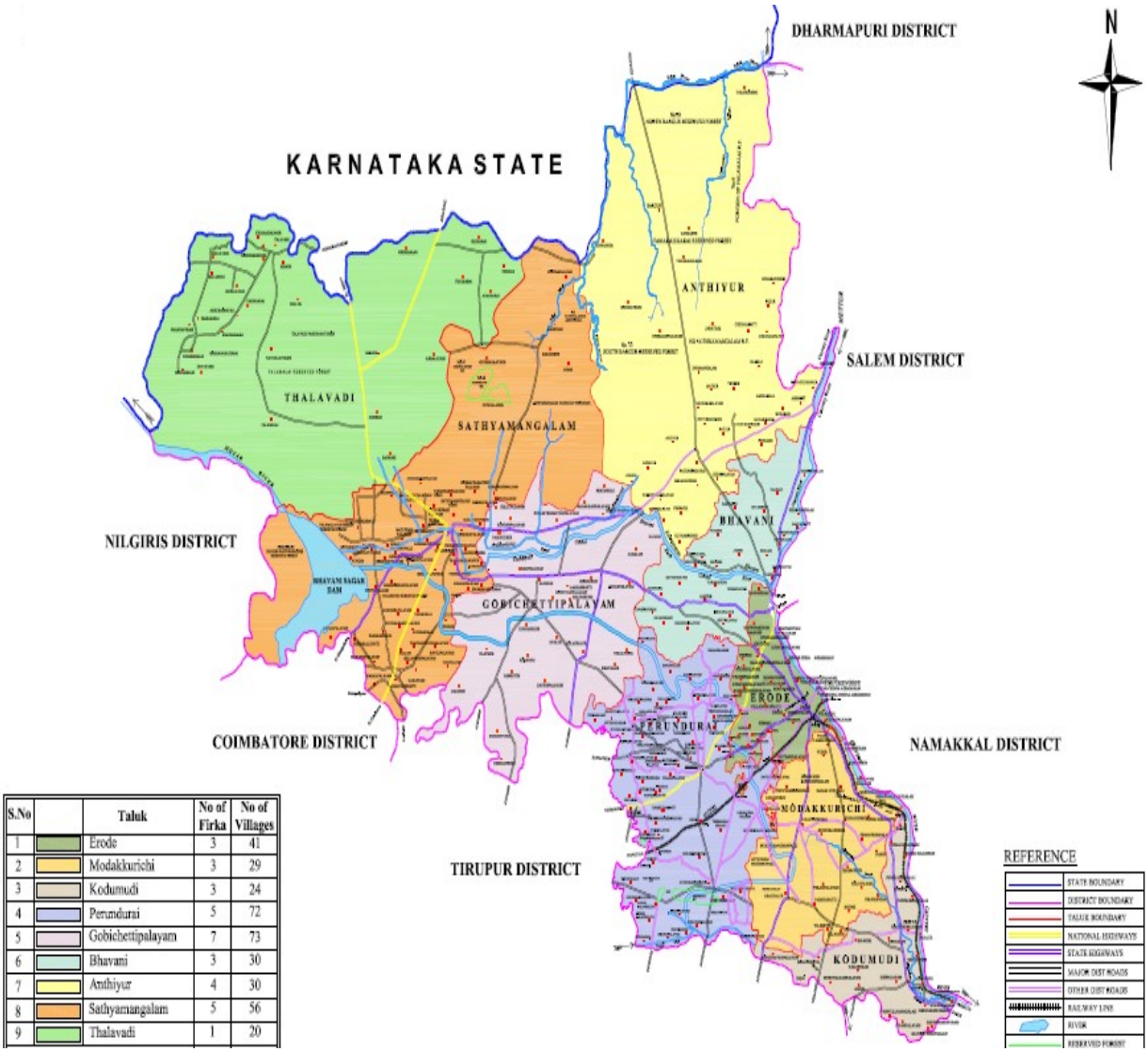
DISTRICT MINERAL SURVEY REPORT FOR GRANITE ERODE DISTRICT

(Prepared as per Gazette Notification S.O.3611 (E) dated 25.07.2018 of Ministry of Environment, Forest and Climate Change)



S.No		Taluk	No of Firka	No of Villages
1		Erode	3	41
2		Modakkurichi	3	29
3		Kodumudi	3	24
4		Perundurai	5	72
5		Gobichettipalayam	7	73
6		Bhavani	3	30
7		Anthiyur	4	30
8		Sathyamangalam	5	56
9		Thalavadi	1	20

May 2019

Deputy Director,
Geology and Mining,
Erode

District Collector,
Erode

DISTRICT SURVEY REPORT FOR GRANITE
ERODE DISTRICT

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1. INTRODUCTION

The District Mineral Survey Report of Erode District was prepared with the assistance of Geological Survey of India State Unit, Tamil Nadu as per the Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 141 (E) dated 15.01.2016 and SO 190 (E) dated 20.01.2016. The District survey report has been approved by the Chairman DEIAA/ District Collector, Erode on 15.3.2019 and same was uploaded in the Erode District NIC portal. Now the Erode District Mineral Survey report has updated as per Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 3611 (E) dated 25.7.2018. The main purpose of preparation of District Survey Report is to identify the mineral resources and developing the mining activities along with other relevant data of the District.

The Erode District covers an area 5722 sq. KM and falls within the latitude from 10°36' to 11°58' and longitude from 76°49' to 77°58'. It has Nine Taluks (Erode, Kodumudi, Modakurichi, Perundurai, Bhavani, Anthiyur, Nampiyur, Gobichettipalayam Sathyamangalam, Thalavadi) with total population of 2251744 (as per 2011 census).

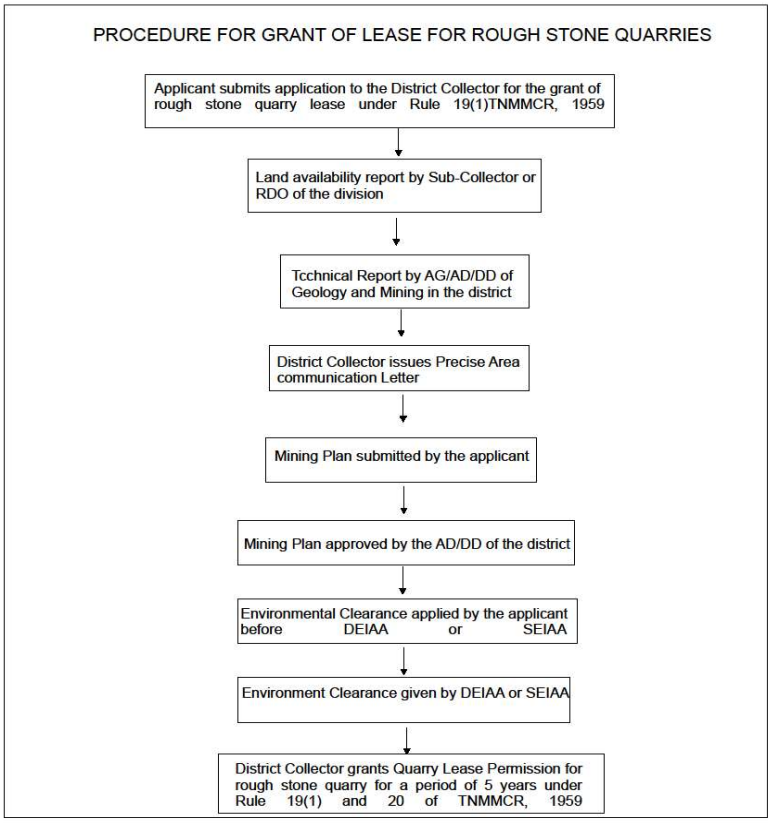
Division	Taluks	Firka's	Villages
Erode	Erode	3	26
	Kodumudi	3	32
	Modakurichi	3	29
	Perundurai	5	72
Gobichettipalayam	Bhavani	3	30
	Anthiyur	4	34
	Gobichettipalayam	7	74
	Sathyamangalam	5	56
	Thalavadi	1	20

Plate No. 1 : District Map

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

The Mining of minor minerals like Quartz, Feldspar, Dimension stone and Gravels are active in the district. Private companies play a major roll in mining activity where as the Government agencies like TAMIN take part in mining dimension stones only. The major minerals like Copper Ore, Chromite, PGE and Gold are reported in the district but they are not in minable quantity and there no any mining activity in those deposits.

The office of the Deputy Director, Department of Geology and Mining is functioning under the control of District Collector, Erode. The Deputy Director, Geology and Mining is assisting the District Collector in the Mineral Administration works.



3. GENERAL PROFILE OF THE DISTRICT

Erode district is an inland district, bordered on the north by Karnataka State, east by Salem, Namakkal and Karur districts, west by Coimbatore district and south by Tripur districts of Tamilnadu, covering an area of 5722 Sq.km. the headquarters of the district is Erode and the district is bounded by latitude 10°36'N to 11°58'N and Longitude 76°49'E to 77°58'E. It includes ten taluks viz. Sathyamangalam, Talavadi, Gobichettipalayam, Bhavani, Anthiyur, Nampiyur, Erode, Modakurichi, Kodumudi and Perundurai (Plate-01).

Population (2011)	
• Total	2,251,744
• Density	397/km^2 (1,030/sq mi)
Time zone	IST (UTC+5:30)
PIN	638***
Lok Sabha seats	3
Vidhan Sabha seats	8
Central location:	11°15′N 77°19′E
Largest city	Erode
Sex ratio	Male-51%/Female-49% ♂/♀
Literacy	72.96%
Precipitation	700 millimetres (28 in)
Avg. summer temperature	35 °C (95 °F)
Avg. winter temperature	18 °C (64 °F)
Total Road length	3100 km
National Highways	60.400 km
State Highways	322.893 km
Corporation and Municipalities Road	924.736 km
Town Panchayat Road	1490.583 km
Major District Road	302.200
Vehicle registration	TN 33 (Erode East)
	TN 36 (Gobichettipalayam)
	TN 56 (Perundurai)
	TN 86 (Erode West) [1]
Website	www.erode.tn.nic.in

Table.1- General Data-Erode District

CLIMATE AND SOIL

Dry Climate prevails in the Eastern part of this District and the Western part has a semi dry climate. The Soil varies from place to place. The Soil found in this district is mostly Red loam, Red sandy soil which is favourable for the crops like Paddy, Groundnut, Sugarcane, Turmeric, Tobacco, Maize, Tapioca etc. The ground water level in this district varies from 15 feet to 50 feet in Wet area, 50 feet to 110 feet in dry area.

EDUCATION

There are 865 Primary Schools, 314 Middle Schools, 101 High Schools, 133 Higher Secondary School and 8 Teacher Training Institutes are in the district. In addition, there are 19 Arts and Science Colleges, 13 Engineering Colleges, 1 Medical College, 12 Polytechnics with 12 Industrial Training Institutes are rendering Education facility in this District.

4. GEOLOGY OF THE DISTRICT

4.1. AN OUTLINE ON GEOLOGY OF TAMILNADU

Crystalline rocks of Archaean to late Proterozoic age occupy over 80% of the area of the state of Tamilnadu, while the rest is covered by Phanerozoic sedimentary rocks mainly along the coastal belt and in a few inland River valleys. The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their Migmatitic derivatives, Supracrustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio-Pliocene) and sediments of Quaternary and Recent age. Geological map of Tamilnadu is given below (Plate 2.)

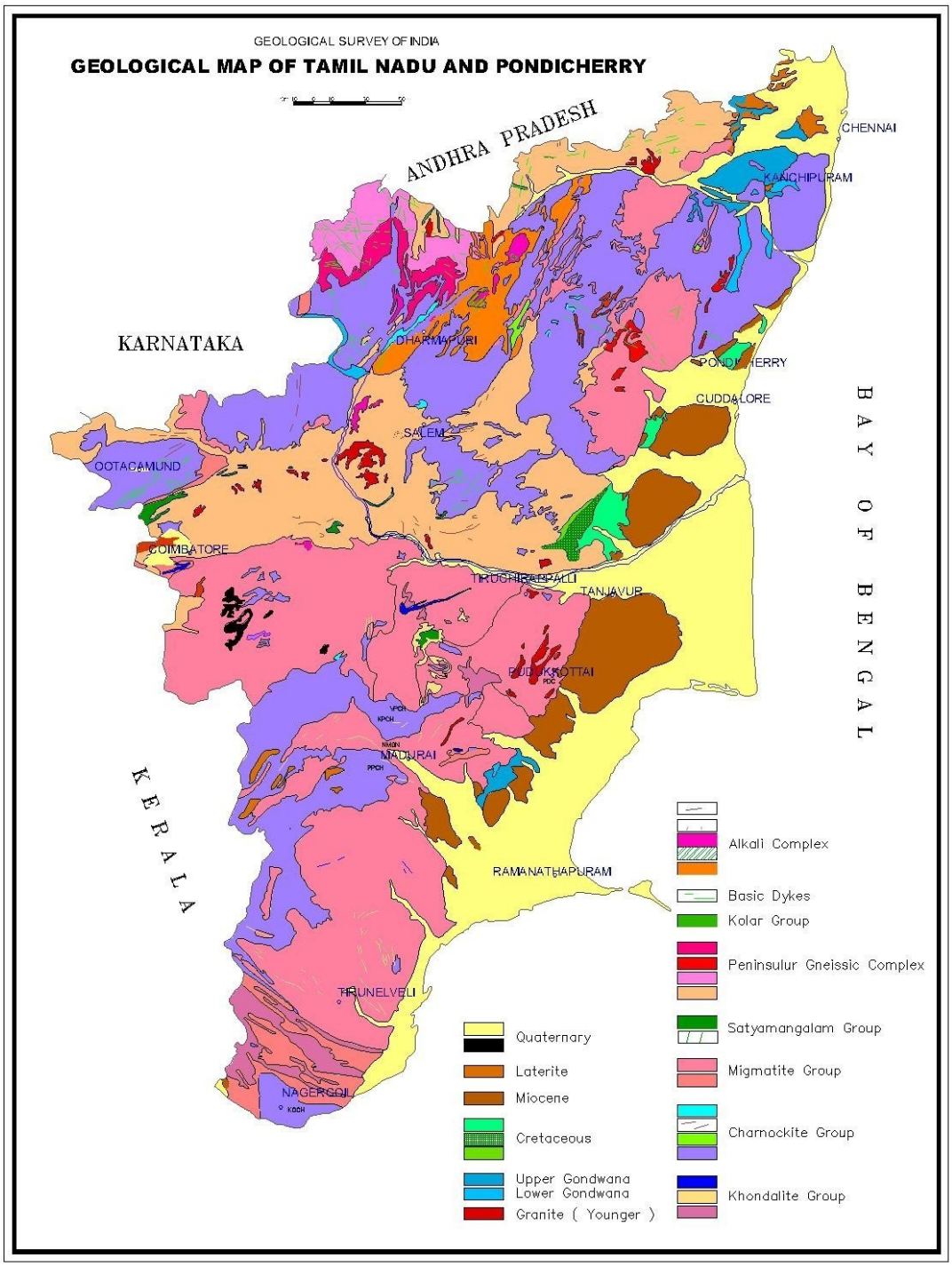


Plate 2. Geological map of Tamilnadu.

4.2. GEOLOGY OF ERODE DISTRICT

The rock types exposed in the district can be broadly grouped as 1) Granulite group of rocks 2) Migmatite Complex 3) Sathyamangalam Schist Complex 4) Peninsular Gneissic Complex 5) Alkali Complex 6) Acid Intrusives and 7) Quaternary Alluvium.

The Granulite group of rocks comprise of Calc Granulite, Quartzite of Khondalite group, Charnockite, Pyroxene Granulite, Pyroxenite of Charnockite group, Migmatite gneiss, and Metagabbro. Charnockite occurs as a major rock type in the northern part and as thin bands and enclaves in the southern part of the district. Quartzite and Calc Granulite, Pyroxene Granulite, Migmatite Gneiss occurs as thin bands and enclaves.

Hornblende gneiss, Gametiferous - Quartzo Feldspathic gneiss and granite are the important rock types of Migmatite Complex, of which, hornblende gneiss occupies the major part of the District, particularly in southern part and northwesten part. Garnetiferous quartzofeldspathic gneiss is located near Bhavani Sagar reservoir and north of Anthiyur.

The Sathyamangalam Group includes fuchsite Quanrtzite, schistose-quartzite, sillimanite-quartzite, ferruginous Quanrtzite, talc-tremolite / Actinolite schist / hornblende schist, Amphibolite and Gabbroanorthosite and Pyroxenite. Schistose rocks occur as enclaves near Sathyamangalam, west of Chennimalai. Quartzite occurs as thin beds near Kavilanattam, west of Chennimalai, Amphibolite occur as enclaves near Sathyamangalam, Gobi and around Perudnurai. A north site, Pyroxenite occurs as WSW-ENE trending bands in fissile hornblende gneiss of PGC (Bhavani Group) which occupies the ventral part of the district.

Granite bodies are located in the central part of the district around Punjai Puliyampatti and west of Erode. Quaternary fluvial deposits are restricted to the river beds of Cauveri, Noyyil, Amaravathi and Bhavani rivers.

The plains show a large number of Ultramafic bodies along the E-W Bhavani lineament. WNW-ESE to NW-SE trending dykes is a common feature. The Cauveri River which has a NNE-SSW trending straight course between Mettur and Bhavani is considered to represent a major lineament, probably a deep seated fault zone.

The general E-W to ENE-WSW course of the Bhavani River flowing at the foot of the hills indicates a major lineament, probably a deep seated fault zone.

The Moyyar - Bhavani, Noyyil - Cauveri lineaments belong to the NNW-SSE to E-W system. The Mettur fault is a NNE-SSW system. The N-S to NNE-SSW trending dykes show clear truncation against the E-W Bhavani lineament.

4.3. STRATIGRAPHY OF THE AREA

Lithology	Group	Age
Soil Alluvium		Holocene
Laterite		
Kankar		
Granite	Acid intrusives	Proterozoic
Dolerite dyke / Meta dolerite / Basic intrusives		
Nephelene syenite Corrundum syenite	Alkaline complex	Proterozoic to Archaen
Pink migmatite	Penninsular gneissic complex (Bhavani)	
Fisshile Hornblende biotite gneiss		
Gabbro, anorthosite, pyroxenite	Sathyamangalam Group	
Amphibolite		
Talc - tremolite / Acitionite schist / Hornblende schist		
Fuchsite quartzite, schistose quartzite, Sillimanite quartzite, ferruginous quartzite		
Hornblende biotite gneiss	Migmatite Complex	Archaean
Gametiferous - Quartzofedspathic gneiss		
Metagabbo phrozenite	Charnockite Group	
Magnetite quartzite		
Pyroxene granulite		
Charnockite		
Calc granulite	Khondalite Group	
Quartzite Anorthosite located in well cuttings		

4.4. MINERAL OCCURRENCES IN ERODE DISTRICT

Erode District has limited occurrence of major minerals. The other available Minor Minerals are Quartz, Feldspar, Granite varieties and other common use minor minerals like rough stone, gravel and Silt. The district is endowed with the following mineral occurrences - gypsum reported from north, west of Bhavani, Gold occurrences reported from Bensimali, Beryl is reported from west of Bhavani. Mica is reported from east and southwest of Anthiyur. Gemstones are reported in Chennimalai area, copper ore is reported from east of Gobichettipalayam and in quarry section of Mylambalayam village. Chromite mineral deposits are reported from Bhavanisagar and Karappadi area. Even though the district is blessed with a list of mineral deposited from gold to precious stone, copper to PGE group of mineral, only quartz, feldspar and dimension stones are quarried in the district. The details of economically important mineral deposit are as follows:

4.4.1. DIMENSIONAL STONE - GRANITE VARIETIES

a) COLOUR GRANITE

Intrusive Granites of Proterozoic age form one of the sources of economically important dimensional stone in the District. The Pandipalayam granite quarry of Perundurai Taluk is the only Colour Granite quarry under operation in the district. The total production in the last three year is 2604 Cubic Meter with royalty of Rs.6298000. The following table showing the details of Colour Granite deposited areas:

Name of the Villages	Latitude	Longitude	Tentative area of the block in Sq.Km
Pandiyampalayam	11° 23' 15.9609" N	77° 30' 55.8552" E	9
Chinnamallampalayam	11° 19' 24.4298" N	77° 32' 07.3607" E	3.7

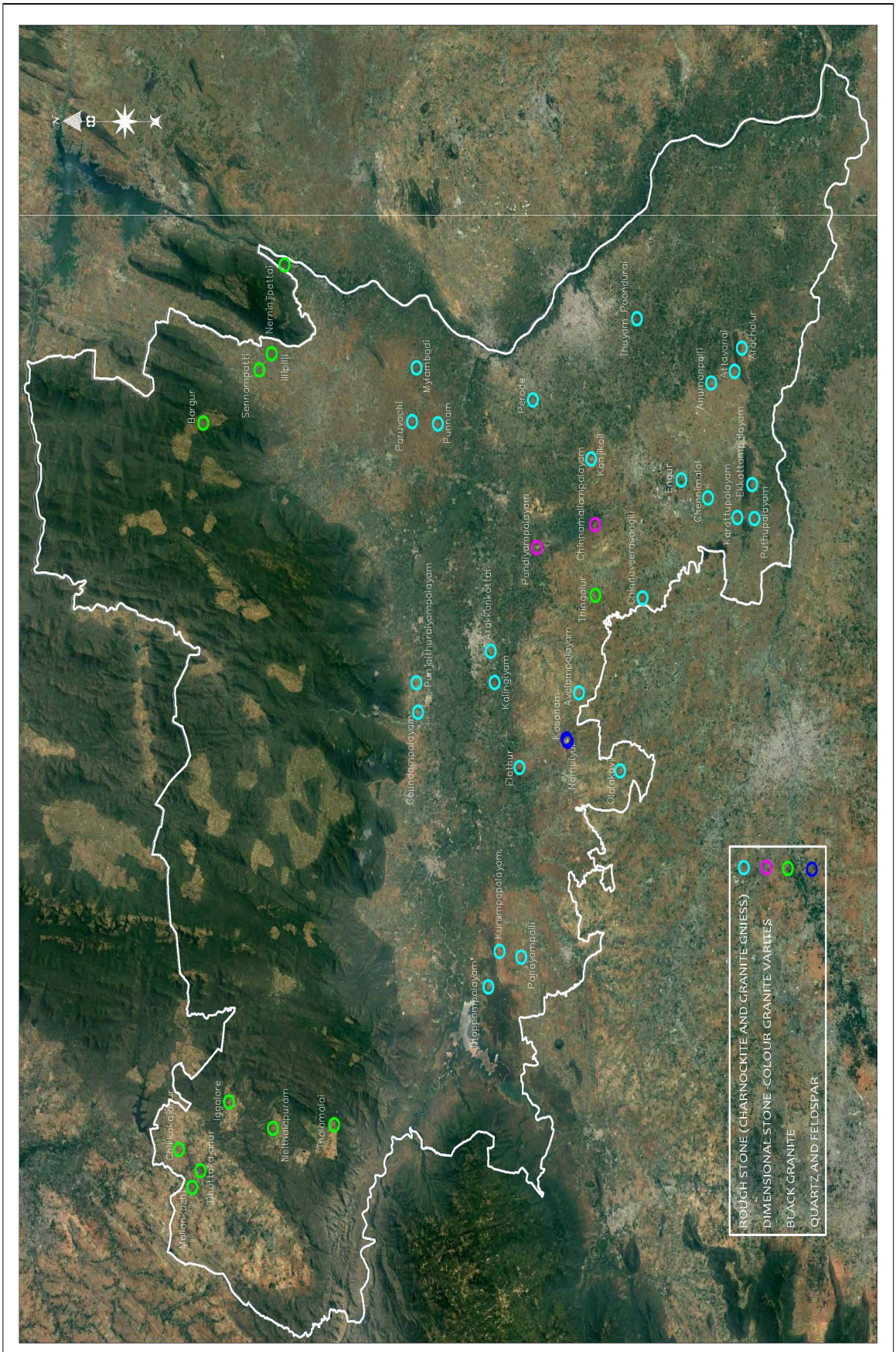
Plate 3.Field photograph of Colour Granite quarry located in Pandiyampalayam village, Perundurai Taluk of Erode district.

b) BLACK GRANITE.

Dolerite dykes of Proterozoic age are intruded within Charnockite of Charnockite Group and these dykes are the only source of black granite (commercial name) in the district. These intrusive bodies are abundant in northern part of the district. Bargur, Illipilli, Thamaraikarai and Sennampatti of Anthiyur Taluk, Iggalore and Neithala puram of Thalavadi taluk are the note worthy source of dimensional stone in the district. The total production in the last three year is 9285 Cubic Meter with royalty of Rs. 3, 67, 61,900. The following table showing the details of Black Granite deposited areas:

Name of the Villages	Latitude	Longitude	Tentative area of the block in Sq.Km
Illipilli	11° 40' 52.8690" N	77° 40' 55.3251" E	18.2
Bargur	11° 45' 24.3667" N	77° 37' 19.7621" E	13
Sennampatti	11° 41' 41.7619" N	77° 40' 05.5363" E	19.8
Nerninjipettai	11° 40' 01.9917" N	77° 45' 31.0775" E	6.1
Iggalore	11° 43' 36.2197" N	77° 02' 11.5485" E	7.9
Neithalapuram	11° 40' 41.1872" N	77° 00' 50.1132" E	6.7
Mallankuzhi	11° 46' 01.8374" N	76° 57' 45.5895" E	36.4
Dhottakajanur	11° 45' 29.7203" N	76° 58' 37.5713" E	11.4
Thingalur	11° 19' 22.3826" N	77° 28' 28.3832" E	6.5
Thalamalai	11° 36' 37.1957" N	77° 01' 02.0867" E	10.5
Chikkakajanur	11° 46' 54.7425" N	76° 59' 43.1073" E	4.4

Plate 4.Field photograph of Black granite quarry located in Mallankuzhi village, Thalavadi Taluk of Erode district.



Plat 5. Locations of quarries visited during the field work.

6. LAND UTILIZATION PATTERN IN THE DISTRICT

Erode district is fifth largest district in the state covering an area of 5722 Sq.km. the land use pattern of the district is shown in Plate No-7

Land Type	Area (in Hec.)
Forest	227675.24
Agriculture	266012.1
Horticulture	13578
Mining	145.62

Table.2 : Land Utilization Pattern-Erode District

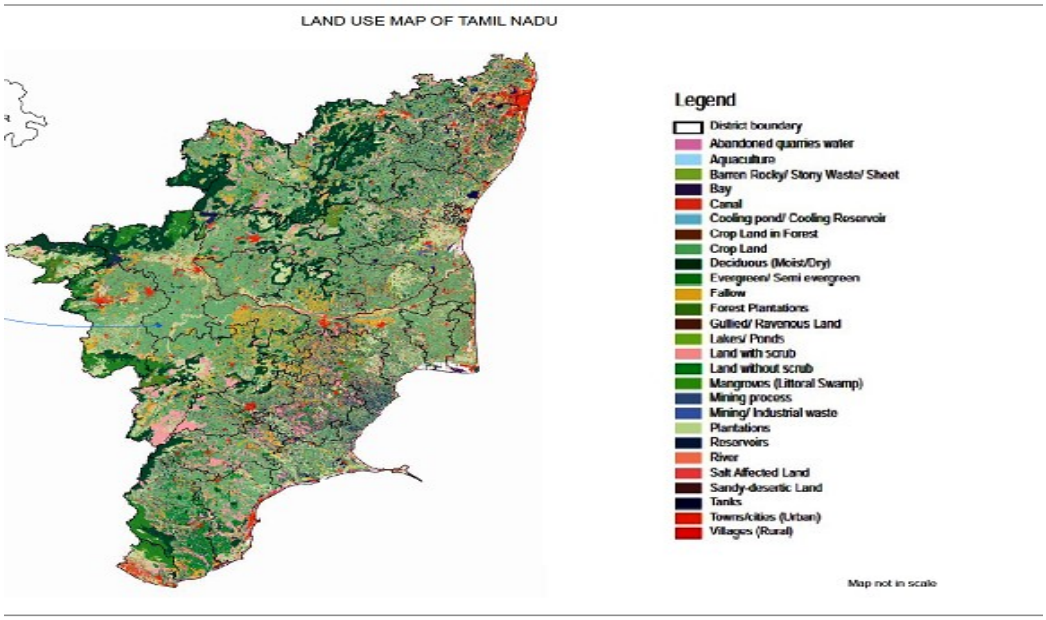


Plate 6 : Land use map of Tamil Nadu

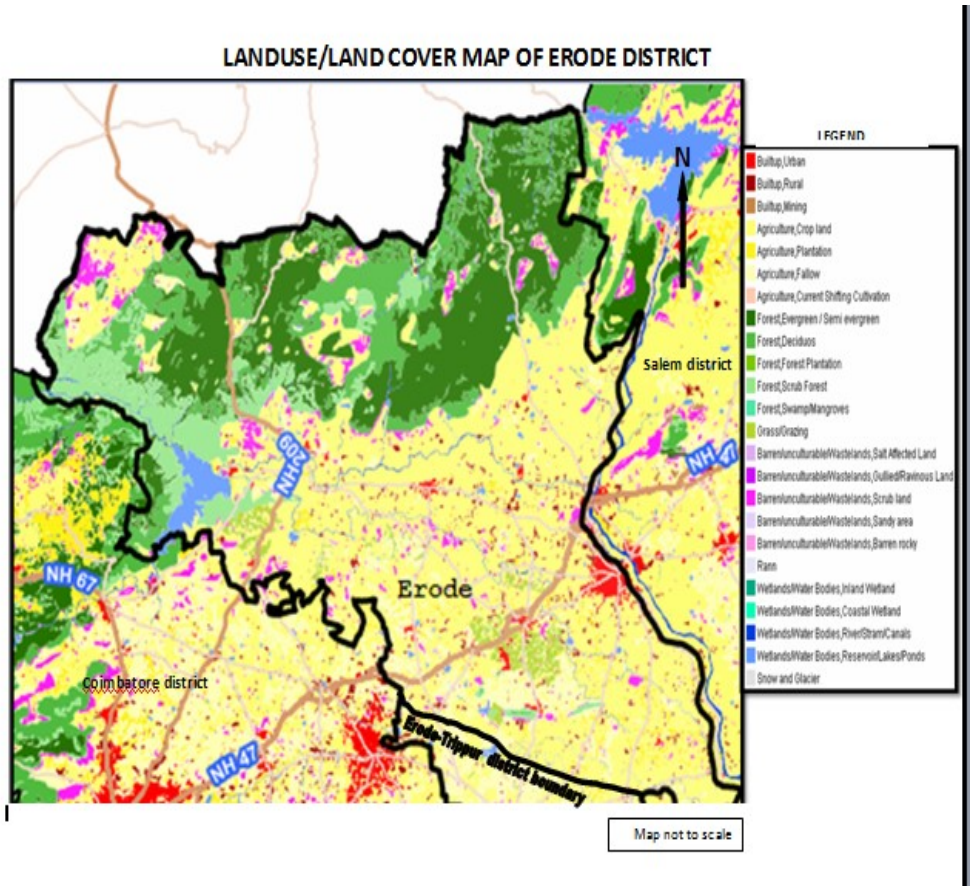


Plate 7 : Land use map of Erode District..

