

District Mineral Survey Report :



DISTRICT LEVEL ENVIRONMENT
IMPACT ASSESSMENT
AUTHORITY
(DEIAA)
TUMKUR DISTRICT

DISTRICT MINERAL SURVEY REPORT

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Introduction :

Tumkur district is an administrative [district](#) in the state of [Karnataka](#) in [India](#). The district occupies an [area](#) of 10,598 km². It is the only discontinuous district in Karnataka (Pavagada Taluk has no Geographical continuity with rest of the District). It consists chiefly of elevated land intersected by river valleys. A range of hills rising to nearly 4,000 feet (1,200 m) crosses it from north to south, forming the watershed between the systems of the Krishna and the [Kaveri](#). The principal streams are the Jayamangala and the Shimsha. The mineral wealth of Tumakuru is considerable; iron is obtained in large quantities from the hillsides; and excellent building-stone is quarried.

- Iron Ore, Manganese and Granite are the Chief major minerals resources along with a huge building stone deposits found in Tumkur District.
- Tumkuru belongs to the group of districts called the Maidana (Plains) districts and it is situated in the list central part of the Mysore state and to the south-east of Chitradurga District.
- Tumakuru is located at $13.34^{\circ}\text{N } 77.1^{\circ}\text{E}$. It has an average elevation of 822 metres (2696 feet). The city has a station on the South Western railway, 43 m. N.W. from Bangalore.

Over view of Mining Activity in the District:-

The Tumkur District is situated right on the archaean complex and the geology of the area is fairly simple. The rock formations belonging to the archaean complex are represented by the crystalline schists, the granitic gneisses and the newer granites. Apart from the main central schist belt developed to the east of Chiknayakanahalli, there are many patches of schists scattered in the gneissic complex. Many of these patches are highly metamorphosed and the biggest of these schist patches is developed to the west of Huliurdurga. The other two schist patches are less than a square mile; one of them is developed near the village of Tipsandra in Kunigal taluk and the other patch is developed near the village of Bidaloti in Koratagere taluk.

- The schist belt which passes to the east of Chiknayakanahalli, sends out, to the west-north-west, near Banasandra, a branch which extends over 20 to 25 miles.
- The narrow schist belt of Chiknayakanahalli as well as the scattered schist patches occurring to the west of Huliurdurga, Kunigal nad Koratagere, are all surrounded by the gneissic complex.
- The major portion of the district is covered by granitic gneisses. The younger (Closepet) granites constitute a well-defined narrow range of hills, which run north and south in the eastern portions of the Tumkur district.

Mining activity in the tumkur district is as follows: In this district the major mineral leases like Iron ore, manganese, limestone, Quartz existed in the chikkanayakanahalli taluk, and granite leases existed in sira , kunigal , tumkur , madhugiri and koratagere taluks. In this district having 38 major mineral leases, 25 ornamental stone leases and 120 building stone leases.

The List of Mining Leases in the District with location, area and period of validity

List of Major Mineral (Iron ore) Leases

Sl No	Taluk	Villages & Sy.No	Period with Effect From	Period Year	Mineral rights	Extent in Ha
1	Tiptur	Karekurchi sy.no 20 P	13/01/1987	20	Iron ore	16.19
2	C.N.Halli	Sodenahalli sy.no 20,21,22, ,66,67	23/11/1984	20	Iron ore/Mn	44.92
3	C.N.Halli	Lakmenahalli sy.no 55 Tonnalapura .sy no 33,35 Sadarahalli sy.no 50 55,Kamanahalli sy.no 10,13,14,15	29/01/1985	20	Iron Ore	64.75
4	C.N.Halli	Kenkere sy.no 279,280	18/03/1991	20	Iron ore	72.84
5	C.N.Halli	Sondenahalli sy.no 37,41	11/11/1993	20	Iron ore/Manganese/Clay	64.75
6	C.N.Halli	Honnebagi sy.no 130 & Gollarahalli sy.no 12,13	18/12/1995	20	Iron ore	74.465
7	C.N.Halli	Doddarampura sy.no 49Yerrekatte sy.no 28	5/6/1991	20	Iron ore/Mn /Dolomite	46.14
8	C.N.Halli	Honnebagi, sy.no 130, Bullenahalli sy.no 8, Yerrekattesy.no 28,	29/05/1996	20	Iron ore	73.99
9	C.N.Halli	Lakmenahalli sy.no 55, Janehar sy.no 43,Ashrihalu sy.no 50,Tonalapur sy.no 33,Kamanahalli sy.no 15,	19/05/1992	20	Iron ore	40.47
10	C.N.Halli	Honnebagi Sy no 130	30/12/2003	20	Iron ore	10.52
11	Tiptur	Rajatadripura sy.no 95,150 Karekurchi sy.no 20	2/11/1996	20	Iron ore/Mn	83.8
12	C.N.Halli	Lakmenahalli Sy no 55	28/06/1962	20	Iron ore	25.09
13	C.N.Halli	Sondenahalli sy.no 25 PManchekatte sy.no 16 P	20/10/1978	20	Iron ore	24.28
14	C.N.Halli	GollaraHalli sy.no12 Honnebagi sy.no130	24/02/1970	20	Iron ore	4.05
15	C.N.Halli	Manchakatte Sy no 16	14/08/1979	20	Iron ore	13.45
16	C.N.Halli	Kenkere sy.no 279 & 417 & HSd TQ KK Kaval sy no 1,	18/10/1982	20	Iron ore/Mn/Mn Oxide/Clay	50.4
17	C.N.Halli	Honnebagi 112 Bullenahalli 8	19/10/1988	10	Iron ore	23.47

