Indian Minerals Yearbook 2013

(Part- I)

52nd Edition

STATE REVIEWS
(Karnataka)

(FINAL RELEASE)

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MINISTRY OF MINES
INDIAN BUREAU OF MINES

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KARNATAKA

Mineral Resources

Karnataka has the distinction of being the principal gold producing State in the country. The State is the sole producer of felsite and leading producer of iron ore, chromite and dunite. Karnataka hosts the country's 78% vanadium ore, 73% iron ore (magnetite), 42% tungsten ore, 37% asbestos, 28% limestone, 22% gold, 20% granite, 17% dunite, and 14% corundum resources.

The important mineral-occurrences found in the State are: **bauxite** in Belgaum, Chickmagalur, Uttara & Dakshina Kannada and Udupi districts; **china clay** in Bengaluru, Belgaum, Bellary, Bidar, Chickmagalur, Dharwad, Gadag, Hassan, Haveri, Kolar, Uttara & Dakshina Kannada, Shimoga and Tumkur districts; **chromite** in Chickmagalur, Hassan and Mysore districts; **dolomite** in Bagalkot, Belgaum, Bijapur, Chitradurga, Mysore, Uttara Kannada and Tumkur districts; **dunite/pyroxenite** in Chickmagalur, Hassan and Mysore districts; **felspar** in Bengaluru, Belgaum, Chitradurga and Hassan districts; **fireclay** in Bengaluru, Chitradurga, Dharwad, Hassan, Kolar, Shimoga and Tumkur districts; **gold** in Chitradurga, Dharwad, Gadag, Gulbarga, Hassan, Haveri, Kolar, Raichur and Tumkur districts; **iron ore (hematite)** in Bagalkot, Bellary, Bijapur, Chickmagalur, Chitradurga, Dharwad, Gadag, Uttara Kannada, Shimoga and Tumkur districts; **iron ore (magnetite)** in Chickmagalur, Hassan, Uttara & Dakshina Kannada and Shimoga districts; **kyanite** in Chickmagalur, Chitradurga, Coorg, Mandya, Mysore, Shimoga and Dakshina Kannada districts; **limestone** in Bagalkot, Belgaum, Bellary, Bijapur, Chickmagalur, Chitradurga, Davangere, Gadag, Gulbarga, Hassan, Mysore, Uttara & Dakshina Kannada, Shimoga, Tumkur and Udupi districts; **magnesite** in Coorg, Mandya and Mysore districts; **manganese ore** in Belgaum, Bellary, Chickmagalur, Chitradurga, Davangere, Uttara Kannada, Shimoga and Tumkur districts; **ochre** in Bellary and Bidar districts; **quartz/silica sand** in Bagalkot, Bengaluru, Belgaum, Bellary, Chickmagalur, Chitradurga, Davangere, Dharwad, Gadag, Gulbarga, Hassan, Haveri, Kolar, Koppal, Mandya, Mysore, Uttara & Dakshina Kannada, Raichur, Shimoga, Tumkur and Udupi districts; **Quartzite** in Belgaum district; and **talc/steatite/soapstone** in Bellary, Chickmagalur, Chitradurga, Hassan, Mandya, Mysore, Raichur and Tumkur districts.

Other minerals that occur in the State are: **asbestos** in Chickmagalur, Hassan, Mandya, Mysore and Shimoga districts; **barytes** and **pyrite** in Chitradurga district; **calcite** in Belgaum, Bijapur and Mysore districts; **copper** in Chickmagalur, Chitradurga, Gulbarga, Hassan, Uttara Kannada, Raichur and Shimoga districts; **corundum** in Bengaluru, Bellary, Chitradurga, Coorg, Hassan, Mandya, Mysore and Tumkur districts; **fuller's earth** in Belgaum and Gulbarga districts; **granite** in Bagalkot, Bengaluru, Bellary, Bijapur, Chamrajanagar, Chickmagalur, Chitradurga, Coorg, Dharwar, Gadag, Gulbarga, Hassan, Kolar, Koppal, Mandya, Mysore, Uttara & Dakshina Kannada, Raichur, Tumkur and Udupi districts; **graphite** in Kolar and Mysore districts; **gypsum** in Gulbarga district; **molybdenum** in Kolar and Raichur districts; **nickel** in Uttara Kannada district; **sillimanite** in Hassan, Mysore and Dakshina Kannada districts; **silver** in Chitradurga and Raichur districts; **titanium minerals** in Hassan, Uttara Kannada and Shimoga districts; **tungsten** in Gadag, Kolar and Raichur districts; **vanadium** in Hassan, Uttara Kannada and Shimoga districts; and **vermiculite** in Hassan, Mandya and Mysore districts (Table - 1).