9. Details of mining leases in the District

Sl. No	Name of the Mineral	Name of the lessee	Address and Contact No.of the lessee	Mining lease grant order No. & date	Area of Mining lease (Ha)	Period of Mining lease (Initial)		Period of Mining Lease 1st /2nd renewal		Date of commencement of Mining operation	Status (Working/ Non working/ Temp. working for dispatch etc)	Captive/Non Captive	Obtained Environmental Clearance (Yes/No.) If yes, letter No. with date of grant of EC	Location of the Mining lease (Latitude and Longitude)	Method of mining (opencast/ Underground)
						From	To	From	To						
… NIL …															

10. DETAILS OF GRANITE SEIGNIORAGE FEE / REVENUE RECEIVED IN THE LAST THREE YEARS (2016-17 TO 2018-19)

Granite revenue collection for the last three years is given below:

1.	Black Granite	2016-17	15906600
		2017-18	5111300
		2018-19	4297872
2.	Colour Granite	2016-17	3440000
		2017-18	3061000
		2018-19	4642559

11 and 17. DETAILS OF PRODUCTION OF GRANITE IN LAST THREE YEARS AND DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS

1.	Black Granite	2016-17	3816 cbm
		2017-18	1332 cbm
		2018-19	1419 cbm
2.	Colour Granite	2016-17	1407 cbm
		2017-18	1417 cbm
		2018-19	1746 cbm

12. MINERAL MAP OF THE DISTRICT

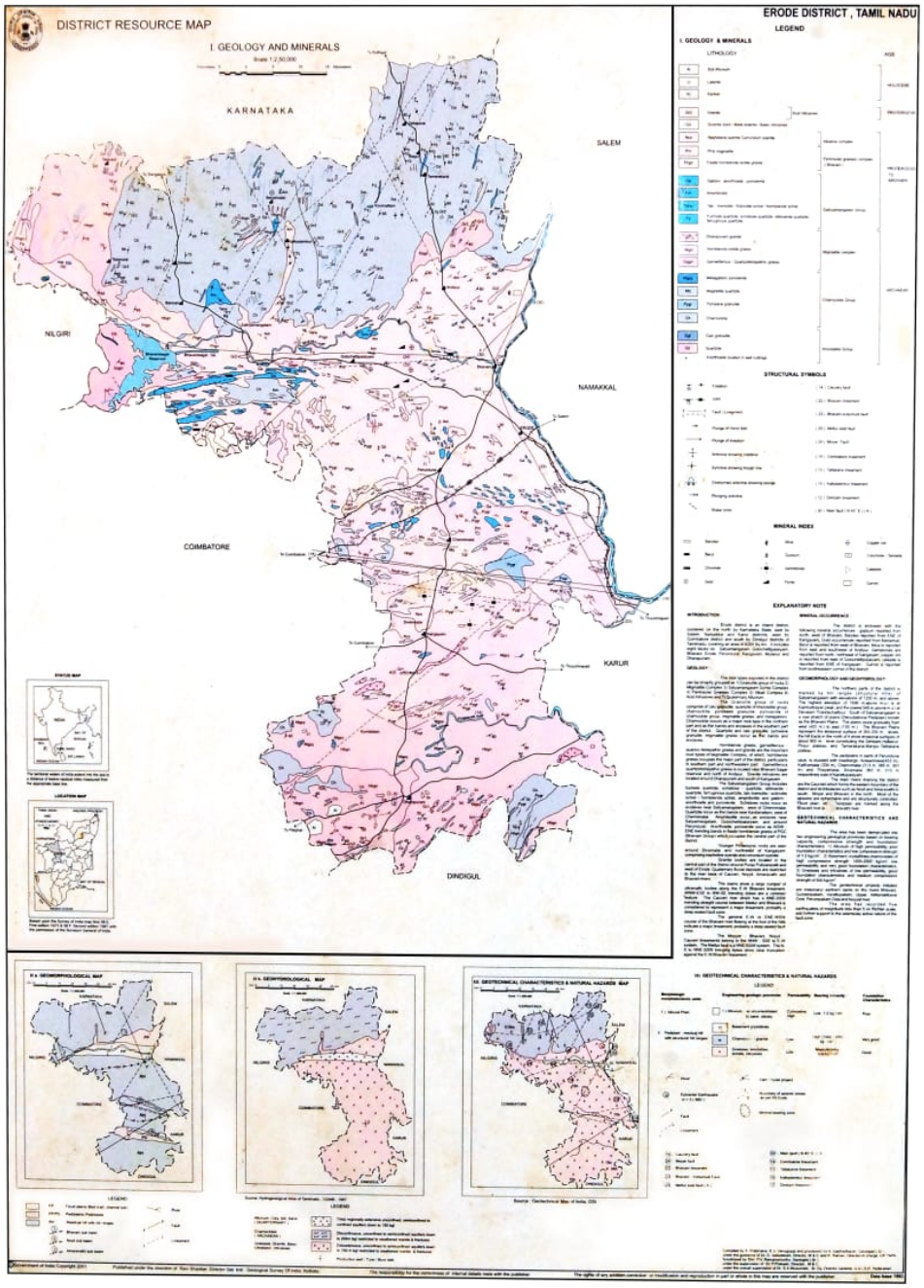


Plate 8 : *Mineral Map of the District*

13. LIST OF LETTER OF INTENT (LOI) HOLDERS IN THE DISTRICT ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT

The details of Granite Quarry Leases in Erode District is given below:

Details of Black Granite Leases								
s. No	**Mineral**	**Name & Address of lessee**	**Taluk and Village**	**S.F. No and Extent**	**Date of grant of lease (original and subsequent renewals)**	**Period (Years)**	**Status working, Non working**	**Location of the Mining Lease (Latitude & Longitude)**
1	Black Granite	E.C. Senniappan, Annamar Granites, 413 / 296, Sathy Road, Erode	Sathyamangalam, Chikkakajanur	176p, 177p 0.52.5 hect	GO 3D No.195/ Ind. MMB-2Dept.dt.5.7.95.	(HC order dt 7.4.05 in WP 11543/05.	Non Operation	N 11^0 46' 53" - N 11^0 46' 57" E 76^0 59' 42"- E 76^0 59' 45"
2	Black Granite	Universal Granites, 62, Thanga-perumal St., Erode-2.	Sathyamangalam, Mallanguzhi,	1480 / 2 1482 / 2A 2.85.5 Hect	GO. 3D. No. 43 / Ind. MMB2 / Depr dated: 26.3.2004	(3.5.04 to 2.5.2024)	Non – Operation	76°58'02"E - 76°58'08"E 11°45'44"N - 11°45'51"N
3	Black Granite	E.C. Senniappan, Annamar Granite, 413/296, Sathy Road, Erode - 638 003.	Sathyamangalam, Iggalore	214 / 1A, 2B 1.01.0 Hect	G.O. 3D No. 97 Ind. (MMB2) Dept dated 3.10.2005	24.10.05 to 23.10.2025	Non Operation	77°02'08"E - 77°02'12"E 11°43'34"N - 11°43'38"N

4	Black Granite	L. Eswari, Dasanaicken palayam, Perundurai Taluk, Erode Dt.	Sathyamangalam, Neithalapuram,	110/5B2, 6B, 7B 1.07.0 Hect.	G.O. (3D) No. 125 Ind. (MMB2) Dept dated 24.11.05.	(12.12.05 to 11.12.2025)	Non Operation	N 11^0 40' 39" – N 11^0 40' 45" E 77^0 00' 50" - E 77^0 00' 53"
5	Black Granite	Azmullakhan Kavalande, Nanjancode Taluk, Mysore District	Sathyamangalam, Dhoddakajanur,	334/2A (p), 334/1A2A (p) 1.09.0 Hect	G.O (3D) No. 11, Industries (MMB3) Dept dated 23.1.06	20.2.2006 to 19.2.2026)	Non - Operation	N 11^0 45' 26" - N 11^0 45' 31" E 76^0 58' 34"- E 76^0 58' 38"
6	Black Granite	G. Sakthivel, S/o. Govinda-samy, 100E, Gandhi Bazar, Bargur, Krishnagiri Taluk and District	Sathyamangalam, Thingalur	760 / 1, 2 1.92.0 Hect	G.O. 3D No. 89 Ind. (MME-II) Dept dt 27.11.06.	(19.12.06 to 18.12.2026)	Non – Operation	77°19'38.75"E to 77°19'44"E 11°46'0.37"N to 11°46'5.12"N
7	Black Granite	J. Nishar Pasha H.J.S.Granites Pvt. Ltd., 14, Aja Abdulla St., Richmond Town, Bangalore	Sathyamangalam, Mallankuzhi,	1321 / 1A3, 1B 1321 / 2, 3 1322 / 1B1 1.13.0 Hect	GO. 3D No. 87 Ind (MME-II) Dept dated 21.11.06.	(26.12.06 to 25.12.2026)	Non Operation	N 11^0 46' 12.14- N 11^0 46' 16.65" E 76^0 57'13.57"- E 67^0 57' 20.67"

8	Black Granite	K.V. Saleem, Swadeshi Granites, Hosanur Road, Talavadi, Sathy.	Sathyamangalam, Thalamalai,	324/1A, 1B, 325/1A 2.30.5 Hect	G.O. 3D No. 13, Ind. (MME-II) Dept. dt. 29.1.2007	(19.2.2007 to 18.2.2017)	Non – Operation	77°01'01.31"E - 77°01'06.44"E 11°36'32.92"N-11°36'42.72"N
9	Black Granite	K.R. Mani S/o. Ramasamy, 3/63, Anna nagar, Karuveppampatti Thiruchengode Taluk, Namakkal	Sathyamangalam, Mallankuzhi,	1085/1 (P), 1085/4 (p), 1085 / 5, 1085/6 (p) 1.50.0 Hect	G.O. 3D 73, Industries (MME-II) Department dated 3.9.2007	(1.10.2007 to 30.09.2027)	Non Operation	N11^0 46' 57.38"-N 11^0 47' 03.06" E 76^0 55'34.04"-E 76^0 55' 42.81"
10	Black Granite	Southern Rocks & Minerals Pvt Ltd, Adjacent to industrial est, Kurnool Road, Ongole, Andra Pradesh	Sathyamangalam, Mallankuzhi,	1437/2A,1440/1A,1B, 3A, 3B, 4B, 5B, 7B 2.80.0 Hect	G.O. 3D 89, Industries (MME - II) Department dated 24.12.07	(16.2.08 to 15.2.2028)	Non – Operation	N 11^0 48' 76.55"
11	Black Granite	Southern Rocks & Minerals Pvt Ltd, Adjacent to industrial est, Kurnool Road, Ongole, Andra Pradesh	Sathyamangalam, Mallankuzhi,	1405/3, 1406/4B, 5, 1407/4, 5B 4.21.0 Hect	G.O. 3D 66, Industries (MME - II) Department dated 23.12.2010	(9.1.2011 to 8.1.2031)	Non – Operation	N 11^0 48' 76.55"

12	Black Granite	R. Jayaraj, S/o. Ramasamy Gr, oundampalayam (p), Tiruchengodu (tk), Namakkal District	Sathyamangalam, Iggalore,	214/3A part 1.15.0 Hect	G.O. 3D 11, Industries (MME - II) Department dated 25.5.2012	(25.6.2012 to 24.6.2032)	Non Operation	77°02'11.41"E - 77°02'14.49"E 11°43'32.64"N - 11°43'40.13"N
13	Black Granite	R.K. Ramesh, S/o. Krishnasamy, 11/12, SBI Colony 1st Street, Virugambakkam, Chennai	Sathyamangalam, Mallankuzhi,	1475/2 1.00.5 Hect	GO. (3D) No. 6 Industries (MME2) Dept dated 3.3.2014	(4.3.2014 to 3.3.2034)	Non Operation	N 11^0 45' 43"- N 11^0 45' 38" E 76^0 58' 17"- E 76^0 58' 20"
14	Black Granite	Tvl. G.T.P. Granites Limited, 4/36, Bharathi Street, Swarnapuri, Salem District - 636 004.	Anthiyur, Bargur,	1015/1A, 1B, 1C, 1015/2A, 2B, 2C, 1015/3A, 3B 3.24.5 Hect	GO. (3D) No. 2 Industries (MME2) Department dated 6.2.2014	(17.2.2014 to 16.2.2034)	Operation	N 11^0 45' 26"- N 11^0 45' 19" E 77^0 37' 27"- E 77^0 37' 19"

15	Black Granite	S.K.P. Muru-gesan, S/o. Kandasamy, F/2, Jain Akshaya, 15, Thirumurthy Street, T.Nagar, Chennai - 17	Anthiyur Sennampatti	118/1 (part), 118/2 (part) and 118/3 (part) 3.36.5 Hect	GO. (3D) No. 17 Industries (MME2) Department dated 8.2.2016	29.2.2016 to 28.2.2036	Non Operation	N 11^0 42' 30" – N 11^0 42' 40" E 77^0 41' 06" - E 77^0 41' 13"
16	Black Granite	Tvl. Minrock International Private Limited No. 10 (old No 122), Apparsamy Koil Str, Mylapore, Chennai.	Anthiyur, Bargur	915/1, 915/2, 915/3, 1021/1B 1022/2 1.12.5 Hect	GO. (3D) No. 22 Industries (MME2) Department dated 7.8.2014	(4.9.2014 to 3.9.2034)	Non – Operation	N 11^0 45' 29" - N 11^0 45' 34" E 77^0 37' 04"- E 77^0 37' 12"
17	Black Granite	M. Gandhi, S/o. Masanam, Karattupatti Village, Andipatti Taluk.	Anthiyur, Illipilli,	516 part 569 / 3 1.41.0 hect	G.O. 3D No. 56 Ind. (MME-II) Dept dated 25.9.06.	(16.10.06 to 15.10.2026)	Non - Operation	N 11^0 37' 00" - E 77^0 40' 00"
18	Black Granite	P.R.P. Exports, Melur, Madurai	Anthiyur, Illipilli,	503 / 2C part 504 /1, 2etc 3.29.5 Hect	G.O. 3D No. 57 Ind. (MME-II) Dept dated 25.9.06.	(16.10.06 to 15.10.2026)	Non – Operation	77^o 40' 57.3"E 11^{o}40'53.9"N

Details of Colour Granite Leases

s. No	Mineral	Name & Address of lessee	Taluk and Village	S.F. No and Extent	Date of grant of lease (original and subsequent renewals)	Period (Years)	Status working, Non working	Location of the Mining Lease (Latitude & Longitude)
1	Colour Granite	P.R.P. Exports, Melur, Madurai	Perundurai, Chinna Mallan Palayam,	15/2 (p), 15/3(p), 15/5, 15/6, 15/7 1.01.0 Hect	G.O. (3D) No. 19, Ind (MMB2) Dept dated 14.2.2011.	(28.2.2011-27.2.2031)	Non Operation	78°32'06.7"E 11°19'21.2"N
2	Colour Granite	Mohamed Slarutheen, S/o. Mohaideen Abdulkadar, No. 99/1, Noor Veera 2nd Street, Nungambakkam, Chennai	Perundurai Pandiyampalayam	599/3, 599/4A, 599/4B, 599/5, 600/4 and 600/5 2.10.0 Hect	GO. (3D) No. 4 Industries (MME2) Department dated 17.2.2015	18.3.2015 to 17.3.2035	Operation	N 11^0 23' 13"-N 11^0 23' 18" E 77^0 30' 51" - E 77^0 30' 00"
3	Colour Granite	P.Velmani, S/o.Palani Gounder Narasingapuram (PO) Nethaji Nagar, Attur Taluk Salem District	Perundurai, Singanallur & Pandiyampalayam	108/1, 108/17, 614/1 4.31.0 Hec.	GO 3D No.46/ Ind. MME-2 Dept.dt 15.10.2018.	(16.11.2018 to 15.11.2038)	Operation	N 11^0 22'41.74"-N 11^0 22' 54.83" E 77^0 31'01.64"-E 77^0 31' 07.28"

4	Colour Granite	Tvl.Meenakshi Granites 5, Sri Padmalaya Complex, Madurai Main Road Melur, Madurai District.	Sathyamangalam Karapadi	348/1 (P) 348/2 (P) etc. 8.96.6 Hec.	GO 3D No.18/ Ind. MME-2 Dept.dt 22.3.2018	(23.04.2018 to 22.04.2038)	Operation	N 11^0 21'32.72"- N 11^0 21' 45.72" E 77^0 12'20.98"- E 77^0 12' 38.79"

14. TOTAL GRANITE MINERAL RESERVE AVAILABLE IN THE DISTRICT

Sl. No.	Name of the Mineral	Reserve available as per Mining Plan	Quality / Grade of the Mineral (Sl. No.15)	Uses of Mineral (Sl. No.16)
1.	Black Granite	1263961 Cbm	High Quality with poor recovery	Ornamental
2.	Colour Granite	1519963 Cbm	Low Quality	Ornamental

18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT

There is No Mining Leases (Major Minerals) is in existing in Erode District.

19. DETAILS OF AREA OF WHERE THERE IS A CLUSTER OF MINING LEASES VIZ.NUMBER OF MIING LEASES, LOCATION (LATITUDE AND LONGITUDE)

There is No Cluster of Mining Leases (Major Minerals) available in Erode District.

23. RECLAMATION OF MINED OUT AREA (BEST PRACTICE ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT AS PER RULES AND REGULATION, PROPOSED RECLAMATION PLAN)

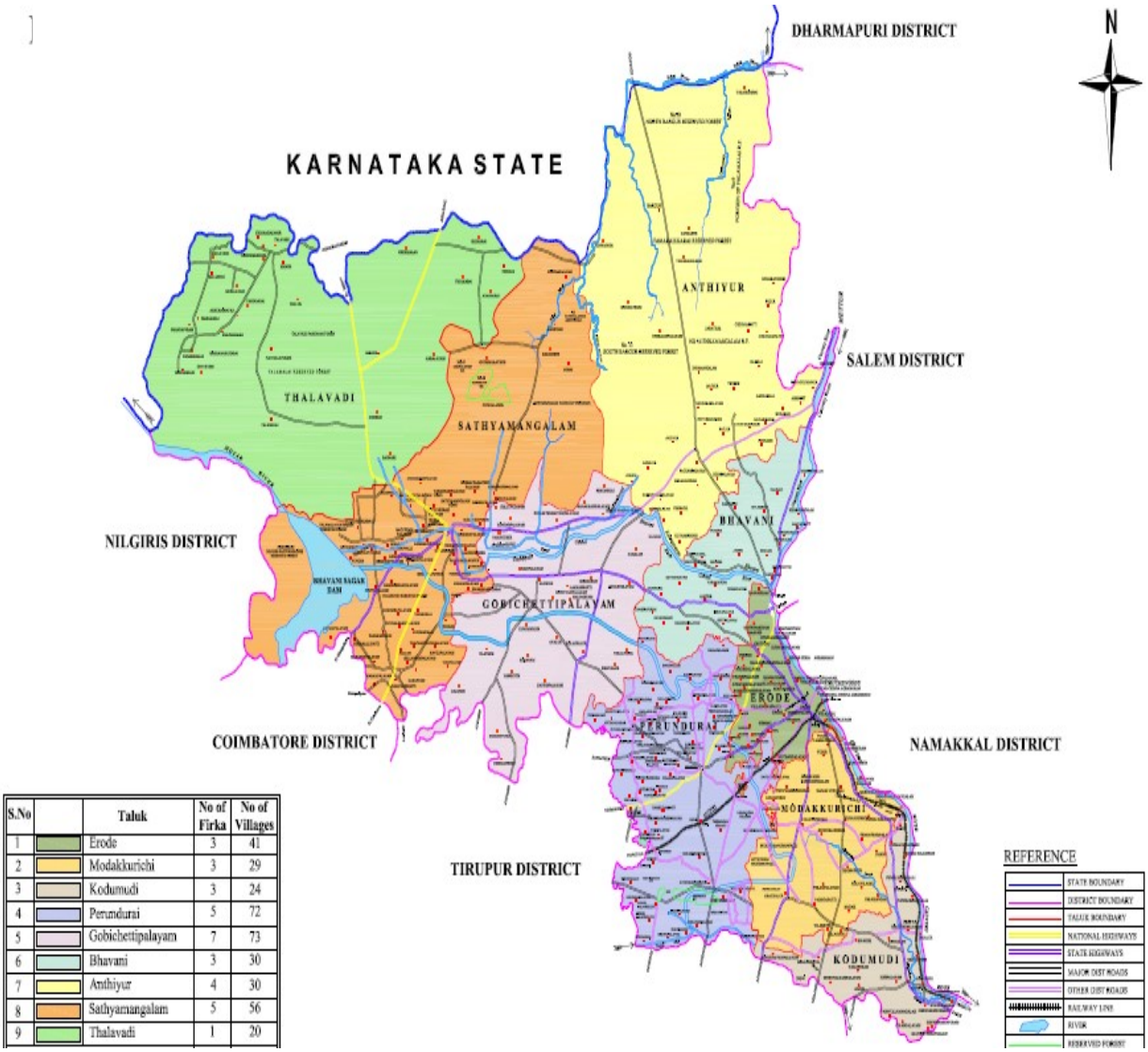
There is no abandoned Mine in the Erode District.

26. PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALRREADY GRANTED IN THE DISTRICT.

Sparse green belt developed by the quarry operators.

DISTRICT MINERAL SURVEY REPORT FOR GRAVEL ERODE DISTRICT

(Prepared as per Gazette Notification S.O.3611 (E) dated 25.07.2018 of Ministry of Environment, Forest and Climate Change)



S.No		Taluk	No of Firka	No of Villages
1		Erode	3	41
2		Modakkurichi	3	29
3		Kodumudi	3	24
4		Perundurai	5	72
5		Gobichettipalayam	7	73
6		Bhavani	3	30
7		Anthiyur	4	30
8		Sathyamangalam	5	56
9		Thalavadi	1	20

May 2019

Deputy Director,
Geology and Mining,
Erode

District Collector,
Erode

DISTRICT SURVEY REPORT FOR GRAVEL
ERODE DISTRICT

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1. INTRODUCTION

The District Mineral Survey Report of Erode District was prepared with the assistance of Geological Survey of India State Unit, Tamil Nadu as per the Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 141 (E) dated 15.01.2016 and SO 190 (E) dated 20.01.2016. The District survey report has been approved by the Chairman DEIAA/ District Collector, Erode on 15.3.2019 and same was uploaded in the Erode District NIC portal. Now the Erode District Mineral Survey report has updated as per Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 3611 (E) dated 25.7.2018. The main purpose of preparation of District Survey Report is to identify the mineral resources and developing the mining activities along with other relevant data of the District.

The Erode District covers an area 5722 sq. KM and falls within the latitude from 10°36' to 11°58' and longitude from 76°49' to 77°58'. It has Nine Taluks (Erode, Kodumudi, Modakurichi, Perundurai, Bhavani, Anthiyur, Nampiyur, Gobichettipalayam Sathyamangalam, Thalavadi) with total population of 2251744 (as per 2011 census).

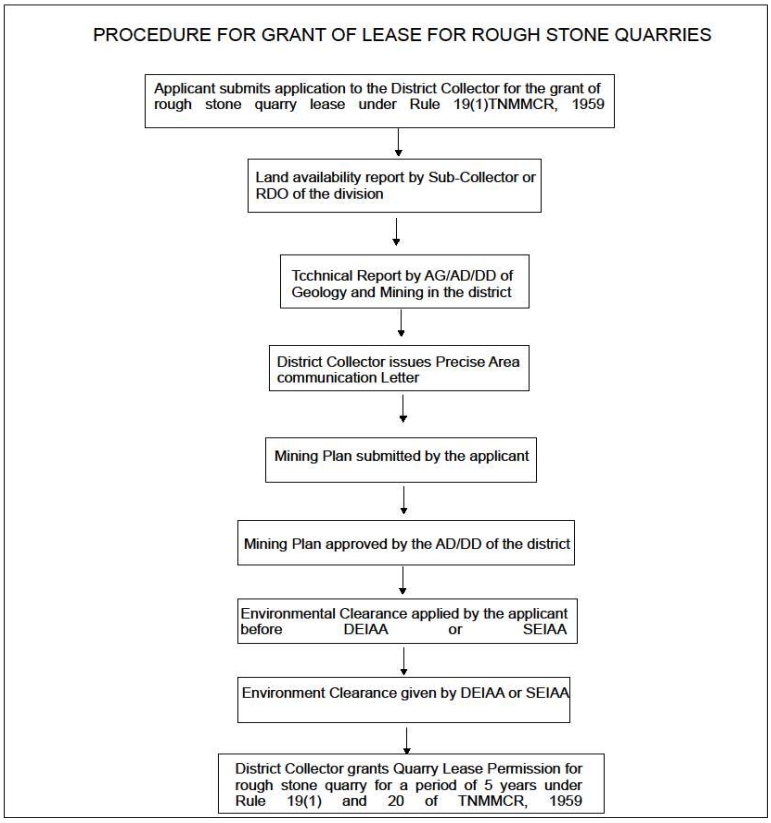
Division	Taluks	Firka's	Villages
Erode	Erode	3	26
	Kodumudi	3	32
	Modakurichi	3	29
	Perundurai	5	72
Gobichettipalayam	Bhavani	3	30
	Anthiyur	4	34
	Gobichettipalayam	7	74
	Sathyamangalam	5	56
	Thalavadi	1	20

Plate No. 1 : District Map

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

The Mining of minor minerals like Quartz, Feldspar, Dimension stone and Gravels are active in the district. Private companies play a major roll in mining activity where as the Government agencies like TAMIN take part in mining dimension stones only. The major minerals like Copper Ore, Chromite, PGE and Gold are reported in the district but they are not in minable quantity and there no any mining activity in those deposits.

The office of the Deputy Director, Department of Geology and Mining is functioning under the control of District Collector, Erode. The Deputy Director, Geology and Mining is assisting the District Collector in the Mineral Administration works.



3. GENERAL PROFILE OF THE DISTRICT

Erode district is an inland district, bordered on the north by Karnataka State, east by Salem, Namakkal and Karur districts, west by Coimbatore district and south by Tripur districts of Tamilnadu, covering an area of 5722 Sq.km. the headquarters of the district is Erode and the district is bounded by latitude 10°36'N to 11°58'N and Longitude 76°49'E to 77°58'E. It includes ten taluks viz. Sathyamangalam, Talavadi, Gobichettipalayam, Bhavani, Anthiyur, Nampiyur, Erode, Modakurichi, Kodumudi and Perundurai (Plate-01).

Population (2011)	
• Total	2,251,744
• Density	397/km^2 (1,030/sq mi)
Time zone	IST (UTC+5:30)
PIN	638***
Lok Sabha seats	3
Vidhan Sabha seats	8
Central location:	11°15′N 77°19′E
Largest city	Erode
Sex ratio	Male-51%/Female-49% ♂/♀
Literacy	72.96%
Precipitation	700 millimetres (28 in)
Avg. summer temperature	35 °C (95 °F)
Avg. winter temperature	18 °C (64 °F)
Total Road length	3100 km
National Highways	60.400 km
State Highways	322.893 km
Corporation and Municipalities Road	924.736 km
Town Panchayat Road	1490.583 km
Major District Road	302.200
Vehicle registration	TN 33 (Erode East)
	TN 36 (Gobichettipalayam)
	TN 56 (Perundurai)
	TN 86 (Erode West) [1]
Website	www.erode.tn.nic.in

Table.1- General Data-Erode District

CLIMATE AND SOIL

Dry Climate prevails in the Eastern part of this District and the Western part has a semi dry climate. The Soil varies from place to place. The Soil found in this district is mostly Red loam, Red sandy soil which is favourable for the crops like Paddy, Groundnut, Sugarcane, Turmeric, Tobacco, Maize, Tapioca etc. The ground water level in this district varies from 15 feet to 50 feet in Wet area, 50 feet to 110 feet in dry area.

EDUCATION

There are 865 Primary Schools, 314 Middle Schools, 101 High Schools, 133 Higher Secondary School and 8 Teacher Training Institutes are in the district. In addition, there are 19 Arts and Science Colleges, 13 Engineering Colleges, 1 Medical College, 12 Polytechnics with 12 Industrial Training Institutes are rendering Education facility in this District.