18	Gubbi	Kondli sy.no 83,82,Mavinahalli sy.no 35	19/08/1985	20	Iron ore/Mn/Clay	129.49
19	C.N.Halli	Sodenahsy.no alli 37,41& 44 Somenahalli sy.no 31Hatyalu sy.no 150	5/7/1974	20	Iron ore	125.46
20	C.N.Halli	Sondenahalli sy.no 37	3/12/1991	20	Iron ore	4.86
21	C.N.Halli	Sondenahalli sy.no 44,Somanahalli sy.no 31	6/7/1994	20	Fire Clay	122.66
22	C.N.Halli	Gollarahalli sy no 12p	10/9/2002	20	Iron ore	8.09
23	Gubbi	Kondli sy.no 84,Mudalpalya sy.no 9	7/5/2005	20	Iron ore/Mn	129.5
24	Gubbi	Shivasandra sy.no 45 P	19/10/2008	20	Iron ore/Mn	11.33
25	Tiptur	Rajatadripura Hatyalusy.no 150	3/3/2004	20	Iron ore	6.07

List of Major Mineral Leases

Sl. No.	Taluk	Date of Grant & Period	Location & Extent	Name of the Mineral
1	C.N.Halli	29/07/95 20Years	Mathighatta 3.44 Ha	Quartz
2	C.N.Halli	17/04/96 20Years	Sigebagi 2.02 Ha	Quartz
3	C.N.Halli	29/07/95 20Years	Kampanahalli 3.44Ha	Quartz
4	C.N.Halli	212/10/01 20Years	Hosahalli 4.05 Ha	Soap Stone
5	C.N.Halli	28/06/82 20Years	Lakmenahalli 25.19 Ha	Dolomite
6	C.N.Halli	23/06/2000 20 years	Kondlyhalli, 32.32 Ha	Manganese
7	C.N.Halli	26/05/80 20Yaers	Yerekatte 305.54 Ha	Lime Stone
8	Gubbi	07/05/03 20Years	Muskondli 2.02Ha	Clay
9	Gubbi	21/04/76 20Years	Kondli 36.42Ha	Manganese
10	Gubbi	01/06/73 20Years	Doregudda 259Ha	Manganese
11	Gubbi	28.5.2010	Shivasandra 11.33Ha	Manganese
12	Kunigal	07/02/03 20Years	Bandihalli 4.85Ha	Quartz

List of Ornamental Leases

Sl no	Taluk	Mineral	Village	Sy No	A	G	Date of grant	Period
1	Gubbi	Black Granite	Anupanakunte	16	2	0	25/07/2006	10
2	Koratagere	Multicolor	Surenahalli	77/2	2	0	Rule 32, 30.6.2014	-
3	Koratagere	Multicolor	S. Gollahalli	29	4	0	7.11.2014	10
4	Kunigal	Multicolour	Thavarekere	78/203	1	13	23.08.05	10
5	Kunigal	Multicolour	Thavarekere	78	3	10	15/3/10	10
6	Kunigal	Multicolour	Thavarekere	78	0	28	15/3/10	10
7	Kunigal	Multicolour	Thavarekere	78	10	0	19/5/2014	10
8	Kunigal	Multicolour	Thavarekere	78	2	20	19/5/2014	10
9	Kunigal	Multicolour	Thavarekere	78	7	5	19/5/2014	10
10	Kunigal	Multicolour	Thavarekere	78	2	0	06.07.14	10
11	Kunigal	Multicolour	Ujjani	105	2	20	31.10.2014	10
12	Kunigal	Multicolour	Ujjani	105	0	36	31.10.2014	10
13	Madhugiri	Grey Granite	Gutte	12	4	0	28.12.02	20
14	Sira	Grey Granite	Maddakkanahalli	12	9	0	06.02.95	5
15	Sira	Grey Granite	Maddakkanahalli	12	12	0	29.08.05	5
16	Sira	Grey Granite	Hollakallu	50	6	0	21.12.96	20
17	Sira	Grey Granite	Gajjigarahalli	53/3	2	0	Rule 32, 10.12.2014	-
18	Sira	Grey Granite	Maddakkanahalli	14	1	0	Rule 32	-
19	Tumkur	Pink Porphery	Nandihalli	42	6	8	20.5.2006	20
20	Tumkur	Pink Porphery	Hodekallu	22	2	0	15.12.2001	20
21	Tumkur	Pink Porphery	Nandihalli	42	1	0	1.2.2002	20
22	Tumkur	Pink Porphery	Hodekallu	22	1	0	29.01.04	20
23	Tumkur	Pink Porphery	Danayakanapura	42	2	0	29.01.04	20
24	Tumkur	Pink Porphery	Nandihalli	42	0	22	29.01.04	20
25	Tumkur	Pink Porphery	Nandihalli	42	1	0	19.01.06	20
26	Tumkur	Pink Porphery	Nandihalli	42	2	0	28.6.10	20