Exploration & Development

The details of exploration activities conducted by GSI & various agencies during 2012-13 are furnished in Table - 2.

Table – 1 : Reserves/Resources of Minerals as on 1.4.2005 : Karnataka

Mineral	Unit	Reserves				Remaining resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Asbestos	tonne	-	-	-	-	-	-	-	-	2441037	5841420	-	8282457	8282457
Barytes	tonne	-	-	-	-	-	-	-	-	-	15175	-	15175	15175
Bauxite	000 tonnes	5399	542	-	5941	1735	394	10	-	2220	45405	-	49764	55705
Calcite	tonne	-	-	-	-	-	-	64	-	14400	51865	-	66329	66329
China clay	'000 tonnes	943	835	280	2058	819	738	3390	220360	443	24685	6030	256466	258524
Chromite	'000 tonnes	333	395	17	745	250	218	96	-	20	303	-	887	1632
Copper														
Ore	'000 tonnes	836	1301	373	2510	-	-	2008	1750	6833	20434	-	31025	33535
Metal	'000 tonnes	8.78	17.56	4.31	30.65	-	-	11.24	22.00	65.77	99.61	-	198.62	229.27
Corundum	tonne	-	-	-	-	-	756	105885	13	38	14169	526000	646860	646860
Dolomite	'000 tonnes	86077	31399	10889	128365	18585	7826	15391	8519	17578	465852	-	533751	662116
Dunite	'000 tonnes	3718	-	223	3940	-	-	-	23909	-	4149	-	28058	31998
Felspar	tonne	119525	69575	107055	296155	-	-	-	25000	135133	177300	3900	341333	637488
Fireclay	'000 tonnes	95	324	85	503	792	595	6871	-	226	5250	-	13734	14238
Fuller's earth	tonne	-	-	58200	58200	-	-	-	-	551640	1471276	-	2022916	2081116
Gold														
Ore (primary)	tonne	16007614	7215335	863529	24086478	1168000	790000	215132	24979968	8204595	12003638	37355000	84716333	108802811
Metal (primary)	tonne	70.89	31.77	7.75	110.41	3.09	2.49	0.78	120.7	28.67	27.2	43.66	226.59	337.00
Granite (Dim. stone)	'000 cu m	26363	19389	21836	67588	-	-	-	238	1231625	8012784	25659	9270306	9337894
Graphite	tonne	727	20820	1312	22859	7500	18750	-	-	18200	-	-	44450	67309
Gypsum	'000 tonnes	-	-	-	-	-	-	-	-	-	3784	-	3784	3784
Iron ore (Hematite)	'000 tonnes	602685	95458	178723	876866	73194	171202	59231	245454	42843	501669	188218	1281811	2158678

(Contd.)

Table-1 (Contd.)

Mineral	Unit	Reserves				Remaining resources								Total resources (A+B)
		Proved STD 111	Probable STD121	Probable STD122	Total (A)	Feasibility STD211	Pre-feasibility STD221	Pre-feasibility STD222	Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
Iron ore (Magnetite)	000 tonnes	-	-	-	-	120022	-	18375	1498957	479372	5345018	340000	7801744	7801744
Kyanite	tonne	-	-	-	-	309525	21600	18843	386247	1610502	10688721	-s	13035438	13035438
Limestone	'000 tonnes	538927	486300	72518	1097745	171995	394671	453541	1573788	13919929	34579866	8240	51102029	52199775
Magnesite	'000 tonnes	332	202	163	697	18	-	499	88	10	2734	-	3349	4046
Manganese ore	'000 tonnes	11455	1827	2821	16103	6056	3730	7523	2227	7385	52893	270	80085	96188
Molybdenum Ore	tonne	-	-	-	-	-	-	-	-	-	1320900	-	1320900	1320900
Contained MoS_2	tonne	-	-	-	-	-	-	-	-	-	1719	-	1719	1719
Nickel ore	Million tonnes	-	-	-	-	-	-	-	-	-	0.23	-	0.23	0.23
Ochre	tonnes	-	-	-	-	-	-	1766367	-	-	-	20000	1786367	1786367
Platinum group of metals	tonne	-	-	-	-	-	-	-	-	-	-	1.50	1.50	1.50
Pyrites	'000 tonnes	-	-	-	-	-	-	-	-	-	3000	-	3000	3000
Quartzite	'000 tonnes	390	-	1011	1401	-	-	190	-	-	-	1730	1920	3321
Quartz-silica sand	'000 tonnes	8677	3809	2375	14861	12402	4970	8276	205	100	49508	525	75987	90848
Sillimanite	tonne	-	-	-	-	-	-	-	-	-	982725	-	982725	982725

