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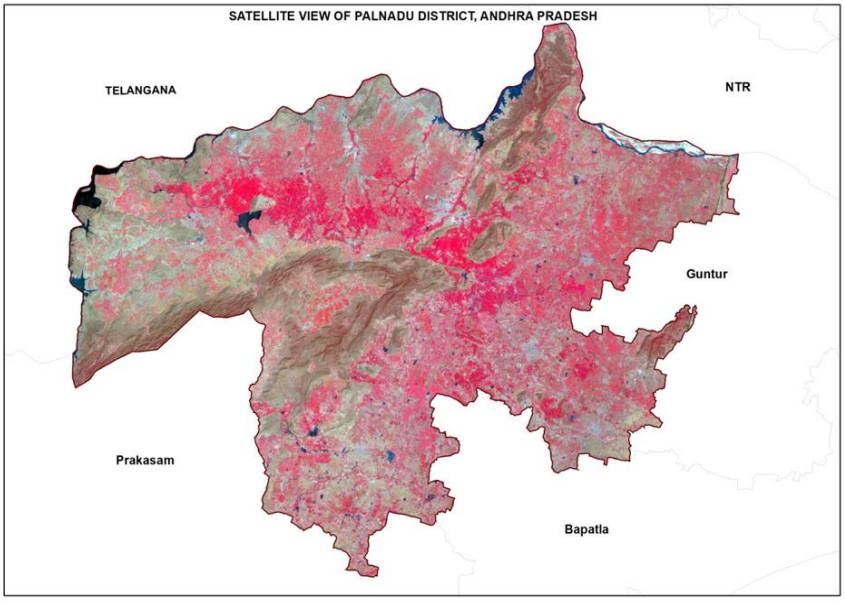
NOTIFICATION

DISTRICT SURVEY REPORT
FOR
SAND AND OTHER MINOR MINERALS
PALNADU DISTRICT

(FOR THE DEPARTMENT OF MINES AND GEOLOGY, GOVT. OF AP)



DISTRICT SURVEY REPORT
FOR
SAND AND OTHER MINOR MINERALS
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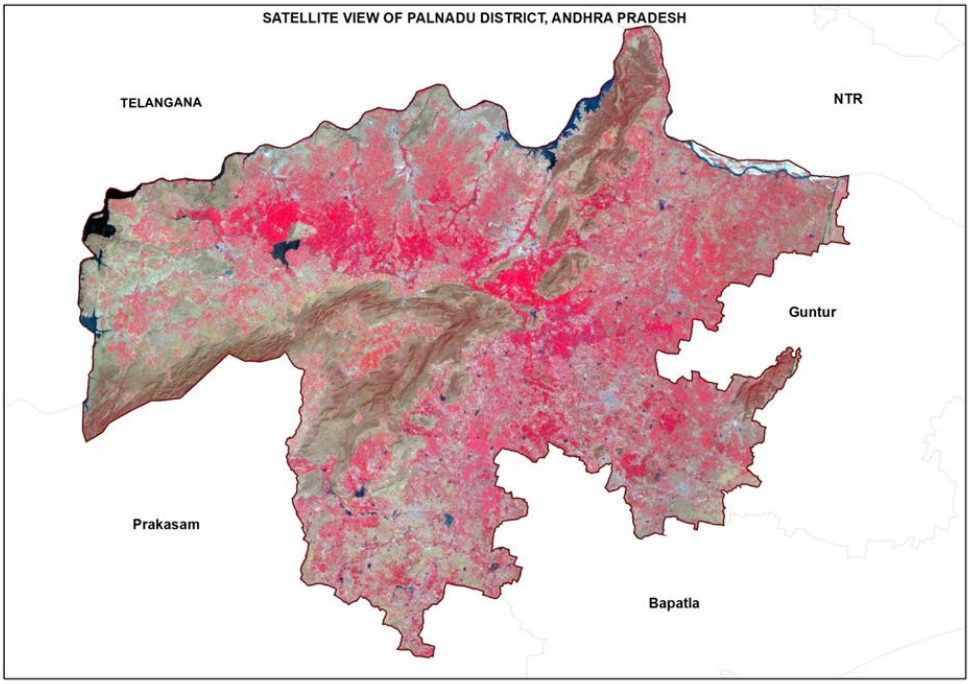
(FOR THE DEPARTMENT OF MINES AND GEOLOGY, GOVT. OF AP)

As per Notification No. S.O. 141 (E), 15.01.2016, S.O. 3611(E), 25.07.2018, & Enforcement & Monitoring Guidelines for Sand Mining 2020 of MOEF&CC, GoI



Prepared by

ANDHRA PRADESH SPACE APPLICATIONS CENTRE (APSAC)
ITE&C Department, Govt. of Andhra Pradesh

Submitted to

DEPARTMENT OF MINES AND GEOLOGY
Government of Andhra Pradesh

November 2023

Andhra Pradesh Space Applications Centre
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Report Scrutiny Mechanism

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PREFACE

The Natural resource inventory is the assessment of the status of a given natural resource of an area at a given point in time. Population pressure results in over- exploitation of resources. The baseline information on the resources would help the administration for better planning and decision making. The main purpose of the report is to disseminate data on the natural resource up to the lowest administrative functionary to facilitate micro level planning and development. The efforts have been made to assess and document the information on land use/land cover, crop, surface water resource, soils, slope, groundwater prospects, groundwater quality, geological information, and minerals resources in Palnadu district, Andhra Pradesh, based on the satellite remote sensing data and socioeconomic information.

The Department of Mines and Geology (DMG), Government of Andhra Pradesh (AP) requested the Andhra Pradesh Space Applications Center (APSAC) to update the district survey reports with availability of sand mineral information, major and minor mineral details, and river morphology for all the districts in the State. The District Survey report emphasizes and updated the major and minor minerals in the districts of AP. The District Survey reports are updated following the "Sustainable Sand Mining guidelines" issued in 2016 and 2020 and SO 741of 2016 of the Ministry of Environment, Forests and Climate Change provided by the DMG. The comments received from the public, if found fit, shall be incorporated in the report. A list of leases in the district will be provided by the concerned Assistant Directors of Mines and Geology.

The report is an outcome of the efforts of the Scientists and Project Associates at APSAC. I heartily congratulate the team for compiling the report.

(Dr.Sundar Balakrishna, IFS)
Vice-Chairman
APSAC

ACKNOWLEDGEMENTS

Our sincere gratitude to **Sri Gopal Krishna Dwivedi, IAS**, **Principal Secretary,** Department of Mines and Geology, Govt. of Andhra Pradesh for whole-hearted support.

Our sincere gratitude to **Sri Kona Sasidhar, IAS**, **Secretary to Government,** Information Technology, Electronics and Communications (ITE&C), Govt. of Andhra Pradesh and the **Chairman,** APSAC Governing Body, for his constant encouragement.

We would like to express our sincere gratitude to **Dr. Sundar Balakrishna, IFS**, **Special Secretary to Government,** Information Technology, Electronics and Communications (ITE&C), Govt. of Andhra Pradesh and the **Vice-Chairman, APSAC** Govt. of Andhra Pradesh, for his meticulous guidance and supervision.

We are grateful to the **Sri. V.G. Venkata Reddy**, **Director**, Department of Mines and Geology, Govt. of Andhra Pradesh for entrusting the work for the preparation of District Survey Reports of Andhra Pradesh.

We owe a great deal to **Sri. P Raja Babu, Joint Director,** Department of Mines and Geology for his overall support and guidance during the execution of this work.

We are very much thankful to **Dr.M.J.Ratnakanth Babu, Royalty Inspector (Head Office**), **Smt. P.Damayanthi, Technical Assistant (Head Office)** Mines and Geology for his support to complete the work successfully.

We are also thankful to the **District Mines and Geology Officer,**Palnadu District for their support in providing information

Our sincere thanks are due to the scientific staff of APSAC who has generated all the thematic maps for District Survey Reports.

APSAC

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LIST OF CONTESTS AS PER THE GAZETTE NO: 2827, Dt:25.07.2018

List of Abbreviations

APSAC	: Andhra Pradesh Space Applications Centre
APMMC	: Andhra Pradesh Minor Mineral Concession
AMSL	: Above Mean Sea Level
AWiFS	: Advanced Wide Field Sensor
APWALTA	: Andhra Pradesh State Water, Land and Trees Authority
APMDC	: Andhra Pradesh Mineral Development Corporation
Bgl	: Below ground level
BT Road	: Bituminous Road
Cl	: Chlorine
CC Road	: Cement concrete
CRZ	: Coastal Regulatory Zone
CPSU	: Central Public Sector Undertaking
CGWB	: Central Ground Water Board
cu.m/day	: Cubic meter per day
DSR	: District Survey Report
DMG	: Directorate of Mines and Geology
DM&GO	: District Mines and Geology Officer
DES	: Directorate of Economics and Statistics
DEM	: Digital Elevation Model
dS/m	: Decisiemens per metre
EIA/EMP	: Environmental Impact Assessment
F	: Fluorine
FAC	: Full Additional Charge
FASAL	: Forecasting Agricultural output using Space, Agro-meteorology and Land-based observations
Fe	: Iron
Ft	: feet
GD	: Geosciences Division
GIS	: Geographical Information System
GSI	: Geological Survey of India
Ha	: Hectare
Km	: Kilometre
IRS	: Indian Remote Sensing Satellite
ITE and C	: Information Technology Electronics and Communications
LISS	: Linear Imaging Self Scanning
LULC	: Land Use / Land Cover

Lps	: Litres per second
M	: meter
Mi	: mile
mm	: millimetre
MT	: Million Tonne
MoEF	: Ministry of Environment and Forests
MSL	: Mean Sea Level
NIRD	: National Institute of Rural Development
NH	: National Highway
$NaNO_3$	: Sodium nitrate
NRSA	: National Remote Sensing Agency
NRSC	: National Remote Sensing Centre
PESA	: Panchayaths Extension to Scheduled Areas
pH	: Power of hydrogen
PSD	: Performance Security Deposit
PSU	: Public sector Undertakings
R2	: ResourceSat-2
RGNDWM	: Rajiv Gandhi National Drinking Water Mission
RWS and S	: Rural Water Supply and Sanitation
SAR	: Synthetic Aperture Radar
SEB	: Special Enforcement Bureau
SO_4	: Sulphate
Sq.Km	: Square Kilometre
Sq.m	: Square metre
TA	: Tantalum
TIN	:Triangular Irregular Network
TGA	: Total Geographical Area
TIS	: Tank Information System
TTD	: Tirumala Tirupati Devasthanams
WBM	: Water Bound Macadam

Chapter I – Introduction &General Profile

1.1 Administrative Setup

Palnadu district is situated in the coastal Andhra region in the state of Andhra Pradesh, Narasaraopet town as its administrative headquarters. It was formed on 4th April 2022 to become one of the resultant twenty-six districts. The district was formed with Gurazala, Narasaraopetand Sattenapalle revenue divisions of the earlier Guntur district.