List of Building Stone Leases

Sl no	Taluk	Mineral	Village/Location	Sy No	A	G	Date of grant	Period
1	Chikkanayakana halli	Steatite	Gollarahalli	67/2	0	20	23/2/2012	5
2	Chikkanayakana halli	BS	MH Kaval	36	1	0	27.12.2014	10
3	Chikkanayakana halli	BS	MH Kaval	36	1	0	6.01.2015 (w.e.f 14.2.2007)	10
4	Chikkanayakana halli	BS	MH Kaval	40	1	0	31.1.2015	10
5	Koratagere	BS	Gowrikallu	36	4	0	28.2.11	10
6	Koratagere	BS	Sambonahalli	20	9	0	28.1.12	10
7	Koratagere	BS	Sambonahalli	20	7	27	28.1.12	10
8	Koratagere	BS	Holatalu	42	8	13	28.1.12	10
9	Koratagere	BS	Kanthevaderahalli	16	1	20	23.6.2014	5
10	Koratagere	BS	Pemmadevarahalli	98	6	0	20.8.2014	10
11	Koratagere	BS	Pemmadevarahalli	98	3	0	18.3.2015	5
12	Koratagere	BS	Pemmadevarahalli	98	3	20	2.05.2015	5
13	Koratagere	BS	Pemmadevarahalli	98	3	0	02.05.2015	5
14	Koratagere	BS	Dasarahalli	81(part)	4	0	17.07.2015	3
15	Koratagere	BS	Gatlahalli	19	5	0	19.09.2015	5
16	Kunigal	BS	Kithnamangala	16	3	0	30.03.07	10
17	Kunigal	BS	Handalakuppe	1	5	0	06.09.07	10
18	Kunigal	BS	Handalakuppe	1	6	0	06.09.07	10
19	Kunigal	BS	Handalakuppe	1	5	0	06.09.07	10
20	Kunigal	BS	Rayagonahalli	53PP1	1	36	27.02.08	10
21	Kunigal	BS	Hangarahalli	46	10	0	12.08.09	10
22	Kunigal	BS	Bandihalli	318	1	10	15/12/10	5
23	Kunigal	BS	Bandihalli	318	2	0	15/12/10	5
24	Kunigal	BS	Bandihalli	318	2	0	22/02/11	5
25	Kunigal	BS	T.S.Hosahalli	16	0	20	29/03/11	5
26	Kunigal	BS	Hangarahalli	46	2	0	17.1.2014	5
27	Kunigal	BS	Hangarahalli	46	9	0	04.03.14	10
28	Kunigal	BS	Hasige Hobli	131	4	0	5.3.2015 w.e.f 29.6.2010	10
29	Kunigal	BS	Hangarahalli	46	5	0	3.4.2014	10
30	Kunigal	BS	Kithanamangala Chathubhaga	16	4	20	06.01.2015	20
31	Kunigal	BS	Doddamavathur	97	6	0	10.04.2015	10
32	Kunigal	BS	Hangarahalli	46	20	0	15.04.2015	20
33	Kunigal	BS	Doddamavathur	97,98	11	0	17.07.2015	3
34	Kunigal	BS	Hangarahalli	46	2	20	18.09.2015	10
35	Kunigal	BS	Gantaganahalli	36	2	20	01.12.2015	20
36	Kunigal	BS	Bandihalli	318	2	20	03.02.2016	3
37	Kunigal	BS	Bandihalli	318	3	0	03.02.2016	3
38	Madhugiri	BS	Balya	123	5	0	28.5.11	10
39	Madhugiri	BS	Balya	123	3	0	28.5.11	10

40	Madhugiri	BS	Medigeshi	144	3	0	06.2.2014	5
41	Madhugiri	BS	Bidarakere kaval	2	8	0	23.2.2015 (w.e.f 21.6.2013)	10
42	Madhugiri	BS	Nellekamanaahalli	81	10	0	17.07.2015	3
43	Madhugiri	BS	Gaddethimmanahalli	41	5	0	26.09.2015	10
44	Sira	BS	Mudugerekaval	12	0	30	03.02.2010	5
45	Sira	BS	Mudugerekaval	13	0	30	03.02.2010	5
46	Sira	BS	Yaliyur	28	2	0	12.11.2010	5
47	Sira	BS	Mosarakunte	54	2	18	23.03.2011	5
48	Sira	BS	Kallahalli	83	1	0	26.03.2011	5
49	Sira	BS	Mosarakunte	198	0	20	17.5.2011	5
50	Sira	BS	Mosarakunte	198	0	25	17.01.2011	5
51	Sira	BS	Gajjigarahalli	51	2	0	26.09.2013	5
52	Sira	BS	Gajjigarahalli	51	2	0	26.09.2013	5
53	Sira	BS	Masarukunte	54	0	20	22.01.2008	10
54	Sira	BS	Mosarakunte	54	0	30	21.8.2011	5
55	Sira	BS	Mosarakunte	53/7	0	20	8.5.2014	5
56	Sira	BS	Mosarakunte	54	0	32	8.5.2014	5
57	Sira	BS	Mosarakunte	54	0	20	8.5.2014	5
58	Sira	BS	Mosarakunte	54	0	20	19.09.2015 (w.e.f 13.02.2009)	10
59	Sira	BS	Vaddanahalli	24	2	0	28.12.2015	5
60	Tiptur	BS	Karadi	176	2	20	25.01.2012 (w.e.f 09.11.2007)	10
61	Tiptur	BS	Kallashettyhalli	22	2	28	05.02.2014	5
62	Tiptur	BS	madlehalli	10	2	0	19.12.2014	3
63	Tiptur	BS	Mallepatna	47	1	0	24.02.2016	5
64	Tumkur	BS	Bychapura	19	4	0	09.09.2015 (w.e.f 30.05.2010)	10
65	Tumkur	BS	Hodekallu	22	10	0	29.03.06	10
66	Tumkur	BS	Maidala	20	6	0	03.08.06	10
67	Tumkur	BS	Ajjappanahalli	14	3	0	29.09.06	10
68	Tumkur	BS	Maidala	20	5	0	08.05.07	10
69	Tumkur	BS	Kowthamaranahalli	27	2	0	29.09.2015 (21.07.2010)	10
70	Tumkur	BS	Thippanahalli	23	0	30	21.07.07	10
71	Tumkur	BS	Maidala	20	2	0	13.07.07	10
72	Tumkur	BS	Kowthamaranahalli	57	2	0	18/10/2007	10
73	Tumkur	BS	Kowthamaranahalli	61	0	13	09.11.07	10
74	Tumkur	BS	Machanahalli	34	5	0	31.3.2013	10
75	Tumkur	BS	Ajjappanahalli	14	5	20	04.05.08	10
76	Tumkur	BS	Kowthamaranahalli	62	3	0	31/08/09	5
77	Tumkur	BS	Machanahalli	34	0	20	24/09/09	5
78	Tumkur	BS	Kowthamaranahalli	36 & 57	2	0	24/09/09	5
79	Tumkur	BS	A K Kaval	100	1	20	02.01.10	5