(Contd.)

Table-1 (Concld.)

Mineral	Unit	Reserves					Remaining resources					Total resources (A+B)
		Proved STD 111	Probable STD121	Probable STD122	Total (A)	Feasibility STD211	Pre-feasibility STD221	Pre-feasibility STD222	Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
Silver														
Ore	tonne	8681065	-	-	8681065	-	-	69462	-	-	314150	-	383612	9064677
Metal	tonne	2.67	-	-	2.67	-	-	0.48	-	-	2.92	-	3.40	6.07
Talc-steatite-soapstone	'000 tonnes	35	-	182	217	49	124	217	11	208	1242	-	1851	2068
Titanium minerals*	tonne	-	-	-	-	-	-	-	-	-	13862094	-	13862094	13862094
Tungsten Ore	tonne	-	-	-	-	-	-	-15361152	11805499		1729219338246		36677818	36677818
Contained WO_3	tonne	-	-	-	-	-	-	-	2915	1775	142	1403	6235	6235
Vanadium Ore	tonne	-	-	-	-	-	500000	4000000	-	-	14884430	-	19384430	19384430
Metal	tonne	-	-	-	-	-	700	5600	-	-	43197.55	-	49497.55	49497.55
Vermiculite	tonne	-	-	-	-	-	69050	64500	-	1562	66658	-	201770	201770

Figures rounded off.

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

Table – 2 : Details of Exploration Activities in Karnataka, 2012-13

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Barytes							
Bagalkot	Gadisankapura area	1:12,500	100.0	-	-	-	Reconnaissance stage investigation was carried out around Gadisankapura for assessment of barytes in the favourable host rock. More than twenty barytes veins with width varying from 2 cm to 4 cm and length varying from 8m to 20 m are identified within pink porphyritic granite belonging to Closepet Granite clan. Large Scale Mapping was carried out in and around Gudisankapura area. Barytes mineralisation is hosted in quartz chlorite schist of upper Mudanur formation belonging to the Hungund-Kushtagi schist belt and pinkporphyritic granite of Closepet affinity. Five barytes veins are identified which are as follows. The width of barytes veins range from 0.5 m to 8 m with 100 m to 300 m length. The veins show cross-cutting relationship with host rock and may be secondary fracture fillings. I - 750 m NW of village Gadisankapura II - 1 km West of Gadi III - 1 km South of Jammaladinni IV - 1 km East of village Kesarbhavi V - 1.5 km SE of Jammaladinni The analytical results so far received are as follows: 1) Baryte BaO% (49.42%) 2) Gabbro Sill - 14817.7 ppm Ba 3) Baryte - 51-58% The investigation has been completed.

(Contd.)