Geographically, Palnadu district is bounded on north by Suryapet and Nalgonda districts in Telangana state and by NTR district, on the south by Bapatla district, on the west by Prakasam and on the east by Guntur district. The total Geographical area of the district is 7,298 Sq.km. It is covered with 3 Revenue divisions, namely Gurazala, Narasaraopet and Sattenapalle: 28 Revenue mandals and 370 Revenue villages. Vinukonda mandal is having maximum number of villages (23) and Savalyapuram mandal is having a minimum number of villages (7). Out of 28 mandals of the district, the maximum area (561 Sq.km) is occupied by Bollapalle Mandal and minimum area in Muppalla Mandal (132 Sq.km).

The mandals covered in each Revenue division are shown in Table - 1 and its spatial distribution is shown in the Figure – 1 and the satellite view of District is shown in Figure – 2.

Table 1 List of mandals covered in each Revenue division in Palnadu District

Sl.No	Gurazala Division	Sl. No.	Narasaraopet Division	Sl. No.	Sattenapalle Division
1	Bollapalle	11	Chilakaluripet	20	Amaravathi
2	Dachepalle	12	Edlapadu	21	Atchampet
3	Durgi	13	Ipur	22	Bellamkonda
4	Gurazala	14	Nadendla	23	Krosuru
5	Karempudi	15	Narasaraopet	24	Muppalla
6	Machavaram	16	Nuzendla	25	Nekarikallu
7	Macherla	17	Rompicherla	26	Pedakurapadu
8	Piduguralla	18	Savalyapuram	27	Rajupalem
9	Rentachintala	19	Vinukonda	28	Sattenapalle
10	Veldurthi				

Data Source: APSAC, Vijayawada.

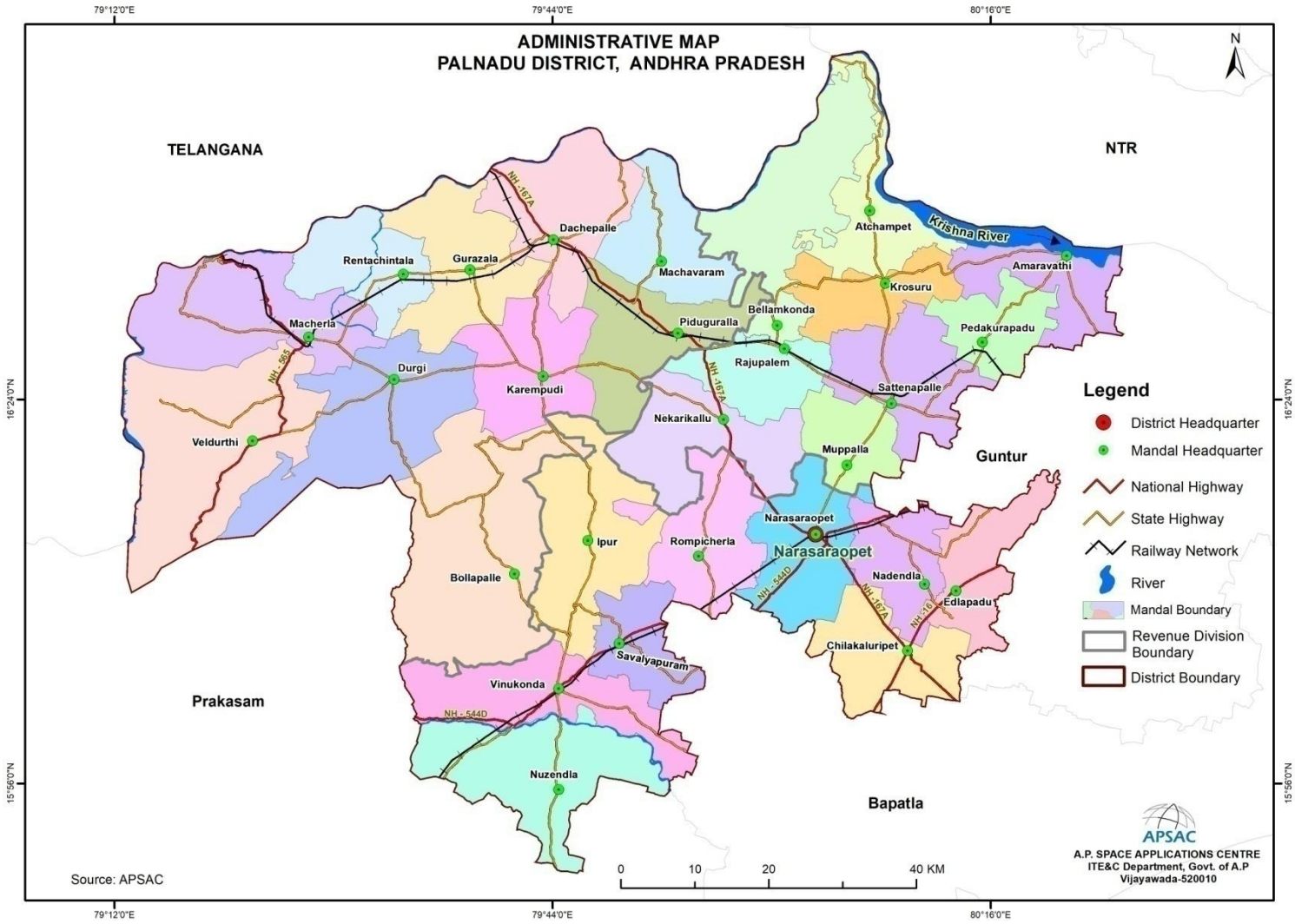


Figure-1: Administrative Map of Palnadu district, Andhra Pradesh

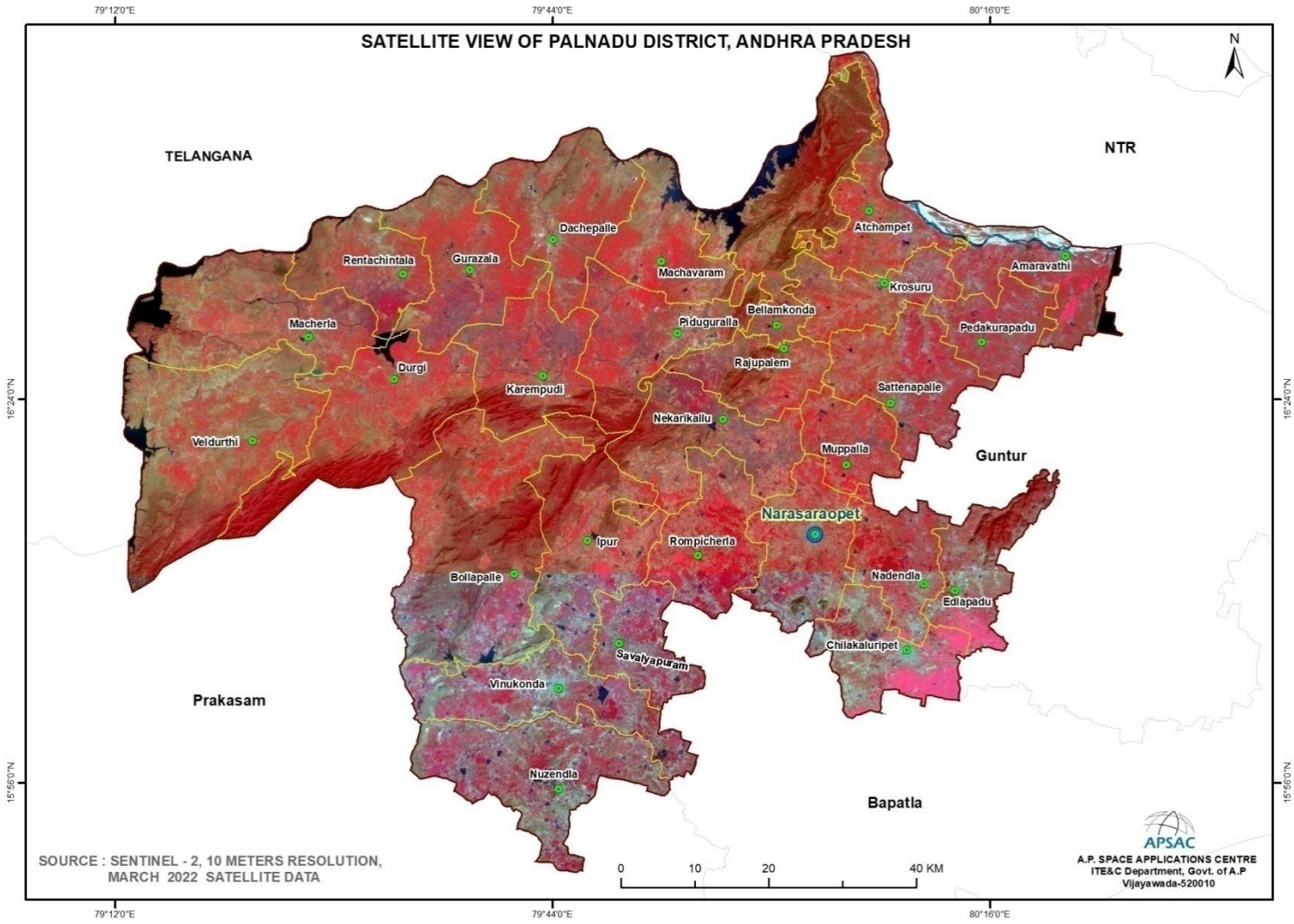


Figure-2: Satellite View of Palnadu District

1.2 Physiography

1.2.1 Physiography

Physiographically Palnadu district is a central upland surrounded by nearly plain and rolling lands to moderately sloping plains. The central uplands are having a trend of NNE-SSW.

1.2.2 Relief

The slope distribution clearly shows that most of the district comprises mainly plains on the east and Nallamala hill ranges on the west. The slope varies from nearly level to very steep slopes (Figure - 3). From the slope map, about 35% of the district area is under level to nearly level sloping area of 0-1%. The nearly level-sloping area is represented in yellow colour and is found in the northern part, eastern part, central part, and southern parts of the district along with very gently sloping areas. The gently sloping area is about 43% and these slops are mixing with nearly level slopes. Most of the gently sloping areas are distributed along the foothill zones and forest fringes with 11% of the district area. Gently sloping areas are observed in the west, north, and central parts of the district followed by hills. Strongly sloping areas are found in the forest areas ranging from 10-15%. Moderate and very steep slopes are observed at the peak of the hills and are concentrated more in the forest areas ranging from 15-35% and more than 35%. About 2% of the area is occupied by the very steep sloping category and is found in the western and southwest parts of the Palnadu district. Slope, Aspect, and Altitude are very important from a land utilization point of view. Especially, slope is very for land irrigability and land capability.

