8	3	1	2	7	1	6
2.31-3.45	4	-	4	1	-	1	3	-	3
3.46-4.60	10	-	10	7	-	7	3	-	3
>4.60	9	1	8	3	1	2	6	-	6
Total	**44**	**7**	**37**	**21**	**4**	**17**	**23**	**3**	**20**

Table -90 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**
Front End Loaders

2018-19						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	89	6	83	3	-	3
1.16 – 2.30	356	30	326	12	2	10
2.31 – 3.45	119	7	112	3	1	2
3.46 – 4.60	69	8	61	3	-	3
> 4.60	139	36	103	1	1	0
Total	**772**	**87**	**685**	**22**	**4**	**18**
2019-20						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	84	9	75	9	1	8
1.16 – 2.30	432	62	370	16	-	16
2.31 – 3.45	175	37	138	5	2	3
3.46 – 4.60	59	17	42	4	-	4
> 4.60	138	29	109	2	1	1
Total	**888**	**154**	**734**	**36**	**4**	**32**

Table -91 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**
Front End Loaders

2020-21						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	99	12	87	6	-	6
1.16 – 2.30	428	43	385	19	1	18
2.31 – 3.45	159	29	130	3	1	2
3.46 – 4.60	55	11	44	3	-	3
> 4.60	135	23	112	7	4	3
Total	**876**	**118**	**758**	**38**	**6**	**32**

Table -92 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India 2018-19, 2019-20 and 2020-21**

Bulldozers/Ripper Dozers

2018-19						
Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	39	4	35	2	1	1
100-200	116	17	99	6	-	6
201-300	42	16	26	3	-	3
301-400	174	29	145	6	3	3
> 400	110	75	35	-	-	-
Total	**481**	**141**	**340**	**17**	**4**	**13**
2019-20						
Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	30	7	23	1	-	1
100-200	113	37	76	3	1	2
201-300	68	19	49	1	-	1
301-400	171	49	122	6	2	4
> 400	132	74	58	-	-	-
Total	**514**	**186**	**328**	**11**	**3**	**8**

Table -93 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Bulldozers/Ripper Dozers

2020-21						
Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	26	1	25	1	-	1
100-200	104	21	83	2	-	2
201-300	70	13	57	-	-	-
301-400	170	25	145	8	1	7
> 400	118	82	36	3	1	2
Total	**488**	**142**	**346**	**14**	**2**	**12**

Table -94 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Motor Graders

2018-19

Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	9	4	5	2	-	2
100-200	66	11	55	1	-	1
201-300	40	22	18	1	-	1
301-400	6	2	4	1	-	1
> 400	4	4	-	-	-	-
Total	**125**	**43**	**82**	**5**	**-**	**5**

2019-20

Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	4	-	4	-	-	-
100-200	67	15	52	1	-	1
201-300	40	30	10	1	-	1
301-400	1	1	-	-	-	-
> 400	5	1	4	-	-	-
Total	**117**	**47**	**70**	**2**	**-**	**2**

Table -95 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Motor Graders

2020-21						
Capacity (h.p.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 100	3	-	3	-	-	-
100-200	70	13	57	2	-	2
201-300	40	32	8	1	-	1
301-400	-	-	-	-	-	-
> 400	5	1	4	-	-	-
Total	**118**	**46**	**72**	**3**	**-**	**3**

Table -96 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Haulers/Dumpers

2018-19						
Capacity (tonne)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	413	60	353	19	13	6
10-20	1343	228	1115	49	17	32
21-30	1398	249	1149	59	-	59
31-40	1021	44	977	34	-	34
41-60	648	107	541	45	-	45
61-100	317	95	222	0	-	0
101-150	104	34	70	9	2	7
> 150	7	4	3	-	-	-
Total	**5251**	**821**	**4430**	**215**	**32**	**183**
2019-20						
Capacity (tonne)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	527	52	475	18	8	10
10-20	2240	257	1983	117	16	101
21-30	2063	213	1850	91	4	87
31-40	1289	254	1035	68	1	67
41-60	587	83	504	20	-	20
61-100	203	98	105	1	-	1
101-150	22	13	9	-	-	-
> 150	64	62	2	13	12	1
Total	**6995**	**1032**	**5963**	**328**	**41**	**287**