4. GEOLOGY OF THE DISTRICT

4.1. AN OUTLINE ON GEOLOGY OF TAMILNADU

Crystalline rocks of Archaean to late Proterozoic age occupy over 80% of the area of the state of Tamilnadu, while the rest is covered by Phanerozoic sedimentary rocks mainly along the coastal belt and in a few inland River valleys. The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their Migmatitic derivatives, Supracrustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio-Pliocene) and sediments of Quaternary and Recent age. Geological map of Tamilnadu is given below (Plate 2.)

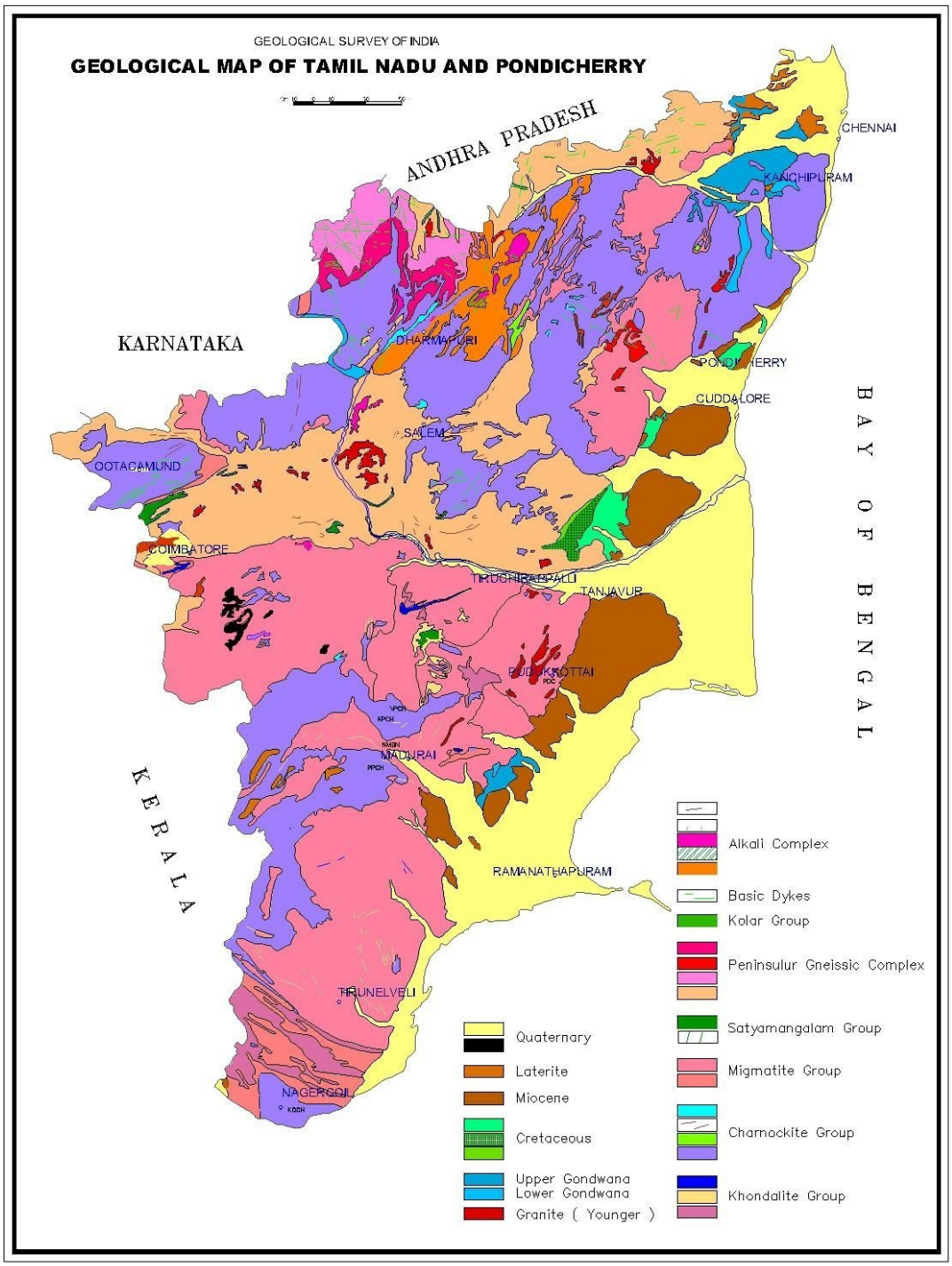


Plate 2. Geological map of Tamilnadu.

4.2. GEOLOGY OF ERODE DISTRICT

The rock types exposed in the district can be broadly grouped as 1) Granulite group of rocks 2) Migmatite Complex 3) Sathyamangalam Schist Complex 4) Peninsular Gneissic Complex 5) Alkali Complex 6) Acid Intrusives and 7) Quaternary Alluvium.

The Granulite group of rocks comprise of Calc Granulite, Quartzite of Khondalite group, Charnockite, Pyroxene Granulite, Pyroxenite of Charnockite group, Migmatite gneiss, and Metagabbro. Charnockite occurs as a major rock type in the northern part and as thin bands and enclaves in the southern part of the district. Quartzite and Calc Granulite, Pyroxene Granulite, Migmatite Gneiss occurs as thin bands and enclaves.

Hornblende gneiss, Gametiferous - Quartzo Feldspathic gneiss and granite are the important rock types of Migmatite Complex, of which, hornblende gneiss occupies the major part of the District, particularly in southern part and northwesten part. Garnetiferous quartzofeldspathic gneiss is located near Bhavani Sagar reservoir and north of Anthiyur.

The Sathyamangalam Group includes fuchsite Quanrtzite, schistose-quartzite, sillimanite-quartzite, ferruginous Quanrtzite, talc-tremolite / Actinolite schist / hornblende schist, Amphibolite and Gabbroanorthosite and Pyroxenite. Schistose rocks occur as enclaves near Sathyamangalam, west of Chennimalai. Quartzite occurs as thin beds near Kavilanattam, west of Chennimalai, Amphibolite occur as enclaves near Sathyamangalam, Gobi and around Perudnurai. A north site, Pyroxenite occurs as WSW-ENE trending bands in fissile hornblende gneiss of PGC (Bhavani Group) which occupies the ventral part of the district.

Granite bodies are located in the central part of the district around Punjai Puliyampatti and west of Erode. Quaternary fluvial deposits are restricted to the river beds of Cauveri, Noyyil, Amaravathi and Bhavani rivers.

The plains show a large number of Ultramafic bodies along the E-W Bhavani lineament. WNW-ESE to NW-SE trending dykes is a common feature. The Cauveri River which has a NNE-SSW trending straight course between Mettur and Bhavani is considered to represent a major lineament, probably a deep seated fault zone.

The general E-W to ENE-WSW course of the Bhavani River flowing at the foot of the hills indicates a major lineament, probably a deep seated fault zone.

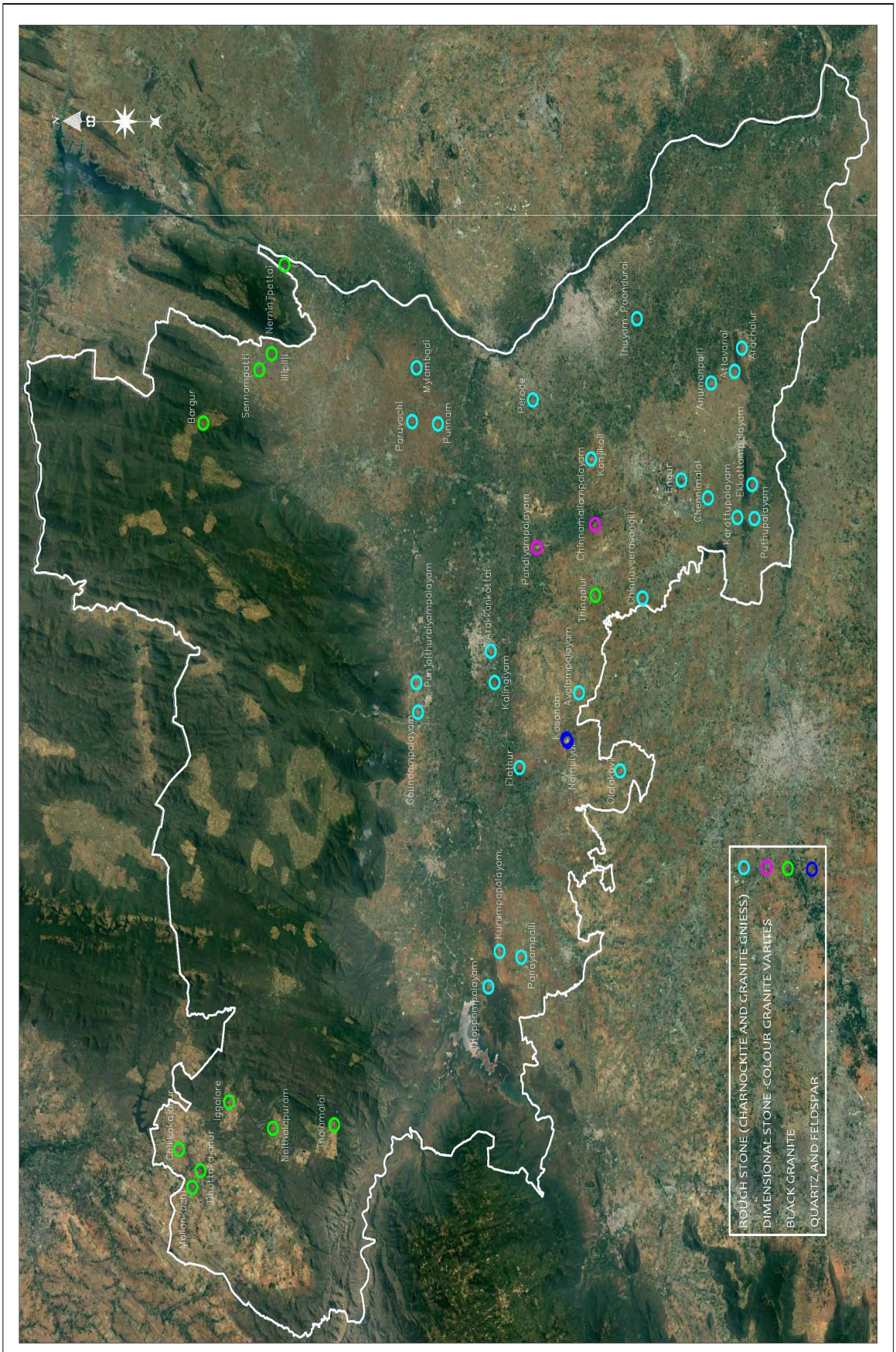
The Moyyar - Bhavani, Noyyil - Cauveri lineaments belong to the NNW-SSE to E-W system. The Mettur fault is a NNE-SSW system. The N-S to NNE-SSW trending dykes show clear truncation against the E-W Bhavani lineament.

4.3. STRATIGRAPHY OF THE AREA

Lithology	Group	Age
Soil Alluvium		Holocene
Laterite		
Kankar		
Granite	Acid intrusives	Proterozoic
Dolerite dyke / Meta dolerite / Basic intrusives		
Nephelene syenite Corrundum syenite	Alkaline complex	Proterozoic to Archaen
Pink migmatite	Penninsular gneissic complex (Bhavani)	
Fisshile Hornblende biotite gneiss		
Gabbro, anorthosite, pyroxenite	Sathyamangalam Group	
Amphibolite		
Talc - tremolite / Acitionite schist / Hornblende schist		
Fuchsite quartzite, schistose quartzite, Sillimanite quartzite, ferruginous quartzite		
Hornblende biotite gneiss	Migmatite Complex	Archaean
Gametiferous - Quartzofedspathic gneiss		
Metagabbo phrozenite	Charnockite Group	
Magnetite quartzite		
Pyroxene granulite		
Charnockite		
Calc granulite	Khondalite Group	
Quartzite Anorthosite located in well cuttings		

4.4. MINERAL OCCURRENCES IN ERODE DISTRICT

Erode District has limited occurrence of major minerals. The other available Minor Minerals are Quartz, Feldspar, Granite varieties and other common use minor minerals like rough stone, gravel and Silt. The district is endowed with the following mineral occurrences - gypsum reported from north, west of Bhavani, Gold occurrences reported from Bensimali, Beryl is reported from west of Bhavani. Mica is reported from east and southwest of Anthiyur. Gemstones are reported in Chennimalai area, copper ore is reported from east of Gobichettipalayam and in quarry section of Mylambalayam village. Chromite mineral deposits are reported from Bhavanisagar and Karappadi area. Even though the district is blessed with a list of mineral deposited from gold to precious stone, copper to PGE group of mineral, only quartz, feldspar and dimension stones are quarried in the district.



Plat 3. Locations of quarries visited during the field work.

6. LAND UTILIZATION PATTERN IN THE DISTRICT

Erode district is fifth largest district in the state covering an area of 5722 Sq.km. the land use pattern of the district is shown in Plate No-5.

Land Type	Area (in Hec.)
Forest	227675.24
Agriculture	266012.1
Horticulture	13578
Mining	145.62

Table.2 : Land Utilization Pattern-Erode District

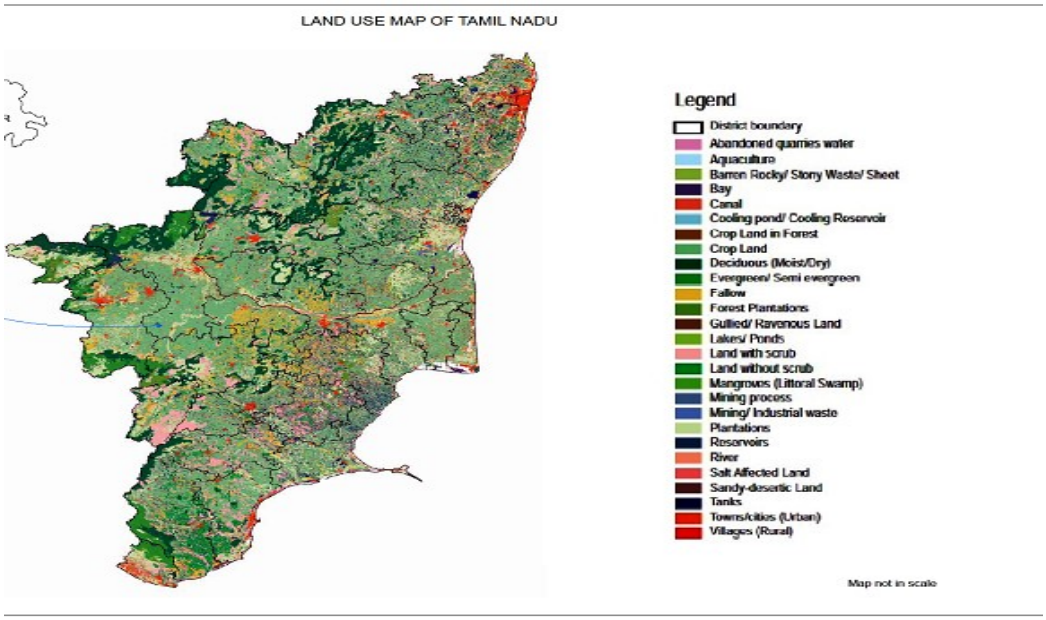


Plate 4 : Land use map of Tamil Nadu

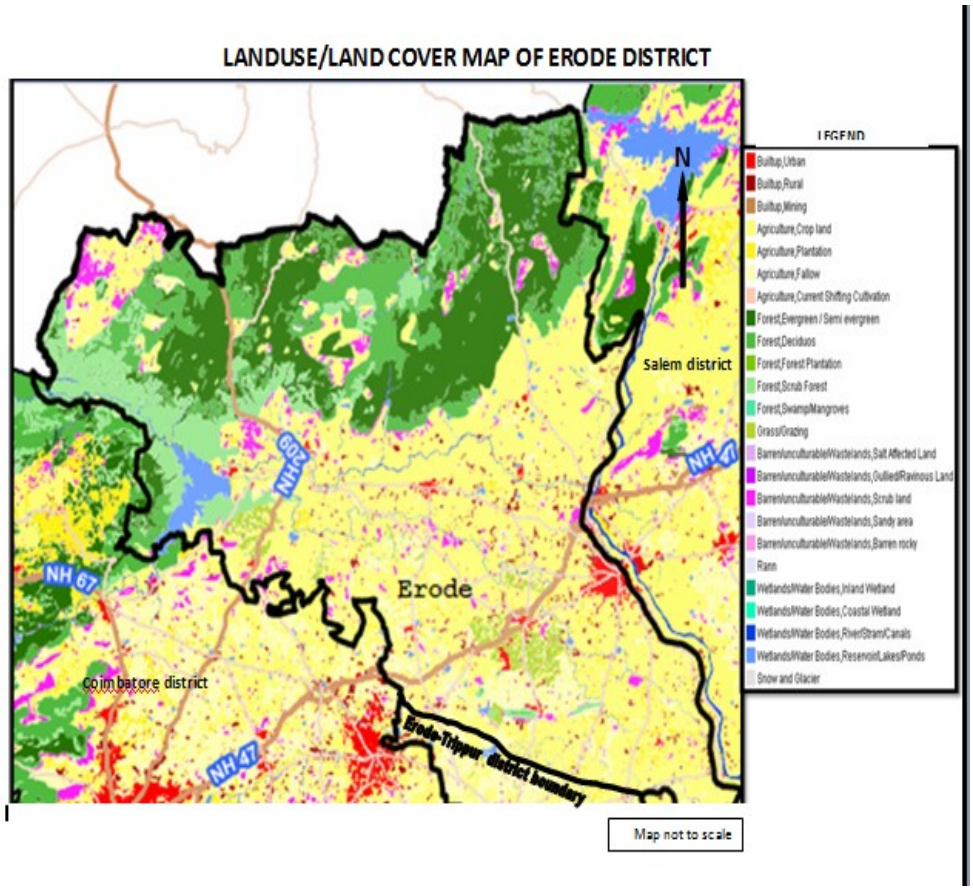


Plate 5 : Land use map of Erode District..

9. Details of mining leases in the District

Sl. No	Name of the Mineral	Name of the lessee	Address and Contact No.of the lessee	Mining lease grant order No. & date	Area of Mining lease (Ha)	Period of Mining lease (Initial)		Period of Mining Lease 1st /2nd renewal		Date of commencement of Mining operation	Status (Working/ Non working/ Temp. working for dispatch etc)	Captive/Non Captive	Obtained Environmental Clearance (Yes/No.) If yes, letter No. with date of grant of EC	Location of the Mining lease (Latitude and Longitude)	Method of mining (opencast/ Underground)
						From	To	From	To						
… NIL …															

10. DETAILS OF GRAVEL SEIGNIORAGE FEE / REVENUE RECEIVED IN THE LAST THREE YEARS (2016-17 TO 2018-19)

Gravel revenue collection for the last three years is given below:

Sl. No	Name of the mineral	Year	Revenue
1	Gravel	2016-17	6441210
		2017-18	5488970
		2018-19	4911318

11 and 17. DETAILS OF PRODUCTION OF GRAVEL IN LAST THREE YEARS AND DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS

1.	Gravel	2016-17	257198 cbm
		2017-18	206939 cbm
		2018-19	105956 cbm

12. MINERAL MAP OF THE DISTRICT

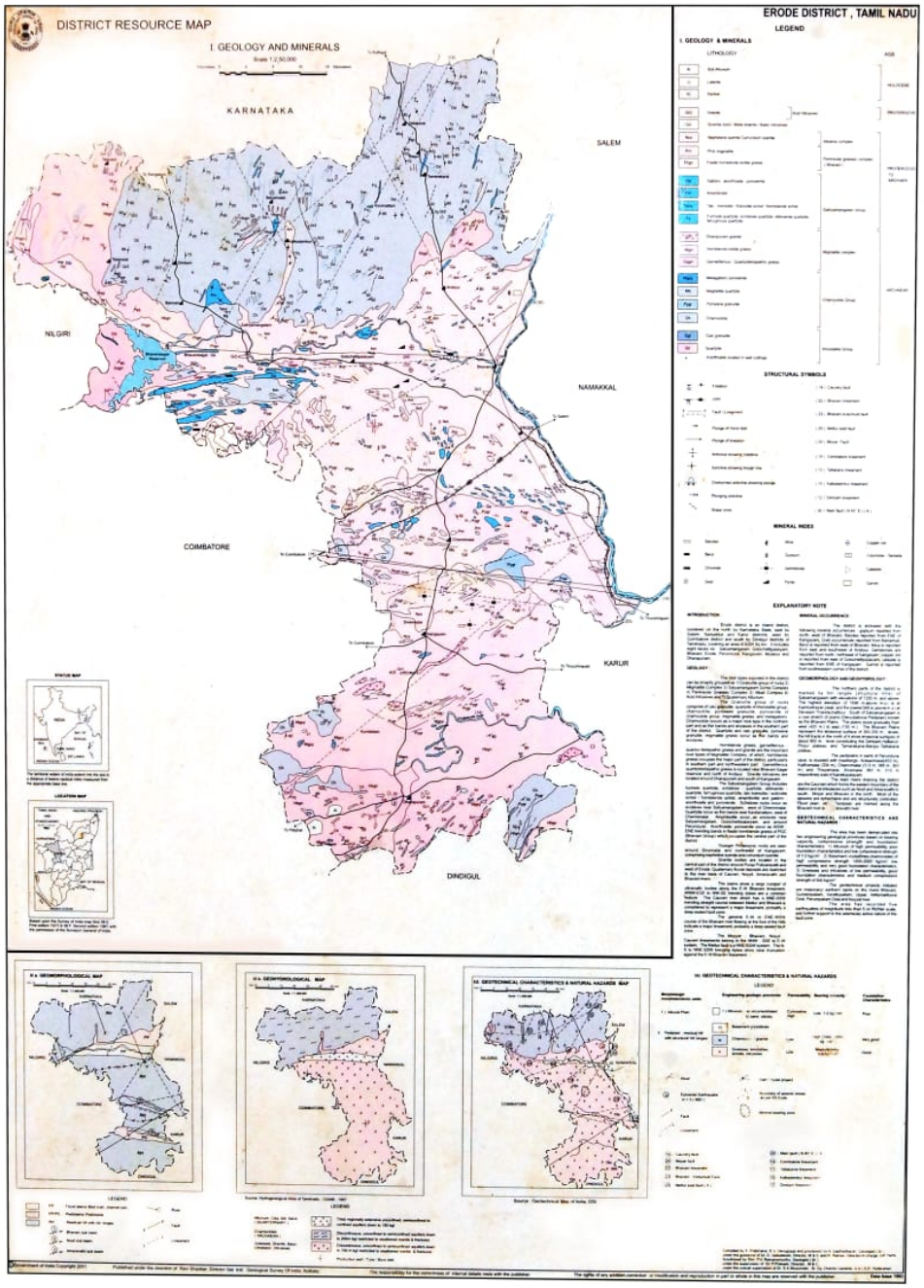


Plate 6 : Mineral Map of the District

13. LIST OF LETTER OF INTENT (LOI) HOLDERS IN THE DISTRICT ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT

The details of Gravel Quarry Leases in Erode District is given below:

DETAILS OF EXISTING GRAVEL LEASES								
S. No	**Mineral**	**Name & Address of lessee**	**Village and Taluk**	**S.F. Nos. and extent (in hect.)**	**Date of grant of lease (original and subsequent renewals)**	**Period (Years)**	**Status working, Non working**	**Location of the Mining Lease (Latitude & Longitude)**
1	Gravel	Tmt. L. Bakkiya-lakshmi, W/o. Loganathan, Vinayagapuram, Pallankattu Thottam, Poosari Thottam, Sarkar Periyapalayam, Uthukuli Taluk, Tirupur District	Perundurai, Koothampalayam	186/1, 2B, 187/1 2.02.50 Hect	R.C. 320802/2016/X-1 Dt 7.9.2017	(7.9.2017 to 6.9.2019)	Operation	N 11^0 08'42.39"- N 11^0 08' 47.12" E 77^0 30' 14.65"- E 77^0 30' 22.24"
2	Gravel	Thiru. S. Jayaprakash, S/o. K. Samiappan, 73, Bharathi Nagar, Goundampalayam, Covai Taluk, Covai District	Nampiyur, Kosanam	856/1 to 8 2.46.45 Hect	R.C. 16157/2017/X1 Dt 7.9.2017	(7.9.2017 to 6.9.2019)	Non Operation	N 11^0 20' 57.66"- N 11^0 21' 05.99" E 77^0 20' 58.79"- E 77^0 21' 04.85"
3.	Gravel	S.Ganesan S/o.Sengoda Gounder No.45, Muniappan Koil Thottam, Nagalur (PO) Anthiyur Tk, Erode Dt.	Anthiyur Anthiyur "B"	1364 2.22.0 Hec.	R.C.No.18179 /2016 / x1 dated 18.04.2018	(18.4.2018 to 17.04.2020)	Non Operation	N 11^0 33' 58.27"- N 11^0 34' 06.67" E 77^0 33' 24.32"- E 77^0 33' 30.81"

14. TOTAL GRAVEL MINERAL RESERVE AVAILABLE IN THE DISTRICT

Sl. No.	Name of the Mineral	Reserve available as per Mining Plan	Quality / Grade of the Mineral (Sl. No.15)	Uses of Mineral (Sl. No.16)
1.	Gravel	2032982 Cbm	-	Filling Purposes

18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT

There is No Mining Leases (Major Minerals) is in existing in Erode District.

19. DETAILS OF AREA OF WHERE THERE IS A CLUSTER OF MINING LEASES VIZ.NUMBER OF MIING LEASES, LOCATION (LATITUDE AND LONGITUDE)

There is No Cluster of Mining Leases (Major Minerals) available in Erode District.

23. RECLAMATION OF MINED OUT AREA (BEST PRACTICE ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT AS PER RULES AND REGULATION, PROPOSED RECLAMATION PLAN)

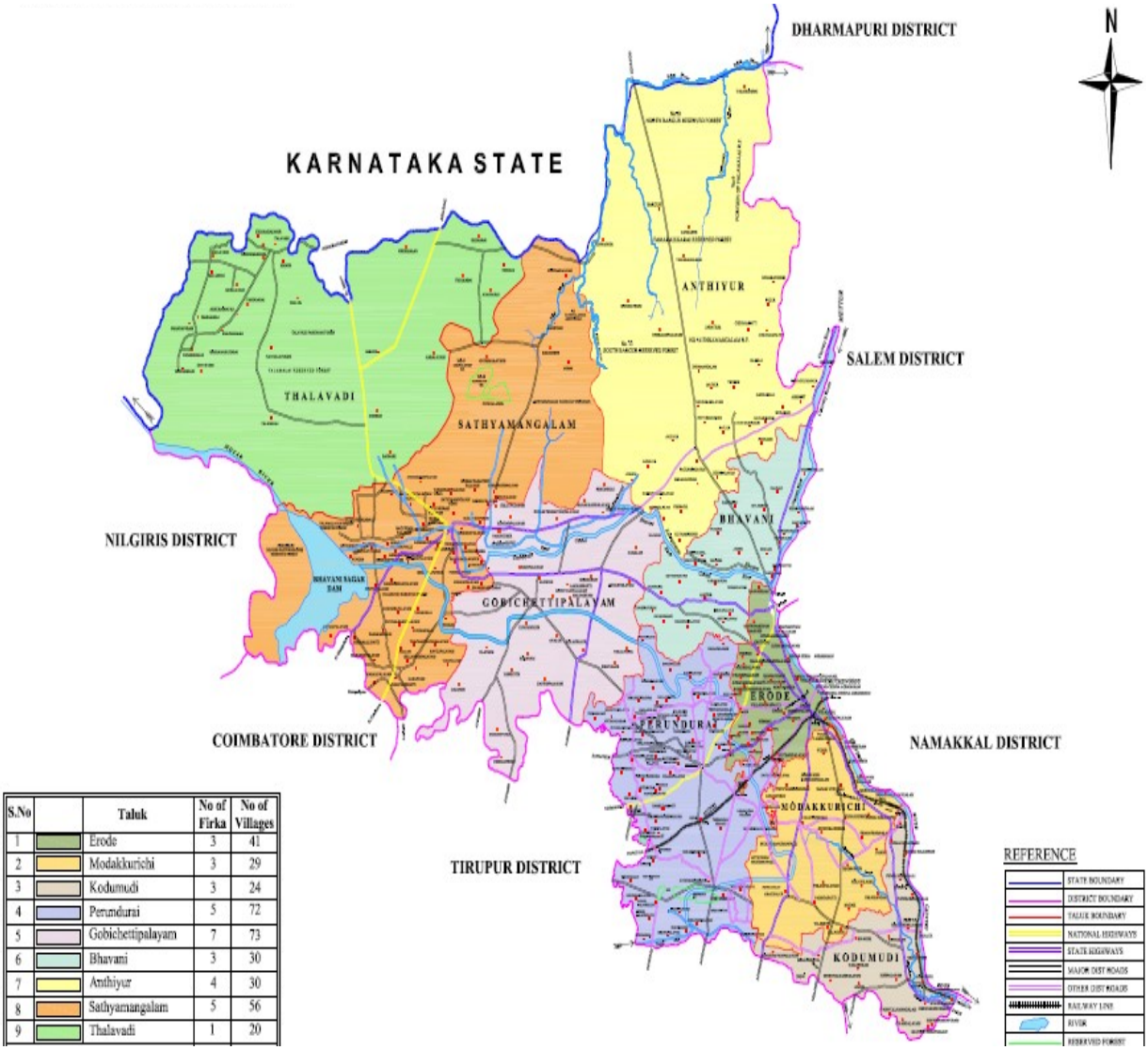
There is no abandoned Mine in the Erode District.

26. PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALRREADY GRANTED IN THE DISTRICT.

Sparse green belt developed by the quarry operators.

DISTRICT MINERAL SURVEY REPORT FOR QUARTZ AND FELDSPAR ERODE DISTRICT

(Prepared as per Gazette Notification S.O.3611 (E) dated 25.07.2018 of Ministry of Environment, Forest and Climate Change)



S.No		Taluk	No of Firka	No of Villages
1		Erode	3	41
2		Modakkurichi	3	29
3		Kodumudi	3	24
4		Perundurai	5	72
5		Gobichettipalayam	7	73
6		Bhavani	3	30
7		Anthiyur	4	30
8		Sathyamangalam	5	56
9		Thalavadi	1	20

May 2019

Deputy Director,
Geology and Mining,
Erode

District Collector,
Erode

DISTRICT SURVEY REPORT FOR QUARTZ AND FELDSPAR ERODE DISTRICT

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1. INTRODUCTION

The District Mineral Survey Report of Erode District was prepared with the assistance of Geological Survey of India State Unit, Tamil Nadu as per the Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 141 (E) dated 15.01.2016 and SO 190 (E) dated 20.01.2016. The District survey report has been approved by the Chairman DEIAA/ District Collector, Erode on 15.3.2019 and same was uploaded in the Erode District NIC portal. Now the Erode District Mineral Survey report has updated as per Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 3611 (E) dated 25.7.2018. The main purpose of preparation of District Survey Report is to identify the mineral resources and developing the mining activities along with other relevant data of the District.

The Erode District covers an area 5722 sq. KM and falls within the latitude from 10°36' to 11°58' and longitude from 76°49' to 77°58'. It has Nine Taluks (Erode, Kodumudi, Modakurichi, Perundurai, Bhavani, Anthiyur, Nampiyur, Gobichettipalayam Sathyamangalam, Thalavadi) with total population of 2251744 (as per 2011 census).

Division	Taluks	Firka's	Villages
Erode	Erode	3	26
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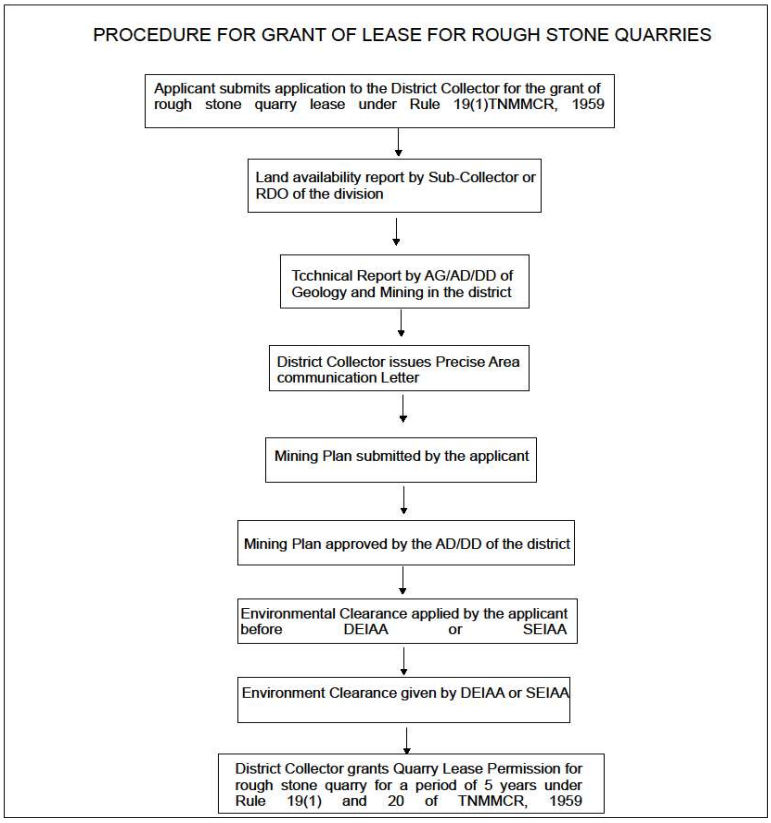
Plate No. 1 : District Map

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

The Mining of minor minerals like Quartz, Feldspar, Dimension stone and Gravels are active in the district. Private companies play a major roll in mining activity where as the Government agencies like TAMIN take part in mining dimension stones only. The major minerals like Copper Ore, Chromite, PGE and Gold are reported in the district but they are not in minable quantity and there no any mining activity in those deposits.

The office of the Deputy Director, Department of Geology and Mining is functioning under the control of District Collector, Erode. The Deputy Director, Geology and Mining is assisting the District Collector in the Mineral Administration works.



3. GENERAL PROFILE OF THE DISTRICT

Erode district is an inland district, bordered on the north by Karnataka State, east by Salem, Namakkal and Karur districts, west by Coimbatore district and south by Tripur districts of Tamilnadu, covering an area of 5722 Sq.km. the headquarters of the district is Erode and the district is bounded by latitude 10°36'N to 11°58'N and Longitude 76°49'E to 77°58'E. It includes ten taluks viz. Sathyamangalam, Talavadi, Gobichettipalayam, Bhavani, Anthiyur, Nampiyur, Erode, Modakurichi, Kodumudi and Perundurai (Plate-01).

Population (2011)	
• Total	2,251,744
• Density	397/km^2 (1,030/sq mi)
Time zone	IST (UTC+5:30)
PIN	638***
Lok Sabha seats	3
Vidhan Sabha seats	8
Central location:	11°15′N 77°19′E
Largest city	Erode
Sex ratio	Male-51%/Female-49% ♂/♀
Literacy	72.96%
Precipitation	700 millimetres (28 in)
Avg. summer temperature	35 °C (95 °F)
Avg. winter temperature	18 °C (64 °F)
Total Road length	3100 km
National Highways	60.400 km
State Highways	322.893 km
Corporation and Municipalities Road	924.736 km
Town Panchayat Road	1490.583 km
Major District Road	302.200
Vehicle registration	TN 33 (Erode East)
	TN 36 (Gobichettipalayam)
	TN 56 (Perundurai)
	TN 86 (Erode West) [1]
Website	www.erode.tn.nic.in

Table.1- General Data-Erode District

CLIMATE AND SOIL

Dry Climate prevails in the Eastern part of this District and the Western part has a semi dry climate. The Soil varies from place to place. The Soil found in this district is mostly Red loam, Red sandy soil which is favourable for the crops like Paddy, Groundnut, Sugarcane, Turmeric, Tobacco, Maize, Tapioca etc. The ground water level in this district varies from 15 feet to 50 feet in Wet area, 50 feet to 110 feet in dry area.

EDUCATION

There are 865 Primary Schools, 314 Middle Schools, 101 High Schools, 133 Higher Secondary School and 8 Teacher Training Institutes are in the district. In addition, there are 19 Arts and Science Colleges, 13 Engineering Colleges, 1 Medical College, 12 Polytechnics with 12 Industrial Training Institutes are rendering Education facility in this District.

4. GEOLOGY OF THE DISTRICT

4.1. AN OUTLINE ON GEOLOGY OF TAMILNADU

Crystalline rocks of Archaean to late Proterozoic age occupy over 80% of the area of the state of Tamilnadu, while the rest is covered by Phanerozoic sedimentary rocks mainly along the coastal belt and in a few inland River valleys. The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their Migmatitic derivatives, Supracrustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio-Pliocene) and sediments of Quaternary and Recent age. Geological map of Tamilnadu is given below (Plate 2.)

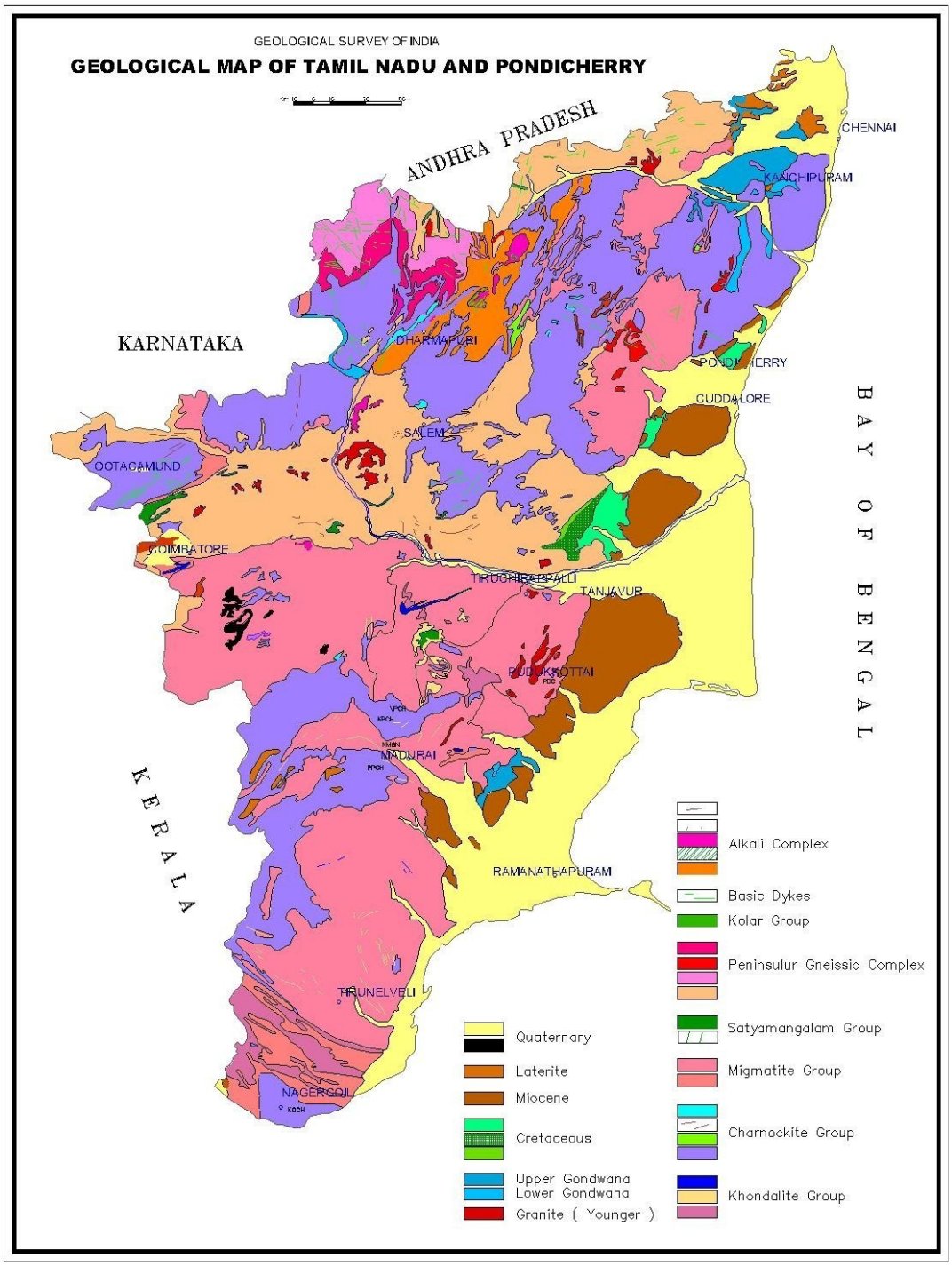


Plate 2. Geological map of Tamilnadu.

4.2. GEOLOGY OF ERODE DISTRICT

The rock types exposed in the district can be broadly grouped as 1) Granulite group of rocks 2) Migmatite Complex 3) Sathyamangalam Schist Complex 4) Peninsular Gneissic Complex 5) Alkali Complex 6) Acid Intrusives and 7) Quaternary Alluvium.

The Granulite group of rocks comprise of Calc Granulite, Quartzite of Khondalite group, Charnockite, Pyroxene Granulite, Pyroxenite of Charnockite group, Migmatite gneiss, and Metagabbro. Charnockite occurs as a major rock type in the northern part and as thin bands and enclaves in the southern part of the district. Quartzite and Calc Granulite, Pyroxene Granulite, Migmatite Gneiss occurs as thin bands and enclaves.

Hornblende gneiss, Gametiferous - Quartzo Feldspathic gneiss and granite are the important rock types of Migmatite Complex, of which, hornblende gneiss occupies the major part of the District, particularly in southern part and northwesten part. Garnetiferous quartzofeldspathic gneiss is located near Bhavani Sagar reservoir and north of Anthiyur.

The Sathyamangalam Group includes fuchsite Quanrtzite, schistose-quartzite, sillimanite-quartzite, ferruginous Quanrtzite, talc-tremolite / Actinolite schist / hornblende schist, Amphibolite and Gabbroanorthosite and Pyroxenite. Schistose rocks occur as enclaves near Sathyamangalam, west of Chennimalai. Quartzite occurs as thin beds near Kavilanattam, west of Chennimalai, Amphibolite occur as enclaves near Sathyamangalam, Gobi and around Perudnurai. A north site, Pyroxenite occurs as WSW-ENE trending bands in fissile hornblende gneiss of PGC (Bhavani Group) which occupies the ventral part of the district.

Granite bodies are located in the central part of the district around Punjai Puliyampatti and west of Erode. Quaternary fluvial deposits are restricted to the river beds of Cauveri, Noyyil, Amaravathi and Bhavani rivers.

The plains show a large number of Ultramafic bodies along the E-W Bhavani lineament. WNW-ESE to NW-SE trending dykes is a common feature. The Cauveri River which has a NNE-SSW trending straight course between Mettur and Bhavani is considered to represent a major lineament, probably a deep seated fault zone.

The general E-W to ENE-WSW course of the Bhavani River flowing at the foot of the hills indicates a major lineament, probably a deep seated fault zone.

The Moyyar - Bhavani, Noyyil - Cauveri lineaments belong to the NNW-SSE to E-W system. The Mettur fault is a NNE-SSW system. The N-S to NNE-SSW trending dykes show clear truncation against the E-W Bhavani lineament.

4.3. STRATIGRAPHY OF THE AREA

Lithology	Group	Age
Soil Alluvium		Holocene
Laterite		
Kankar		
Granite	Acid intrusives	Proterozoic
Dolerite dyke / Meta dolerite / Basic intrusives		
Nephelene syenite Corrundum syenite	Alkaline complex	Proterozoic to Archaen
Pink migmatite	Penninsular gneissic complex (Bhavani)	
Fisshile Hornblende biotite gneiss		
Gabbro, anorthosite, pyroxenite	Sathyamangalam Group	
Amphibolite		
Talc - tremolite / Acitionite schist / Hornblende schist		
Fuchsite quartzite, schistose quartzite, Sillimanite quartzite, ferruginous quartzite		
Hornblende biotite gneiss	Migmatite Complex	Archaean
Gametiferous - Quartzofedspathic gneiss		
Metagabbo phrozenite	Charnockite Group	
Magnetite quartzite		
Pyroxene granulite		
Charnockite		
Calc granulite	Khondalite Group	
Quartzite Anorthosite located in well cuttings		

4.4. MINERAL OCCURRENCES IN ERODE DISTRICT

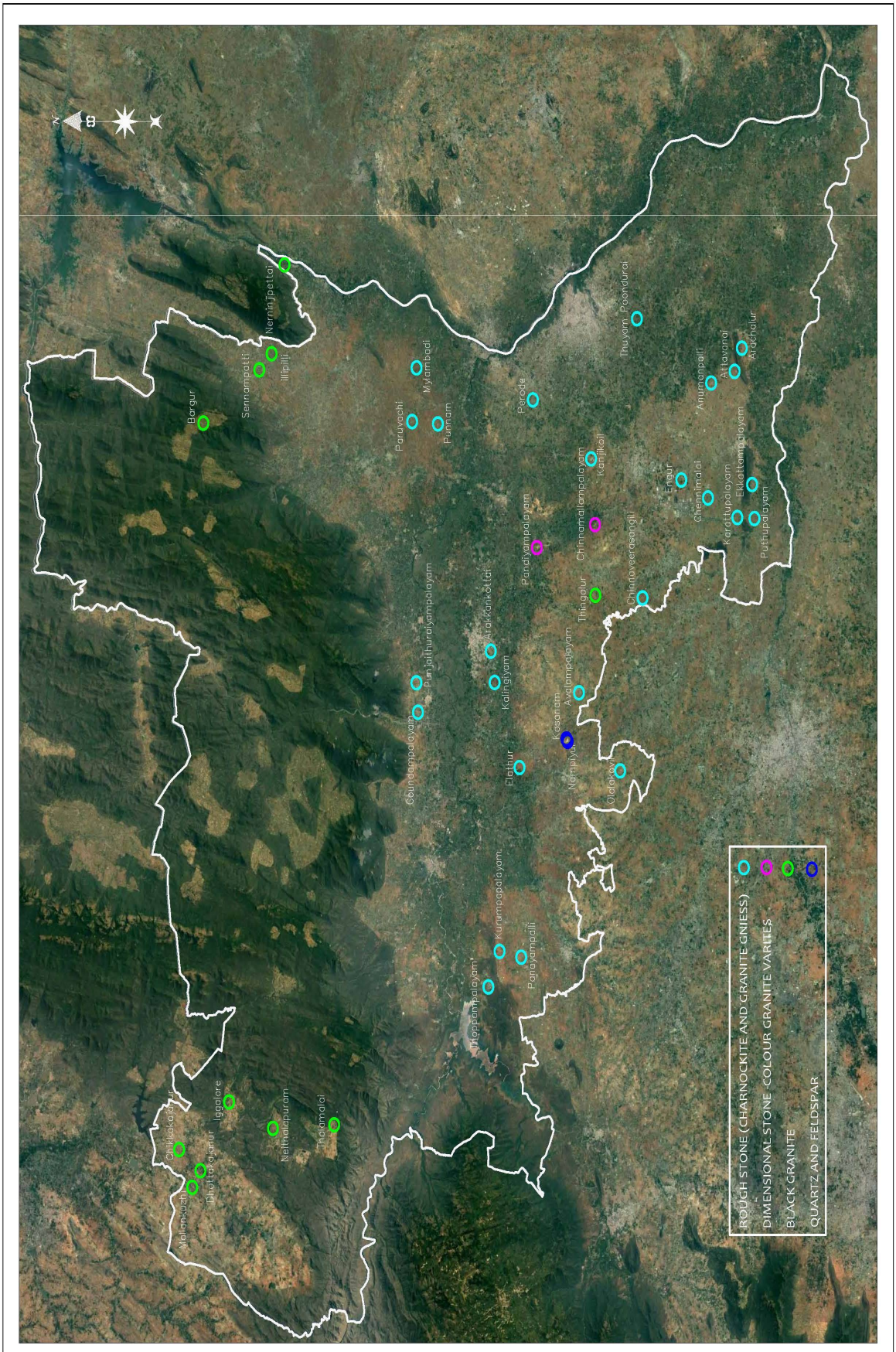
Erode District has limited occurrence of major minerals. The other available Minor Minerals are Quartz, Feldspar, Granite varieties and other common use minor minerals like rough stone, gravel and Silt. The district is endowed with the following mineral occurrences - gypsum reported from north, west of Bhavani, Gold occurrences reported from Bensimali, Beryl is reported from west of Bhavani. Mica is reported from east and southwest of Anthiyur. Gemstones are reported in Chennimalai area, copper ore is reported from east of Gobichettipalayam and in quarry section of Mylambalayam village. Chromite mineral deposits are reported from Bhavanisagar and Karappadi area. Even though the district is blessed with a list of mineral deposited from gold to precious stone, copper to PGE group of mineral, only quartz, feldspar and dimension stones are quarried in the district. The details of economically important mineral deposit are as follows:

4.4.1. QUARTZ AND FELDSPAR

Quartz and feldspar of export quality are mined in the district. A total of 10,205 Metric tones of Quartz and feldspar were mine in last three year from Kosanam village near Gopichetipalayam which is of B-grade deposit. The deposited are part of acidic intrusive of Proterozoic age. The following table showing the details of Quartz and Feldspar deposited areas:

Name of the Villages	Latitude	Longitude	Tentative area of the block in Sq.Km
Kosanam	11° 21' 16.5656" N	77° 21' 02.7336" E	19.3
Nampiyur	11° 21' 11.8077" N	77° 20' 55.6065" E	30.4

Plate 3. Field photograph of Quartz and Feldspar quarry located in Kosanam village, Nampiyur Taluk of Erode district.



Plat 4. Locations of quarries visited during the field work.

6. LAND UTILIZATION PATTERN IN THE DISTRICT

Erode district is fifth largest district in the state covering an area of 5722 Sq.km. the land use pattern of the district is shown in Plate No-6

Land Type	Area (in Hec.)
Forest	227675.24
Agriculture	266012.1
Horticulture	13578
Mining	145.62

Table.2 : Land Utilization Pattern-Erode District

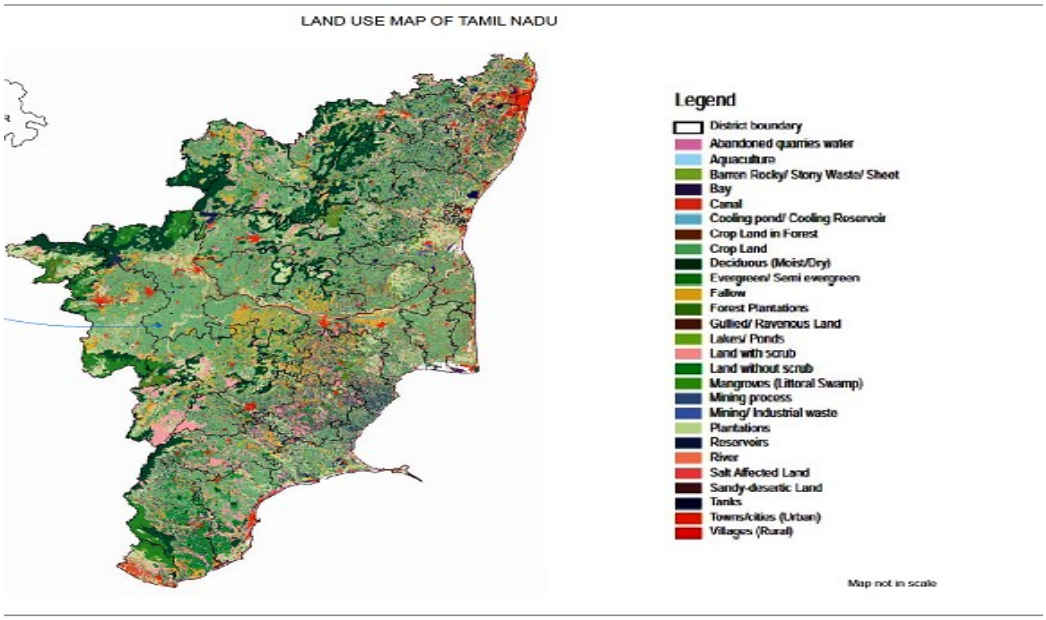


Plate 5 : Land use map of Tamil Nadu

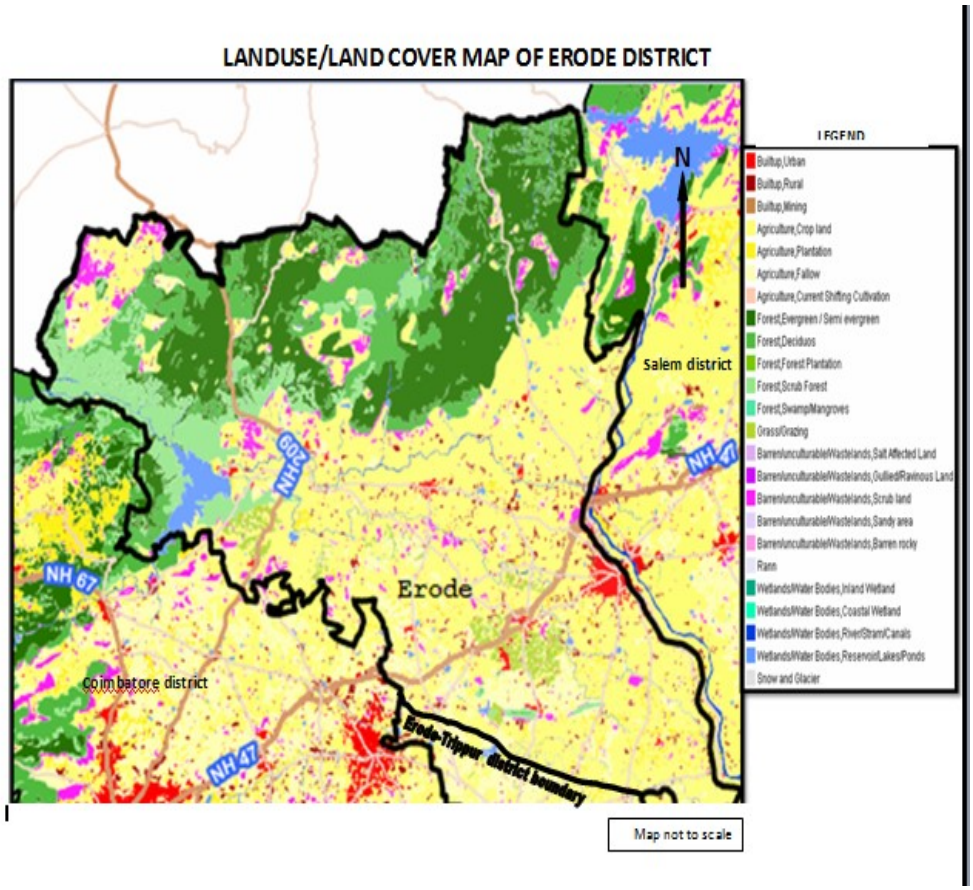


Plate 6 : Land use map of Erode District.