80	Tumkur	BS	Hosahalli	59	2	0	22.4.10	10
81	Tumkur	BS	Kowthamaranahalli	56	3	0	23.4.10	10
82	Tumkur	BS	Kowthamaranahalli	57	1	10	23.4.10	10
83	Tumkur	BS	Ajjappanahalli	14	0	30	7.5.10	5
84	Tumkur	BS	Halugondanahalli	114	0	25	21.5.10	5
85	Tumkur	BS	Byarasandra	68	1	0	29.7.10	5
86	Tumkur	BS	Byarasandra	68	3	10	12/11/2010	5
87	Tumkur	BS	Kowthamaranahalli	61	2	0	01.07.11	10
88	Tumkur	BS	Amalapura	31	4	0	03.04.11	10
89	Tumkur	BS	Ganganala	22	0	20	24.3.11	5
90	Tumkur	BS	Ganganala	22	0	20	24.3.11	5
91	Tumkur	BS	Kowthamaranahalli	56	0	20	06.04.2011	5
92	Tumkur	BS	Kowthamaranahalli	56	1	0	06.04.2011	5
93	Tumkur	BS	Pullasandra	16	3	0	23.4.2011	10
94	Tumkur	BS	Devaraypattana	6	0	20	23.04.2011	5
95	Tumkur	BS	Devaraypattana	6	0	20	23.04.2011	5
96	Tumkur	BS	Hosahalli	59	3	0	06.07.06	10
97	Tumkur	BS	Ajjappanahalli	14	0	20	28.04.2011	5
98	Tumkur	BS	H.Byarasandra	68	1	0	22.05.07	10
99	Tumkur	BS	Narasipura	8	1	0	24.11.2011	5
100	Tumkur	BS	Maidala	20	2	0	30.8.2011	5
101	Tumkur	BS	Hosahalli	59	3	0	02.08.08	10
102	Tumkur	BS	Hosahalli	59	2	0	23.05.10	5
103	Tumkur	BS	Ajjappanahalli	14	2	0	22.06.10	5
104	Tumkur	BS	Kowthamaranahalli	61	1	20	16.11.2011	5
105	Tumkur	BS	Hodekallu	22	6	10	22.12.2014	3
106	Tumkur	BS	Gerahalli	31	2	20	31.12.2014	10
107	Tumkur	BS	Konthihalli	20	1	0	03.02.2016	10
108	Tumkur	BS	Kowthamaranahalli	56	2	20	22.02.2016	20
109	Tumkur	BS (M-Sand)	Hosahalli	59	16	0	25.02.2016	10
110	Tumkur	BS (M-Sand)	Ajjappanahalli	14	12	0	17.03.2016	10
111	Pavagada	BS	Thippayanadurga	42	5	0	16.12.2014	10
112	Pavagada	BS	Rangasamudra	109	1	0	5.2.2015	5
113	Tumkur	Pink Porphery	Nandihalli	42	6	8	20.5.2006	20
114	Tumkur	Pink Porphery	Hodekallu	22	2	0	15.12.2001	20
115	Tumkur	Pink Porphery	Nandihalli	42	1	0	1.2.2002	20
116	Tumkur	Pink Porphery	Hodekallu	22	1	0	29.01.04	20
117	Tumkur	Pink Porphery	Danayakanapura	42	2	0	29.01.04	20
118	Tumkur	Pink Porphery	Nandihalli	42	0	22	29.01.04	20
119	Tumkur	Pink Porphery	Nandihalli	42	1	0	19.01.06	20
120	Tumkur	Pink Porphery	Nandihalli	42	2	0	28.6.10	20

Royalty / Revenue received in last 03 years

Sl No	Year	Major Mineral (in Rs.)	Minor Mineral (in Rs.)
1	2013-14	19,51,07,862	26,60,17,029
2	2014-15	2,53,28,428	29,25,83,070
3	2015-16	2,27,45,703	39,15,60,785

Process of Deposition of sediments in the river of the District

The rivers and streams originate from small watersheds and entered into a number of tanks scattered in the district. Geomorphologically drainage pattern is semi dendritic to dendritic.

The district being a rain shadow zone, experiences semi arid climate. The period From March to May are the hottest period with temperature ranging from 38 To 40 degree celcius. Rainfall is scanty and erratic and major portion of rain fall is received from south west monsoon during the months of May to September. North east monsoon is from October to November.

Sediments refers to the conglomerate of materials, organic and inorganic, that can be carried away by water or by the wind. The term is often used to indicate soil-based, mineral matter (e.g. clays , silt and sand) decomposing organic substances and inorganic biogenic material are also considered sediment. Most mineral sediment comes from the erosion and weathering and transported through the rain water and deposited in the rivers of Shimsha, Jayamangali, Suvarnamukhi and other rivers of Tumkur district. The particulates present in these rivers are typically small with clay defined as particles less than 0.00195 mm in diameter, and coarse sand reaching up only to 1.5 mm in diameter. However, during a flood in millions years ago even large rocks fragments also found in the inside of the river bed. The two main factors are influenced for the generation of sediments in the district are variation in Temperature, Weathering, Water flow and Human agriculture and other allied activities. Sand along with sediments deposited in the rivers of the district up to the 2 to 5 meters and it may vary some other parts of the rivers.