Table -97 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Haulers/Dumpers

2020-21						
Capacity (tonne)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	554	49	505	23	5	18
10-20	2112	222	1890	115	3	112
21-30	2273	252	2021	89	2	87
31-40	1225	159	1066	61	-	61
41-60	570	90	480	19	2	17
61-100	210	95	115	1	-	1
101-150	22	13	9	-	-	-
> 150	38	36	2	7	6	1
Total	**7004**	**916**	**6088**	**315**	**18**	**297**

Table -98 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**
Drills/Blast Holes

2018-19

Capacity in diameter of the hole/bit (m.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	249	92	157	29	13	16
50-100	102	17	85	15	10	5
101-150	462	78	384	37	8	29
151-200	84	25	59	6	-	6
> 200	23	17	6	-	-	-
Total	**920**	**229**	**691**	**87**	**31**	**56**

2019-20

Capacity in diameter of the hole/bit (m.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	244	93	151	14	5	9
50-100	164	33	131	6	1	5
101-150	402	86	316	25	3	22
151-200	91	22	69	10	3	7
> 200	34	26	8	-	-	-
Total	**935**	**260**	**675**	**55**	**12**	**43**

Table -99 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**
Drills/Blast Holes

2020-21						
Capacity in diameter of the hole/bit (m.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	246	87	159	17	6	11
50-100	146	19	127	5	2	3
101-150	421	67	354	29	5	24
151-200	94	29	65	7	-	7
> 200	39	23	16	-	-	-
Total	**946**	**225**	**721**	**58**	**13**	**45**

Table -100 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Crushers

2018-19

Capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	9	1	8	-	-	-
10-50	24	4	20	3	1	2
51-100	52	10	42	3	-	3
101-300	203	25	178	6	-	6
301-500	38	7	31	-	-	-
> 500	136	37	99	4	-	4
Total	**462**	**84**	**378**	**16**	**1**	**15**

2019-20

Capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	1	-	1	-	-	-
10-50	18	4	14	-	-	-
51-100	64	14	50	1	-	1
101-300	265	36	229	6	-	6
301-500	78	22	56	-	-	-
> 500	132	49	83	3	-	3
Total	**558**	**125**	**433**	**10**	-	**10**

Table -101	**Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**					
	Crushers					
	2020-21					
Capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	3	-	3	-	-	-
10-50	19	4	15	-	-	-
51-100	59	15	44	2	-	2
101-300	237	30	207	6	-	6
301-500	73	22	51	-	-	-
> 500	139	53	86	6	1	5
Total	**530**	**124**	**406**	**14**	**1**	**13**

Table -102 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19**

Air Compressors (Diesel & Electric)

Capacity (cu.m./min.)	Total			Diesel			Electric		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
In Use (Nos.)									
< 5	102	22	80	46	7	39	56	15	41
5.0 – 10	112	13	99	94	10	84	18	3	15
10.1 – 15	159	28	131	148	19	129	11	9	2
15.1 – 50	63	15	48	35	5	30	28	10	18
50.1 – 100	41	15	26	17	5	12	24	10	14
> 100	124	40	84	100	28	72	24	12	12
Total	**601**	**133**	**468**	**440**	**74**	**366**	**161**	**59**	**102**
In Reserve (Nos.)									
< 5	9	2	7	6	2	4	3	-	3
5.0 – 10	6	1	5	1	-	1	5	1	4
10.1 – 15	26	6	20	23	4	19	3	2	1
15.1 – 50	8	3	5	2	1	1	6	2	4
50.1 – 100	-	-	-	-	-	-	-	-	-
> 100	5	-	5	1	-	1	4	-	4
Total	**54**	**12**	**42**	**33**	**7**	**26**	**21**	**5**	**16**

Table -103 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2019-20**

Air Compressors (Diesel & Electric)