1.2.3 Climate & Rainfall

1.2.3.1. Climate:

Tropical climatic conditions with extremely hot summer and cold winter prevail in the Palnadu District. April to June months are the hottest months with high temperature in May. The climate of the district is moderate and characterized by a tropical rainy climate with aggressive summer. The period from December to middle of February is generally dry and cool winter season. The summer season is from March to May. The weather averages for the month of July, temperature averages

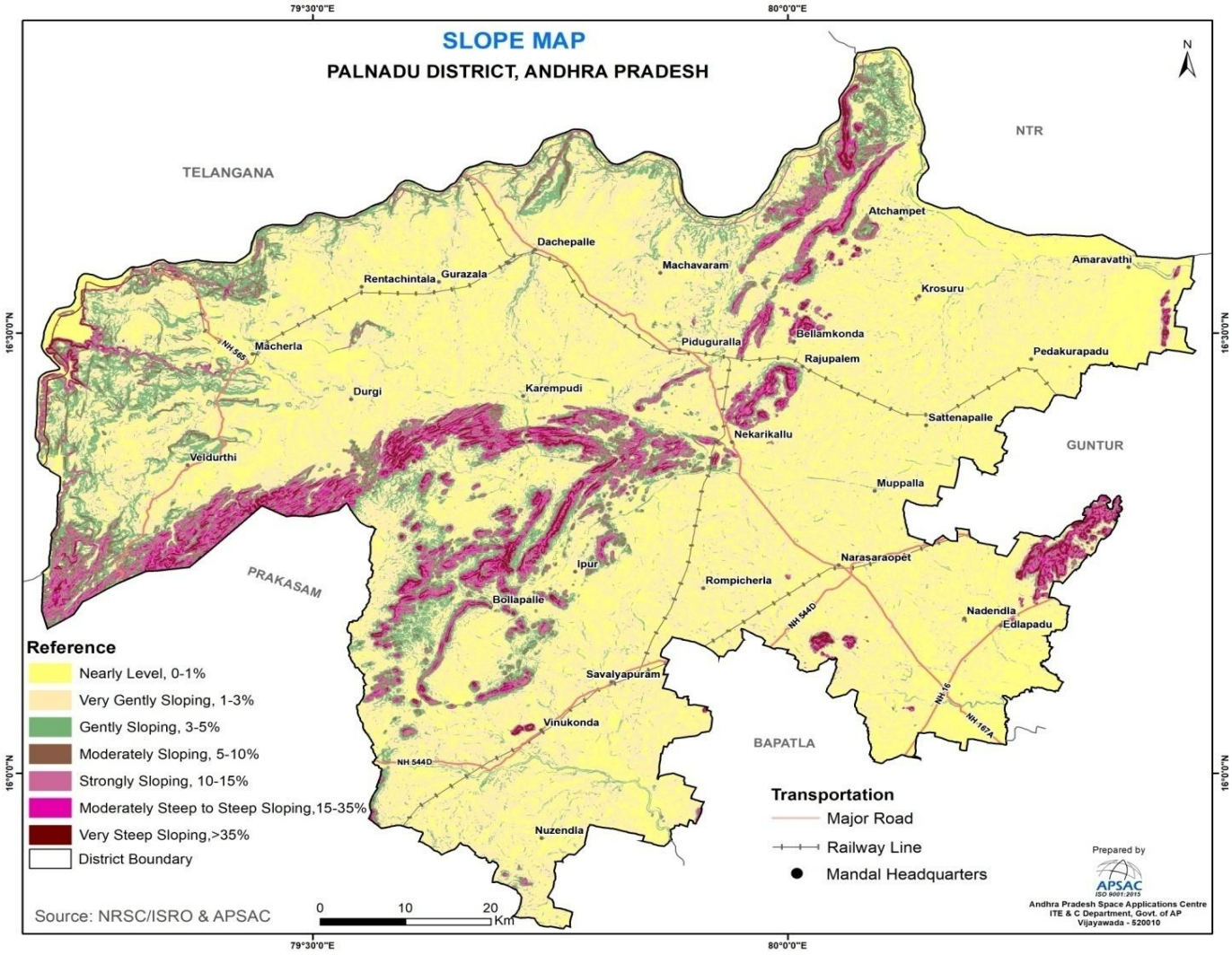


Figure-3: Slope Map of Palnadu District

around 33° C and at night it feels like 27° C in district head quarter Narasaraopet. The maximum and minimum temperatures are overall the district ranges between 30.6° C to 48.5° C and 17.3° C to 28.7° C. The location of the Automatic Weather Stations (AWS) in Palnadu district shown in Figure-4.

1.2.3.2. Rainfall:

The average annual rainfall of the district is 779.32 mm, of which 530.90 mm falls as South-West (June-September) monsoon and 168.51 mm as North-East (October-December) monsoon. The mean minimum and maximum temperatures recorded in the district are 17.3° C in January and 48.5° C in May, respectively. The average rainfall for the last 25 years is used for the analysis. The average annual rainfall is shown in Figure-5 of Isohytes map and details are given in Table-2.

Table 2 Average Annual Rainfall (mm) in the district, during the years 1998-2021

S.No	Month	Average Annual Rainfall (mm)
1	January	6.38
2	February	8.21
3	March	8.30
4	April	13.44
5	May	43.58
6	June	90.89
7	July	135.32
8	August	157.02
9	September	147.67
10	October	107.72
11	November	51.54
12	December	9.25
	Total	**779.32**