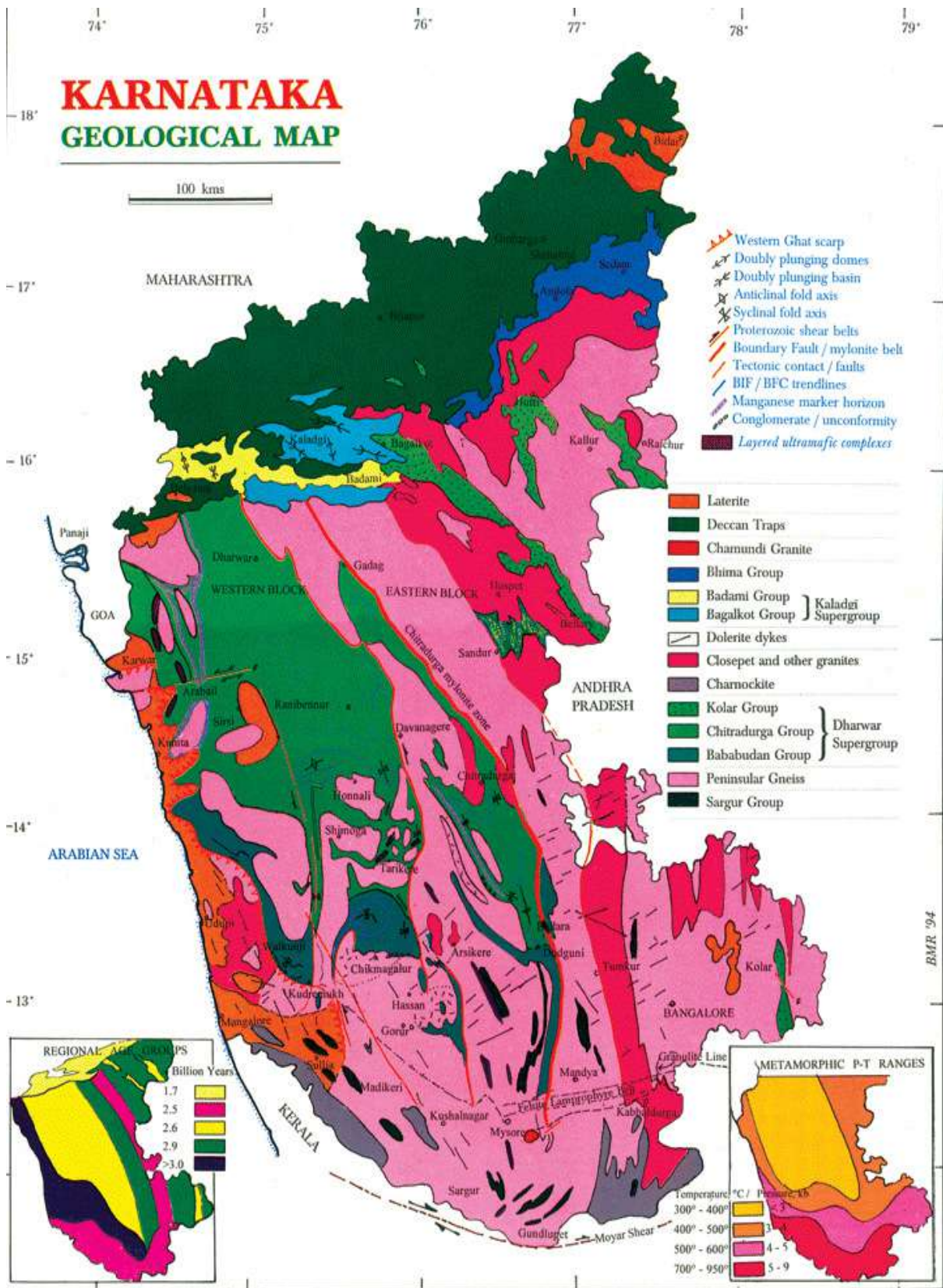
General Profile of the District

The shape of the district is somewhat irregular and has a peculiar feature in that the north-eastern portion is totally detached from the remaining areas of the district. Tumakuru district is bounded on the north by Anantpur district of Andhra Pradesh; on the east by the districts of Kolar and Bangalore; on the south by Mandya district and on the west and north-west by the districts of Hassan and Chitradurga.

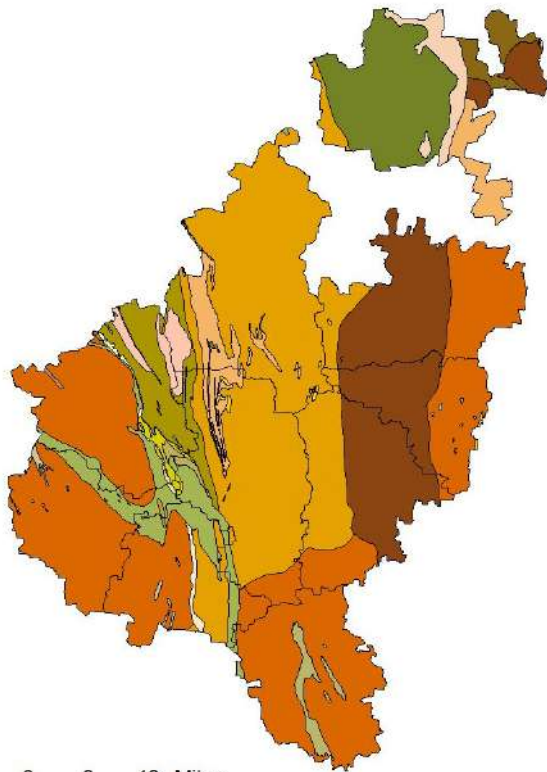
Tumakuru district is surrounded on all sides by lands belonging to the neighbouring districts and has no natural boundary such as sea, river or mountain ranges on any side.

The landscape consists mainly of, undulating plains interspersed with a sprinkling of hills. To the east of Tumakuru and north of Devarayanadurga there is a short stretch of hilly country intersected by cultivated valleys. There are two parallel ranges running north to south and the first one of these in the eastern portion passes through Pavagada, Madhugiri, Koratagere and northern part of Tumakuru taluk.

The second range, mainly composed of schistose rocks; passes through the western parts of the district in the taluks of Chiknayakanhalli, Sira and Gubbi. There is another cluster of hills covering the middle and the southern parts of Kunigal taluk. In this zone the tree-growth is comparatively dense and trees tend to grow taller and stouter.