Table – 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Gold							
Haveri	Kakol & adjoining area	-	-	-	-	400	Reconnaissance stage investigation (G-4) was taken up in Shimoga schist belt in Kakol and adjoning area, to assess the potential of the area for gold mineralisation and to characterise the associated alteration pattern. Greywacke, argillites, BIF and acid to intermediate metavolcanics belonging to Chitradurga Group of Dharwar Super group are exposed in the area between Tungabhadra and Bhadra river. BRS and PTS samples were collected. The analytical results so far available indicate that majority of the gold values is below 25 ppb. The investigation has been completed.
Tumkur	Ajjanahalli block-E	-	-	-	-	523	Prospecting stage investigation (G-3) for gold was taken up in Chitradurga schist belt, where earlier investigation identified mineralisation in BIF and adjacent country rocks. During FS.2010-12, detailed mapping, trenching and bedrock sampling was carried out in Ajjanahalli block – E. A total of eight mineralised BIF bands (band I to VIII) with a cumulative strike length of 6500 m had been identified. The Ajjanahalli Block-E lies to the south of Block C and north of Block F. The present work indicates gold potentiality similar to mineralised zones found in other blocks of Ajjanahalli area. (Northern block A, B & C and southern block F). The main lithounit of the Block E are metabasalt, argillite, BIF intruded by quartz vein and basic intrusives. A major old working is noticed at the western limb of the band. The old working is confined to the BIF band extending for a length of 25 m along strike with a width of 4 m. The BIF band is sheared / brecciated and limonitised. A total of 523 nos. of core samples have been sent to chemical laboratory for analysis. Out of which the results for 127 samples have been received which indicate encouraging values. In borehole (BH-2) the assay value of mineralised zone - IV is 0.64 gpt/3.5 m. (Max value 0.89/t), mineralised zone- V is 0.33 gpt/1.00m and mineralised zone- VI is 0.31 gpt/1.3m. The investigation has been completed.

(Contd.)

Table – 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI Gold Tumkur	Ajjanahalli block-G	-	0.80	-	-	245	Reconnaissance stage (G-4) investigation was carried out for assessment of gold mineralisation. During FS 12-13, mapping along with 275 cu m of trenching were carried out and Trench samples and & BRS samples were collected. The main lithounits in the area are BIF/BMC, metabasalt, argillite / greywacke of Hiriyur Formation of Chitradurga Group belonging to Dharwar Supergroup. There are three major shear zones extending from north of Ansedri to south of Bellara (25 km) of which central shear zone passes through the Ajjanhalli Block G. A total of eight parallel to width of 800 m over a cumulative strike length of 6800 m has been identified. The average width of the bands varies from 2 to 15m. Gold mineralisation is confined to sheared BIF containing sulphides like pyrite, pyrrholite, arsenopyrite and minor chalcopyrite. Surface manifestations include old workings and highly limonitised BIF bands. The gold values of trench samples vary from 0.12 gpt/1.5m to 6.0 gpt/1.5 m(AGT 23) 0.16 gpt/1.00 m to 5.00 gpt/0.6 (AGT 26) and the bedrock samples vary from 0.29 GPT/ 1M (BRG 156) 1.3 GPT/1.50M (BRG 188) and 1.5 gpt/1.5 m (BRG 191). The investigation has been completed.
Bellary	Maski block	-	-	-	-	-	Reconnaissance stage investigation (G-4) was carried out in Dharwar craton, in parts of Raichur, Koppal and Bellary districts to locate kimberlites in the area. The area is part of Archaean granite greenstone terrain of the Eastern Dharwar craton (EDC) exposing the meta volcanics and associated meta-sedimentary rocks of the greenstone belts,(Kushtagi, Hutti maski, Deodurg - Raichur belts), migmatite gneisses, syenite, pink/ grey granite and grandodiorite of Peninsular Gneissisc Complex. There are quartz veins, gabbro and dolerite dykes. Regional as well as detailed stream sampling has been carried out. The processing of samples for heavies have been carried out and studied under binocular microscope and EPMA. No positive signature has been recorded for kimberlite indicator minerals (KIMs) within the samples so far generated. The investigation will be continued in F.S.2013-14.

(Contd.)