Data source: AWS & APSDPS, Vijayawada

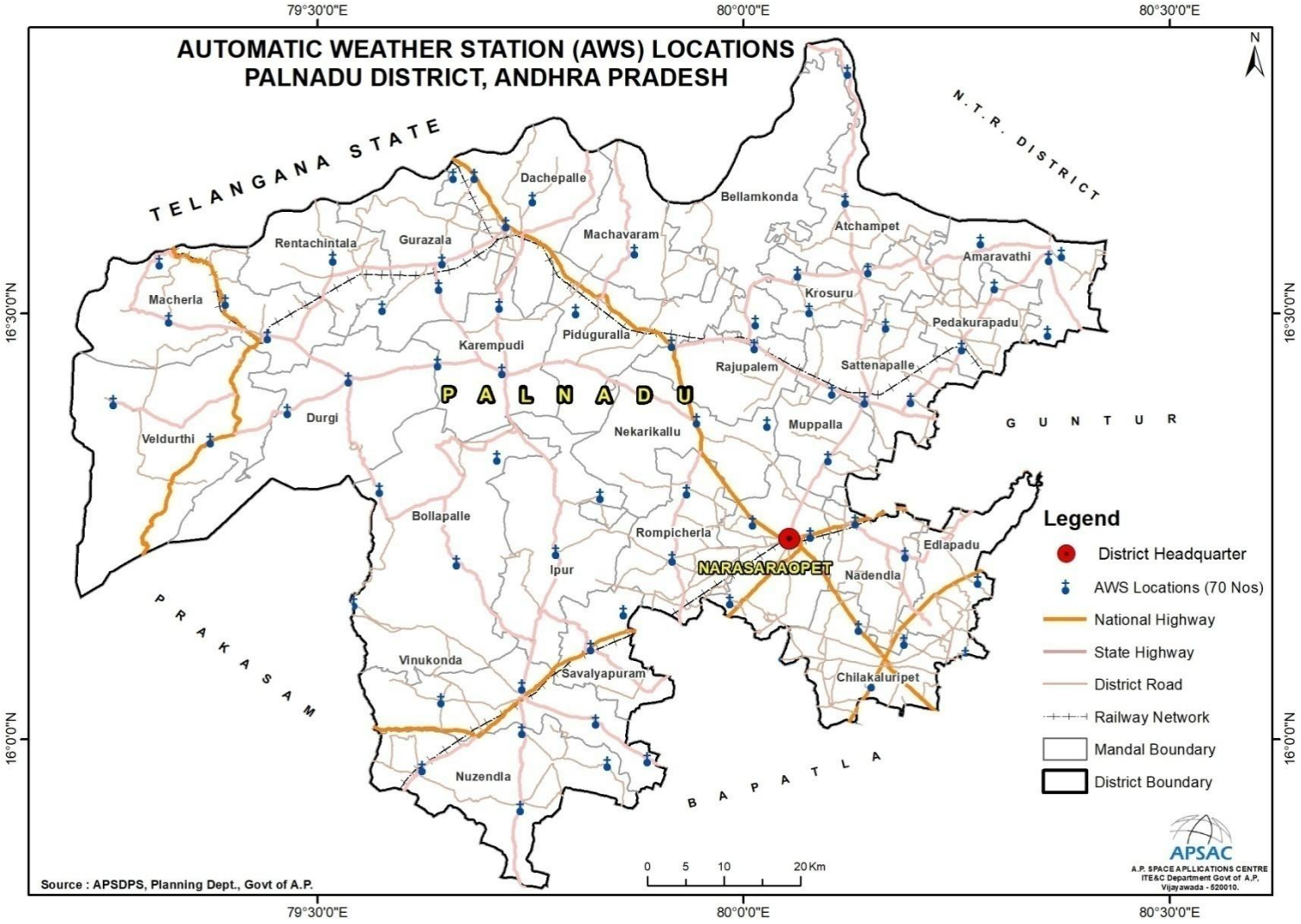


Figure-4: Locations of Automatic Weather Stations (AWS) in Palnadu District

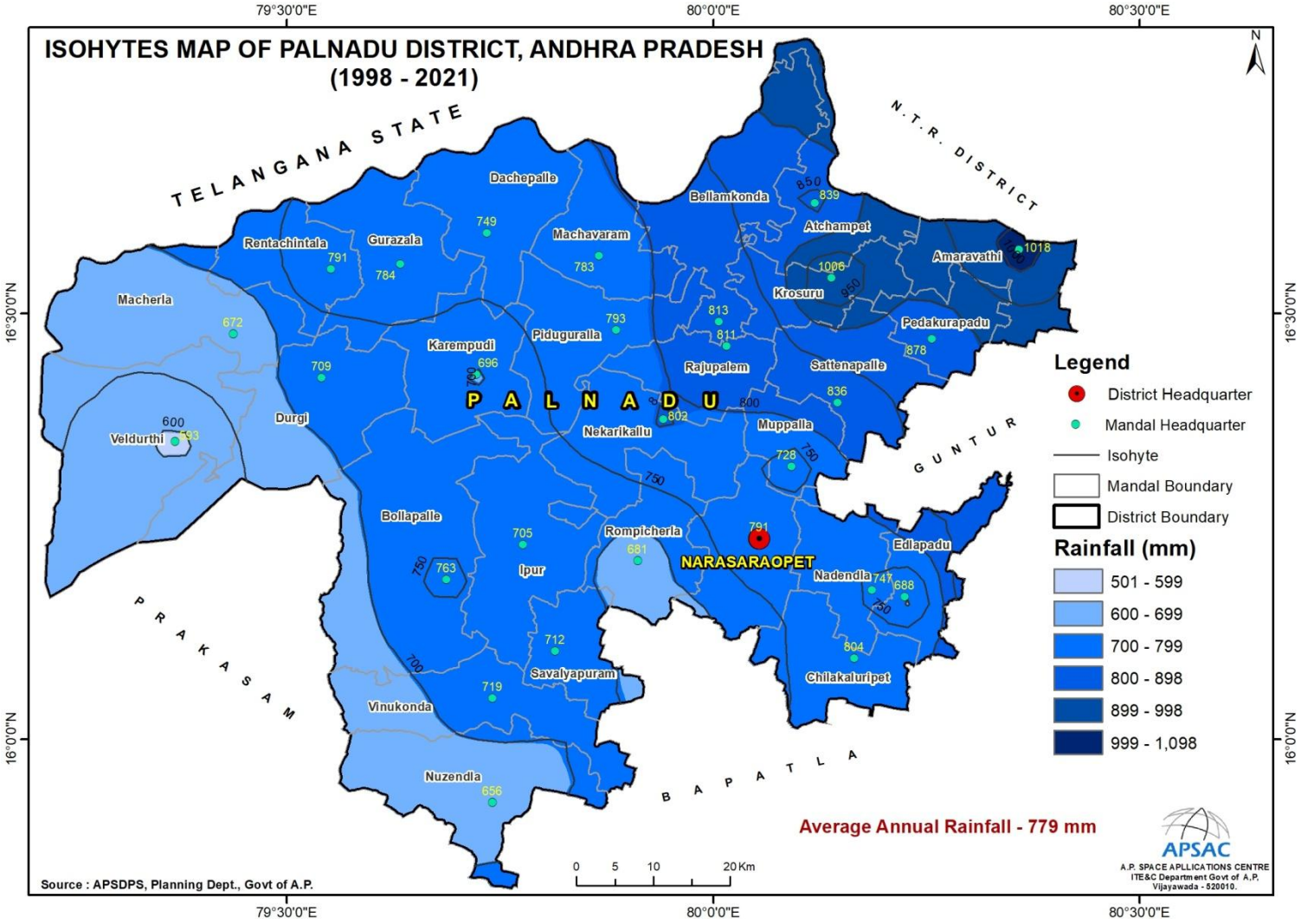


Figure-5: Rainfall distribution in Palnadu District

1.2.4 Drainage

The Krishna is Major River in the district and the tributaries are Chandravanka, Goli Vagu, Naguleru, Eddu Vagu and Kondaveeti Vagu. The other part of the rivers flows through Gundlakamma and Vogeru Vagu. The tributaries of Krishna River Chandravanka, Goli Vagu, Eddu Vagu, Naguleru, and Kondaveeti Vagu are risesnear Mutukuru, Guttikonda Reserved Forest, flows towards north direction and joining to the Krishna Riverin between NagarjunaSagar Reservoir and Prakasam Barrage.

The Gundlakamma River (Part) enters the district near Tangirala village Nuzendla mandal and exit near Puvvada village, Nuzendla mandal. And also the GundlakammaRiverconsists oftributaries Konkeru, Kandleru and Vala Eru**.** The Vogeru Vagu (Part) raises Guttikonda Reserved Forest, flows towards Southwest direction and joining toBay of Bengal near Bapatla.

The drainage pattern, in general, is straight, parallel to sub-parallel and dendritic drainage pattern. All the streams are ephemeral in nature. The Krishna River is perennial, whereas most of the other streams are intermittent to ephemeral in nature. Figture-6 Illustrates of the drainage system and surface water bodies.

1.3 Population and Literacy

1.3.1. Population: The total population of the district is 20,41,723; of which male and female are 10,24,016 and 10, 17,707respectively as per the 2011 census of India. Among all Mandals, Narasaraopet Mandal is having a maximum population of 2,11,948; whereas Savalyapuram Mandal is having a minimum population of 37,994.The total schedule caste (SC) population in the district is 3,75,554; of which male and female are 1,87,560 and 1,87,994 respectively. The schedule tribe (ST) population is 1,41,994; of which male and female are 72,352 and 69,592 respectively. The mandal wise population is shown in the Table-3. The Mandal wise spatial distribution of the total population is depicted in the Figure-7.

1.3.2. Literacy: The total literacy in the district is 10,85,913; of which male and female are 6,28,649 and 4,57,264 respectively. The total illiterates are 9,55,810; of which male and female are 3,95,367 and 5,60,443 respectively, as per the 2011 census of India literacy shown in Table-4.

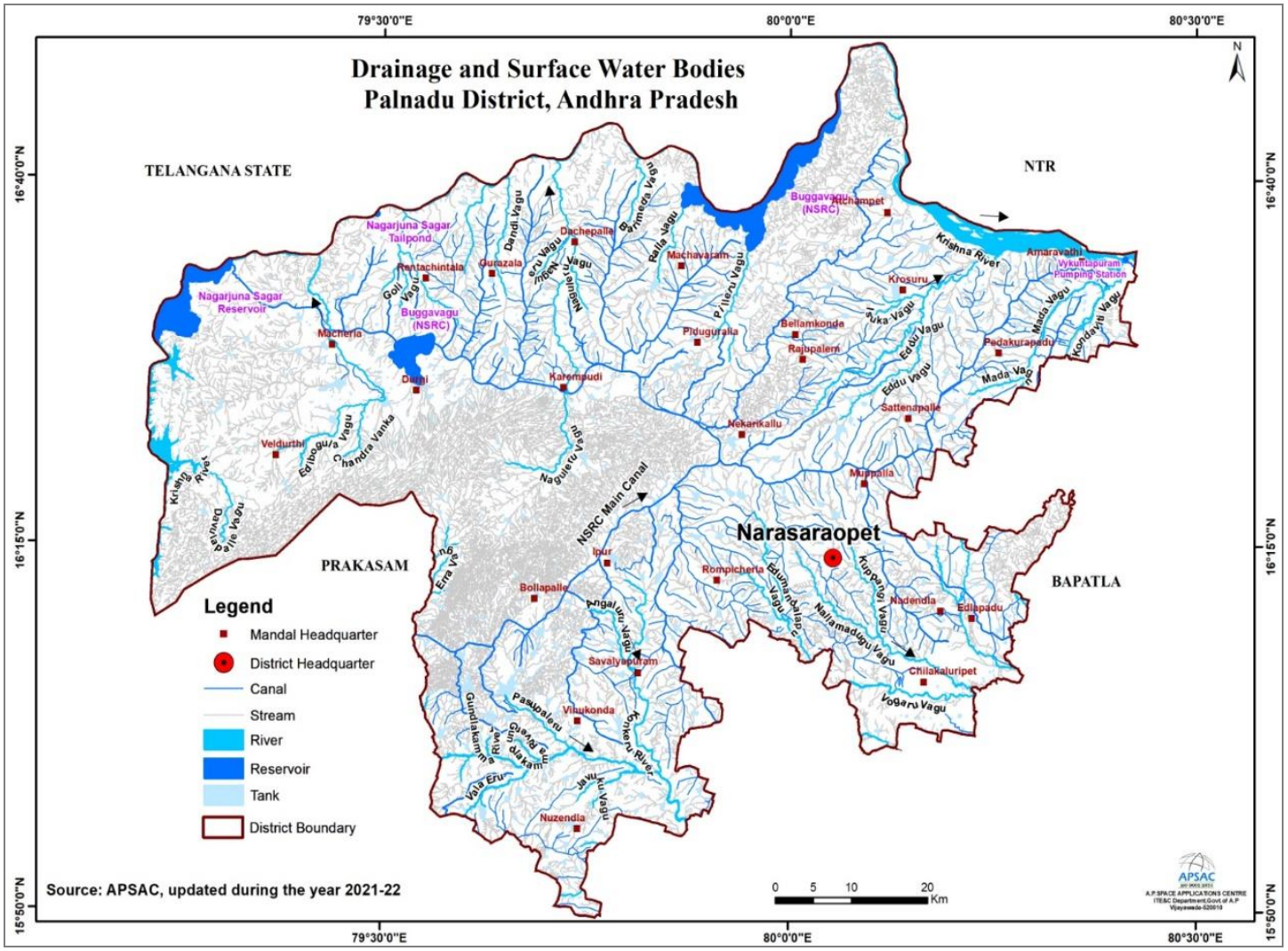


Figure-6: Drainage network and surface waterbodies of the Palnadu District

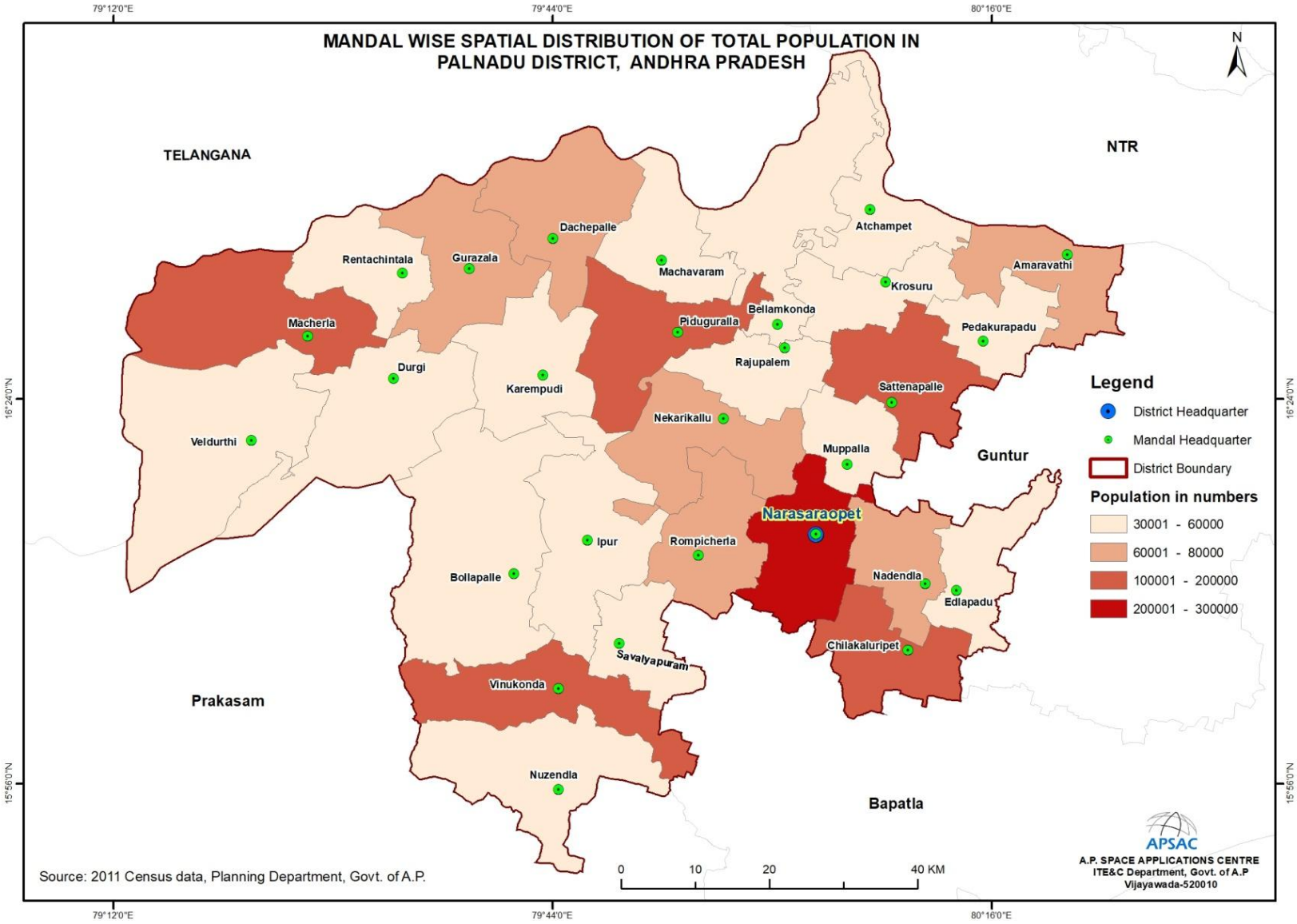


Figure-7: Mandal wise Spatial Distribution of Population in Palnadu district, Andhra Pradesh