TUMKUR DISTRICT GEOLOGICAL MAP



LEGEND

- CONGLOMERATE
- AMPHIBOLITE / HORNBLLENDE SCHIST
- AMPHIBOLITIC METAPELITIC SCHIST/PELITIC SCHIST, CALC-SILICATE ROCK
- BANDED BIOTITE GNEISS AND HORNBLLENDE GNEISS
- CHLORITE SCHIST
- CRYSTALLINE LIME STONE
- FERROUGINOUS / MANGANI FERROUS CHERT
- FERRUGINOUS CHERT / B.H.Q./B.F.Q.
- GRANITE
- GRANODIORITE AND GRANITE
- GREYWACKE / ARGILLITE
- GREYWACKE / SERICITE PHYLLITE AND QUARTZ CHLORITE SCHIST
- HORNBLLENDE-BIOTITE GNEISS
- IRON STONE
- LIMESTONE AND DOLOMITE
- LIMESTONE(CHITRADURGA)
- MANGANESE AND IRON FORMATION WITH PHYLLITE AND CHERT
- META ULTRAMAFITE
- METABASALT
- METABASALT & TUFF
- MIGMATITES AND GRANODIORITE - TONALITIC GNEISS
- PINK & GREY GRANITE
- PINK GRANITE
- PINK GRANULITE
- QUARTZITE / QUARTZ-SERICITE SCHIST
- QUARTZITE(BABABUDAN)
- QUARTZITE(CHARNOKITE)
- SILLIMANITE (GRAPHITE) QUARTZITE, KYANITE, STAUROLITE - GARNET, GRAPHIT -
- SILLIMANITE-KYANITE-STAUROLITE SCHIST
- ULTRA MAFIC SCHIST
- ULTRAMAFICS

9 0 9 18 Miles



Land Utilization Pattern in the District

Land utilization by the Forest, Agriculture, Horticulture and Mining Activity etc., given in the table below:

1. Area of Utilization of land for the Agriculture, Horticulture and Siriculture. (2014-15 Source:- District Statistical Office).

Sl.	Purpose	Extent (in Hect.)				Pulses	Oil Seeds	Commercial crops
		Gross irrigated area	Net area irrigated	Other cereals and Minor Millets	Total Cereals and Minor Millets			
1	Tube wells, Lift Irrigation and other sources	163908	146072	-	-	-	-	-
2	Area under cereals	-	-	2764	214408	-	-	-
3	Area under principal crops	-	-	-	-	396151	186875	-
4	Area under commercial crops	-	-	-	-	-	-	3928
Total		163908	146072	2764	214408	396151	186875	3928
Grand Total		1114106						

2. Area of Utilization of land for the Mining Activity. (2014-15 Source:- Mines & Geology).

- a. Minor Mineral Quarry Leases area utilize details.

Sl	Purpose	Total in No.s	Extent (in acres)
1	Active Ornamental Leases	26	85.10
2	Building Stone Quarry Leases	117	354.30
3	Expired Ornamental Leases	20	64.44
4	Expired Building Stone Quarry Leases	238	401.72
5	Determined Building Stone Quarry Leases	2	15.00
6	RRC issued Ornamental Leases	27	206.01
7	RRC issued Building Stone Leases	141	261.12
Total		571	1390.09
Grand Total		571	562.550

b. Major Mineral Quarry Leases area utilize details.

Sl	Purpose	Total in No.s	Extent (in Hct.)	Extent (in acres)
1	Active Major Mineral Leases	12	620.21	1532.57
2	Expired Major Mineral Leases	24	540.24	1334.96
3	'A' Category Iron Ore Leases	01	16.19	40.00
4	'B' Category Iron Ore Leases	12	626.015	1546.91
5	'C' Category Iron Ore Leases	12	168.83	417.187
	Grand Total	61	1971.485	4871.627

Extent details of Forest Land of Tumkur District

Extent in Hectrs

Sl	Division	Taluk	Reserve Forest	Protected Forest	Deemed Forest	Village Forest	Private Forest	Total
1	2	3	4	5	6	7	8	9
1	Tumkur Forest Division	Tumkur	6260.15	82.17	4581.62	-	-	10923.94
2		Kunigal	9417.48	190.91	987.14	-	-	10595.53
3		Gubbi	14016.81	-	5640.62	-	-	19657.43
4		Tiptur	3818.06	-	414.49	-	-	4232.55
5		C.N.Halli	8349.66	794.37	1339.98	-	-	10484.01
6		Turuvekere	18163.84	44.86	1034.73	-	-	19243.43
7		Sira	4629.39	-	1322.82	-	-	5952.21
8		Madhugiri	11509.22	-	6057.74	43.03	-	17609.99
9		Koratagere	5384.93	974.95	1109.95	-	-	7469.83
10		Pavagada	7456.81	-	3318.97	-	-	10775.78
		Land of Social Forestry			12331.57			12331.57
	G.Total		89006.35	2087.26	38139.63	43.03	-	129276.27

Physiography of the District

Tumakuru district is located in the eastern belt in the southern half of the Slate. Spanning an area of 10598 sq.km. this district lies between the latitudinal parallels of 12 degree 45 minutes North and 14 degree 22 minutes North and the longitudinal parallels of 76 degree 24 minutes East and 77 degree 30 minutes East. The shape of the district is somewhat irregular and has a peculiar feature in that the north-eastern portion is totally detached from the remaining areas of the district. This portion constituting Pavagada taluk is almost surrounded on all sides by territories belonging to AndhraPradcsh, But for the fact that on its; western border for a very short stretch it touches Chitradurga district, Pavagada would have been an enclave territory. Tumakuru district is bounded on the north by Anantpur district of Andhra Pradesh; on the east by the districts of Kolar and Bangalore; on the south by Mandya district and on the west and north-west by the districts of Hassan and Chitradurga. In the mid-west, Chikmagalur district too touches this district and shares a common border though only for a very short distance.

Tumakuru district is surrounded on all sides by lands belonging to the neighbouring districts and has no natural boundary such as sea, river or mountain ranges on any side. The landscape consists mainly of, undulating plains interspersed with a sprinkling of hills. To the east of Tumakuru and north of Devarayanadurga there is a short stretch of hilly country intersected by cultivated valleys. Besides – these, there are several hill ranges and isolated hills as well. While the. western parts a:e occupied by long ranges of hills running in a south by south easterly direction the eastern parts are occupied by a narrow range of granitic hills running north and south. There are two parallel ranges running north to south and the first one of these in the eastern . portion passes through Pavagada, Madhugiri, Koratagere and northern part of Tumakuru tal uk. The second range, mainly composed of schistose rocks; passes through the western parts of the district in the taluks of Chiknayakanhalli, Sira and Gubbi. There is another cluster of hills covering the middle and the southern parts of Kunigal taluk. In this zone the tree-