9. Details of mining leases in the District

Sl. No	Name of the Mineral	Name of the lessee	Address and Contact No.of the lessee	Mining lease grant order No. & date	Area of Mining lease (Ha)	Period of Mining lease (Initial)		Period of Mining Lease 1st /2nd renewal		Date of commencement of Mining operation	Status (Working/ Non working/ Temp. working for dispatch etc)	Captive/Non Captive	Obtained Environmental Clearance (Yes/No.) If yes, letter No. with date of grant of EC	Location of the Mining lease (Latitude and Longitude)	Method of mining (opencast/ Underground)
						From	To	From	To						
… NIL …															

10. DETAILS OF FELDSPAR SEIGNIORAGE FEE / REVENUE RECEIVED IN THE LAST THREE YEARS (2016-17 TO 2018-19)

Feldspar revenue collection for the last three years is given below:

Sl. No	Name of the mineral	Year	Revenue
1.	Quartz and Feldspar	2016-17	550233
		2017-18	…
		2018-19	2829840

11 and 17. DETAILS OF PRODUCTION OF QUARTZ AND FELDSPAR IN LAST THREE YEARS AND DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS

1.	Quartz and Feldspar	2016-17	5200 MT
		2017-18	..
		2018-19	25000 MT

12. MINERAL MAP OF THE DISTRICT

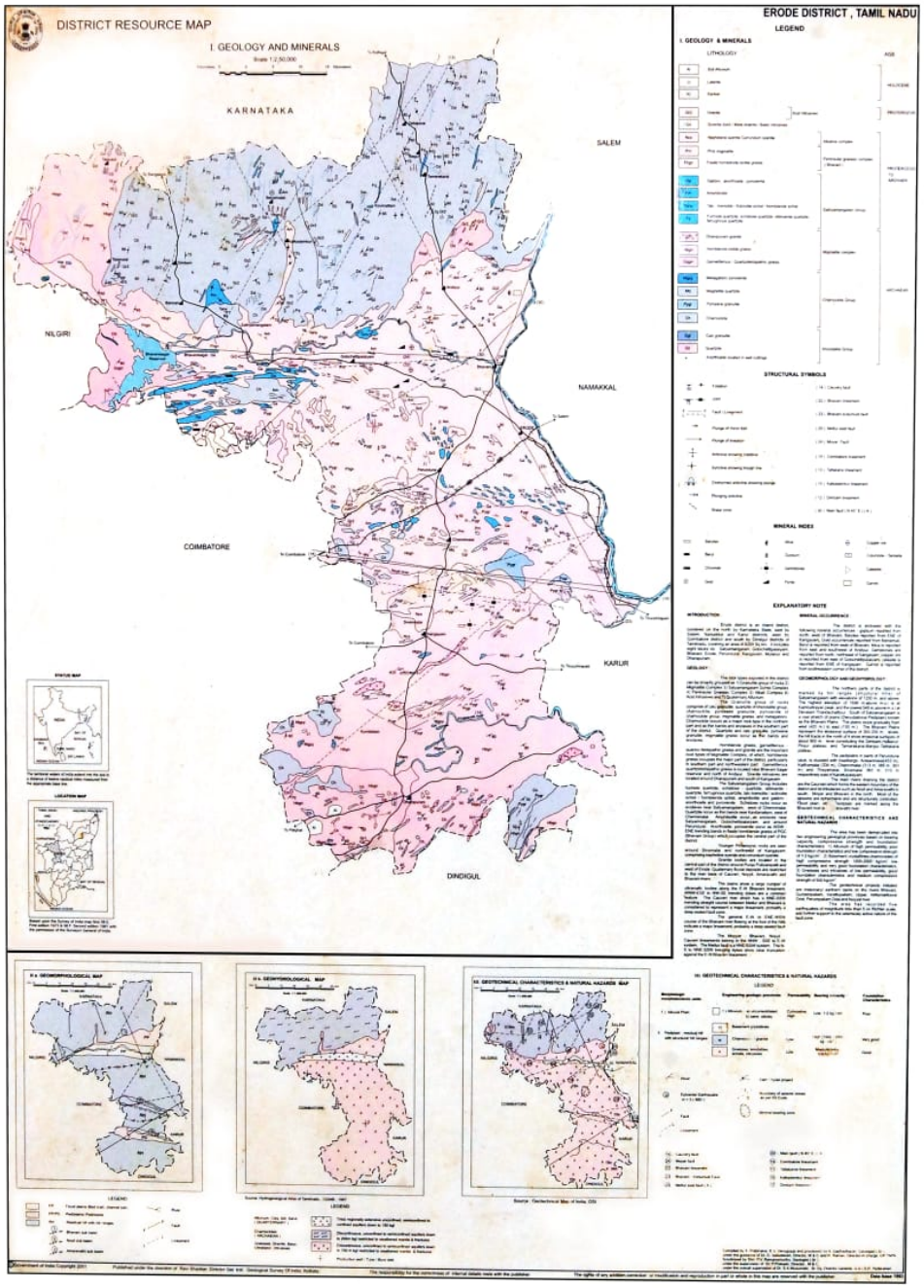


Plate 7 : *Mineral Map of the District*

13. LIST OF LETTER OF INTENT (LOI) HOLDERS IN THE DISTRICT ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT

The Quartz and Feldspar Quarry Leases in Erode District is given below:

Details of 31 Minor Mineral Leases (QUARTZ AND FELDSPAR)									
S. No	**Mineral**	**Name & Address of lessee**	**Location of lease (village, Taluk, Post office, Railway Station and District**	**Lease area (hects)**	**Date of grant of lease (original and subsequent renewals)**	**Date of execution (original and subsequent renewals)**	**Period (Years)**	**Status working, Non working**	**Location of the Mining Lease (Latitude & Longitude)**
1	Quartz and Feldspar	Chettinad MB-F Hi Silica Pvt. Ltd., Old Mahabalipuram Rd., Kazhipattur, Chengalput, Kancheepuram	Nambiyur Village Nambiyur Taluk Erode R.S, Erode District	636 / 2 1.54.0 Hect.	Comm. and D.G.M. R.C. No. 8976 / MM6 / 2005 dt 16.8.07	22.10.2007	26.10.2007 to 25.10.2027	Non Working	$11^0$22’05.83”N - $11^0$22’03.19”N $77^0$20’20.61”E - $77^0$20’13.02”E
2	Quartz and Feldspar	Thiru.P.Ramamoorthy, S/o.R.Palanisamy, 12/13, 60 feet Road, Kumaranandapuram, Tiruppur-2.	Kosanam ‘B’ Village Nambiyur Taluk Erode R.S, Erode District	809/1B (p), 809/2, 832/4, 832/5, 832/6, 832/7, 832/8, 832/9, 832/10, 843/6, 843/7 4.07.0 Hec	Comm.and D.G.M. R.C. No 7555 / MM6 / 2011, dated: 19.04.12	30.4.2012	04.05.2012 to 03.05.2032	Non working	$11^0$21’269”N - $11^0$21’285”N $77^0$21’030”E - $77^0$20’970”E

3	Quartz and Feldspar	Thiru.P.Balasubramaniam S/o.R.Palanisamy, 12/13, 60 feet Road, Kumaranandapuram, Tirupur-2.	Kosanam 'B' Village Nambiyur Taluk Erode R.S, Erode District	808, 809/2A(p), 809/3A and 809/3B 4.22.0 Hec.	Comm.and D.G.M. R.C. No 7556 / MM6 / 2011, dated: 19.04.12	30.4.2012	04.05.2012 to 03.05.2032	Non Working	$11^0$21'269"N - $11^0$21'285"N 77^0 21' 030"E - 77^0 20' 970"E
4.	Quartz and Feldspar	Tvl.Sri Hills Minerals, Reg.Offi.15Pugalum Perumalpuram 4th street, Kumaranandapuram, Tirupur-2.	Kosanam 'B' Village Nambiyur Taluk Erode R.S, Erode District	826/1B, 826/2 2.17.5 Hect	GO. (2D) No. 8 Industries (MMC1) Department dated 23.4.2018	15.5.2018	15.5.2018 to 14.05.2028	Working	N 11^0 21' 25.34"- N 11^0 21' 30.55" E 77^0 20' 47.37"- E 77^0 20' 53.51"

14. TOTAL QUARTZ AND FELDSPAR MINERAL RESERVE AVAILABLE IN THE DISTRICT

Sl. No.	Name of the Mineral	Reserve available as per Mining Plan	Quality / Grade of the Mineral (Sl. No.15)	Uses of Mineral (Sl. No.16)
1.	Quartz and Feldspar	116187 MT	Moderate Quality	Glass Making and Electronics

18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT

There is No Mining Leases (Major Minerals) is in existing in Erode District.

19. DETAILS OF AREA OF WHERE THERE IS A CLUSTER OF MINING LEASES VIZ.NUMBER OF MIING LEASES, LOCATION (LATITUDE AND LONGITUDE)

There is No Cluster of Mining Leases (Major Minerals) available in Erode District.

23. RECLAMATION OF MINED OUT AREA (BEST PRACTICE ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT AS PER RULES AND REGULATION, PROPOSED RECLAMATION PLAN)

There is no abandoned Mine in the Erode District.

26. PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALRREADY GRANTED IN THE DISTRICT.

Sparse green belt developed by the quarry operators.

DISTRICT MINERAL SURVEY REPORT FOR ROUGH STONE ERODE DISTRICT

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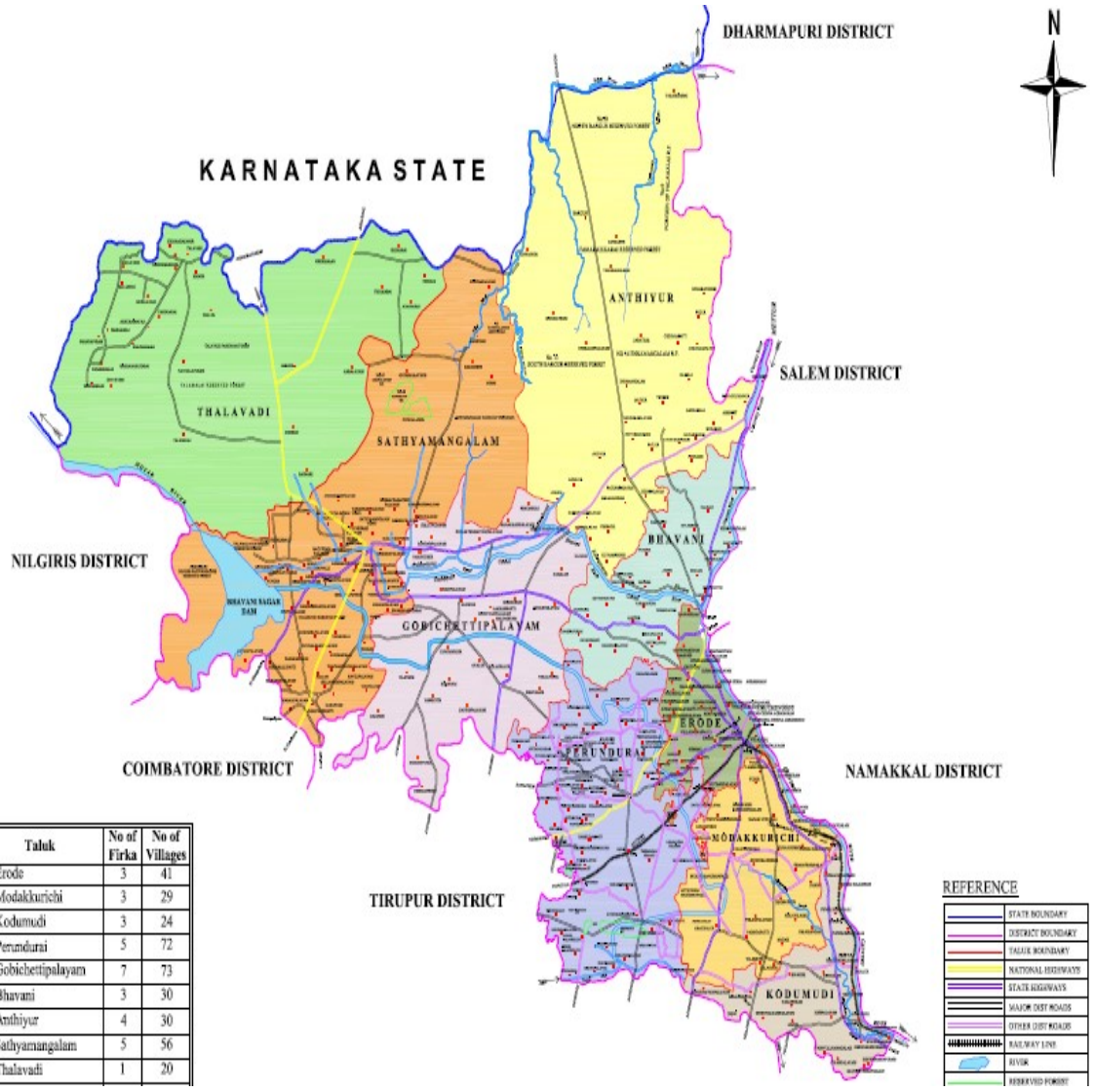

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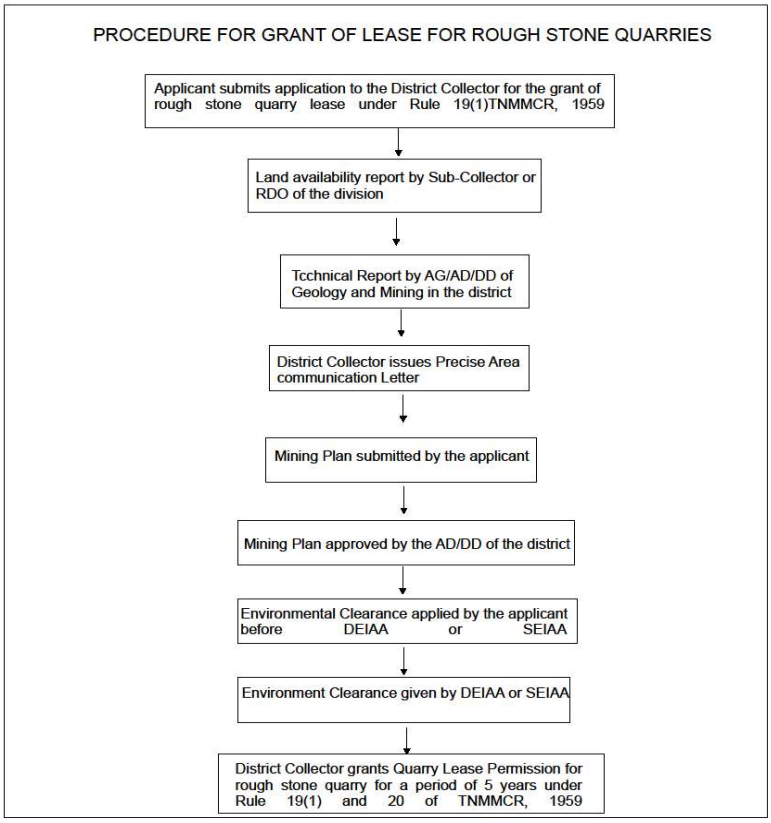
Plate No. 1 : District Map

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

The Mining of minor minerals like Quartz, Feldspar, Dimension stone and Gravels are active in the district. Private companies play a major roll in mining activity where as the Government agencies like TAMIN take part in mining dimension stones only. The major minerals like Copper Ore, Chromite, PGE and Gold are reported in the district but they are not in minable quantity and there no any mining activity in those deposits.

The office of the Deputy Director, Department of Geology and Mining is functioning under the control of District Collector, Erode. The Deputy Director, Geology and Mining is assisting the District Collector in the Mineral Administration works.



3. GENERAL PROFILE OF THE DISTRICT

Erode district is an inland district, bordered on the north by Karnataka State, east by Salem, Namakkal and Karur districts, west by Coimbatore district and south by Tripur districts of Tamilnadu, covering an area of 5722 Sq.km. the headquarters of the district is Erode and the district is bounded by latitude 10°36'N to 11°58'N and Longitude 76°49'E to 77°58'E. It includes ten taluks viz. Sathyamangalam, Talavadi, Gobichettipalayam, Bhavani, Anthiyur, Nampiyur, Erode, Modakurichi, Kodumudi and Perundurai (Plate-01).

Population (2011)	
• Total	2,251,744
• Density	397/km^2 (1,030/sq mi)
Time zone	IST (UTC+5:30)
PIN	638***
Lok Sabha seats	3
Vidhan Sabha seats	8
Central location:	11°15′N 77°19′E
Largest city	Erode
Sex ratio	Male-51%/Female-49% ♂/♀
Literacy	72.96%
Precipitation	700 millimetres (28 in)
Avg. summer temperature	35 °C (95 °F)
Avg. winter temperature	18 °C (64 °F)
Total Road length	3100 km
National Highways	60.400 km
State Highways	322.893 km
Corporation and Municipalities Road	924.736 km
Town Panchayat Road	1490.583 km
Major District Road	302.200
Vehicle registration	TN 33 (Erode East)
	TN 36 (Gobichettipalayam)
	TN 56 (Perundurai)
	TN 86 (Erode West) [1]
Website	www.erode.tn.nic.in

Table.1- General Data-Erode District

CLIMATE AND SOIL

Dry Climate prevails in the Eastern part of this District and the Western part has a semi dry climate. The Soil varies from place to place. The Soil found in this district is mostly Red loam, Red sandy soil which is favourable for the crops like Paddy, Groundnut, Sugarcane, Turmeric, Tobacco, Maize, Tapioca etc. The ground water level in this district varies from 15 feet to 50 feet in Wet area, 50 feet to 110 feet in dry area.

EDUCATION

There are 865 Primary Schools, 314 Middle Schools, 101 High Schools, 133 Higher Secondary School and 8 Teacher Training Institutes are in the district. In addition, there are 19 Arts and Science Colleges, 13 Engineering Colleges, 1 Medical College, 12 Polytechnics with 12 Industrial Training Institutes are rendering Education facility in this District.

4. GEOLOGY OF THE DISTRICT

4.1. AN OUTLINE ON GEOLOGY OF TAMILNADU

Crystalline rocks of Archaean to late Proterozoic age occupy over 80% of the area of the state of Tamilnadu, while the rest is covered by Phanerozoic sedimentary rocks mainly along the coastal belt and in a few inland River valleys. The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their Migmatitic derivatives, Supracrustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio-Pliocene) and sediments of Quaternary and Recent age. Geological map of Tamilnadu is given below (Plate 2.)

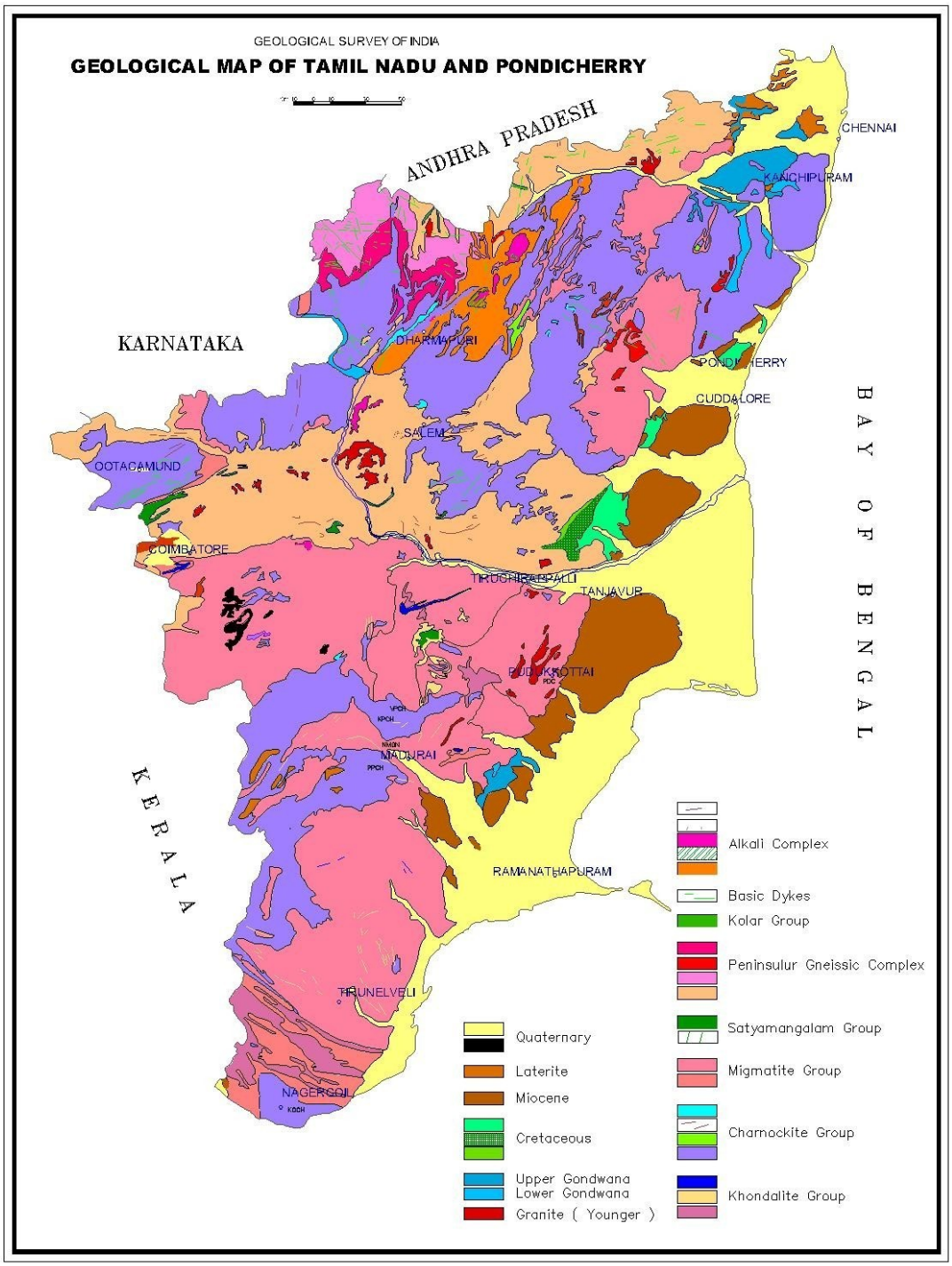


Plate 2. Geological map of Tamilnadu.

4.2. GEOLOGY OF ERODE DISTRICT

The rock types exposed in the district can be broadly grouped as 1) Granulite group of rocks 2) Migmatite Complex 3) Sathyamangalam Schist Complex 4) Peninsular Gneissic Complex 5) Alkali Complex 6) Acid Intrusives and 7) Quaternary Alluvium.

The Granulite group of rocks comprise of Calc Granulite, Quartzite of Khondalite group, Charnockite, Pyroxene Granulite, Pyroxenite of Charnockite group, Migmatite gneiss, and Metagabbro. Charnockite occurs as a major rock type in the northern part and as thin bands and enclaves in the southern part of the district. Quartzite and Calc Granulite, Pyroxene Granulite, Migmatite Gneiss occurs as thin bands and enclaves.

Hornblende gneiss, Gametiferous - Quartzo Feldspathic gneiss and granite are the important rock types of Migmatite Complex, of which, hornblende gneiss occupies the major part of the District, particularly in southern part and northwesten part. Garnetiferous quartzofeldspathic gneiss is located near Bhavani Sagar reservoir and north of Anthiyur.

The Sathyamangalam Group includes fuchsite Quanrtzite, schistose-quartzite, sillimanite-quartzite, ferruginous Quanrtzite, talc-tremolite / Actinolite schist / hornblende schist, Amphibolite and Gabbroanorthosite and Pyroxenite. Schistose rocks occur as enclaves near Sathyamangalam, west of Chennimalai. Quartzite occurs as thin beds near Kavilanattam, west of Chennimalai, Amphibolite occur as enclaves near Sathyamangalam, Gobi and around Perudnurai. A north site, Pyroxenite occurs as WSW-ENE trending bands in fissile hornblende gneiss of PGC (Bhavani Group) which occupies the ventral part of the district.

Granite bodies are located in the central part of the district around Punjai Puliyampatti and west of Erode. Quaternary fluvial deposits are restricted to the river beds of Cauveri, Noyyil, Amaravathi and Bhavani rivers.

The plains show a large number of Ultramafic bodies along the E-W Bhavani lineament. WNW-ESE to NW-SE trending dykes is a common feature. The Cauveri River which has a NNE-SSW trending straight course between Mettur and Bhavani is considered to represent a major lineament, probably a deep seated fault zone.

The general E-W to ENE-WSW course of the Bhavani River flowing at the foot of the hills indicates a major lineament, probably a deep seated fault zone.

The Moyyar - Bhavani, Noyyil - Cauveri lineaments belong to the NNW-SSE to E-W system. The Mettur fault is a NNE-SSW system. The N-S to NNE-SSW trending dykes show clear truncation against the E-W Bhavani lineament.

4.3. STRATIGRAPHY OF THE AREA

Lithology	Group	Age
Soil Alluvium		Holocene
Laterite		
Kankar		
Granite	Acid Intrusives	Proterozoic
Dolerite dyke / Meta dolerite / Basic intrusives		
Nephelene syenite Corrundum syenite	Alkaline complex	Proterozoic to Archaen
Pink migmatite	Penninsular gneissic complex (Bhavani)	
Fisshile Hornblende biotite gneiss		
Gabbro, anorthosite, pyroxenite	Sathyamangalam Group	
Amphibolite		
Talc - tremolite / Acitionite schist / Hornblende schist		
Fuchsite quartzite, schistose quartzite, Sillimanite quartzite, ferruginous quartzite		
Hornblende biotite gneiss	Migmatite Complex	Archaean
Gametiferous - Quartzofedspathic gneiss		
Metagabbo phrozenite	Charnockite Group	
Magnetite quartzite		
Pyroxene granulite		
Charnockite		
Calc granulite	Khondalite Group	
Quartzite Anorthosite located in well cuttings		

4.4. MINERAL OCCURRENCES IN ERODE DISTRICT

Erode District has limited occurrence of major minerals. The other available Minor Minerals are Quartz, Feldspar, Granite varieties and other common use minor minerals like rough stone, gravel and Silt. The district is endowed with the following mineral occurrences - gypsum reported from north, west of Bhavani, Gold occurrences reported from Bensimali, Beryl is reported from west of Bhavani. Mica is reported from east and southwest of Anthiyur. Gemstones are reported in Chennimalai area, copper ore is reported from east of Gobichettipalayam and in quarry section of Mylambalayam village. Chromite mineral deposits are reported from Bhavanisagar and Karappadi area. Even though the district is blessed with a list of mineral deposited from gold to precious stone, copper to PGE group of mineral, only quartz, feldspar and dimension stones are quarried in the district. The details of economically important mineral deposit are as follows.

4.4.1. ROUGH STONE (CHARNOCKITE AND GRANITE GNEISS)

Charnockite rocks of Charnockite Group of Archean are is the source of rough stone in the district. The charnockite are quarried for all sort of civil construction, and road construction. The charnockite are one of important raw material of m-sand which is considered to be replacement for river sand in civil construction field. The total production in the last three year is 1918802 Cubic Meter with royalty of Rs.75, 995, 595.

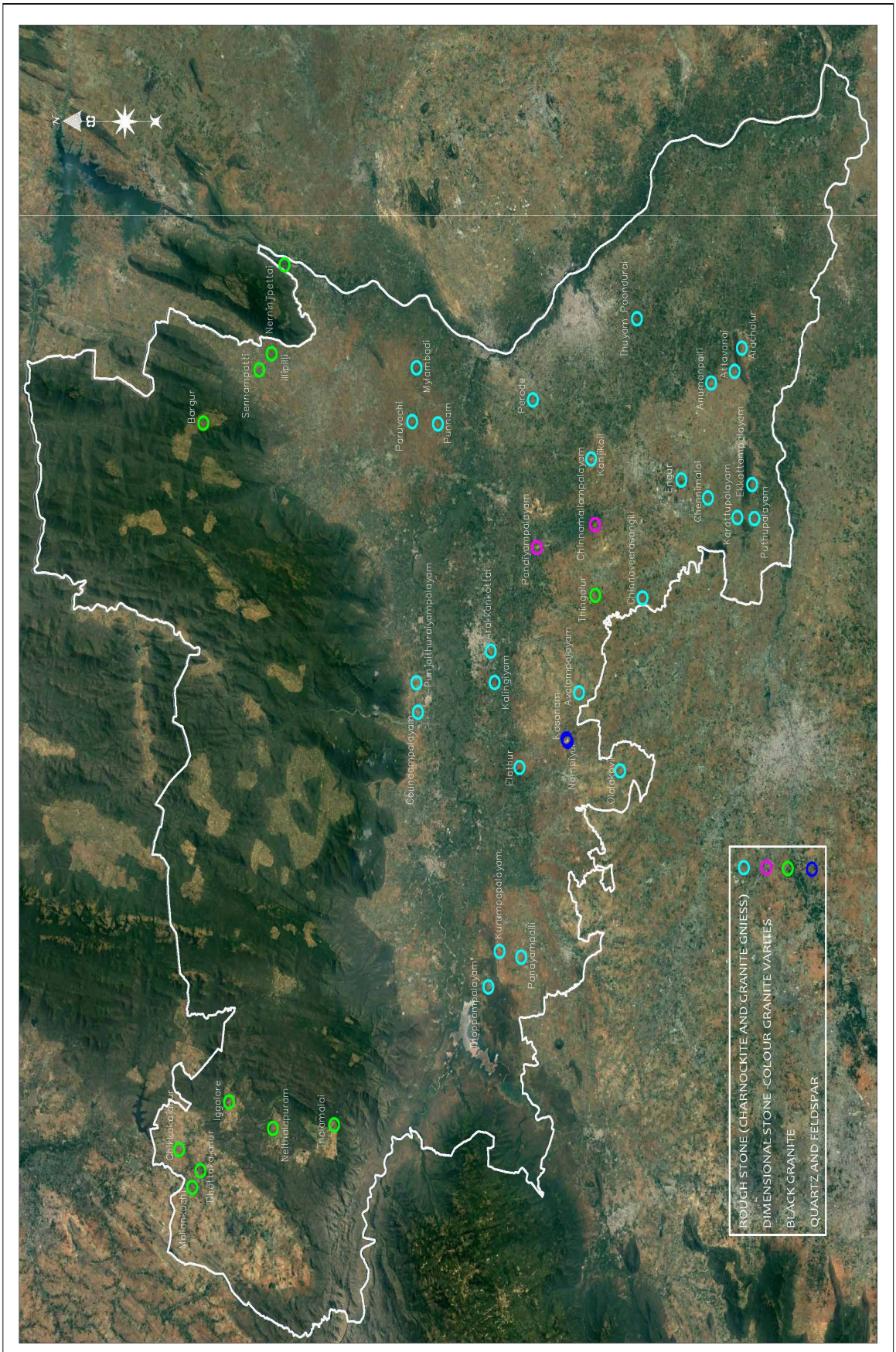
Charnockite is exposed as discontinuous body in NNW - SSE direction from Bhavanisagar in the west to Arachalur in the east and from Vaniputhur in the north to Chennimaai in the south. Active quarries are located in Perode (Plate 7), Arachalur, Chennimalai, Ekkattampalayam, Paruvachi, Mylampadi, Goundampalayam, Punjaithuraiyampalayam, Kurumbapalayam. The following table showing the details of potential Charnockite Rock deposited areas:

Name of the Villages	Latitude	Longitude	Tentative area of the block in Sq.Km
Arachalur	11° 09' 40.5460" N	77° 41' 15.9770" E	27
Attavanai Anumanpalli	11° 10' 09.3550" N 11° 11' 42.8000" N	77° 40' 04.1382" E 77° 39' 27.6366" E	17.4
Perode	11° 23' 32.4977" N	77° 38' 33.8818" E	5.2
Thuyam Poondurai	11° 16' 38.7039" N	77° 42' 46.5076" E	15.1
Mylambadi	11° 31' 15.8603" N	77° 40' 12.7769" E	21.5
Paruvachi	11° 31' 33.0267" N	77° 37' 25.6921" E	11.5
Punnam	11° 29' 50.4380" N	77° 37' 18.7717" E	12.4
Goundampalayam	11° 31' 07.9560" N	77° 22' 24.0455" E	4.7
Punjaithuraiyampalayam	11° 31' 14.1357" N	77° 23' 55.3712" E	10.5
Arakkankottai	11° 26' 18.2669" N	77° 25' 34.0424" E	9
Avalampalayam	11° 20' 26.7788" N	77° 23' 26.0251" E	7.5
Elathur	11° 24' 23.2961" N	77° 19' 33.4224" E	18.4
Kalingiyam	11° 26' 02.5392" N	77° 23' 57.2231" E	15.3
Olalakovil	11° 17' 42.2365" N	77° 19' 24.6034" E	17.6
Karattupalayam	11° 09' 57.5225" N	77° 32' 30.9643" E	14.2
Kanjikoil	11° 19' 40.0278" N	77° 35' 31.5213" E	16.8

Puthupalayam	11° 08' 49.3026" N	77° 32' 28.0981" E	6.5
Chennimalai	11° 11' 54.9221" N	77° 33' 31.2903" E	14.7
Ekkattampalayam	11° 08' 59.1713" N	77° 34' 13.4601" E	13.1
Chinnaveerasangili	11° 16' 14.4241" N	77° 28' 20.9050" E	3.7
Engur	11° 13' 40.8091" N	77° 34' 26.8512" E	21.8
Thoppampalayam	11° 26' 24.7912" N	77° 08' 12.5081" E	7.4
Kurumpapalayam	11° 25' 40.6093" N	77° 10' 02.8931" E	7.3
Panayampalli	11° 24' 14.3250" N	77° 09' 45.1226" E	15.7

The depth of quarrying in the Charnockite rocks for excavating Rough Stone in the above said villages varies from 10m to more than 45 metres. As the Charnockite rock is predominantly massive and without joints in nature, the water table has not encountered upto the known depth of 45 metres. Hence, the depth of quarrying of Rough Stones may be allowed 2 meters above the ground water table level. The thickness of the weathered part which occurs over the Charnockite varies from 2m to 5m and it varies from place to place. The weathered part is used as earth fill (locally called as gravel).