Table 3 Population Statistics Summary of 2011 Census

S.No	Mandal Name	Total House Holds	Total Population	Total Male Population	Total Female Population	Total SC Population	Male SC Population	Female SC Population	Total ST Population	Male ST Population	Female ST Population
1	Amaravathi	17502	66277	32709	33568	18630	9059	9571	3439	1770	1669
2	Atchampet	15068	58447	29749	28698	13955	7322	6633	5904	3005	2899
3	Bellamkonda	9568	38455	19466	18989	6403	3205	3198	5990	3069	2921
4	Bollapalle	14764	58086	29245	28841	10260	5134	5126	15731	8019	7712
5	Chilakaluripet	38694	153629	76176	77453	23940	11902	12038	8327	4285	4042
6	Dachepalle	19468	75233	37623	37610	11316	5716	5600	4404	2198	2206
7	Durgi	12529	49059	24571	24488	7601	3798	3803	4830	2404	2426
8	Edlapadu	15204	56321	28211	28110	14791	7451	7340	2620	1338	1282
9	Gurazala	17372	66070	32945	33125	11109	5455	5654	3220	1589	1631
10	Ipur	11956	46714	23472	23242	9689	4891	4798	3378	1783	1595
11	Karempudi	13839	52367	26525	25842	7574	4040	3534	3930	2097	1833
12	Krosuru	14697	56308	28211	28097	12574	6242	6332	3433	1729	1704
13	Machavaram	13467	52469	26391	26078	9992	4963	5029	4141	2121	2020
14	Macherla	28413	113048	57140	55908	16559	8031	8528	13375	7165	6210
15	Muppalla	11189	42509	21285	21224	8221	4179	4042	1788	902	886
16	Nadendla	18259	68978	34983	33995	16684	8461	8223	2191	1108	1083
17	Narasaraopet	52233	211948	106926	105022	32310	16342	15968	7313	3676	3637
18	Nekarikallu	16578	63349	31902	31447	9631	4835	4796	5059	2570	2489
19	Nuzendla	13490	52853	26201	26652	10469	5115	5354	1826	865	961
20	Pedakurapadu	13385	50030	25031	24999	11784	5877	5907	1900	952	948
21	Piduguralla	30783	122319	61332	60987	19396	9781	9615	6860	3396	3464
22	Rajupalem	11602	45213	22591	22622	7524	3773	3751	3077	1551	1526
23	Rentachintala	12990	49827	25058	24769	7518	3737	3781	4339	2352	1987
24	Rompicherla	15791	62060	31160	30900	13782	6950	6832	3593	1818	1775
25	Sattenapalle	34030	130608	64764	65844	31275	15210	16065	4127	2026	2101
26	Savalyapuram	9953	37994	19163	18831	8830	4420	4410	1269	655	614
27	Veldurthi	12166	49054	24608	24446	6705	3400	3305	10716	5234	5482
28	Vinukonda	27936	112498	56578	55920	17032	8271	8761	5164	2675	2489
	Grand Total	**522926**	**2041723**	**1024016**	**1017707**	**375554**	**187560**	**187994**	**141944**	**72352**	**69592**

Data Source: 2011 Census of India

Table 4 Literacy statistics summary of 2011 Census

S.No	Mandal Name	Total Literacy	Male Literacy	Female Literacy	Total Illiterates	Male Illiterates	Female Illiterates
1	Amaravathi	37507	20857	16650	28770	11852	16918
2	Atchampet	27585	16366	11219	30862	13383	17479
3	Bellamkonda	17851	10903	6948	20604	8563	12041
4	Bollapalle	20426	13179	7247	37660	16066	21594
5	Chilakaluripet	94360	52621	41739	59269	23555	35714
6	Dachepalle	39028	22836	16192	36205	14787	21418
7	Durgi	22788	13755	9033	26271	10816	15455
8	Edlapadu	32041	18047	13994	24280	10164	14116
9	Gurazala	33260	19673	13587	32810	13272	19538
10	Ipur	21537	12955	8582	25177	10517	14660
11	Karempudi	26116	15638	10478	26251	10887	15364
12	Krosuru	27735	16449	11286	28573	11762	16811
13	Machavaram	25424	15423	10001	27045	10968	16077
14	Macherla	62850	36704	26146	50198	20436	29762
15	Muppalla	22440	13050	9390	20069	8235	11834
16	Nadendla	38269	22201	16068	30709	12782	17927
17	Narasaraopet	137390	76520	60870	74558	30406	44152
18	Nekarikallu	31938	18935	13003	31411	12967	18444
19	Nuzendla	21959	13192	8767	30894	13009	17885
20	Pedakurapadu	28285	16035	12250	21745	8996	12749
21	Piduguralla	67763	38937	28826	54556	22395	32161
22	Rajupalem	22027	13067	8960	23186	9524	13662
23	Rentachintala	24037	14245	9792	25790	10813	14977
24	Rompicherla	30712	18241	12471	31348	12919	18429
25	Sattenapalle	74291	41217	33074	56317	23547	32770
26	Savalyapuram	17578	10577	7001	20416	8586	11830
27	Veldurthi	20000	11993	8007	29054	12615	16439
28	Vinukonda	60716	35033	25683	51782	21545	30237
Grand Total		**1085913**	**628649**	**457264**	**955810**	**395367**	**560443**

Data Source: 2011 Census data, Planning Department & DES

1.3.3. Details of the Occupational Health issues in the District (Last five-year data of number of patients of Silicosis): No cases were reported during last 5 years due to mining activity.

1.4 Land Utilization Pattern

1.4.1 Land Use / Land Cover

The Land Use / Land Cover (LU-LC) pattern of any region is an outcome of various physical, cultural factors and their utilization by a man in time and space. Land use refers to the type of utilization to which man has put the land. It also refers to the evaluation of the land with respect to various natural characteristics. But land cover describes the vegetal attributes of land. Land use/land cover data is essential for planners, decision makers and those concerned with land resources management. The proper understanding of the influence of the various human-induced land use practices with regard to the environmental change, it is essential to help simulate the land use changes. Remote sensing technology is considered most effective as it provides timely and authentic information about the spatial distribution of land use/land cover, while Geographical Information System (GIS) provides a flexible digital environment for collecting, storing, visualizing and analyzing the spatial data. Remote sensing as a vital tool helps in rapid assessment and monitoring of a natural resource. When combined with GIS, it makes it possible to map land use/cover phenomena in detailed for further planning, development, and decision-making, which is essential for meeting the increasing demands and welfare of the ever-growing population.

The Land Use/Land Cover (LULC) pattern of any district is a result of different physical, social variables and their utilization by a man in time and space. Land utilize alludes to the sort of usage to which man has put the land. It additionally alludes to the assessment of the land for different normal attributes. Be that as it may, arrive cover portrays the vegetal properties of land. Land use/land cover information is basic for organizers, leaders and those worried about land resources management. The correct comprehension of the impact of the different human-prompted arrive utilize hones concerning the natural change, it is basic to help recreate the land utilize changes. Remote detecting innovation is viewed as best as it gives convenient and valid data about the spatial circulation of land utilize/arrive cover, while Geographical Information System (GIS) gives an adaptable advanced condition to gathering, putting away, envisioning and examining the spatial information. Remote detecting as an indispensable apparatus helps for fast evaluation and observing of a characteristic asset. At the point

when joined with GIS, it makes it conceivable to delineate Land Use / Land Cover phenomena in detailed for additionally arranging, advancement, and decision-making, which is essential for meeting the increasing demands and welfare of the ever-growing population.

1.4.2 Spatial Distribution of Land Use / Land Cover

Using satellite data from the three seasons (Kharif, Rabi, and Zaid), various land use / land cover categories have been identified under level-3 classification. NRSC the LU-LC map has been generated using visual image interpretation techniques i.e., size, shape, color, tone, texture, association, and pattern (NRSA, 2006). This information is used for general planning purposes at district/mandal level. The broad categories are built-up, agricultural, forest, wastelands, and water bodies. The major LU-LC categories such as built-up (231.37 sq. km), agriculture (4806.84 sq. km), forest (1454.05 sq. km), wastelands (484.58 sq. km), and water bodies (320.95 sq. km) were identified and delineated. The study area has been classified into 35 LU-LC classes under level-III classification. Agriculture land (66%) is the most predominant category, followed by forests (20%). The spatial distribution of land use/land cover of the Palnadu district is shown in Figure - 8 and area statistics presented in Table-5.

1.4.2.1. Built up - Sparse (Discontinuous)

Most of the land is covered by the structures like buildings, roads and artificially surfaced areas associated with vegetated areas and bare soil, which occupy discontinuous but significant surfaces. Between 10 to 40 % of the total surface should be impermeable. Scattered blocks of residential flats, hamlets and small villages are delineated under this category. It contributes an area of 3.36 sq. km, which is found in peri-urban areas of Narasaraopet, Piduguralla, Vinukonda, Macherla and Sattenapalle towns.

1.4.2.2. Vegetated / Open Area

These are vegetated areas within the urban agglomeration (situated within or in contact with urban areas). The vegetation cover of trees, shrubs, and herbs covers the surface area, and it has been delineated. Open areas used as Parks, sports and leisure facilities, camping grounds, sports grounds, leisure parks, golf courses, and racecourses, including formal parks, etc are considered in this category. This category occupies an area of 5.86 sq. km. These areas are found along the fringe area and outskirts of the urban areas.