growth is comparatively dense and trees tend to grow taller and stouter. The prominent hill peaks of the district are Devarayanadurga (1169 metres), Ramadevarabella (1164 metres), Nijagal (1069 metres) and Seetakal (1004 metres) in Tumakuru taluk; Madhugiri-durga (1179 metres), Midigeshi-durga (1023 metres), Doddanaramangala (930 metres) and Byalya (874 metres) in Madhugiri taluk; Hutridurga (1112 metres), Hcmagiri (925 metres), Rangaswami-betta (899 metres) and Huliurdurga (831 metres) in Kunigal taluk; Kamana-durga (1000 metres), Nidugal (1131 metres) and Pavagada hill (904 metres) in Pavagada taluk; Channarayana-durga (1120 metres) and Koratagiri hill (867 metres) in Koratagere taluk; and Bommanahalli (938 metres) and Choudanahalli (800 metres) in Tiptur taluk. The watershed separating the river systems of the Krishna and the Cauvery may be defined by a line drawn from east to west touching Koratagere and Tiptur.

The climate of the district is quite agreeable and free from extremes. However, amongst the taluks, Pavagada which is located in the north-east is noted for its relatively hot climate. The year is usually divided into four seasons: summer from March to May; rainy season or south-west monsoon season from June to September; post-monsoon, seasonal covering in the months of October and November and dry or winter Season from December to February. Generally the period from March to May is one of continuous and steady rise in temperatures. The day temperature reaches a maximum of 41 degree Celsius at times. April is the hottest month. December is usually the coldest month, during which the minimum temperature would be as low as 9 degree Celsius on certain days.

Rain fall

The average annual rainfall in the district is 687.9 mm. This amount of rainfall is subject to considerable fluctuations from year to year. Within the district itself the northern and the eastern regions receive comparatively lesser amounts of rainfall than their southern and south-western counterparts. The average number of rainy days being 45, the number of rainy days varies between 35 in Pavagada located in the north-east and 54 in Tumakuru which enjoys a central location. The precipitation during the south-west monsoon period usually accounts for 50 per cent of the annual rainfall and remaining 50. per cent of rainfall is spread over the pre-monsoon months of April and May and the northeast monsoon months of October and November on the other. The remaining months of the year are comparatively free from rains. September and October are the months which are noted for heavy rainfall. During this period that the innumerable tanks of the district receive large quantities of water.

Rain Fall month wise statement mentioned below:

Actual Average Rainfall of all Raingauge Stations of Tumkur District for the year 2015 in Mms

Sl no	Taluks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Actual Rainfall	Normal Rainfall
1	Tumkur	0.0	0.0	6.3	68.4	125.4	76.8	47.7	86.4	239.7	166.8	199.3	3.7	1020.5	629.0
2	Gubbi	0.0	0.0	0.0	37.1	80.2	78.6	26.0	64.1	250.3	137.6	163.4	2.2	839.5	617.8
3	Kunigal	0.0	0.0	16.3	45.7	131.6	51.0	23.9	97.2	222.2	265.5	175.3	1.2	1030.0	700.5
4	Tiptur	0.0	0.0	3.8	53.8	155.1	95.9	9.1	50.1	192.6	65.9	112.9	2.2	741.5	612.6
5	C N Halli	0.0	0.0	0.6	52.1	95.5	85.8	16.1	43.7	166.8	121.3	107.9	0.5	690.2	665.9

6	Turuvekere	0.0	0.0	0.0	91.1	146.0	98.5	26.7	114.1	208.9	122.2	182.9	6.9	997.2	503.8
7	Madugiri	0.0	0.0	6.3	107.0	53.3	48.3	46.9	95.7	204.1	136.1	132.6	3.7	834.0	557.0
8	Sira	0.0	0.0	6.4	66.5	60.4	76.8	45.7	87.3	262.8	120.9	170.2	0.2	897.1	520.2
9	Koratagere	0.0	0.0	11.8	78.4	110.5	80.4	46.4	100.9	267.9	177.0	252.7	3.6	1129.6	637.5
10	Pavagada	0.0	0.0	0.5	53.8	64.2	28.8	4.0	129.9	192.0	96.5	77.6	3.6	650.8	485.7
Dist Average		0.0	0.0	5.2	65.4	102.2	72.1	29.3	86.9	220.7	141.0	157.5	2.8	883.0	593.0

Geology and Mineral Wealth

Geologically, Tumakuru district is situated right on the archaean complex. The rock formations are represented by the crystalline schists, the granitic gneisses and the newer granites. The crystalline schists of this district, which form the southern extension of the well defined Chitradurga schist belt of the Dharwar system, are the oldest members of the archaean complex. The schist belt which passes to the east of Chiknayakanhalli send out, near Banasandra, a branch that extends over 40 km. This narrow belt is composed of chloritic schists, micaceous schists, quartzites, limestones and ferruginous quartzites. In this belt, lens-shaped masses of grey trap occur between the villages of BeUara and Bukkapatna. These are basic and intermediate types of volcanic rocks. Portions of the schist belt near Doddaguri exhibit dear evidences, of sedimentation. The thin patches of schists scattered about in gneissic complex show evidences of repealed metamorphism. These schists are intensely altered and new minerals like diopside, garnet, sillimanite and corundum have developed giving rise to several interesting rock types. A major' portion of the district is covered by gneissic complex which is said to be composed of four major components; banded gneisses, granitic gneisses, gneissic granites and granites, and grano-diorites, diorites, inter-action diorites and other varieties. The younger granites; which are coarse-grained and porphyritic, constitute a well-defined narrow range of hills, which run north and south in the eastern portion of the district. Gold, manganese, sillimanite, asbestos, corundum, feldspar, garnet, quartz, ochres, clay, silver sand, soapstone and building as well as ornamental stones constitute the chief items of mineral wealth. The soils of the district are hard and poor in general. Red, gravelly, sandy, clay, loam, black soil, sandy, loam and sandy clay are the main types of soil met with in various parts of the district.

a. District wise detail of river or stream and other sand source

Shimsha, Jayamangali and Suvarnamukhi are the important rivers of the district. Shimsha has its origins in the southern portion of the Devarayana-durga hill range and flows in a general south by south-westerly direction cutting through the taluks of Tumakuru, Turuvekere, Gubbi and Kunigal. After traversing a total distance of about 100 km this river enters Mandya district and finally joins the Cauvery. This river feeds the large Kadaba tank and itself enriched by the numerous streams that flow into it from several directions.