Table - 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI Diamond Bellary	Tawergeri block	-	-	-	-	-	Reconnaissance stage (G-4) investigation in parts of Koppal and Bellary districts was carried out with an objective to search for kimberlites through indicator mineral survey and geological traverses. The Tawargeri block exposes rocks of Peninsular Gneissic Complex (PGC) comprising granodiorite and granite. This granodiorite granite suite includes remnants of supra-crustals belonging to Dharwar supergroup. These gneisses and supra crustals have been intruded by pegmatite, quartz veins and dykes of dolerite, gabbro and pyroxenite composition, Regional as well as detailed stream sediment sampling was done from available trap sites. Samples were processed for heavy minerals and examined under binocular microscope for kimberlite indicator minerals. The samples were studied under binocular microscope and EPMA did not give any positive signatures for kimberlite indicator minerals. The investigation will be continued in F. S. 2013-14.
GSI Manganese Tumkur	Chiknayakanhalli area	1: 25,000	-	-	-	-	Reconnaissance stage (G-4) investigation was carried out in association with DMG, Karnataka for manganese in Chiknayakanhalli area of Chitradurga schist belt, to delineate the manganese bearing zones in four free hold blocks. The manganese ore horizon occurs as an inter-bedded sequence in argillite and meta-chert overlying conglomerate, ortho-quartzite, basic volcanics and Banded Iron formation. These belong to lower horizon of Vanivilas Formation. During Large scale mapping the contact of dolomite/limestone with phyllite in connection with the disposition of manganese bearing zones has been studied in detail. Moreover, shear zones were identified at the contact of gneisses and Proterozoic sediments. The manganese oxide mineralisation is of syngenetic type. The occurrence of sulphides is shear controlled. The samples are submitted for assessment of manganese and sulphides. The investigation has been completed.

(Contd.)

Table - 2 (Concld.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Clay minerals							
Udupi	Paduatrady	-	-	-	-	-	Reconnaissance stage investigation (G-4) was carried out for clay minerals with special reference to Bentonite in coastal areas of Udupi district. The item was taken up based on a request received from DGM, Karnataka. Large scale mapping was carried out in and around Paduatrady, Parika and around Hiriyadka. The area forms a part of Western Dharwar craton. It comprises rocks of Sargur Group, PGC and younger intrusive granites and dykes. The area is dominantly covered by laterite and granite gneisses. The migmatite is exposed in some places. The laterite occurs as capping over granites (Kanora) and granitic gneisses and varies in thickness from a few cms to 20 meters. Clay occurs as lenses or pockets below laterite. A large clay unit with 5-8 m in thickness occupies nearly 300 sq.m area along northwest of Hiriadka. Clay bands are also recorded in Kukkehalli and Kukkegutta area. The investigation has been completed.
HGML							
Gold							
Raichur	Hutti Gold Mine	1:400	-	51	1954.45	8121	About 17.25 million tonnes of gold @ 5.13 g/t resources were estimated. Out of which 10.02 million tonnes @ 5.35 g/t and 7.23 million tonnes @ 4.83 g/t.
-do-	Uti Gold Mine	1:2,000	-	-	-	1388	About 2.18 million tonnes of gold resources were estimated. Out of which 0.31 million tonnes @ 2.50 g/t, 1.73 million tonnes @ 2.64 g/t and 0.14 million tonnes @ 2.91 g/t at south open pit, Lode No. 4 (UG) and Lode No.3 (UG) were estimated, respectively.
-do-	Hira Buddini gold project	1:400	-	-	-	613	About 0.57 million tonnes gold @ 4.278 g/t resources were estimated.

Production

The value of mineral production in Karnataka at ₹6,458 crore in 2012-13 increased by about 5% as compared to the previous year. It was mainly due to increase in the average value of bauxite, iron ore and due to increase in the production of chromite, fireclay, dunite, silica sand, dolomite, laterite and limestone as compared to the previous year. Iron ore, gold, limestone, dolomite and manganese ore being the important minerals produced in the state together accounted for about 68% of the total value of mineral production during the year. Karnataka was the sole producer of felsite and the leading producer of gold; second largest producer of shale (18%) and dunite (10%) and it was also the third largest producer of magnesite (6%) and laterite (5%) in the country.

Among the important minerals, production of fireclay increased to more than three times, for dunite by more than double and that of silica sand 87%, chromite 20%, dolomite 11%, laterite by 9%, felsite 7% and limestone by 4% during 2012-13. Whereas, the production of quartzite decreased by 1%, bauxite and magnesite 2% each, gold ore 4%, kaolin 12%, iron ore 15%, gold 27% and manganese ore 84% as compared to that of the previous year. (Table- 3).

The production value of minor minerals was estimated at ₹ 2,049 crore for the year 2012-13.

The number of reporting mines in Karnataka was 205 in 2012-13 as against 207 in the previous year.

The index of mineral production in Karnataka (base 2004-05=100) was 37.2 in 2012-13 as compared to 43.3 in the previous year.