Capacity (cu.m./min.)	Total			Diesel			Electric		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
In Use (Nos.)									
< 5	147	29	118	70	11	59	77	18	59
5.0 – 10	90	23	67	51	12	39	39	11	28
10.1 – 15	171	40	131	159	34	125	12	6	6
15.1 – 50	58	16	42	24	8	16	34	8	26
50.1 – 100	37	9	28	17	1	16	20	8	12
> 100	166	23	143	129	14	115	37	9	28
Total	**669**	**140**	**529**	**450**	**80**	**370**	**219**	**60**	**159**
In Reserve (Nos.)									
< 5	3	1	2	1	1	-	2	-	2
5.0 – 10	6	2	4	4	1	3	2	1	1
10.1 – 15	16	6	10	12	3	9	4	3	1
15.1 – 50	12	6	6	2	1	1	10	5	5
50.1 – 100	3	-	3	2	-	2	1	-	1
> 100	6	-	6	6	-	6	-	-	-
Total	**46**	**15**	**31**	**27**	**6**	**21**	**19**	**9**	**10**

Table -104 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2020-21**

Air Compressors (Diesel & Electric)

Capacity (cu.m./min.)	Total			Diesel			Electric		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
In Use (Nos.)									
< 5	161	28	133	63	9	54	98	19	79
5.0 – 10	91	25	66	58	14	44	33	11	22
10.1 – 15	170	38	132	154	31	123	16	7	9
15.1 – 50	78	20	58	34	6	28	44	14	30
50.1 – 100	38	14	24	16	3	13	22	11	11
> 100	166	20	146	132	11	121	34	9	25
Total	**704**	**145**	**559**	**457**	**74**	**383**	**247**	**71**	**176**
In Reserve (Nos.)									
< 5	7	-	7	-	-	-	7	-	7
5.0 – 10	6	4	2	4	2	2	2	2	-
10.1 – 15	14	7	7	10	4	6	4	3	1
15.1 – 50	8	-	8	1	-	1	7	-	7
50.1 – 100	3	-	3	2	-	2	1	-	1
> 100	6	-	6	6	-	6	-	-	-
Total	**44**	**11**	**33**	**23**	**6**	**17**	**21**	**5**	**16**

Table -105 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Locomotives

2018-19						
Pay load capacity (tonne)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	7	4	3	2	2	-
50-100	3	-	3	-	-	-
101-150	-	-	-	-	-	-
151-200	-	-	-	-	-	-
> 200	8	7	1	-	-	-
Total	**18**	**11**	**7**	**2**	**2**	**-**
2019-20						
Pay load capacity (tonne)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	12	11	1	3	1	2
50-100	2	-	2	-	-	-
101-150	2	2	-	-	-	-
151-200	-	-	-	-	-	-
> 200	12	7	5	-	-	-
Total	**28**	**20**	**8**	**3**	**1**	**2**

Table -106 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Locomotives

2020-21						
Pay load capacity (tonne)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 50	14	11	3	1	-	1
50-100	2	-	2	-	-	-
101-150	2	2	-	-	-	-
151-200	-	-	-	-	-	-
> 200	18	14	4	-	-	-
Total	**36**	**27**	**9**	**1**	**-**	**1**

Table -107 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Back Hoes

2018-19						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	578	57	521	22	2	20
1.16 – 2.30	458	36	422	23	3	20
2.31 – 3.45	229	28	201	7	-	7
3.46 – 4.60	56	4	52	3	-	3
> 4.60	68	15	53	2	-	2
Total	**1389**	**140**	**1249**	**57**	**5**	**52**
2019-20						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	556	65	491	29	6	23
1.16 – 2.30	567	69	498	45	7	38
2.31 – 3.45	243	44	199	12	1	11
3.46 – 4.60	101	10	91	4	-	4
> 4.60	76	9	67	2	-	2
Total	**1543**	**197**	**1346**	**92**	**14**	**78**

Table -108 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**

Back Hoes

2020-21						
Capacity (cu.m.)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 1.16	540	58	482	34	6	28
1.16 – 2.30	567	68	499	38	3	35
2.31 – 3.45	228	32	196	11	-	11
3.46 – 4.60	97	10	87	3	-	3
> 4.60	87	15	72	3	-	3
Total	**1519**	**183**	**1336**	**89**	**9**	**80**