The Jayamangali river too originates in the Devarayanadurga hill range. It flows in a north by north-easterly direction, enters Madhugiri taluk where it is augmented by the incoming waters of Garudachala near Holavanahalli from the east and by the inflow of Suvarnamukhi near Kyasavara from the west. The total length of this river is 65 km and this is a tributary of the North Pinakini river.

Tumakuru district contains two rivers bearing the same name. These may be called the Suvarnamukhi of the eastern belt and the Suvarnamukhi of the western belt respectively. The eastern Suvarnamukhi is a smaller stream with a course of about 25 km running through the taluks of Tumakuru, Koratagere and Madhugiri.

The river is formed 'by the confluence of streams, one of which has its origins near Devarayanadurga of Tumakuru taluk and another has its origins near Kolikal State Forest of Koratagere taluk, The former stream flows in a northern direction while the latter, known as DoddahaIla, flows in an easterly direction for a distance of about 15 km before uniting with the other' stream near Rampura village. This Suvarnamukhi flows into the Jayamangali river near Kyasavara village and loses its identity thereafter. The western Suvarnamukhi is an important tributary of the Vedavati river.

This too is composed of several streams, the chief stream having its origins near Badamuddanahalli village which is located south-west of Channarayanadurga in Koratagere taluk. This stream flows north through the taluks of Koratagere and Madhugiri, traverses a distance of about 5 km in Anantpur district of Andhra Pradesh, turns west and enters Sira taluk near Madalur village.

North Pinakini flows through Pavagada taluk for a short distance. Kumudwati cuts through the eastern borders of Madhugiri taluk. Among the other streams, Nagini deserves mention. The Sankanpura Lake formed by the construction of an anicut across this stream as early as in 1901 irrigates about 250 hectares. Recently one more anicut has been built across this stream near the village Mangala.

The northern and the north-eastern portion of the district covering the taluks of Madhugiri, parts of Koratagere and Pavagada taluks and also sand deposits are available in the adjacent to river patta lands of the river course.

b. District wise availability of sand or gravel or aggregate resources

1. Koratagere Taluk						
Sl.No	Village	Block No.	Extent (in Acres)	Approximate Availability of Sand in identified place		Remarks
				MT	Cu M	
Part of Suvarnamukhi River						
1	Kattinagenahalli	I	20	11430	5103	
2	Gowragondanahalli	II	20	11430	5103	
3	Akkirampura & Cheelaganahalli	III	20	11430	5103	
4	Akkirampura, Cheelaganahalli, Rayavara & Kyasavara	IV	20	11430	5103	
Part of Jayamangali River						
5	Kyasavara & Jodi Inam village Bairenahalli	V	20	11430	5103	
	Total	5	100	57150	25515	

2. Madhugiri Taluk

Sl.No	Village	Block No.	Extent (in Acres)	Approximate Availability of Sand in identified place		Remarks
				MT	Cu M	
Part of Jayamangali River						
1	Kodagadala Kyasavara Shingaragondanahalli & Nanjapura	I	18	9798	4374	
2	Shingaragondanahalli Nitrikal Nanjapura & Chikkahosahalli	II	20	9798	4374	
3	Byalya & Handaraal	III	20	9798	4374	
4	Handaraal, Doddahosahalli & Thaggihalli	IV	20	9798	4374	
5	Doddahosahalli	V	20	9798	4374	
6	Gamakaranahalli, Chikkamalur & Kempapura	VI	18	9798	4374	
7	Chikkamalur, Himmadagondanahalli & Veeranagenahalli	VII	20	9798	4374	
8	Veeranagenahalli	VII	20	9798	4374	
9	Veeranagenahalli	IX	20	9798	4374	
10	Veeranagenahalli	X	22	9798	4374	
11	Reddyhalli Sooranagenahalli & Kodagenahalli	XI	20	9798	4374	
12	Kodagenahalli	XII	20	9798	4374	
13	Kodagenahalli & Jwalahalli	XIII	20	9798	4374	
14	Annenahalli & Muddenahalli	XIV	20	9798	4374	
15	Annenahalli & Muddenahalli	XV	20	9798	4374	
16	Theriyur & Muthyalammanahalli	XVI	20	9798	4374	

17	Theriyur & Muthyalammanahalli	XVII	20	9798	4374	
18	Theriyur & Muthyalammanahalli	XVIII	20	9798	4374	
19	Kalenahalli	XIV	20	9798	4374	
20	Kalenahalli	XX	20	9798	4374	
21	Kalenahalli	XXI	20	9798	4374	
22	Kalenahalli	XXII	20	9798	4374	
	Total	22	438	215556	96228	
3. Pavagada Taluk						
Sl.No	Village	Block No.	Extent (in Acres)	Approximate Availability of Sand in identified place		Remarks
				MT	Cu M	
Part of Uttara pinakini River						
1	Nagalamadike, Thimmanahalli & Kambalahalli	I	20	9798	4374	
2	Thimmanahalli & Kambalahalli	II	20	9798	4374	
3	Thimmanahalli & Kambalahalli	III	20	9798	4374	
4	Thimmanahalli & Kambalahalli	IV	20	9798	4374	
5	Thimmanahalli & Kambalahalli	V	20	9798	4374	
6	Kambalahalli	VI	20	9798	4374	
	Totl	6	120	58788	26244	

Sl.No	Village	Block No.	Extent (in Acres)	Approximate Availability of Sand in identified place		Remarks
				MT	Cu M	
1	Koratagere	5	100	57150	25515	
2	Madhugiri	22	438	215556	96228	
3	Pavagada	6	120	58788	26244	
	Total	33	658	331494	147987	

c. District wise detail of existing mining leases of sand and aggregates

There is no sand mining leases in this District