Plate 3.Field photograph of Stone quarry located in Perode village, Erode Taluk of Erode district.



Plat 4. Locations of quarries visited during the field work.

6. LAND UTILIZATION PATTERN IN THE DISTRICT

Erode district is fifth largest district in the state covering an area of 5722 Sq.km. the land use pattern of the district is shown in Plate No-6

Land Type	Area (in Hec.)
Forest	227675.24
Agriculture	266012.1
Horticulture	13578
Mining	145.62

Table.2 : Land Utilization Pattern-Erode District

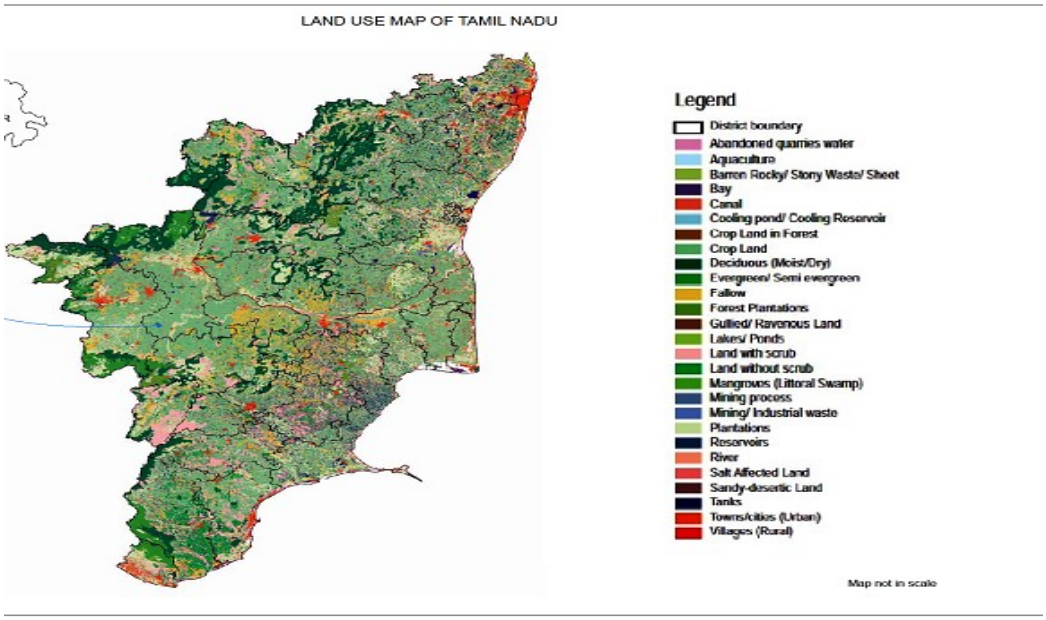


Plate 5 : Land use map of Tamil Nadu

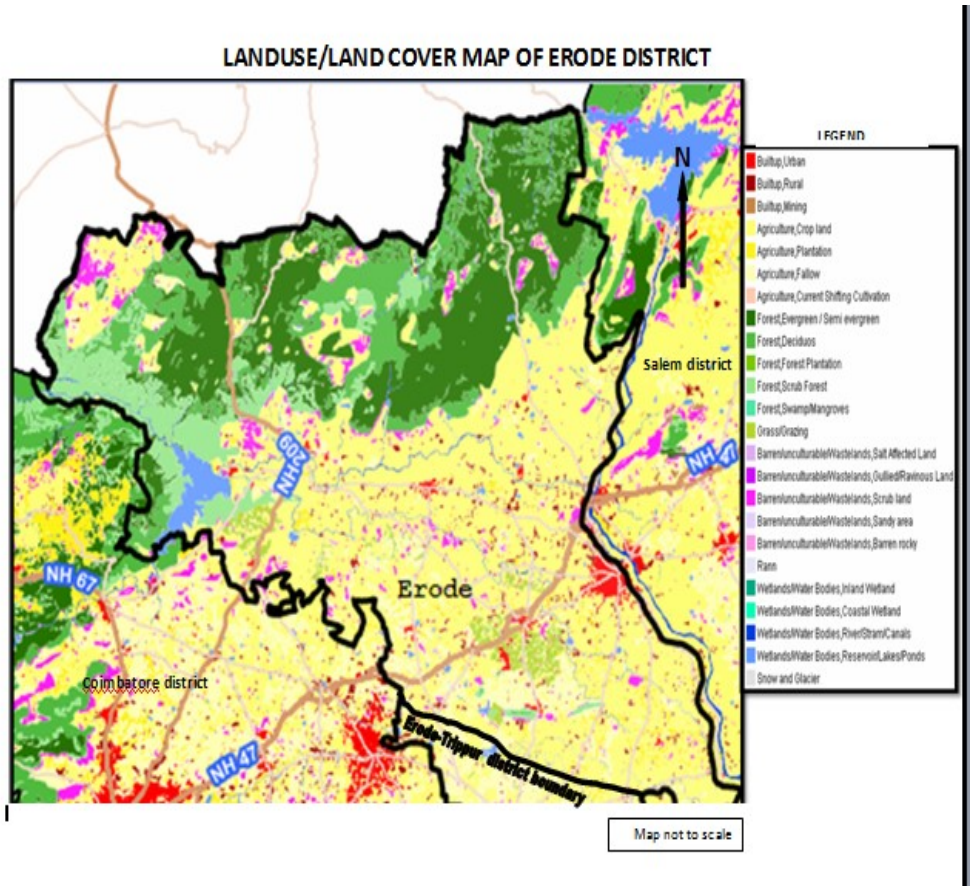


Plate 6 : Land use map of Erode District

9. Details of mining leases in the District

Sl. No	Name of the Mineral	Name of the lessee	Address and Contact No.of the lessee	Mining lease grant order No. & date	Area of Mining lease (Ha)	Period of Mining lease (Initial)		Period of Mining Lease 1st /2nd renewal		Date of commencement of Mining operation	Status (Working/ Non working/ Temp. working for dispatch etc)	Captive/Non Captive	Obtained Environmental Clearance (Yes/No.) If yes, letter No. with date of grant of EC	Location of the Mining lease (Latitude and Longitude)	Method of mining (opencast/ Underground)
						From	To	From	To						
… NIL …															

10. DETAILS OF ROUGHSTONE SEIGNIORAGE FEE / REVENUE RECEIVED IN THE LAST THREE YEARS (2016-17 TO 2018-19)

Roughstone revenue collection for the last three years is given below:

Sl. No	Name of the mineral	Year	Revenue
1.	Rough Stone	2016-17	15845495
		2017-18	20598980
		2018-19	36809848

11 and 17. DETAILS OF PRODUCTION OF ROUGHSTONE IN LAST THREE YEARS AND DEMAND AND SUPPLY OF THE MINERAL IN THE LAST THREE YEARS

Sl. No	Name of the mineral	Year	Production
1.	Rough Stone	2016-17	301008 cbm
		2017-18	420859 cbm
		2018-19	623367 cbm

12. MINERAL MAP OF THE DISTRICT

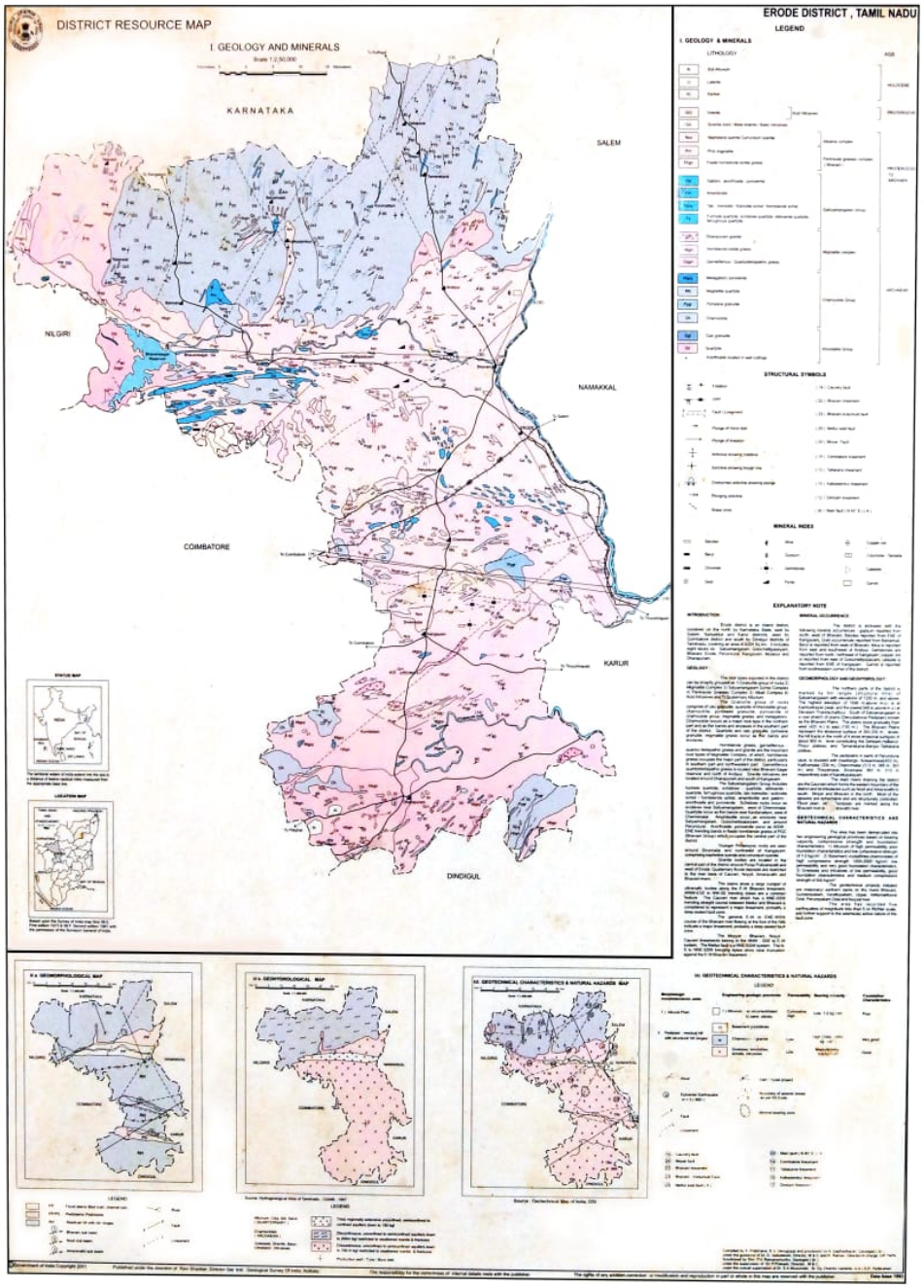


Plate 7 : Mineral Map of the District

13. LIST OF LETTER OF INTENT (LOI) HOLDERS IN THE DISTRICT ALONG WITH ITS VALIDITY AS PER THE FOLLOWING FORMAT

The details of Rough Stone and Gravel Quarry Leases in Erode District is given below:

DETAILS OF EXISTING ROUGH STONE LEASES

S. No	Mineral	Name & Address of lessee	Village and Taluk	S.F. Nos. and extent (in hect.)	Date of grant of lease (original and subsequent renewals)	Period (Years)	Status working, Non working	Location of the Mining Lease (Latitude & Longitude)
1	Rough Stone / Gravel	S.K. Kesavanathan S/O. (LATE) Krishnasamy Selamba Goundan Valasu, Pethampalayam, Perundurai	Perundurai, Kanjikoil	1038/15 0.52.0 Hect	R.C.No.14329/2014 / x1 dated 6.6.2015	(12.6.2015 to 11.6.2020)	Operation	N 11^0 19' 39"- N 11^0 19' 42" E 77^0 35' 28"- E 77^0 35' 32"
2	Rough Stone / Gravel	T.V. Kandasamy, S/O. Velusamy Gounder, 21, Thottampatti, Chennimalai, Perundurai	Perundurai, Puthupalayam	258/5 part 1.99.0 Hect	R.C.No.9624 /2013 / x1 dated 6.6.2015	(12.6.2015 to 11.6.2020)	Operation	N 11^{0}07'25.19" N 11^{0}07'29.06" E 77^{0}32'16.20" E 77^{0}32'23.45"
3	Rough Stone / Gravel	S.K. Kesavanathan S/O. Krishnasamy Gr, Selamba Goundan valasu, Pethampalayam, Perundurai	Perundurai, Chennimalai	117/1 1.24.5 Hect	R.C.No.14330 /2014 / x1 dated 8.1.2016	(8.1.2016 to 7.1.2021)	Operation	N 11^0 11' 56.65"- N 11^0 12' 02.21" E 77^0 33' 58.22"- E 77^0 34' 01.55"
4	Rough Stone / Gravel	P. Jagadeesan, S/O. V.K. Palanisamy, 11/32, Vettukattu Valasu, Engur Village, Perundurai	Perundurai, Ekkattampalayam	50/1A 1.05.5 Hect	R.C.No.36967 /2013 / x1 dated 22.1.2016	(22.1.2016 to 21.1.2021)	Operation	N 11^0 09' 08"- N 11^0 09' 02" E 77^0 34' 05"- E 77^0 34' 09"

5	Rough Stone / Gravel	S.K. Yoganathan, S/O. Krishnasamy, Selamba Goundan Valasu, Pethampalayam,	Perundurai, Chennimalai	177 (p) and 183/1A 2.54.5 Hect	R.C.No.16489 /2013 / x1 dated 28.1.2016	(28.1.2016 to 27.1.2021)	Operation	N $11^0$11'51" - N $11^0$11'55" E $77^0$33'26" – E $77^0$33'35"
6	Rough Stone / Gravel	Thiru. T. Ashokkumar, S/o. K. Thangamuthu, 195, Boojith Nivas, Amman Nagar, Chettipalayam, Erode District	Erode, Attavanai Anumapalli 'A'	19/4 0.90.5 Hect	R.C.No.12460 /2014 / x1 dated 21.7.2016	(21.7.2016 to 20.7.2021)	Operation	N 11^0 11'39.18"- N 11^0 11' 43.77" E 77^0 39'26.86"- E 77^0 39' 31.08"
7	Rough Stone / Gravel	P. Selvasundaram, S/o. (late) Poosappan, 1/2, Ramamoorthy Street, Ragupathinaickanpalayam, Railway Colony post, Erode	Erode, Arachalur	1167/2 2.87.0 Hect	R.C.No.18899 /2014 / x1 dated 22.9.2016	(22.9.2016 to 21.9.2021)	Operation	N 11^0 06' 44"- N 11^0 16' 49" E 77^0 41' 06"- E 77^0 41'14"
8	Rough Stone / Gravel	C. Vasanthakumar, S/o. V. Chenniappan, Kannammapuram, Komarapalayam post, Erode	Erode, Arachalur	1171/1 1.90.0 Hect	R.C.No.17910 /2015 / x1 dated 22.9.2016	(22.9.2016 to 21.9.2021)	Operation	N $11^0$06'45" - N $11^0$06'41" E $77^0$41'14" - E $77^0$41'07"

9	Rough Stone / Gravel	P. Sumathi, W/o. N. Palanisamy, Periyasemur, Erode	Erode, Perode	89/3B, 4 1.21.5 Hect	R.C.No.14161 /2016 / x1 dated 12.1.2017	(12.1.2017 to 11.1.2022)	Operation	N 11^0 23' 36.34"- N 11^0 23' 32.34" E 77^0 38' 30.53"- E 78^0 38' 35.09"
10	Rough Stone / Gravel	T. Subramani, S/o. K. Tirumalai, Illayampalayam Pudur, N.G. Palayam Post, Erode Taluk,	Erode, Thiyam Poondurai	172/13, 14 1.50.5 Hect	R.C.No.37611 /2012 / x1 dated 21.3.2017	(21.3.2017 to 20.3.2022)	Operation	N 11^0 16' 36.55"- N 11^0 16' 43.18" E 77^0 42' 43.74"- E 77^0 42' 49.02"
11	Rough Stone / Gravel	S.Myilsamy, S/o. P.Sengottiyan, Vadugapattipudur, Arachalur Post, Erode	Erode, Arachalur	101/6,7,8 1.33.5 Hect	R.C.No.17859/2018/ x1 dated 17.10.2018	17.10.2018 to 16.10.2023	Operation	N 11^0 09' 38.52"- N 11^0 09' 42.91" E 77^0 41' 21.28"- E 77^0 41' 26.43"
12	Rough Stone / Gravel	S.K. Yoganathan, S/O. Krishnasamy, Selamba Goundan Valasu, Pethampalayam,	Perundurai, Kanjikoil	1050/5,6A, 1051/1, 2, 3, 4, 5A, 6A, 7A, 8, 9, 10, 11A, 13A - 1.94.5 Hect	R.C.No.16490/2013 / x1 dated 17.11.2014	(17.11.2014 to 16.11.2019)	Operation	N $11^0$19'38" - N $11^0$19'31" E $77^0$35'34" – E $77^0$35'41"

13	Rough Stone / Gravel	T.V. Kandasamy, S/O. Velusamy Gounder, 21, Thottampatti, Chennimalai, Perundurai	Perundurai, Puthupalayam	258/5 part 1.99.0 Hect	R.C.No.9624 /2013 / x1 dated 6.6.2015	(12.6.2015 to 11.6.2020)	Operation	N 11^{0}07'25.19" N 11^{0}07'29.06" E 77^{0}32'16.20" E 77^{0}32'23.45"
14	Rough Stone / Gravel	S.K. Kesavanathan S/O. (LATE) Krishnasamy Selamba Goundan Valasu, Pethampalayam, Perundurai	Perundurai, Kanjikoil	1038/15 0.52.0 Hect	R.C.No.14329/2014 / x1 dated 6.6.2015	(12.6.2015 to 11.6.2020)	Operation	N 11^0 19' 39"- N 11^0 19' 42" E 77^0 35' 28"- E 77^0 35' 32"
15	Rough Stone / Gravel	S.K. Yoganathan, S/O. Krishnasamy, Selamba Goundan Valasu, Pethampalayam,	Perundurai, Chennimalai	177 (p) and 183/1A 2.54.5 Hect	R.C.No.16489 /2013 / x1 dated 28.1.2016	(28.1.2016 to 27.1.2021)	Operation	N 11^{0}11'51" - N 11^{0}11'55" E 77^{0}33'26" – E 77^{0}33'35"
16	Rough Stone / Gravel	V. Vijayapriya, W/O. K.M. Vishwanathan, Kinipalayam, Mettupudur Village, Perundurai	Perundurai, Chinnaveerasangili	189/1 1.73.5 Hect	R.C.No.39782 /2013 / x1 dated 04.02.2016	(4.2.2016 to 3.2.2021)	Operation	N 11^0 15' 51"- N 11^0 15' 46" E 77^0 29' 29"- E 77^0 29' 34"

17	Rough Stone / Gravel	TMT. G. Banugopal, W/O. P. Gopalakrishnan, N. Ramalingapuram, Ayyampalayam, Perundurai Taluk, Erode District	Perundurai, Ekkattampalayam	52 0.85.0 Hect	R.C.No.25620 /2013 / x1 dated 29.2.2016	(29.2.2016 to 28.2.2021)	Operation	N 11^0 09' 00"- N 11^0 08' 56" E 77^0 34' 08"- E 77^0 34' 12"
18	Rough Stone / Gravel	S. Saminathan, S/O. Chennimalai Gounder, 1, 24B Selamba Gounden-Palayam, Perundurai	Perundurai, Chennimalai	242/2, 242/3, 242/4, 242/5, 242/6 1.69.5 Hect	R.C.No.8643 /2015 / x1 dated 30.6.2016	(30.6.2016 to 29.6.2021)	Non Operation	N 11^{0}11'15" - N 11^{0}11'22" E 77^{0}33'25" – E 77^{0}33'30"
19	Rough Stone / Gravel	P. Venkadachalam, S/o. Ponnusamy gounder, Andikattu thottam, N. Ramalingapuram, Chennimalai, Perundurai	Perundurai, Ekkattampalayam	50/2 1.05.0 Hect	R.C.No.26524 /2013 / x1 dated 11.7.2016	(11.7.2016 to 10.7.2021)	Operation	N 11^0 09' 04"- N 11^0 08' 59" E 77^0 34' 04"- E 77^0 34' 08"
20	Rough Stone / Gravel	Thiru. V.K. Palanisamy, S/o. Kollanthavellappa Gounder, Vettukattu Valasu, Ingur post, Perundurai Taluk, Erode District	Perundurai, Ingur	227/2 part, 228/2B1B - 2.22.5 Hect	R.C.No.34009 /2015 / x1 dated 8.9.2016	(8.9.2016 to 7.9.2021)	Operation	N 11^0 13' 18.02"- N 11^0 13' 24.96" E 77^0 33' 19.64"- E 77^0 33' 28.08"

21	Rough Stone / Gravel	S.P. Ramasamy, S/O. Palanisamy Gounder, Sedar Palayam, Morattu Palayam, Perundurai	Perundurai, Chennimalai	122/1B(p), 122/2, 122/3 (p), 123/2 (p) 1.99.0 Hect	R.C.No.28018 /2016 / x1 dated 30.6.2017	(30.6.2017 to 29.6.2022)	Operation	N 11^0 11’ 58.44”- N 11^0 12’ 03.35” E 77^0 33’ 35.60”- E 77^0 33’ 42.14”
22	Rough Stone / Gravel	P. Mahendran, S/O. V.K. Palanisamy, Vettukattu Valasu, Engur, Perundurai	Perundurai, Ekkattampalayam	202/1 (p), 202/2 (p), 203/2 4.90.0 Hect	R.C.No.17505 /2016 / x1 dated 30.6.2017	(30.6.2017 to 29.6.2022)	Operation	N $11^0$08’52.02” - N $11^0$09’01.12” E $77^0$34’09.11” – E $77^0$34’17.72”
23	Rough Stone / Gravel	Tmt. G. Banugopal, W/o. P. Gopalakrishnan, 1/41A, Ayyampalayam, Puthupalayam, Perundurai Taluk, Erode District	Perundurai, Ekkattampalayam	226 part 0.63.4 Hect	R.C.No.21705/2016 / x1 dated 7.9.2017	(7.9.2017 to 6.9.2022)	Operation	N $11^0$09’ 01.34”- N 11^0 09’ 04.84” E $77^0$34’ 46.36”- E 77^0 34’ 49.83”
24	Rough Stone / Gravel	Thiru. S. Shanmuga- sundaram, S/o. Suppiyagounder, Panayampalli, Chennimalai Village, Perundurai Taluk, Erode District	Perundurai, Ekkattampalayam	221/1 1.55.0 Hect	R.C.No.16352/2016 / x1 dated 7.9.2017	(7.9.2017 to 6.9.2022)	Operation	N $11^0$09’ 02.01”- N 11^0 09’ 06.18” E $77^0$34’ 35.21”- E 77^0 34’ 40.39”

25	Rough Stone / Gravel	Thiru. S. Saminathan, S/o. Sennimalai gounder, Sellappagoundanpalayam, Puthupalayam, Perundurai Taluk, Erode District	Perundurai, Ekkattampalayam	206 part 4.16.0 Hect	R.C.No.16977/2016 / x1 dated 7.9.2017	(7.9.2017 to 6.9.2022)	Operation	N 11^0 08' 57.31"- N 11^0 09' 04.17" E 77^0 34' 21.81"- E 77^0 34' 31.06"
26	Rough Stone / Gravel	P.Kumarasamy S/o.Ponnusamy Gounder, Sillangattu Valasu Ekkattampalayam Perundurai Taluk Erode District	Perundurai Ekkattampalayam	41/10 (P) 43/1 (P) 1.47.0 Hec.	R.C.No.26661 /2013 / X1 dated 9.10.2017	(9.10.2017 to 8.10.2022)	Operation	N 11^0 09' 06"- N 11^0 09' 00" E 77^0 33' 55"- E $77^0$33' 49"
27	Rough Stone / Gravel	TMT. G. Banugopal, W/O. P. Gopalakrishnan, N. Ramalingapuram, Ayyampalayam, Perundurai Taluk, Erode District	Perundurai, Ekkattampalayam	50/1B 2.02.5 Hect	R.C.No.12541 /2018 / x1 dated 17.10.2018	(17.10.2018 to 16.10.2023)	Operation	N 11^0 08' 59.47"- N 11^0 09' 07.34" E 77^0 34' 08.86"- E 77^0 34' 12.60"
28	Rough Stone / Gravel	M.Duraisamy S/o.Muthusamy, 68 Panayampalli, Thoppupalayam (P.O) Chennimalai, Erode District.	Perundurai, Chennimalai	287/1 2.53.0 Hect	R.C.No.2893/2018 / x1 dated 17.10.2018	(17.10.2018 to 16.10.2023)	Operation	N 11^0 11' 04.16"- N 11^0 11' 09.02" E 77^0 33' 12.36"- E 77^0 33' 21.32"

29	Rough Stone / Gravel	S.S. Gurubalaji, S/o. S. Shanmugam, 40/1 Varagappa street, Karungalpalayam, Erode	Bhavani, Paruvachi	191/3 0.77.5 Hect	R.C. 14328 / 2014 / X-1 dated 6.6.2015	(12.6.2015 to 11.6.2020)	Non Operation	N $11^0$31'00.06" N $11^0$31'03.56" E $77^0$37'25.38" E $77^0$37'28.60"
30	Rough Stone / Gravel	T.R. Thangavelraja, S/o. T.A. Rajagobal, Thippichettipalayam, Kadayampatti post,bhavani	Bhavani, Punnam	421/1B part, 422/1A 1.57.0 Hect	R.C.12899 /2014/ X-1 dated 18.6.2015	(24.6.2015 to 23.6.2020)	Non Operation	N 11^0 29' 47"- N 11^0 29' 52" E 77^0 37' 16"- E 77^0 37'21"
31	Rough Stone / Gravel	S. Muthugounder, S/o. Sembagounder, Mylampadi, Bhavani	Bhavani, Paruvachi	119/7 1.41.5 Hect	R.C. 18517 / 2014 / X-1 dated 18.6.2015	(24.6.2015 to 23.6.2020)	Operation	N 11^0 30' 21"- N 11^0 31' 02" E 77^0 37' 33"- E 77^0 37' 36"
32	Rough Stone / Gravel	1) K.Annadurai, S/o.Karuppanna Gounder Narayanapuram, Mylambadi, 2) T.Kuppusamy, S/o.Thirumalai Thottipalayam, Kalpavi, Bhavani Tk, Erode Dt.	Bhavani Paruvachi	415/4B (P) 0.40.5	R.C.No.9747 /2017 / x1 dated 18.12.2017	(18.12.2017 to 17.12.2020)	Operation	N 11^0 31' 10"- N 11^0 31' 09" E 77^0 38' 40"- E 77^0 38' 43"

33	Rough Stone / Gravel	T.M.Vijayalakshmi, W/o. T.A.Madheshwaran, Thippichettipalayam, Kadayampatti(P), Bhavani	Bhavani, Mylambadi	474/1B,2 0.76.5 Hect	R.C.No.31720/2017/ x1 dated 18.4.2018	(18.4.2018 to 17.4.2023)	Operation	N 11^0 31’ 37” E 77^0 39’ 35”
34	Rough Stone / Gravel	K. Vijayperichiappan, S/o. K.N. Kandasamy, Karattupalayam, Elathur village, Gobichettipalayam	Nampiyur, Elathur	347/1B, 347/2B 0.86.0 Hect	R.C.No.30118 /2014 / x1 dated 4.3.2016	(4.3.2016 to 3.3.2021)	Non Operation	N 11^0 24’ 21”- N 11^0 24’ 25” E 77^0 19’ 33”- E 77^0 19’ 37”
35	Rough Stone / Gravel	Tmt. S. Gnanambal, W/o. S. Selvaraj, No. 138, Arakkankottai, Gobichettipalayam Taluk, Erode District	Nampiyur, Elathur	720/2B 1.14.5 Hect	R.C.No.33303 /2015 / x1 dated 6.9.2016	(6.9.2016 to 5.9.2021)	Operation	N 11^0 22’ 57.97”- N 11^0 23’ 01.98” E 77^0 17’ 13.32”- E 77^0 17’ 17.81”
36	Rough Stone / Gravel	P. Balaji, S/o. K.M. Palanisamy, 1/96, Kallankattu valasu, Pollavakalipalayam, Gobichettipalayam	Nampiyur, Karattupalayam 'B'	246 4.30.0 Hect	R.C.No.4679 /2017 / x1 dated 30.6.2017	(30.6.2017 to 29.6.2022)	Operation	N 11^0 24’ 24.60”- N 11^0 24’ 33.48” E 77^0 19’ 33.20”- E 77^0 19’ 40.19”