Table -109	**Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**					
	Cranes					
2018-19						
Lifting capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	61	32	29	3	-	3
10-20	67	35	32	-	-	-
21-50	30	22	8	1	-	1
51-75	6	2	4	-	-	-
> 75	-	-	-	-	-	-
Total	**164**	**91**	**73**	**4**	-	**4**
2019-20						
Lifting capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	54	32	22	-	-	-
10-20	82	40	42	-	-	-
21-50	27	21	6	-	-	-
51-75	5	2	3	-	-	-
> 75	3	2	1	-	-	-
Total	**171**	**97**	**74**	-	-	-

Table -110	**Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**					
	Cranes					
	2020-21					
Lifting capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 10	57	35	22	-	-	-
10-20	79	39	40	-	-	-
21-50	27	21	6	-	-	-
51-75	4	2	2	-	-	-
> 75	6	5	1	-	-	-
Total	**173**	**102**	**71**	**-**	**-**	**-**

Table -111 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India,2018-19, 2019-20 and 2020-21**

Surface Miners

2018-19						
Capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 150	17	-	17	-	-	-
150-200	4	-	4	-	-	-
201-250	5	1	4	-	-	-
251-300	7	-	7	1	-	1
> 300	5	1	4	3	-	3
Total	**38**	**2**	**36**	**4**	**-**	**4**
2019-20						
Capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 150	-	-	-	-	-	-
150-200	3	-	3	-	-	-
201-250	2	-	2	-	-	-
251-300	-	-	-	-	-	-
> 300	20	-	20	2	-	2
Total	**25**	-	**25**	**2**	-	**2**

Table -112 **Mining Machinery in Metalliferous Opencast Mechanised Mines in India, 2018-19, 2019-20 and 2020-21**
Surface Miners

2020-21						
Capacity (tonne/hour)	In Use (Nos.)			In Reserve (Nos.)		
	Total	Public	Private	Total	Public	Private
< 150	-	-	-	-	-	-
150-200	2	-	2	-	-	-
201-250	2	-	2	-	-	-
251-300	1	-	1	-	-	-
> 300	19	-	19	2	-	2
Total	**24**	**-**	**24**	**2**	**-**	**2**

Appendix – I (a)

Table -113 **Decennial Growth in Production of Important Minerals from 1958 to 2018-19**

Minerals	Unit	1958	1968	1978	1988	1998-99	2008-09	2018-19
Fuel Minerals								
Coal	'000t	46056	70813	101340	188180	296508	492757	728718
Lignite	'000t	19	4126	3613	12584	23419	32421	44282
Natural Gas (ut.)	m c m	-	604	1721	8833	25705	32845	32873
Petroleum(crude)	'000t	440	5853	11271	31580	32722	33508	34203
Metallic Minerals								
Bauxite	'000t	169	961	1663	4013	6610	15460	23690
Chromite	'000t	64	206	266	821	1418	4073	3971
Copper Ore	'000t	411	484	2132	5061	4230	3452	4135
Copper Conc.	'000t	33	37	146	262	199	138	144
Gold Ore	'000t	800	507	472	430	644	587	567
Gold	kg	5291	3588	2774	1944	2683	2438	1672
Iron Ore	'000t	9065	27961	39288	50212	72230	212960	206494
Lead & Zinc Ore	'000t	117	192	1099	1630	2651	6681	13752
Lead Conc.	'000t	5	4	17	40	63	134	358
Zinc Conc.	'000t	7	13	66	120	350	1224	1457
Manganese Ore	'000t	1379	1610	1619	1355	1538	2789	2832
Silver	kg	3416	2926	12138	40958	55409	105284	679386
Non-Metallic Minerals								
Apatite & Phosphorite	'000t	15	7	788	725	1276	1810	1421
Diamond	th. crt	2	9	16	14	35	1	38
Kyanite	'000t	26	64	31	38	6	5	5
Sillimanite	'000t	14	5	13	17	12	34	70
Limestone	'000t	10533	21030	31061	63860	110968	221573	379974
Magnesite	'000t	104	253	414	508	350	253	147

Appendix – I (b)

Table -114 **Decennial Growth in Production of Important Minerals from 1959 to 2019-20**