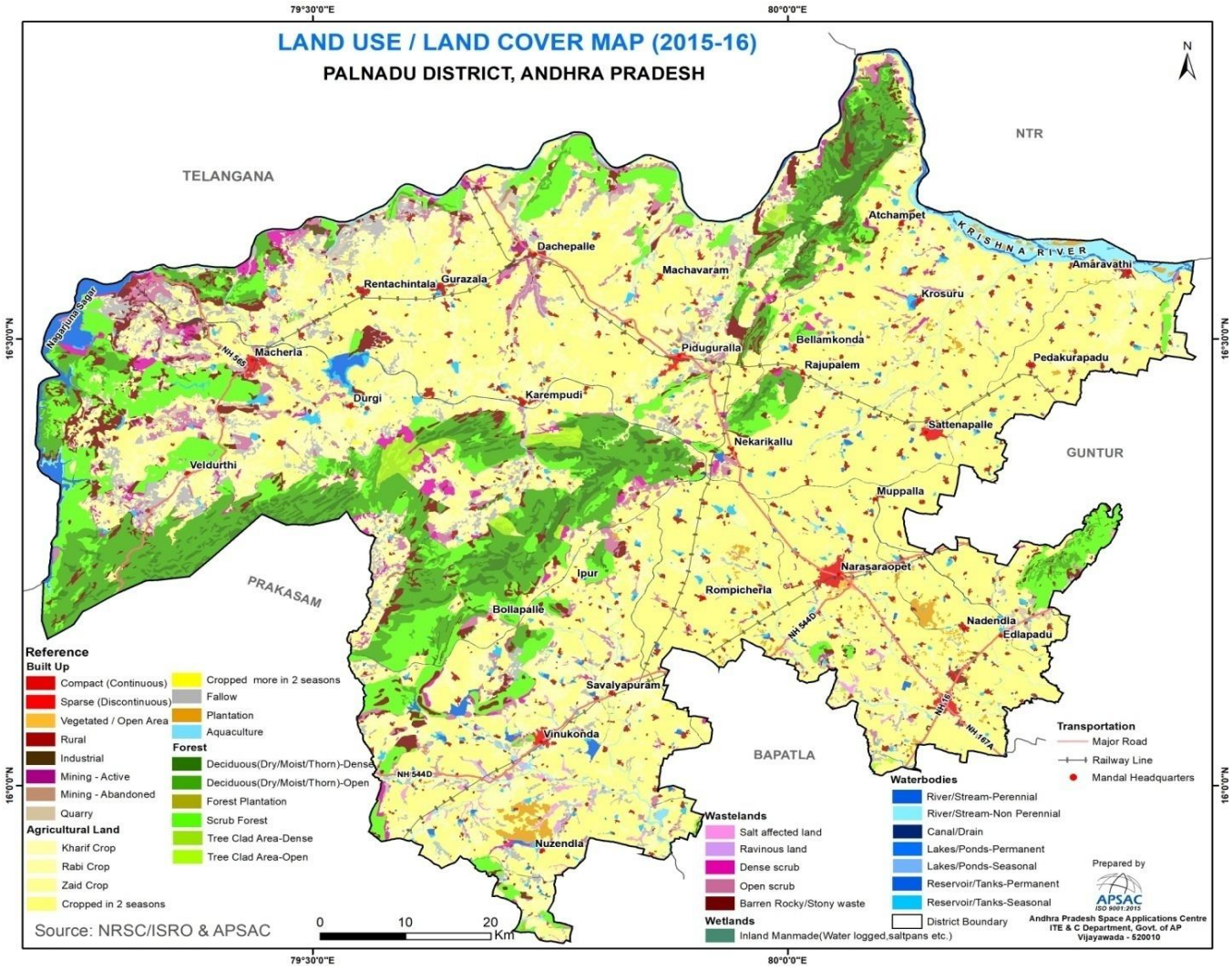


Figure-8: Land use / land cover map of Palnadu District 2015-16

Table 5 Category-wise distributions of Land Use/Land Cover during 2015-16

S. No	LULC categories	Area in sq. km	% to total
Built Up		**231.37**	**3.17**
1	Compact (Continuous)	29.16	0.40
2	Sparse (Discontinuous)	3.39	0.05
3	Vegetated / Open Area	5.86	0.08
4	Rural	142.05	1.95
5	Industrial	9.80	0.13
6	Mining - Active	2.11	0.03
7	Mining - Abandoned	8.51	0.12
8	Quarry	30.50	0.42
Agricultural Land		**4806.84**	**65.87**
9	Kharif Crop	1071.56	14.68
10	Rabi Crop	113.33	1.55
11	Zaid Crop	7.34	0.10
12	Cropped in 2 seasons	3272.66	44.84
13	Cropped more in 2 seasons	1.67	0.02
14	Fallow	281.12	3.85
15	Plantation	51.10	0.70
16	Aquaculture	8.06	0.11
Forest		**1454.05**	**19.92**
17	Deciduous (Dry/Moist/Thorn)-Dense/Closed	171.87	2.36
18	Deciduous (Dry/Moist/Thorn)-Open/Closed	636.16	8.72
19	Forest Plantation	0.96	0.01
20	Scrub Forest	600.02	8.22
21	Tree Clad Area-Dense/Closed	28.28	0.39
22	Tree Clad Area-Open	16.76	0.23
Wastelands		**484.58**	**6.64**
23	Salt affected land	17.43	0.24
24	Ravinous land	0.09	0.00
25	Dense scrub	92.08	1.26
26	Open scrub	180.04	2.47

27	Barren Rocky/Stony waste	194.94	2.67
Wetlands		**0.20**	**0.00**
28	Inland Manmade (Waterlogged, saltpans etc.)	0.20	0.00
Water bodies		**320.95**	**4.40**
29	Reservoir/Tanks-Permanent	78.51	1.08
30	Reservoir/Tanks-Seasonal	66.15	0.91
31	Canal/Drain	23.05	0.32
32	Lakes/Ponds-Permanent	0.37	0.01
33	Lakes/Ponds-Seasonal	0.11	0.00
34	River/Stream-Non Perennial	123.55	1.69
35	River/Stream-Perennial	29.22	0.40
Total		**7298.00**	**100.00**

Data source: NR Census 3rd cycle mapping, NRSC/ISRO & APSAC, GoAP

1.4.2.3. Built-up – Rural

These are the lands used for human settlements of a smaller size than urban settlements, with more than 30% of the population engaged in primary agricultural activity and associated with non-commercial and allied classes and are classified as built up (rural). About 142.05 sq. km of the rural built-up area were mapped, which is spread over the district.

1.4.2.4. Industrial Area

This class includes non-linear impervious surfaces related to trade, manufacturing, distribution, and commerce. These are areas where human activity can be seen in the form of manufacturing as well as other maintenance-related establishments. The industrial area occupied 9.80 sq. km and can be found in the surroundings of Piduguralla, Dachepalle, Nakarikallu and Chilakaluripet.

1.4.2.5. Mining – Active

Mining areas include areas under surface operations. It is easy to spot these activities' effects on the landscape because they have left behind enormous giant pit mines. Currently, extensive surface operations are being conducted in the active mining areas to remove economically significant ores. A total of 2.11 sq. km. is contributed by the active mining area.

1.4.2.6. Mining – Abandoned

These are the locations where extensive surface operations to remove economically significant ores were once conducted but are currently being left unfinished for a variety of reasons, including economic, operational, viability, disturbances, etc. About 8.51 sq. km. has been contributed under this category.

1.4.2.7. Quarry

These are signs of small-scale surface mining operations, which involve the surface of the land being excavated of sand, gravel, clay-phosphate mines, limestone quarries, etc. They are primarily distinguished by their proximity to urban areas. It contributes to an area of about 30.50 sq km.

1.4.2.8. Agricultural Land

This category is devoted primarily to growing crops for commercial and horticultural purposes as well as those for food, fiber, and other commodities. Most of the population depends on agriculture for livelihood. Cropland, fallow land, agricultural plantations, and aquaculture are all included in this category. The agricultural land is a major category; accounting for 4806.84 sq. km, which is accounted for 65.87% of the district's total area. It is also found that cropped in two seasons i.e.,double-cropped area is about 45% of the district total. Major food crops grown are Paddy, Jowar, Bajra, Black gram, Bengal gram, Redgram, and sugar cane, cotton, tobacco, chillies, turmeric, castor, sunflower, groundnut, and lemon, mango, banana, sapota, coconut and vegetables.

1.4.2.9. Kharif Crop

The Kharif crop is defined as any agricultural area that is grown from June/July to September/October, which coincides with the South-West monsoon season. It is linked to rain-fed crops in dry land farming with little or no irrigation, as well as areas of rain-fed paddy and other dry crops. Rice, sugarcane, jowar, maize, redgram, cotton, castor, chillies and other crops are commonly grown, and an area of 1071.56 sq. km (14.68%) has been mapped under the Kharif cropland.

1.4.2.10. Rabi Crop

These areas are cultivated from November/December to February/March. It is associated with areas under assured irrigation irrespective of the source of

irrigation. However, Rabi-cropped areas also exist in rain-fed areas, particularly in black soil regions with high rainfall during the Kharif season and under conditions of residual soil moisture. Mainly irrigated crops are growing during the Rabi season by utilizing canals, tanks and groundwater resources. In some places, lift irrigation is also practiced in the district. The total area cultivated under the Rabi season is contributed to cropped in 2 seasons category and identified 113.33 sq. km (1.55%) area in rabi season.

1.4.2.11. Zaid Crop

These are the areas that are planted with crops during the summer (April to May), and they are primarily connected to fertile, irrigated plains and delta regions. The Zaid crop areas cover an area of 7.34 sq. km during 2015-16.

1.4.2.12. Cropped in two seasons

These are the areas that are cropped during two cropping seasons that are often seen associated with irrigated areas. Three combinations are possible in this category viz., - Kharif + Rabi, Kharif + Zaid and Rabi + Zaid. It is found that this is the major agricultural category with an extent of 3272.66 sq. km (44.84%). These are found in the areas of the delta region and plains in upland areas with assured irrigation facilities from canals, tanks and groundwater.

1.4.2.13. Fallow land

The term "fallow land" refers to agricultural land that is actively being farmed but is occasionally allowed to rest or un-cropped for one or more seasons, but not for less than a year and not for more than five years. The fallow land occupies an area of 281.12 sq. km (3.85%) and is surrounded by the villages and towns.

1.4.2.14. Agricultural Plantation

These are areas where agricultural tree crops have been planted using agricultural management techniques. These also include the regions of land use systems and practices where the cultivation of herbs, shrubs, and vegetable crops is purposefully combined with crops, primarily in irrigated conditions, for ecological and financial reasons. These areas can be distinguished from cropland, particularly when using data collected during the Rabi/Zaid season.Plantations have irregular and sharp edges and appear in dark red to red tones in a variety of sizes, indicating that a fence

surrounds them.In the years 2015–16, plantation crops were grown on 51.10 sq. km (0.70%) of the total area.