Table – 3 : Mineral Production in Karnataka, 2010-11 to 2012-13 (Excluding Atomic Minerals)

(Value in ₹'000)

Mineral	Unit	2010-11			2011-12			2012-13 (P)		
		No. of mines	Qty	Value	No. of mines	Qty	Value	No. of mines	Qty	Value
All Minerals		**251**		**92997859**	**207**		**61319325**	**205**		**64578607**
Bauxite	t	2	64643	11348	2	83019	20174	2	81200	28420
Chromite	t	3	8540	33223	2	5685	24012	4	6828	28170
Gold Ore	t	-	736904	-	-	484439	-	-	466791	-
Gold	kg	3	2385	4317060	3	2183	5283060	3	1583	4593057
Iron Ore	'000 tonnes	98	38983	79098120	67	13233	31985290	68	11225	35811649
Manganese Ore	t	21	413287	929734	21	199034	496174	15	31532	156292
Silver*	kg	-	221	8627	-	202	11495	-	145	7986
Clay (others)	t	-	-	-	1	12900	3019	-	-	-
Dolomite	t	17	442941	71522	17	560189	97368	17	624449	166695
Dunite	t	1	1971	360	1	3610	484	1	8750	1173
Felspar	t	2	1034	285	1	-	-	1	-	-
Fireclay	t	2	15330	4431	1	5184	1428	1	16307	10000
Felsite	t	6	1670	2420	3	1117	2590	5	1196	1346
Graphite (run of mine)	t	-	-	-	-	-	-	1	3241	3889
Kaolin	t	3	9785	8796	1	3214	8678	1	2836	7657
Laterite	t	3	130300	17119	1	149600	21111	1	163200	58312
Limestone	'000 tonnes	66	18595	1933439	72	20276	2770647	64	21072	3102526
Limeshell	t	3	11578	8865	2	9689	7664	-	-	-
Magnesite	t	3	11820	26839	3	12237	35456	3	11949	43579
Ochre	t	1	34157	29063	-	1126	5067	-	-	-
Quartz	t	-	10	3	2	-	-	6	6431	2085
Quartzite	t	1	11450	3607	1	10134	4155	1	10000	4380
Silica Sand	t	16	43988	6384	6	37607	11053	11	70234	26143
Shale	t	-	559356	25710	-	825027	42901	-	546026	37749
Minor Minerals@		-	-	6460904	-	-	20487499	-	-	20487499

Note: *The number of mines excludes minor minerals.*
** Recovered at Raichur and Tumkur during refining of gold.*
@ Figures for earlier years have been repeated as estimates because of non-receipt of data.

Mineral-based Industry

The important large and medium-scale mineral-based industries in organised sector in the State are given in Table - 4.

Table – 4 : Principal Mineral-based Industries in Karnataka

Industry/plant	Capacity ('000 tpy)
Abrasives	
Grindwell Norton Ltd, Bengaluru.	NA
Sri Sadguru Abrasives Pvt. Ltd, Mache, Dist. Belgaum.	24 (t)
Alumina	
Hindalco Industries Ltd, Belgaum.	350 (alumina) 138 (spl. alumina)
Asbestos Products	
Ramco Industries Ltd, Karur, Dharwad.	NA
Southern Asbestos Ltd, Karur, Dist. Dharwad.	NA
Cement	
ACC Ltd, Wadi, Dist. Gulbarga.	5950
Bagalkot Cement Industries Ltd, Bagalkot.	297
CCI Ltd, Kurkunta, Dist. Gulbarga.	198
HMP Cements Ltd, Shahabad, Dist. Gulbarga.	476
Kanoria Industries, Bagalkot.	330
Heidenberg Cement India Ltd, (Formerly Mysore Cements Ltd) Ammasandra, Dist. Tumkur.	570
Raj Shree Cement, Malkhed, Dist. Gulbarga.	3242
Siddaganga Cement Pvt Ltd, Sadarahalli, Dist. Tumkur.	9
Vasvadatta Cement, Sedam, Dist. Gulbarga.	8565
Zawar Cement (P) Ltd, Shahabad, Dist. Gulbarga.	495
Ceramic	
Ceramic Products Ltd, Khanapur, Dist. Belgaum.	5
H&R Johnson (India) Ltd, Hubli.	47.72
Murudeshwar Ceramics Ltd, Dharwad.	115
The Mysore Spongware Pipes Potteries Ltd, Solandavanahalli, Bengaluru.	6
Chemical	
Solaris Chem Tech Industries Ltd, Bhinga, Dist. Uttara Kannada.	59.4 (caustic soda) 52.3 (Cl) 133.7 (HCl) 24.0 (H_3PO_4)
Fertilizer	
Mangalore Chemical & Fertilizers Ltd, Panambur, Dist. Dakshina Kannada.	380 (urea) 260 (DAP)
Iron & Steel	
JSW Steel Ltd, Vijayanagar, Dist. Bellary.	4200 (pellets) 720 (pig iron) 2000 (steel) 6800(crude/liquid steel)
Visvesvaraya Iron & Steel Ltd, Bhadravati, Dist. Shimoga.	205 (pig iron) 144 (saleable steel) 118(crude/liquid steel) 4.8 (refractory bricks)
Sunvik Steels Pvt. Ltd, Jodidevarahally, Dist. Tumkur	60 (sponge iron) 60 (TMT bar).
Pellets	
KIOCL, Mangalore.	4000 (pellets) 6700 (conc.) 228 (pig iron)