Minerals	Unit	1959	1969	1979	1989	99-2000	2009-10	2019-20
Fuel Minerals								
Coal	'000t	47800	75411	103364	198959	304103	532042	730874
Lignite	'000t	33	4188	3264	12585	22124	34071	42096
Natural Gas (ut.)	m c m	0	729	1915	10493	26885	47496	31184
Petroleum(crude)	'000t	450	6723	12839	33685	31949	33690	32170
Metallic Minerals								
Bauxite	'000t	218	1085	1952	4492	7054	14124	21825
Chromite	'000t	99	227	310	1004	1738	3426	3929
Copper Ore	'000t	404	511	2157	5127	3085	3271	3952
Copper Conc.	'000t	33	38	144	281	165	125	125
Gold Ore	'000t	708	477	476	426	570	518	596
Gold	kg	5144	3062	2637	2163	2586	2084	1742
Iron Ore	'000t	10768	29567	39859	53178	77604	218553	244083
Lead & Zinc Ore	'000t	162	214	1151	1828	2756	7102	14479
Lead Conc.	'000t	6	3	21	45	63	134	352
Zinc Conc.	'000t	10	14	72	127	360	1280	1447
Manganese Ore	'000t	1698	1486	1771	1385	1586	2492	2910
Silver	kg	3881	3278	11515	40540	53641	138780	609340
Non-Metallic Minerals								
Apatite & Phosphorite	'000t	16	78	682	708	1203	1611	1400
Diamond	th. crt	1	12	15	15	41	17	29
Kyanite	'000t	16	84	41	40	6	5	3
Sillimanite	'000t	8	4	16	17	15	34	13
Limestone	'000t	10847	22517	31501	64034	128762	232950	359464
Magnesite	'000t	158	298	396	490	326	301	103

Appendix – I (c)

Table -115 **Decennial Growth in Production of Important Minerals from 1950 to 2020-21**

Minerals	Unit	1950	1960	1970	1980	1990-91	2000-01	2010-11	2020-21
Fuel Minerals									
Coal	'000t	32805	52593	73698	109152	211616	313696	532694	716083
Lignite	'000t	21	47	3545	4549	14073	24247	37733	37895
Natural Gas (ut.)	m c m	-	147	676	1462	12869	2780	52219	28673
Petroleum(crude)	'000t	259	454	6809	9399	33021	32426	37684	30494
Metallic Minerals									
Bauxite	'000t	65	387	1374	1785	4984	7993	12723	20381
Chromite	'000t	17	107	274	321	940	1972	4326	2830
Copper Ore	'000t	366	448	518	2005	5255	3498	3602	3273
Copper Conc.	'000t	NA	34	37	137	259	164	137	109
Gold Ore	'000t	NA	665	527	495	438	471	742	438
Gold	kg	6125	4995	3241	2452	2207	2168	2399	1127
Iron Ore	'000t	3144	16609	31366	41936	55591	80587	207157	205041
Lead & Zinc Ore	'000t	0	152	267	928	2002	2760	7540	15455
Lead Conc.	'000t	2	6	4	17	44	54	148	377
Zinc Conc.	'000t	1	10	16	46	137	366	1427	1514
Manganese Ore	'000t	935	1452	1702	1695	1492	1595	3056	2703
Silver	kg	488	4128	1540	11377	34982	46150	148303	705796
Non-Metallic Minerals									
Apatite & Phosphorite	'000t	3	15	172	543	683	1362	2101	1456
Diamond	th. crt	3	1	20	14	18	57	11	14
Kyanite	'000t	36	20	121	49	37	5	6	5
Sillimanite	'000t	1	8	5	14	13	15	49	11
Limestone	'000t	4942	12935	23843	29195	70125	127338	246336	349120
Magnesite	'000t	54	156	354	380	529	318	236	75