1.4.2.15. Forest

Land with a tree canopy cover of more than 30 percent and an area of more than 0.5 ha is referred to as a forest. Forest is determined both by the presence of trees and the absence of other predominant land uses within the notified forest boundaries. Within the notified forest boundaries, trees should be able to grow to a minimum height of 5 meters. The forest category occupies an area of 1454.05 sq. km, which is about 20% of the district total area. The forest cover is found in the western, southwest, northern and central parts of the Palnadu district, where several forest species grow. The important species are teak, nalla maddi, rosewood, devadari, etc.

1.4.2.16. Deciduous (Dry/Moist/Thorn)-Dense

This category is predominantly composed of species, which shed their leaves once a year, especially during summer. These are mostly broad-leaved tropical forests with a tendency to shed their leaves annually. This category includes all the areas where the canopy cover/density is more than 40% and contributed 171.87 sq. km from the district. Most of the forests are deciduous forests and are found along the Eastern Ghats hill range, which is parallel to the Bay of Bengal coast.

1.4.2.17. Deciduous (Dry/Moist/Thorn)-Open

Most of the species in this category only lose their leaves once a year, usually in the summer. Most of these tropical forests are broad-leaved and have a yearly leaf-falling tendency. All forest areas that fall into this category have a canopy cover/density of between 10 - 40%. These forests contain a wide range of fauna, including tigers, leopards, wolves, bears, etc in addition to timber. This category is attributed to 636.16 sq. km (8.72%) of the total land area.

1.4.2.18. Forest Plantation

These are the areas where important tree species for forestry are grown and managed, particularly in notifying forest areas. Most of these are located in uplands and foothill areas. Many of these can be identified based on the sharp boundary exhibited by them. The distribution of forest plantations is 0.96 sq. km, which are found in the fringe areas of the notified forests.

Forest plantations, mainly teak, bamboo, casuarinas, etc, have been delineated.

1.4.2.19. Scrub Forest

These are the forest areas that are generally seen on the fringes of dense forest cover and settlements, where there is biotic and abiotic interference. Most times they are located closer to habitations. Forest blanks which are the openings amidst forest areas, devoid of tree cover, observed as openings of assorted sizes and shapes as manifested in the imagery, are also included in this category. It is spread over an area of 600.02 sq. km (8.22%).

1.4.2.20. Tree Clad Area-Dense

Areas with tree cover lying outside the notified forest area with a woody perennial plant with a single, well-defined stem carrying a more-or-less-defined crown and being at least 3 m tall. Plants essentially herbaceous but with a woody appearance (e.g., Bamboo and ferns) are also classified as trees if the height is more than 5m and as shrubs, if the height is less than 5m. This category includes all the areas where the canopy cover/density is more than 40%. The dense tree-clad area contributes an area of 28.28 sq. km, which is found along with forest areas of the western and south-western parts of the district.

1.4.2.21. Tree Clad Area-Open

Areas with tree cover lying outside the notified forest area with a woody perennial plant with a single, well-defined stem carrying a more-or-less-defined crown andbeing at least 3m tall. Plants essentially herbaceous but with a woody appearance (e.g., Bamboo and ferns) are also classified as trees if the height is more than 5m and as shrubs, if the height is less than 5 m. This category includes all the forest areas where the canopy cover/density ranges between10 – 40%. The tree-clad open category has been mapped with an area of 16.76 sq. km.

1.4.2.22. Wastelands

Wasteland is described as degraded land which can be brought under vegetative cover with reasonable effort, and which is currently underutilized and land which is deteriorating for lack of appropriate water and soil management or on account of natural causes. Wastelands can result from inherent/imposed disabilities such as by location, environment, chemical and physical properties of the soil, or financial or management constraints. The

area under the wastelands category is 484.58 sq. km (6.64%). These are the areas found in the western, northern and foothill zones of the district.

1.4.2.23. Salt-affected land

Salinization can be caused by inadequate canal irrigation water management, which causes the water table to rise and, as a result, salts to build up in the root zone in arid, semi-arid, and sub-humid (dry) conditions, as well as by seawater intrusion in coastal regions and/or the use of groundwater with high salt content. They also turn salty when groundwater is salty, or soils have grown on salty parent materials. The salt-affected lands are accounted for 17.43 sq. km and found along the stream courses.

1.4.2.24. Dense scrub

The scrub is typically restricted to topographically elevated areas, on the slopes of hills that are typically surrounded by agricultural lands. These regions are characterized by extreme slopes, severe erosion, shallow and skeletal soils, sometimes chemically degraded soils, and lands subjected to excessive aridity with scrubs predominating the landscape. It is found with varying sizes of small to large areas having a contiguous or dispersed pattern. The dense scrub is mostly identified on the hills with gentle to steep sloping areas and occupies an area of 92.08 sq. km.

1.4.2.25. Open scrub

This category has a similar description as mentioned in the dense scrub except that they possess sparse vegetation or devoid of scrub and have thin soils cover. The open scrub is found in the foothills surrounded by agricultural lands. The open scrub mapped an area of 180.04 sq. km.

1.4.2.26. Ravenous land

Ravenous lands are formed as a result of localized surface run-off affecting the unconsolidated material resulting in the formation of perceptible channels causing the undulating terrain. It is usually associated not with an isolated gully but an intricate network of gullies formed generally in deep alluvium and entering a nearby river, flowing much lower than the surrounding. Ravines are extensive systems of gullies developed along the river course. These occupy a tiny 0.09 sq. km of land along the Rivers/Streams.

1.4.2.27. Barren Rocky/Stony waste

The barren rock exposures are especially confined to hilly terrain with down slopes with rock outcrops, stony waste, and fragments. Barren rocky areas have been observed as rocky outcrops in the forest and scrubland. The area under this category is 194.94 sq. km and it occupies 2.67 % of the district.

It is found that most of the barren rocky areas are being quarried for various construction activities in the district.

1.4.2.28. Water Bodies

This category comprises areas with surface water, either impounded in the form of ponds, lakes and reservoirs or flowing as streams, rivers, canals etc. These are seen clearly in the satellite image in blue to dark blue or cyan colour depending on the depth of water. The water body category occupies an area of about 320.95 sq. km with 4.40% of the district total. The most significant river that runs through the district is the river, Krishna. The other rivers/streams are Dandi Vagu, Naguleru, etc flow through the district.

1.4.2.29. River/Stream-Perennial

Rivers/streams are the natural course of water flowing on the land surface along a definite channel/slope regularly or intermittently towards a sea in most cases or a lake or an inland basin in desert areas or a marsh or another river. These are the rivers/streams that flow continuously throughout the year as considered perennial. It contributes an area of 29.22 sq. km. The important river that drains through the district is Krishna which is perennial and flows in the NW-NE direction.

1.4.2.30. River/Stream-Non-Perennial

The water covers the surface for less than nine months in each year considered as non-perennial. This also includes the dry part of the river generally characterized by the presence of sand or exposed rocks. It is found that most of the streams are under the non-perennial category and contribute an area of 123.55 sq. km (1.69%). It is found that the Dandi Vagu, Naguleru, etc are delineated under the non-perennial category.

1.4.2.31. Canal/Drain

Drains and canals are man-made waterways that are built for irrigation, navigation, or to remove extra water from agricultural lands. It is found mostly in the plains with the outlet of reservoirs like Gandikota, Telugu Ganga, and Somasila. This category contributed an area of 23.05 sq. km. The Nagarjuna Sagar Right Canal (NSRC) is the primary source of irrigation for Chilakaluripet, Gurajala, Macherla, Narasaraopet, Pedakurapadu, Sattenapalle, and Vinukonda mandals, among others.

1.4.2.32. Reservoir/Tanks-Permanent

The reservoir is an artificial lake created by the construction of a dam across the river specifically for hydel power generation, irrigation, and water supply for domestic/ industrial needs, flood control, either singly or in combination. Tanks are small lakes of impounded waterways constructed on land surface

for irrigation. They are associated with croplands, lowlands and reservoirs surrounded by hills without vegetation. This includes all reservoirs/tanks with water spread seen at least during one season in a year is considered under the permanent category. The major reservoirs are Nagarjuna Sagar and Buggavagu reservoirs. This category occupies an area of 78.51 sq. km.

1.4.2.33. Reservoir/Tanks-Seasonal

Dry reservoirs/tanks are those, which do not have water spread throughout the year, and are considered as seasonal. The tanks under the seasonal category are spread over the district with an area of 66.15 sq. km.

1.4.3 Forest Cover Distribution

The interpretation of various topographical maps from different sources and IRS R2 LISS III satellite data (2015-16) were used to create the forest cover maps. Land with a tree canopy cover of more than 10% and a size of more than 0.5 ha is referred to as a forest. The notified forest boundaries are considered to contain a forest if there are both trees and no other dominant land uses there. The trees should be able to reach a minimum height of 5 m within the notified forest boundaries. The forest areas of the Palnadu district are falling under dry deciduous and Scrub forests. The spatial distribution of forest cover and its statistics of the Palnadu district are presented in Figure 9 and Table 6. As per the Forest Department, Government of Andhra Pradesh the Forest boundary map is presented in Figure-10.

Table 6 Forest cover distribution in Palnadu District

S. No	Forest Category	Area in sq. km	% To district total
1	Deciduous (Dry/Moist/Thorn)-Dense/Closed	171.87	2.36
2	Deciduous (Dry/Moist/Thorn)-Open/Closed	636.16	8.72
3	Forest Plantation	0.96	0.01
4	Scrub Forest	600.02	8.22
5	Tree Clad Area-Dense/Closed	28.28	0.39
6	Tree Clad Area-Open	16.76	0.23
	Total	**1454.05**	**19.92**

Data source: NR Census 3rd cycle mapping, NRSC/ISRO & APSAC, GoAP

The district has a variety of vegetation types rich in flora and fauna. Its varied topography ranging from the hills of the Eastern Ghats and plains supports varied ecosystems. About 20% of the area of the Palnadu district is inhabited by this forest. The total forest area in the district is 1454.05sq. km, accounting for 19.92% of the total geographical area of the district. The forest cover extends over the entire west, southwest and northern parts of the district. The forest cover vegetation is largely dry deciduous type with a mixture of Teak,Bamboo, Devadharu, etc.

1.4.4 Agricultural Resources in Palnadu District

Remote sensing technology has been successfully used by APSAC during the last two decades in the areas of agriculture both in the spatial and temporal domain under various projects. Advancements in satellite remote sensing technology have enabled regular monitoring of crop conditions/vigor over large regions. Among the various spectral vegetation indices commonly derived from remote sensing data, the Normalized Difference Vegetation Index (NDVI) is most widely used for operational assessment of drought owing to the ease in calculation and interpretation and its ability to partially compensate for the effects of atmosphere, illumination geometry, etc. APSAC carried out in-season crop condition assessment at the Mandal level in Andhra Pradesh to enable the administrators and planners to take strategic decisions on the management of drought, import-export policy matters, and trade negotiations.