37	Rough Stone / Gravel	S.A. Nandhakumar, S/o. Arukutti Gounder, 79D, Avinasi Road, Annur - 641 653	Nampiyur, Anjanur	42/1 1.28.5 Hect	R.C.No.8486/2017 / X1 dated 18.9.2017	(18.9.2017 to 17.9.2022)	Operation	N 11^0 21' 49.34"- N 11^0 21' 44.00" E 77^0 15' 31.35"- E 77^0 15' 27.02"
38	Rough Stone / Gravel	S.A. Nandhakumar, S/o. Arukutti Gounder, 79D, Avinasi Road, Annur - 641 653	Nampiyur, Anjanur	8, 14/2, 14/3 3.01.5 Hect	R.C.No.15753/2017 / X1 dated 18.9.2017	(18.9.2017 to 17.9.2022)	Operation	N 11^0 21' 45.49"- N 11^0 21' 54.82" E 77^0 15' 24.02"- E 77^0 15' 30.61"
39	Rough Stone / Gravel	M. Shanmugam, S/o. Muthusamy Gounder, 11, Sri Velavan Illam, Gobi, Thiru. R. Selvaraj, No. 22-A, Kuppammal Layout, Mill road, Gobi	Nampiyur Elathur	724 1.97.5 Hect	R.C. No. 7776 /2017 / X-1 dated 18.4.2018	(18.4.2018 to 17.4.2023)	Non Operation	N 11^{0}22'45.52" - N 11^{0}22'51.78" E 77^{0}17'16.82" – E 77^{0}17'25.52"
40	Rough Stone / Gravel	Thiru. P. Sasikumar, S/o. K. Ponnusamy, 1/490, Olappalayam, Varapalayam Village, Nampiyur Taluk, Erode District	Nampiyur, Varapalayam	284/2, 284/4 1.05.0	R.C.No.12736/2014 / X1 dated 17.10.2018	(17.10.2018 to 16.10.2023)	Operation	N 11^0 22' 17.37"- N 11^0 22' 22.33" E 77^0 14' 47.07"- E 77^0 14' 51.58"

40	Rough Stone	M. Boopathi, S/o. Muthusamy, 81, Kandhampalayam, Pachampalayam, Olagadam	Anthiyur, Ammapettai	98 / 3 Part 2.00.0	R.C. 1680 / 2010 / X-2 dated 15.3.2010	(15.3.2010 to 14.3.2020)	Operation	N $11^0$38’12” - N $11^0$38’20” E $77^0$42’34” – E $77^0$42’42”
42	Rough Stone / Gravel	K.S. Selvaraj, S/o. Sempagounder, Kuruvai Main Road, Boothapadi post, Anthiyur Taluk,	Anthiyur, Sennampatti	177/2 1.62.0 Hect	R.C.No.32023 /2014 / x1 dated 21.1.2017	(21.1.2017 to 20.1.2022)	Operation	N 11^0 41’ 44.01”- N 11^0 41’ 49.07” E 77^0 41’ 08.27”- E 77^0 41’ 14.04”
43	Rough Stone / Gravel	Thiru. N. Marimuthu, S/o. Nallakumargounder, 5/5, Poolapalayam, A.D. Street, Pallakkapalayam, Tiruchengodu Taluk, Namakkal District	Anthiyur, Ammapettai 'B'	8/2A part - 0.86.0 Hect	R.C.No.13474 /2017 / x1 dated 7.9.2017	(7.9.2017 to 6.9.2022)	Operation	N 11^0 38’ 35.75”- N 11^0 38’ 39.42” E 77^0 43’ 14.43”- E 77^0 43’ 18.05”
44	Rough Stone / Gravel	K.Satheesh S/o.V.Krishnan No.68 A3, Narayana Nagar Kumarapalayam Trichencode Taluk Namakkal District	Anthiyur Ammapet	430 0.60.0	R.C.No.22568 /2017 / X1 dated 08.03.2018	(08.03.2018 to 07.03.2023)	Non Operation	N 11^0 38’ 24.19”- N 11^0 38’ 28.06” E 77^0 43’ 57.04”- E 77^0 44’ 01.38”

45	Rough Stone / Gravel	Tvl.R.P.P.Blue Metals 156 Mullamparappu Nathagoundampalayam Modakurichi Erode District	Modakurichi Arachalur	1167/1 (P) 1.66.0 Hec.	R.C.No.28385/2017/ x1 dated 8.3.2018	(8.3.2018 to 7.3.2023)	Operation	N 11^0 06' 44.74"- N 11^0 06' 52.08" E 77^0 41' 06.42"- E 77^0 41' 14.21"
46	Rough Stone	N.R. Appusamy, S/O. Ramsamy Gounder, 281/4, Anna Nagar, Thoppampalayam, Sathy	Sathy, Thoppampalayam	278/2, 279/1, 280/4 1.10.0 Hect.	R.C. 1681 / 2010 / x-1 dated 1.3.2010	(1.3.2010 to 29.2.2020)	Non Operation	N 11^0 25' 46"- N 11^0 25' 50" E 77^0 08' 36"- E 77^0 08' 43"
47	Rough Stone	K. Prabhakaran, S/o. Karuppusamy, Modarpalayam, Kudakkarai, Kasipalayam, Gobi	Sathy, Thoppampalayam	275 / 2 1.21.5 Hec.	R.C. 9743 / 2010 / x-1 dated 5.4.2010	(5.4.2010 to 4.4.2020)	Non Operation	N 11^0 25' 39"- N 11^0 25' 44" E 77^0 08' 26"- E 77^0 08' 31"
48	Rough Stone / Gravel	Thiru. M. Ramasamy, S/o. Marappa naickar, 2/98F, Dandukkaran palayam, Thottiyanur, Avinasi Taluk	Sathyamangalam, Kurumbapalayam	139/2, 139/3, 139/4 3.13.5 Hect	R.C.No.30308 /2012 / x1 dated 10.8.2016	(10.8.2016 to 9.8.2021)	Operation	N $11^0$41' 42"- E 77^0 16' 55"

49	Rough Stone / Gravel	G.A. Venkadesan, S/o. G.S. Appachi, 15 Sri vari apartment, 644, V.K.K. Menan Road New Chithaputhur, Coimbatore	Sathyamangalam, Panayampalli	567/2A, 567/2B 4.49.0 Hect	R.C.No.13963 /2014 / x1 dated 30.6.2017	(30.6.2017 to 29.6.2022)	Operation	N 11^0 24’ 10.94”- N 11^0 24’ 21.65” E 77^0 09’ 43.14”- E 77^0 09’ 49.50”
50	Rough Stone	J.K.M. Jeyaprakash, S/O. J.K.K. Munirajah, Selam Main Road, Annai Illam, Komarapalayam,	Gobichettipalayam, Punjai- Thiraiyampalayam	10 Part 1.00.0 Hect	R.C. 19669 / 2010 / x-1 dated 3.5.2010	(26.4.2010 to 25.4.2020)	Non operation	N 11^0 31’ 35”- N 11^0 31’ 42” E 77^0 23’ 35”- E 77^0 23’ 43”
51	Rough Stone	M. Seenivasan, S/O. Munusamy, E. Mettupudhur, Arasur, Gobichettipalayam.	Gobichettipalayam,, Goundam palayam	70/9 South part 2.00.0 Hec.	R.C. 19673 / 2010 / x-1 dated 26.4.2010	(26.4.2010 to 25.4.2020)	Non operation	N 11^{0}31’02” - N 11^{0}31’08” E 77^{0}22’13” – E 77^{0}22’19”
52	Rough Stone	J.K.M. Jeyaprakash, S/O. J.K.K. Munirajah, Selam Main Road, Annai Illam, Komarapalayam,	Gobichettipalayam, Punjai -- Thiraiyampalayam	10 part 2.00.0 Hect	R.C. 74287 / 2010 / x-1 dated 9.1.2011	(9.1.2011 to 8.1.2021)	Non operation	N 11^0 31’ 35”- N 11^0 31’ 42” E 77^0 23’ 35”- E 77^0 23’ 43”

53	Rough Stone / Gravel	S. Gopalakrishnan, S/o. S. Subramaniam, 10/B, Elathur chettipalayam, Elathur village, Gobichettipalayam	Gobichettipalayam, Kalingayam	257/4B 0.55.5 Hect	R.C.42331 / 2012/ X-1 dated 24.6.2014	(24.6.2014 to 23.6.2019)	Non Operation	N 11^0 26' 04"- N 11^0 25' 58" E 77^0 24' 08"- E 77^0 24' 05"
54	Rough Stone / Gravel	K. Kuppuraj, S/o. Karuthiruma Gounder, 16, Mariyamman Kovil Street, T.N. Palayam,	Gobichettipalayam, Goundampalayam	57/2C 1.27.0 Hect	R.C.11234 / 2013/ X-1 dated 24.6.2014	(2.12.2014 to 1.12.2019)	Operation	N $11^0$31'9.16" - N $11^0$31'8.01" E $77^0$22'32.28" – E $77^0$22'27.49"
55	Rough Stone	P.G.14 Gobi Taluk Bonded Labourers Rehabitation Jelly and Stone Work's Co.op. Society Ltd., Gobichettipalayam Taluk	Gobichettipalayam, Olalakovil	23/3, 2.28.0 Hect	R.C.No.21455 /2015 / x1 dated 30.5.2016	(30.5.2016 to 29.5.2021)	Operation	N 11^0 17' 38.96"- N 11^0 17' 46.33" E 77^0 19' 22.16"- E 77^0 19' 27.79"
56	Rough Stone / Gravel	N.Latha, W/o.K.Thalapathy, Solakallipalayam, Periya Vattam (PO) Kodumudi Taluk Erode District	Kodumudi Devakiammapuram	36/1 (P) 2.87.5 Hec.	R.C.No.19113 /2017 / x1 dated 8.3.2018	(08.03.2018 to 07.03.2023)	Non Operation	N 11^0 01' 52.59"- N 11^0 01' 56.00" E 77^0 53' 00.31"- E 77^0 53' 10.53"

14. TOTAL ROUGHSTONE MINERAL RESERVE AVAILABLE IN THE DISTRICT

Sl. No.	Name of the Mineral	Reserve available as per Mining Plan	Quality / Grade of the Mineral (Sl. No.15)	Uses of Mineral (Sl. No.16)
1.	Rough Stone	24268470 Cbm	Moderate Quality	Building Construction

18. MINING LEASES MARKED ON THE MAP OF THE DISTRICT

There is No Mining Leases (Major Minerals) is in existing in Erode District.

19. DETAILS OF AREA OF WHERE THERE IS A CLUSTER OF MINING LEASES VIZ.NUMBER OF MIING LEASES, LOCATION (LATITUDE AND LONGITUDE)

There is No Cluster of Mining Leases (Major Minerals) available in Erode District.

23. RECLAMATION OF MINED OUT AREA (BEST PRACTICE ALREADY IMPLEMENTED IN THE DISTRICT, REQUIREMENT AS PER RULES AND REGULATION, PROPOSED RECLAMATION PLAN)

There is no abandoned Mine in the Erode District.

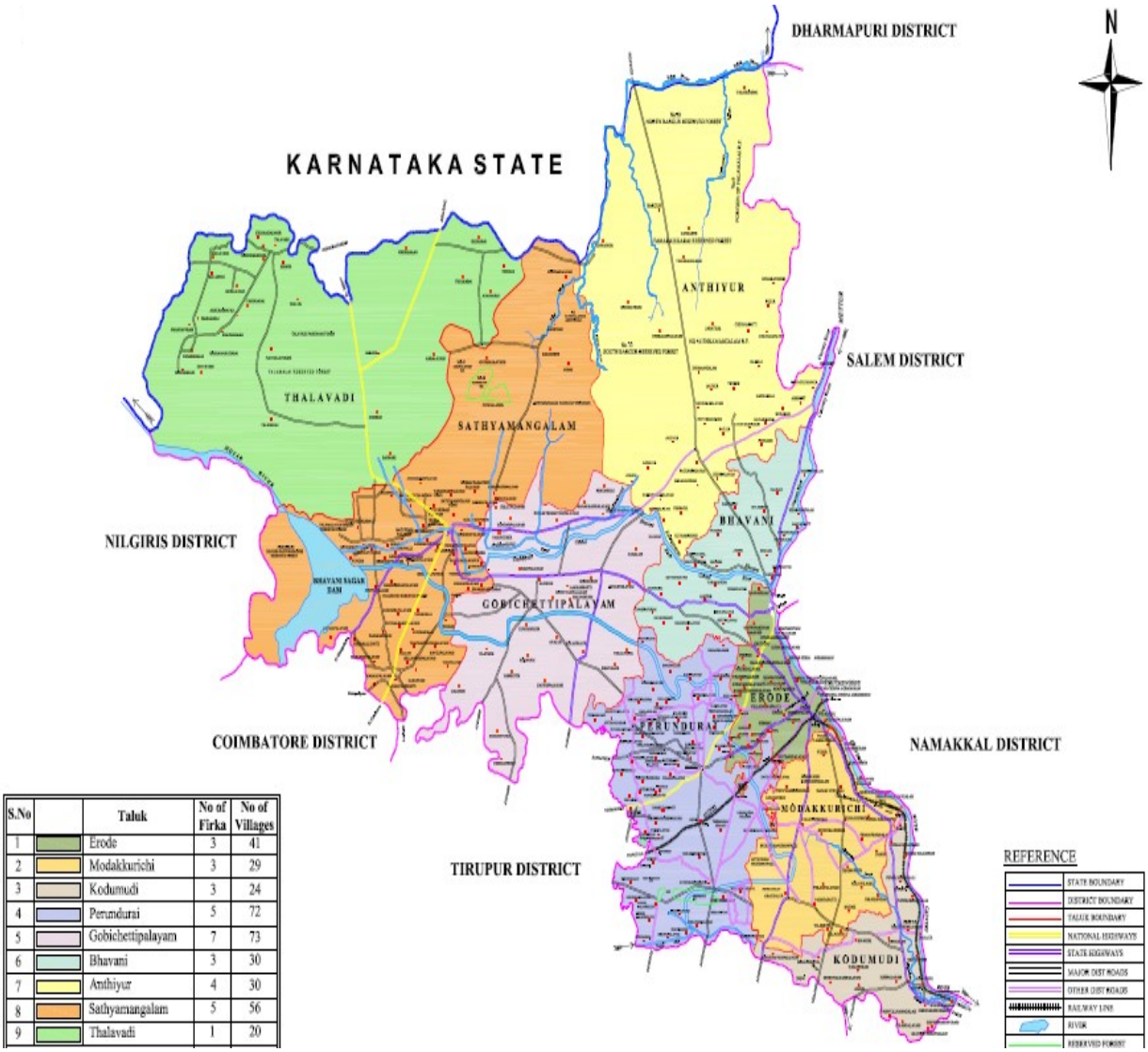
26. PLANTATION AND GREEN BELT DEVELOPMENT IN RESPECT OF LEASES ALRREADY GRANTED IN THE DISTRICT.

Sparse green belt developed by the quarry operators.

DISTRICT MINERAL SURVEY REPORT FOR SAND MINING OR RIVER BED MINING

ERODE DISTRICT

(Prepared as per Gazette Notification S.O.3611 (E) dated 25.07.2018 of Ministry of Environment, Forest and Climate Change)



S.No		Taluk	No of Firka	No of Villages
1		Erode	3	41
2		Modakkurichi	3	29
3		Kodumudi	3	24
4		Perundurai	5	72
5		Gobichettipalayam	7	73
6		Bhavani	3	30
7		Anthiyur	4	30
8		Sathyamangalam	5	56
9		Thalavadi	1	20

May 2019

Deputy Director,
Geology and Mining,
Erode

District Collector,
Erode

DISTRICT SURVEY REPORT FOR SAND MINING OR RIVER BED MINING ERODE DISTRICT

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1. INTRODUCTION

The District Mineral Survey Report of Erode District was prepared with the assistance of Geological Survey of India State Unit, Tamil Nadu as per the Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 141 (E) dated 15.01.2016 and SO 190 (E) dated 20.01.2016. The District survey report has been approved by the Chairman DEIAA/ District Collector, Erode on 15.3.2019 and same was uploaded in the Erode District NIC portal. Now the Erode District Mineral Survey report has updated as per Ministry of Environment, Forest and Climate Change, the Government of India Notification No. SO 3611 (E) dated 25.7.2018. The main purpose of preparation of District Survey Report is to identify the mineral resources and developing the mining activities along with other relevant data of the District.

The Erode District covers an area 5722 sq. KM and falls within the latitude from 10°36' to 11°58' and longitude from 76°49' to 77°58'. It has Nine Taluks (Erode, Kodumudi, Modakurichi, Perundurai, Bhavani, Anthiyur, Gobichettipalayam Sathyamangalam, Nampiyur Thalavadi) with total population of 2251744 (as per 2011 census).

Division	Taluks	Firka's	Villages
Erode	Erode	3	26
	Kodumudi	3	32
	Modakurichi	3	29
	Perundurai	5	72
Gobichettipalayam	Bhavani	3	30
	Anthiyur	4	34
	Gobichettipalayam	7	74
	Sathyamangalam	5	56
	Thalavadi	1	20

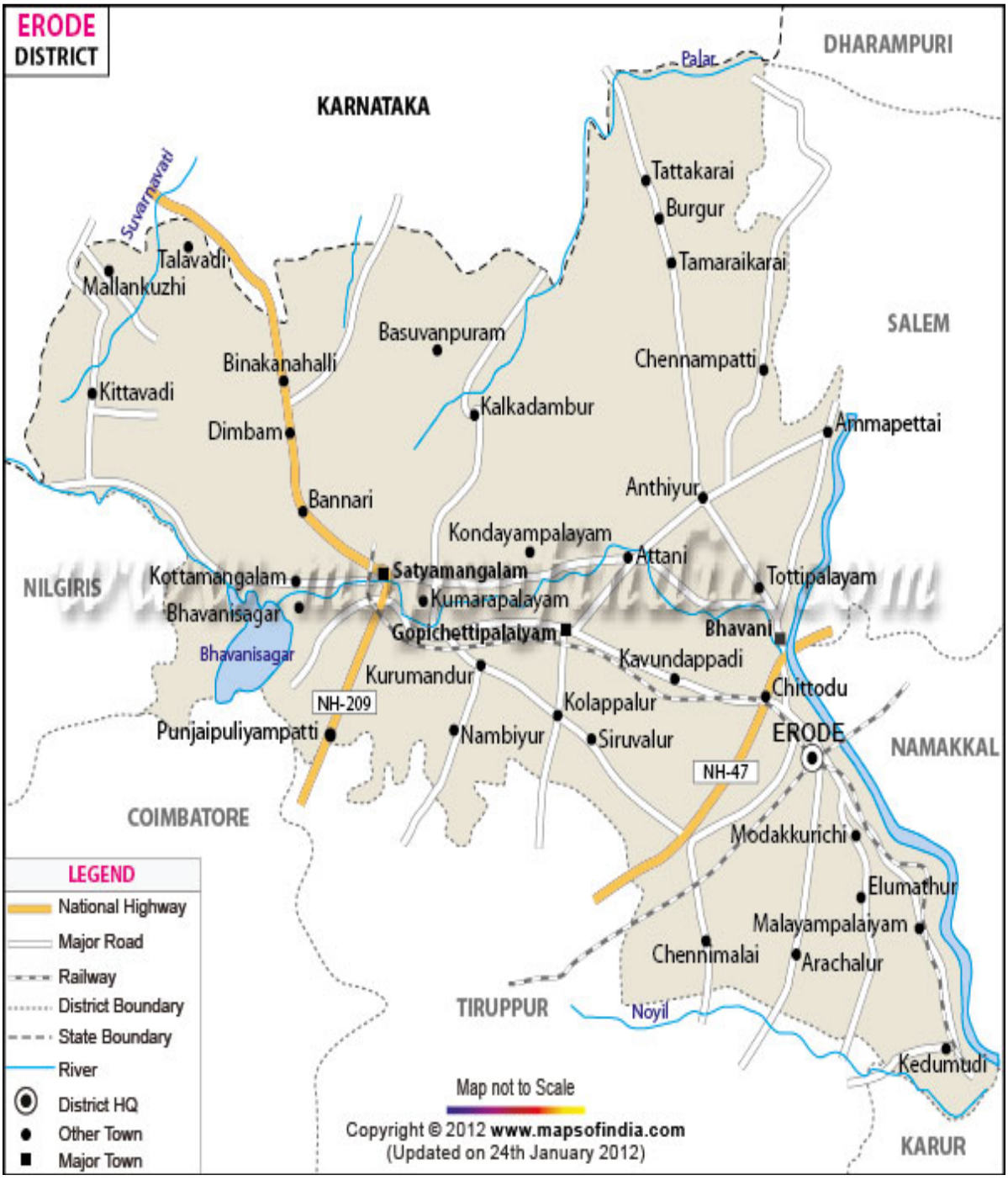
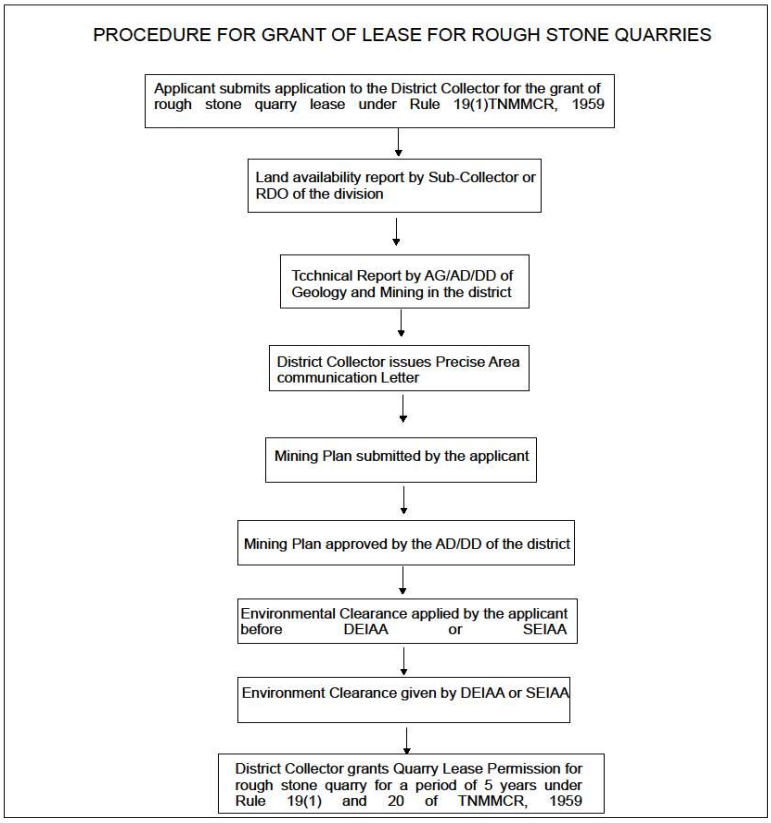


Plate No. 1 : District Map

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

The Mining of minor minerals like Quartz, Feldspar, Dimension stone and Gravels are active in the district. Private companies play a major roll in mining activity where as the Government agencies like TAMIN take part in mining dimension stones only. The major minerals like Copper Ore, Chromite, PGE and Gold are reported in the district but they are not in minable quantity and there no any mining activity in those deposits.

The office of the Deputy Director, Department of Geology and Mining is functioning under the control of District Collector, Erode. The Deputy Director, Geology and Mining is assisting the District Collector in the Mineral Administration works.



4) DETAILS OF SEIGNEIORAGE FEE OR REVENUE RECEIVED IN LAST THREE YEARS

Year	S.F.Collected (Rs)
2016- 17	NIL
2017-18	
2018-19	

5) DETAILS OF PRODUCTION OF SAND IN LAST THREE YEARS

Year	Production (in M^3)
2016- 17	NIL
2017-18	
2018-19	

6. PROCESSES OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT

River sediment refers to the mixture of mineral matters which are derived from the weathering and erosion of rocks present in the river bed. Breaking down of rocks by a geological agent, here it is a river (flow of water), is called erosion. The erosion of rocks occurs in many ways. Weathering is described as disintegration and decomposition of rocks due to change in physical and chemical conditions of the rock. Sediments are derived by these natural processes. Sediments are subsequently transported by water and/or by the force of gravity acting on the sediments.

Sediments become the river's load and the river transport this loads through its course. Transportation of the sediments depends on the energy of the river. Boulders are transported by traction and are rolled along the bed of the river. Slightly smaller particles, such as pebbles and gravel, are transported by saltation. This is where the load bounces along the bed of the river because the river has enough energy to lift the particles off the bed but the particles are too heavy to travel by suspension. Fine particles like clay and silt are transported in suspension; they are suspended in the water. Most of a river's load is transported by suspension. Solution is a special method of transportation. This is where particles are dissolved into the water so only rocks that are soluble, such as limestone or chalk, can be transported in solution.

Deposition occurs when forces responsible for sediment transportation are no longer sufficient to overcome the forces of gravity and friction which are creating a resistance to motion. To transport load, a river needs to have energy at the same time when a river loses energy, it is forced to deposit its load. One of the following ways, a river could lose its energy:

1. Reduction in the discharge: Reduction in discharge may be due to lack of precipitation and evaporation and abstraction by human activity.

2. Change in the river gradient: If the gradient of the river's course flattens out, the river will deposit its load because it will be travelling a lot slower. When a river meets the sea a river will deposit its load because the gradient is generally reduced at sea level and the sea will absorb a lot of energy.

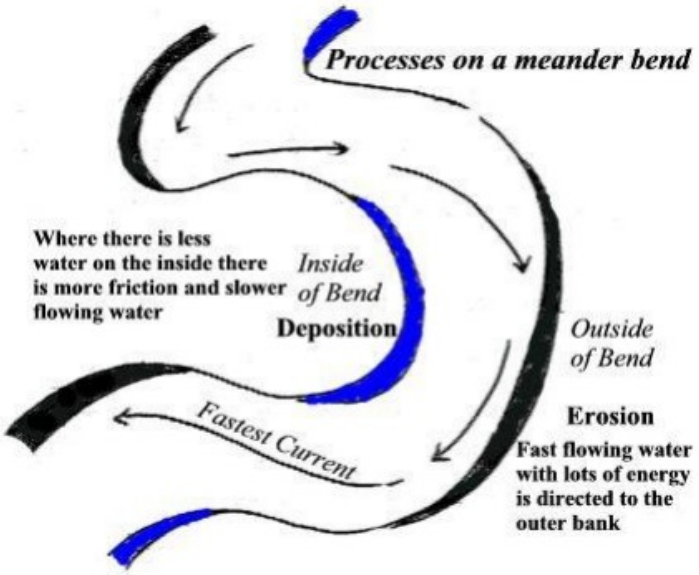


Plate No.2. Schematic diagram of process on meander bend.

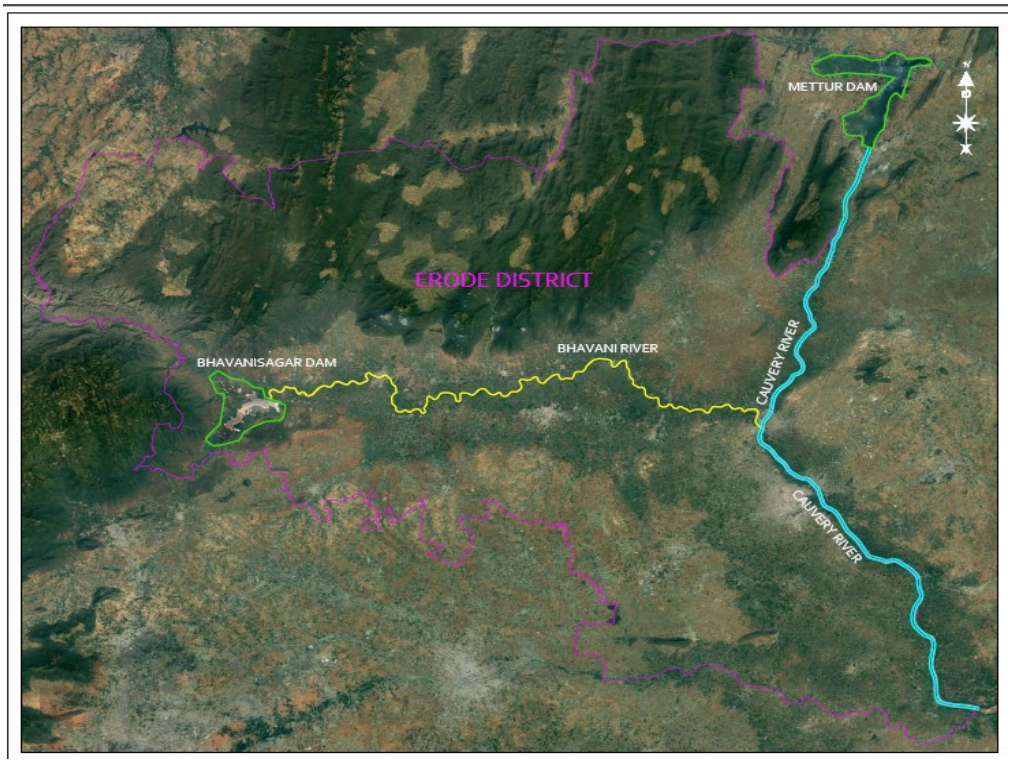


Plate No.3. Meandering of Cauvery River, Near Bhavani, Erode district.

Much of the material will be carried in suspension and loads in suspension erode the river banks by abrasion. When rivers flow over flatter land, they form large bends called meanders. As a river goes around a bend, most of the water is pushed towards the outside causing increased erosion. The river is now eroding sideways into its banks rather than downwards into its bed, a process called lateral erosion (Plate 1. A & B). On the inside of the bend, in contrast, there is much less water. The river will therefore be shallow and slow flowing. It cannot carry as much material and so sand and gravels will be deposited. This is called a point bar or slip off slope. Due to erosion on the outside of a bend and deposition on the inside, the shape of a meander will change over a period of time. Eventually deposition will block off the old meander to leave an oxbow lake. The oxbow lake will slowly dry up, only refilling after heavy rain or during a flood.

In Erode district, only two major rivers viz. Bhavani and Cauvery and their tributaries are draining and passing through the district (Plate 2.). These rivers are perennial in nature. Cauvery flows in NNE-SSW direction on the border of Erode and Namakkal District. Bhavani River flows ENE- WSW direction almost center of the district, confluences with the Cauvery River at Bhavani.