Appendix – II

Table -116 **Decennial Mineral Production**

Minerals	Unit	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Fuel Minerals													
Coal	'000t	532042	532694	539950	556400	565765	609179	639230	657868	675400	728718	730874	716083
Lignite	'000t	34071	37733	42332	46500	44271	48270	43842	45230	46644	44282	42096	37895
Natural Gas (ut.)	m c m	47496	52219	47559	40679	35407	33659	32249	31897	32649	32873	31184	28673
Petroleum (crude)	'000t	33690	37684	38090	37862	37788	37462	36942	36009	35684	34203	32170	30494
Metallic Minerals													
Bauxite	t	14124093	12722820	13599566	16507960	22319148	22493671	28123789	24745487	22786106	23689619	21825227	20380548
Chromite	t	3425580	4325699	2923435	2833895	2878320	2164163	2915584	3727780	3480941	3970691	3929260	2830413
Copper Conc.	t	124577	136856	130456	123654	139307	107604	151837	134787	141988	143668	124586	108718
Copper Ore	t	3271169	3601984	3479189	3635751	3777772	3505348	3907823	3846427	3678002	4134702	3952472	3272915
Gold	kg	2084	2399	2194	1588	1564	1441	1323	1595	1650	1672	1742	1127
Gold Ore	t	517520	741522	491562	502831	420429	447278	562956	582280	549683	567291	595511	437669
Iron Ore	'000t	218553	207157	168582	136618	152183	129321	158108	194584	201426	206494	244083	205041
Lead & Zinc Ore	t	7101872	7539999	8041881	8633411	9281807	9362659	10453038	11881238	12613866	13752295	14479032	15455342
Lead Conc.	t	133921	147625	161854	184486	194426	197668	261857	268047	306398	358369	351746	376923
Manganese Ore	t	2491950	3056385	2411871	2342169	2626291	2369481	2166947	2395134	2599815	2832315	2910186	2703313
Silver	kg	138780	148303	207144	374046	349774	327647	426443	460811	557691	679386	609340	705796
Tin Conc.	kg	59016	60643	48765	47774	34862	24685	13541	12121	16758	21212	15530	16865
Zinc Conc.	t	1279880	1427231	1414009	1492781	1490662	1489374	1473811	1484244	1539657	1456804	1446824	1513996
Non-Metallic Minerals													
Apatite	t	5992	3846	3053	572	1300	930	110	-	-	-	-	-
Asbestos	t	243	268	276	389	172	-	-	-	-	-	-	-
Diamond	crt	16891	11222	18490	31988	37517	36107	36044	36491	39699	38437	28816	13917
Flint Stone	t	-	-	708	633	459	244	253	26	-	-	-	-
Fluorite (graded)	t	105232	59954	5010	3092	2487	2946	2333	1175	1314	1079	1315	1052

Table -116 **Decennial Mineral Production (Contd…)**

Minerals	Unit	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Garnet (abrasive)	t	1580617	2126337	1717904	768248	483559	91394	82001	85413	158277	123404	568	7114
Graphite (r.o.m.)	t	124625	115697	153339	134735	146390	116712	135528	122438	33649	39030	34674	35386
Iolite	kg	758	4	-	-	-	-	-	-	-	73	90	16
Kyanite	t	5495	5954	4064	1048	3679	6255	2901	3253	7818	4889	3498	4925
Limeshell	t	62215	30410	33225	24044	18750	16353	10353	12344	14765	7534	4600	-
Limestone	'000t	232950	246336	262882	285030	280863	293273	307001	314669	340417	379974	359464	349120
Magnesite	t	301070	235762	224104	224315	196940	285009	327663	299149	195055	146875	102554	74661
Marl	t	5908226	4399379	4140577	4337009	3254486	2179488	2389707	2203700	1969796	1890308	2148854	2216414
Moulding Sand	t	-	-	30	3118	29963	6383	26042	27685	7100	14805	12905	14363
Phosphorite	t	1605489	2097490	2259726	1941158	1453580	1607215	1571863	1124440	1515645	1421086	1400189	1455829
Salt (rock)	t	1836	1200	-	-	-	-	-	-	47	17	130	486
Selenite	t	14598	6736	13047	7577	531	207	3103	4328	469	2906	2154	402
Siliceous Earth	y	-	-	-	-	-	-	47386	77270	86662	80237	19367	23823
Sillimanite	t	33687	48784	59206	43736	67265	66273	69942	68131	81638	69919	13221	11110
Sulphur	t	263124	236998	381146	449004	390325	464672	473322	560826	825173	890400	900942	737337
Vermiculite	t	11662	19234	10194	7947	11851	19336	23279	9042	6054	2992	2774	1260
Wollastonite	t	132385	183381	184445	145667	192712	186524	175348	166186	153049	184063	124757	103902