(Contd.)

Table - 4 (Contd.)

Industry/plant	Capacity ('000 tpy)
Pig Iron	
Uni-Metal Ispat Ltd, Bellary.	75
Kalyani Ferrous Ind. Ltd, Koppal.	120
Kirloskar Ferrous Industries Ltd, Bevinahalli, Dist. Koppal.	240
KIOCL Ltd, Mangalore.	227
Sponge Iron	
Agrawal Sponge & Energy (P) Ltd, Kuduthini, Dist. Bellary.	72
Balakundi Premium Steels Pvt. Ltd, Halakundi, Dist. Bellary.	34
Bellary Ispat (P) Ltd, Halakundi Dist. Bellary.	33
Bellary Steel & Alloys Ltd, Bellary.	60
Benaka Sponge Iron Pvt. Ltd, Belagal, Dist. Bellary.	60
Dhruvdesh Metasteel Pvt. Ltd, Hirebaganal, Dist. Koppal.	60
Divya Jyoti Steel Ltd, Taranagar, Dist. Bellary.	30
Embitee Iron & Steel Pvt. Ltd, Bellary.	60
Gayatri Metals Pvt Ltd, Belagal, Dist. Bellary.	30
Janki Corp. Ltd, Sidiginamola, Dist. Bellary.	180
Haryana Steel and Power, Shanthigrama, Dist. Hassan.	35
Hare Krishna Metallics Pvt Ltd, Hire Baganal, Dist. Koppal.	75

(Contd.)

Table - 4 (Concld.)

Industry/plant	Capacity ('000 tpy)
Hospet Ispat Pvt. Ltd, Allanagar Bagnal Road, Dist. Koppal.	60
Hothur Ispat Pvt. Ltd, Veniveerpur, Dist. Bellary.	60
KMMI Steel Pvt. Ltd, Yerabanahally, Dist. Bellary.	120
Mastek Steels Pvt. Ltd, Halakundi, Dist. Bellary.	105
Noble Distillaries & Powers Ltd, Sirivar, Dist. Bellary.	72
PGM Ferro Steel Pvt. Ltd, Hariganadani, Dist. Bellary.	60
Popuri Steels Ltd, Halakundi, Dist. Bellary.	30
Rayon Steel Pvt Ltd, Veniverapur, Dist. Bellary.	60
Rengineni Steel Pvt. Ltd, Halakundi, Dist. Bellary.	25
Shree Venkteshwara Sponge & Power Ltd, Halakundi, Dist. Bellary.	30
Yashshvi Steel & Alloys Ltd, Halakundi, Dist. Bellary.	30
Ferro Alloys	
Dandeli Steel & Ferro Alloys Ltd, Dandeli.	6
Yashashvi Steels & Alloys Pvt Ltd, Nalakundi, Dist. Bellary.	30
S.R. Chemicals & Ferro Alloys Ltd, Honaga, Dist. Belgaum.	0.3
Thermit Alloys Pvt. Ltd, Shimoga.	1.2
Petroleum Refinery	
MRPL, Mangalore.	11820