Plate No.4. Erode district map showing rivers flowing through the district.

Deposition of river sand in the rivers flowing in Erode district is very less due to rocky nature (Charnockite gneiss), hence depositional process could not take place some parts of the banks of Cauvery and Bhavani rivers, reddish brown Colour sandy soil is present over major part of the areas as thin veneer. Thin layer of sand is available wherever the Cauvery and Bhavani River takes meandering path. The beds of the above rivers are mostly characterised by the presence of bed rocks and small boulders. The annual deposition in the river is depending upon the velocity of the river, period of rainy season and rainfall at different places of the flow of rivers. Calculation of rate of deposition of River Sand could not be measured for the above said reasons. Geohydrological map of parts of Erode district and adjoining areas is given below (Plate 5.):

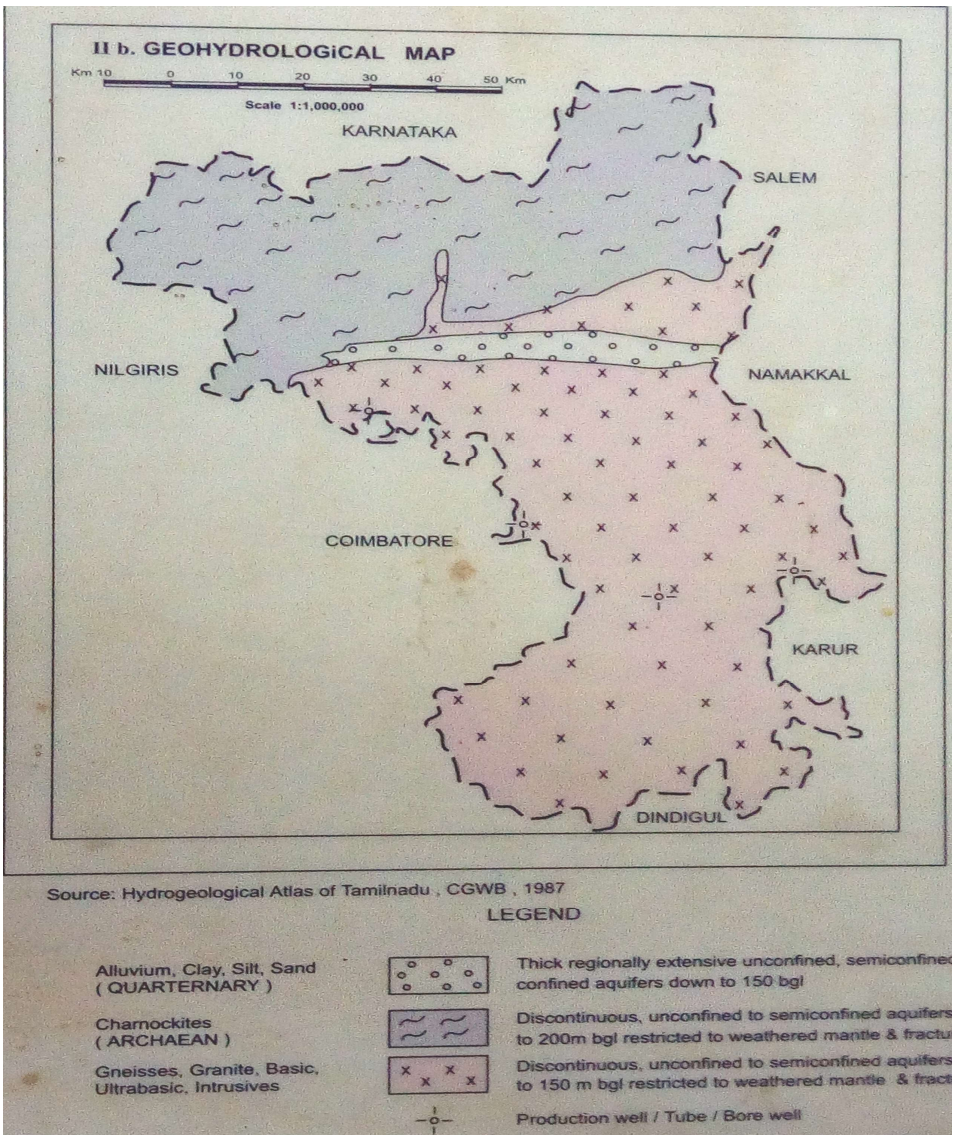


Plate No.5. Geohydrological map of Erode district and adjoining areas.

7. GENERAL PROFILE OF THE DISTRICT

Erode district is an inland district, bordered on the north by Karnataka State, east by Salem, Namakkal and Karur districts, west by Coimbatore district and south by Tripur districts of Tamilnadu, covering an area of 5722 Sq.km. the headquarters of the district is Erode and the district is bounded by latitude 10°36'N to 11°58'N and Longitude 76°49'E to 77°58'E. It includes nine taluks viz. Sathyamangalam, Talavadi, Gobichettipalayam, Bhavani, Anthiyur, Erode, Modakurichi, Kodumudi and Perundurai (Table-1).

Population (2011)	
• Total	2,251,744
• Density	397/km^2 (1,030/sq mi)
Time zone	IST (UTC+5:30)
PIN	638***
Lok Sabha seats	3
Vidhan Sabha seats	8
Central location:	11°15′N 77°19′E
Largest city	Erode
Sex ratio	Male-51%/Female-49% ♂/♀
Literacy	72.96%
Precipitation	700 millimetres (28 in)
Avg. summer temperature	35 °C (95 °F)
Avg. winter temperature	18 °C (64 °F)
Total Road length	3100 km
National Highways	60.400 km
State Highways	322.893 km
Corporation and Municipalities Road	924.736 km
Town Panchayat Road	1490.583 km
Major District Road	302.200
Vehicle registration	TN 33 (Erode East)
	TN 36 (Gobichettipalayam)
	TN 56 (Perundurai)
	TN 86 (Erode West) [1]
Website	www.erode.tn.nic.in

Table.1- General Data-Erode District

CLIMATE AND SOIL

Dry Climate prevails in the Eastern part of this District and the Western part has a semi dry climate. The Soil varies from place to place. The Soil found in this district is mostly Red loam, Red sandy soil which is favourable for the crops like Paddy, Groundnut, Sugarcane, Turmeric, Tobacco, Maize, Tapioca etc. The ground water level in this district varies from 15 feet to 50 feet in Wet area, 50 feet to 110 feet in dry area.

EDUCATION

There are 865 Primary Schools, 314 Middle Schools, 101 High Schools, 133 Higher Secondary School and 8 Teacher Training Institutes are in the district. In addition, there are 19 Arts and Science Colleges, 13 Engineering Colleges, 1 Medical College, 12 Polytechnics with 12 Industrial Training Institutes are rendering Education facility in this District.

8. LAND UTILIZATION PATTERN IN THE DISTRICT: Forest, Agricultural, Horticultural, Mining etc;

Erode district is fifth largest district in the state covering an area of 5722 Sq.km. the land use pattern of the district is shown in Plate No-7

Land Type	Area (in Hec.)
Forest	227675.24
Agriculture	266012.1
Horticulture	13578
Mining	145.62

Table.2- Land Utilization Pattern-Erode District

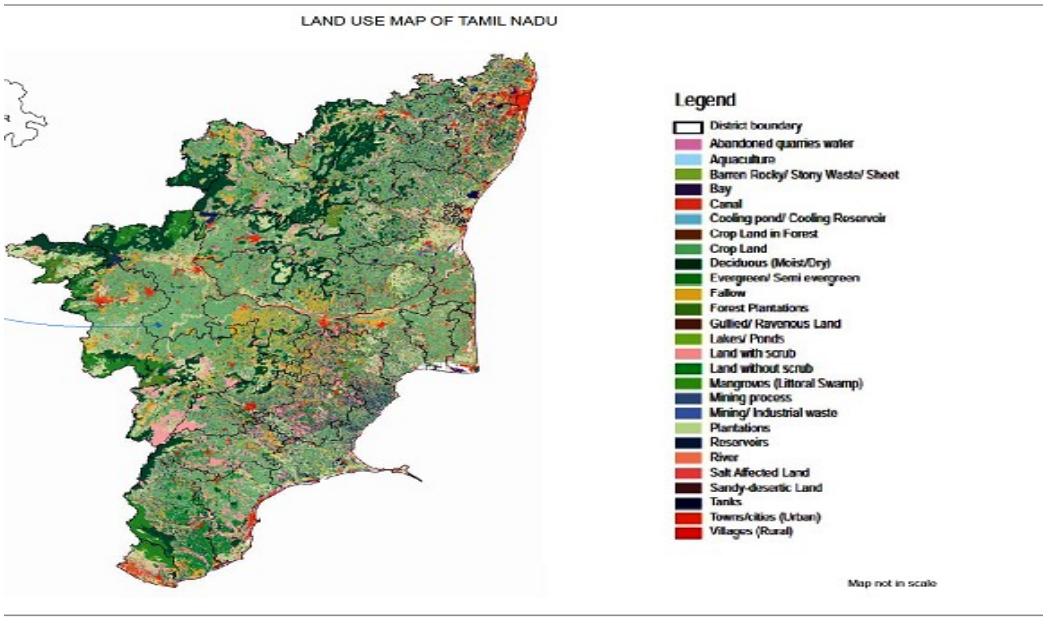


Plate No.6 Land use map of Tamilnadu.

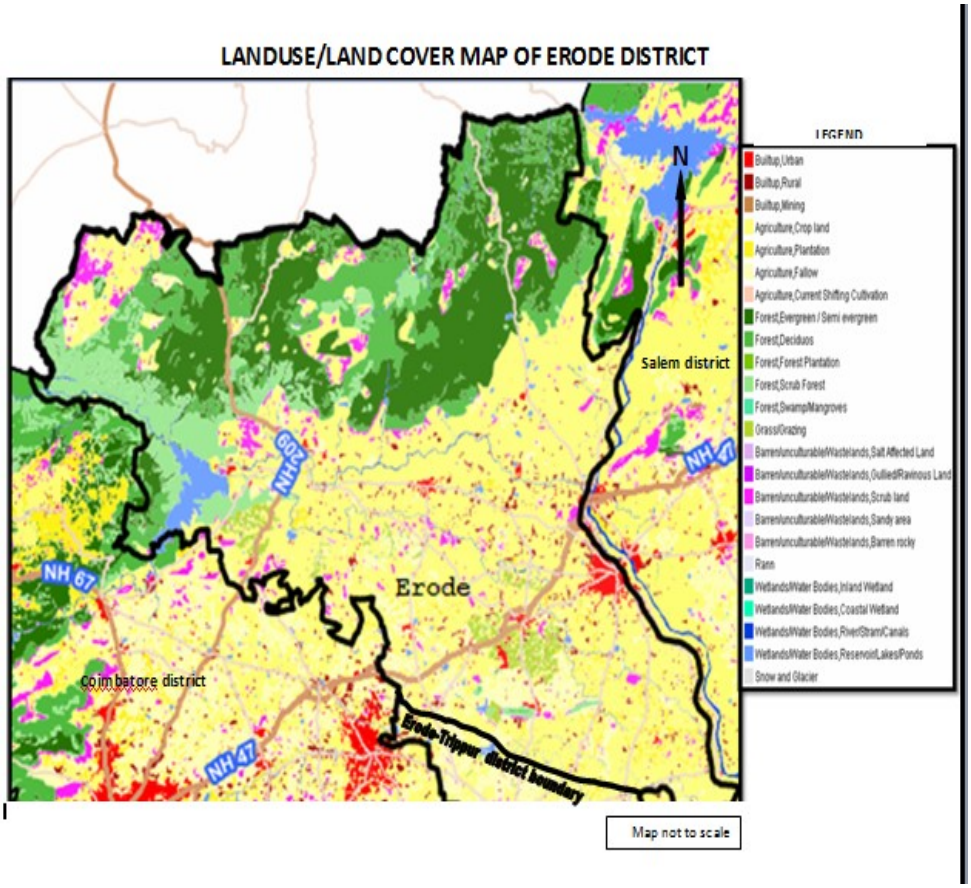


Plate No.7. Land use map of Erode District

9. PHYSIOGRAPHY OF THE DISTRICT

The Erode district forms part of the uplands of the state. Physiographically the district can be divided into hilly area, the upland area and plains area. The prominent geomorphic units identified in the district through interpretation of Satellite imagery are 1) Structural hills, 2) Inselberg, 3) Ridges, 4) Valley fill, 5) Pediments, 6) Shallow Pediments,. The northern part of the district is marked by hill ranges (structural hills) of Sathyamangalam with elevations of 1200m and above. The highest elevation of 1696 m. above M.S.L. is at Kambatirayan peak, and the lowest 548 m. above m.s.l at Devalam Thandachattiyur. South of Sathyamangalam is a vast stretch of plains (Denudational Pediplain) known as the Bhavani Plains. The plains slope gradually from west (420 m.) to east (150 m.). The Bhavani Plains represent the erosional surface of 300-200 m. levels, the hill tracts in the north of it show erosional surfaces of about 900 m. level constituting the Dimbam-Jasanur-Pinjur plateau and Tamarakarai-Bargur-Tattakarai plateau.

The pediplains in parts of Perundurai taluk, is studded with inselbergs-Arasanmalai (453 m), Chennimalai (473 m, 365 m, 533 m), Arachalur malai (360m) and Elumattur malai(408m).

The main rivers draining the district are the Cauveri which forms the eastern boundary of the district and its tributaries such as Noyil in south, Moyar and Bhavani in the north. Most of the streams are ephermeral and are structurally controlled. Flood plain, older floodplains are marked along the Bhavani river. Geomorphology of Bhavani Basin is given below: (Plate No.8):

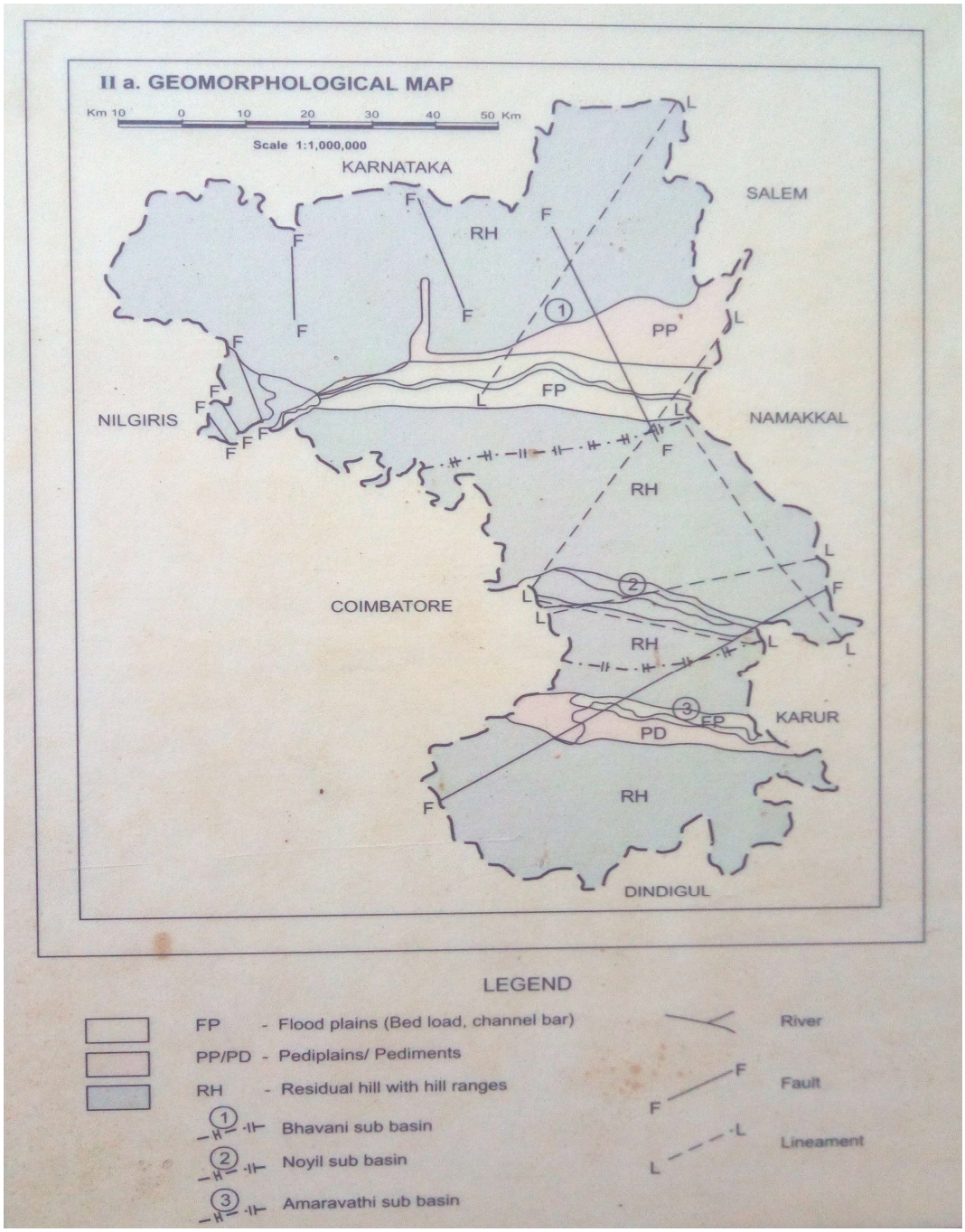


Plate No.8. Geomorphological map of part of Tiruppur and Erode districts.

10. RAINFALL DATA

In the district the average annual rainfall is 702.9mm with the maximum rainfall comes from North East monsoon-314.6mm. The district receives 229.8mm during South west monsoon, 16.1mm in winter season and 142.4 during hot weather season. The month wise rainfall data for last 10 year for 21nos. of station in the district has been attached (Table No.3)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2007	0.7	4.5	1.3	47.0	28.2	23.7	30.1	80.1	98.7	161.6	56.7	165.7	698.4
2008	1.4	22.2	94.1	48.7	88.7	9.9	52.6	135.9	45.7	167.5	95.3	11.7	773.7
2009	0.0	0.3	62.1	25.8	115.0	18.6	17.3	74.6	94.1	98.1	186.5	13.8	706.3
2010	1.4	1.2	3.9	16.3	191.8	19.2	59.9	86.4	88.5	125.4	370.9	33.2	998.0
2011	0.0	10.0	10.3	100.3	64.2	15.9	46.2	73.6	60.2	160.8	192.9	21.5	756.1
2012	0.0	0.1	0.5	47.8	50.3	21.9	21.4	48.0	73.5	159.8	34.7	4.1	462.1
2013	0.0	24.5	2.8	18.6	46.9	69.1	4.2	59.5	86.2	133.2	58.5	19.6	523.1
2014	0.0	0.1	1.9	5.4	65.0	25.3	23.3	92.2	129.6	298.0	44.0	12.9	697.6
2015	1.8	3.8	28.6	95.7	98.6	46.7	7.2	48.5	95.8	137.7	257.5	29.8	851.7
2016	0.7	0.0	0.0	13.1	33.4	45.1	77.4	43.6	16.7	27.5	NA	NA	257.4
Source: District Groundwater board, Erode.													

Table No.3-Rainfall data for Erode district (last 10 year)

11. GEOLOGY AND MINERAL WEALTH OF THE DISTRICT

11.1. AN OUTLINE ON GEOLOGY OF TAMILNADU

Crystalline rocks of Archaean to late Proterozoic age occupy over 80% of the area of the state of Tamilnadu, while the rest is covered by Phanerozoic sedimentary rocks mainly along the coastal belt and in a few inland River valleys. The hard rock terrain comprises predominantly of Charnockite and Khondalite groups and their Migmatitic derivatives, Supracrustal sequences of Sathyamangalam and Kolar groups and Peninsular Gneissic Complex (Bhavani Group), intruded by ultramafic-mafic complexes, basic dykes, granites and syenites. The sedimentary rocks of the coastal belt include fluviatile, fluvio-marine and marine sequences, such as Gondwana Supergroup (Carboniferous to Permian and Upper Jurassic to Lower Cretaceous), marine sediments of Cauvery basin (Lower Cretaceous to Paleogene), Cuddalore /Pannambarai Formation (Mio-Pliocene) and sediments of Quaternary and Recent age. Geological map of Tamilnadu is given below (Plate No.9)

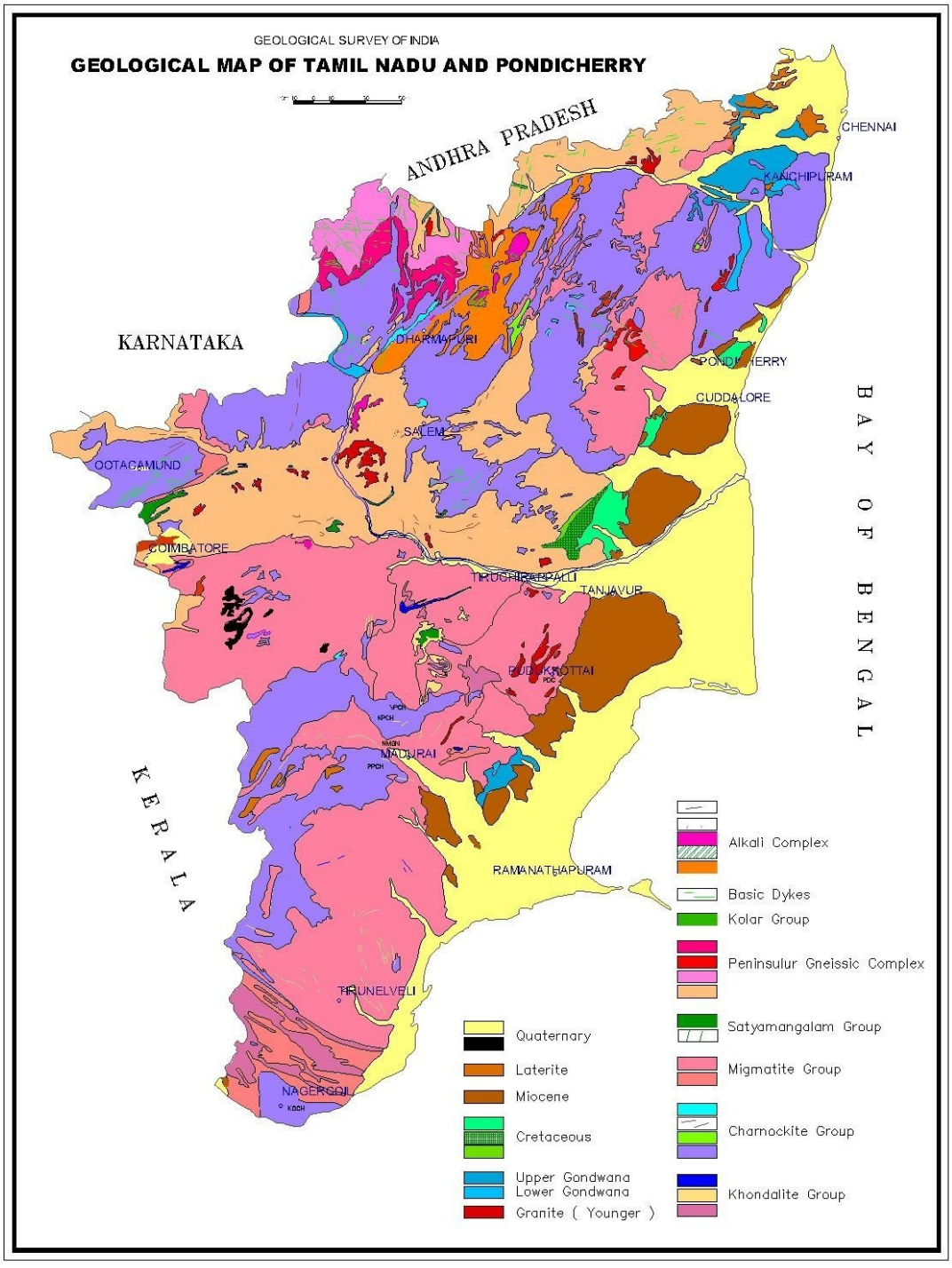


Plate No.9 Geological map of Tamilnadu.

11.2. GEOLOGY OF ERODE DISTRICT

The rock types exposed in the district can be broadly grouped as 1) Granulite group of rocks 2) Migmatite Complex 3) Sathyamangalam Schist Complex 4) Peninsular Gneissic Complex 5) Alkali Complex 6) Acid Intrusives and 7) Quaternary Alluvium.

The Granulite group of rocks comprise of Calc Granulite, Quartzite of Khondalite group, Charnockite, Pyroxene Granulite, Pyroxenite of Charnockite group, Migmatite gneiss, and Metagabbro. Charnockite occurs as a major rock type in the northern part and as thin bands and enclaves in the southern part of the district. Quartzite and Calc Granulite, Pyroxene Granulite, Migmatite Gneiss occurs as thin bands and enclaves.

Hornblende gneiss, Gametiferous - Quartzo Feldspathic gneiss and granite are the important rock types of Migmatite Complex, of which, hornblende gneiss occupies the major part of the District, particularly in southern part and northwesten part. Garnetiferous quartzofeldspathic gneiss is located near Bhavani Sagar reservoir and north of Anthiyur.

The Sathyamangalam Group includes fuchsite Quanrtzite, schistose-quartzite, sillimanite-quartzite, ferruginous Quanrtzite, talc-tremolite / Actinolite schist / hornblende schist, Amphibolite and Gabbroanorthosite and Pyroxenite. Schistose rocks occur as enclaves near Sathyamangalam, west of Chennimalai. Quartzite occurs as thin beds near Kavilanattam, west of Chennimalai, Amphibolite occur as enclaves near Sathyamangalam, Gobi and around Perudnurai. A north site, Pyroxenite occurs as WSW-ENE trending bands in fissile hornblende gneiss of PGC (Bhavani Group) which occupies the ventral part of the district.

Granite bodies are located in the central part of the district around Punjai Puliyampatti and west of Erode. Quaternary fluvial deposits are restricted to the river beds of Cauveri, Noyyil, Amaravathi and Bhavani rivers.

The plains show a large number of Ultramafic bodies along the E-W Bhavani lineament. WNW-ESE to NW-SE trending dykes is a common feature. The Cauveri River which has a NNE-SSW trending straight course between Mettur and Bhavani is considered to represent a major lineament, probably a deep seated fault zone.

The general E-W to ENE-WSW course of the Bhavani River flowing at the foot of the hills indicates a major lineament, probably a deep seated fault zone.

The Moyyar - Bhavani, Noyyil - Cauveri lineaments belong to the NNW-SSE to E-W system. The Mettur fault is a NNE-SSW system. The N-S to NNE-SSW trending dykes show clear truncation against the E-W Bhavani lineament.

11.3. STRATIGRAPHY OF THE AREA

Lithology	Group	Age
Soil Alluvium		Holocene
Laterite		
Kankar		
Granite	Acid intrusives	Proterozoic
Dolerite dyke / Meta dolerite / Basic intrusives		
Nephelene syenite Corrundum syenite	Alkaline complex	Proterozoic to Archaen
Pink migmatite	Penninsular gneissic complex (Bhavani)	
Fisshile Hornblende biotite gneiss		
Gabbro, anorthosite, pyroxenite	Sathyamangalam Group	
Amphibolite		
Talc - tremolite / Acitionite schist / Hornblende schist		
Fuchsite quartzite, schistose quartzite, Sillimanite quartzite, ferruginous quartzite		
Hornblende biotite gneiss	Migmatite Complex	Archaean
Gametiferous - Quartzofedspathic gneiss		

Metagabbo phrozenite	Charnockite Group	
Magnetite quartzite		
Pyroxene granulite		
Charnockite		
Calc granulite	Khondalite Group	
Quartzite Anorthosite located in well cuttings		

11.4. MINERAL OCCURRENCES IN ERODE DISTRICT

Erode District has limited occurrence of major minerals. The other available Minor Minerals are Quartz, Feldspar, Granite varieties and other common use minor minerals like rough stone, gravel and Silt. The district is endowed with the following mineral occurrences - gypsum reported from north, west of Bhavani, Gold occurrences reported from Bensimali, Beryl is reported from west of Bhavani. Mica is reported from east and southwest of Anthiyur. Gemstones are reported in Chennimalai area, copper ore is reported from east of Gobichettipalayam and in quarry section of Mylambalayam village. Chromite mineral deposits are reported from Bhavanisagar and Karappadi area. Even though the district is blessed with a list of mineral deposited from gold to precious stone, copper to PGE group of mineral, only quartz, feldspar and dimension stones are quarried in the district.

Drainage system with description of main rivers

Sl. No.	Name of the River	Area drained (Sq.km)	% Area drained in the District
1	Bhavani	2469	40.1%
2	Cauvery	NIL	NIL

Salient Features of Important Rivers and Streams:

Sl. No.	**Name of the River or Stream**	**Total Length in the District (in Km)**	**Place of Origin**	**Altitude at Origin**
1	Bhavani	160	Billimala Range of Nilgris District	2634
2	Cauvery	46	Perumpallam	-

Sl.No	River or Stream	Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tone) (60 % of total mineral potential) - SAND
1.	Bhavani	NIL				
2.	Cauvery	NIL				

Portion of the River or Stream Recommended for Mineral Concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in metric tone) (60 % of total mineral potential) - SAND
-	-	-	-	-

Sl. No.	River or Stream	Portion of the river or stream recommended for mineral concession	Length of area recommended for mineral concession (in kilometer)	Average width of area recommended for mineral concession (in kilo meters)	Area recommended for mineral concession (in square meter)	Mineable mineral potential (in meter cube) (60% of total mineral potentital)
1	Bhavani	…	…	….	…	…
2.	Cauvery	…	…	….	…	…