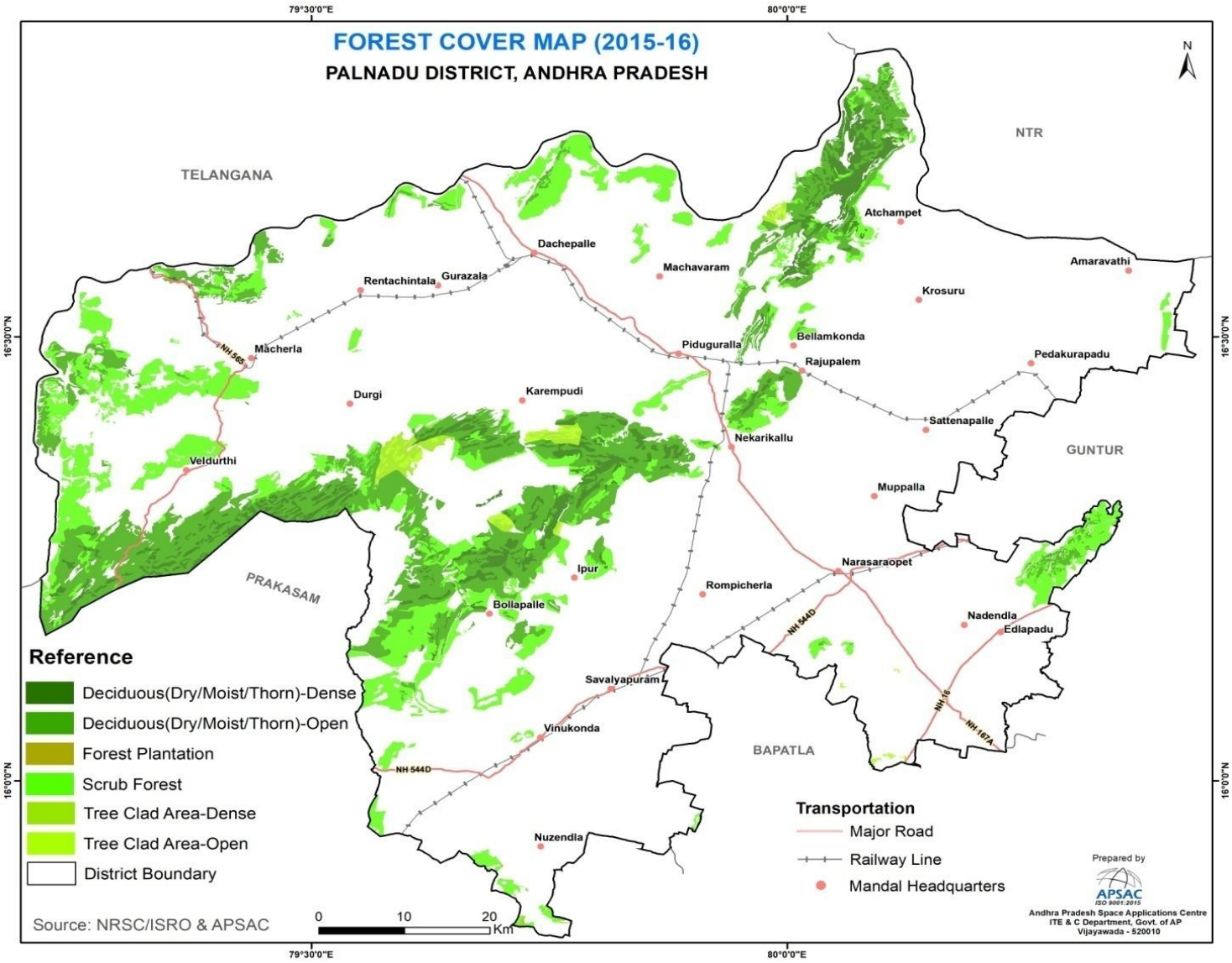


Figure-9: Forest cover map of Palnadu District

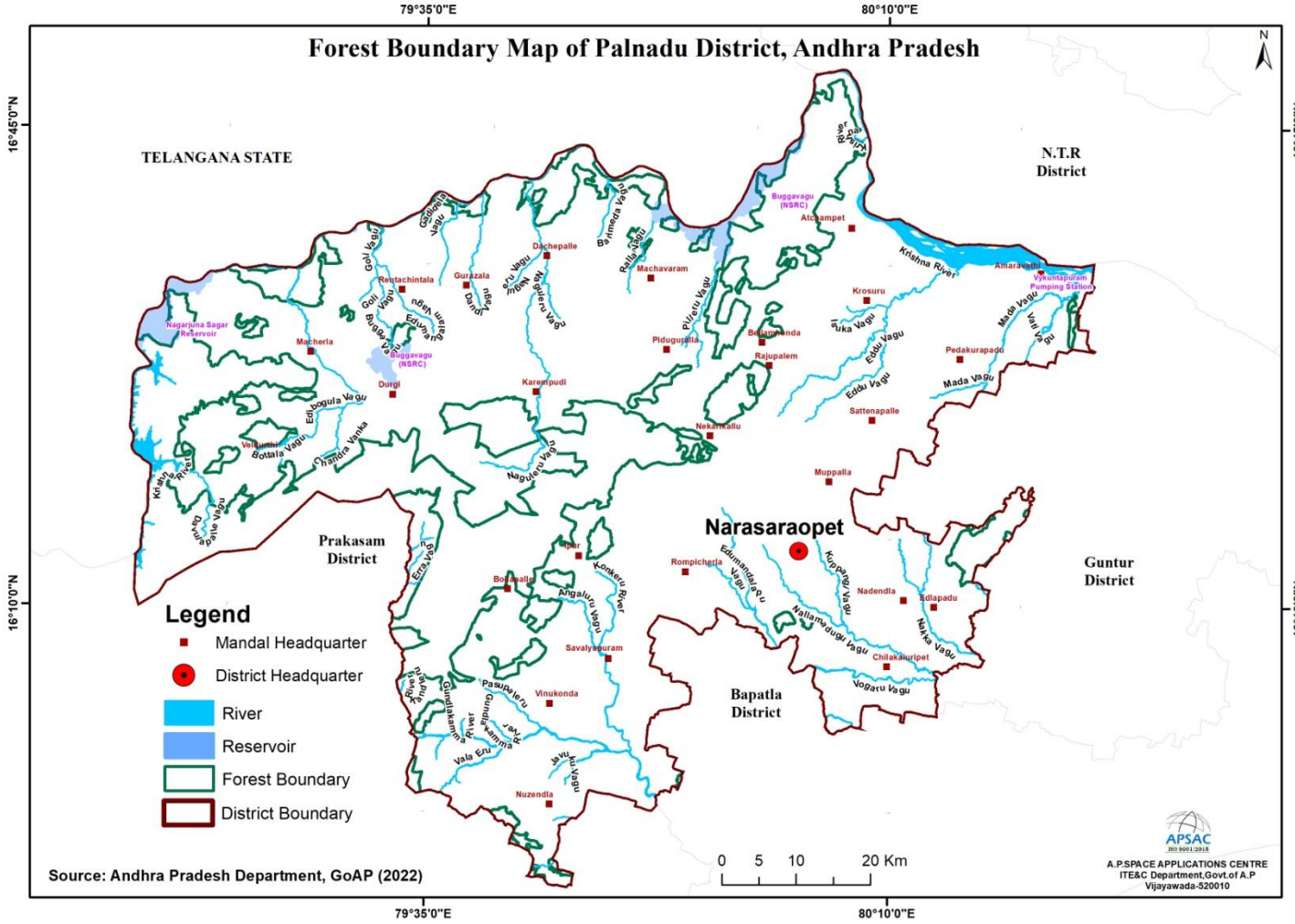


Figure-10: Forest boundary map of West Godavari District

The NDVI is derived using the formula NDVI=(NIR–Red)/(NIR+Red), where NIR and Red are the reflectance in visible and near infrared channels. Water, clouds and snow have a higher reflectance in the visible region and consequently NDVI assumes negative values for these features. Bare soil and rocks exhibit similar reflectance in both visible and near IR regions and the index values are near zero. The NDVI values for vegetation generally range from 0.2 to 0.6, the higher index values being associated with the greater green leaf area and biomass. Shortwave Infrared (SWIR) band is sensitive to moisture available in the soil as well as in the crop canopy. In the beginning of the cropping season, soil background is dominant, hence, the SWIR is sensitive to soil moisture in the top 12 cm. As the crop growth progresses, the SWIR becomes sensitive to leaf moisture content. SWIR band provides only surface wetness information. Normalized Difference Wetness Index (NDWI), computed using SWIR data, can complement NDVI for drought assessment, particularly in the beginning of the cropping season. NDWI is derived as follows: NDWI=(NIR-SWIR)/(NIR+SWIR) where, NIR and SWIR are the reflected radiation in Near Infrared and Shortwave Infrared channels. Higher values of NDWI signify more surface wetness.

Satellite based crop condition anomalies which point towards agricultural drought can be generated by the computing Vegetation Condition Index (VCI) of NDVI and VCI of NDWI. While combining VCI of NDVI and NDWI, the minimum of two values can be taken, i.e., if at least one is in Severe category, the category will be considered as severe. If at least one is moderate, then the category will be taken as moderate. The vegetation condition and range in percentage is given in Table-7.

Table 7 Vegetation condition and range in percentage

VCI range (%)	Vegetation Condition	Description
60-100	Normal	Crop condition is Normal
40-60	Moderate	Crop condition is Moderate
0-40	Severe	Crop condition is Severe

1.4.5 Soil Resources of the Palnadu District

The different types of soils are encountered in the Palnadu district of Andhra Pradesh. The predominant soil types in the district are loamy to clayey skeletal deep reddish brown soils 1342.53sq.km followed by gravelly clayey shallow dark brown soils 1283.22sq. km, moderately deep calcareous black soils 1129.32 sq .km, loamy to gravelly clay deep dark reddish brown soils 804.43 sq.km, gravelly loamy dark brown moderately deep soils 729.84 sq.km, shallow gravelly red soils 473.84 sq.km,clayey to gravelly clayey moderately deep dark brown soils 449.85 sq.km, gravelly clayey moderately deep red soils 306.8 sq.km, moderately deep black clayey soils 287.31 sq.km, deep black clayey soils 238.99 sq.km, gravelly loam to gravelly clayey shallow dark brown soils 41.48 sq.km and dark grayish brown moderately deep moist stratified soils 22.47 sq.km. The soil resource map of the district is shown in Figure 11 and the soil category with areais shown in Table 8.

Table 8 Soil classes in Palnadu district

S.No	Classification	Area in Sq.km
1	Clayey to gravellyclayey moderately deep dark brown soils	449.85
2	Dark grayish brown moderately deep moist stratified soils	22.47
3	Deep black clayey soils	238.99
4	Gravelly clayey moderately deep redsoils	306.8
5	Gravelly clayey shallow dark brown soils	1283.22
6	Gravelly loam to gravelly clayey shallow dark brown soils	41.48
7	Gravelly loamy dark brown moderately deep soils	729.84
8	Loamy to clayey skeletal deep reddish-brown soils	1342.53
9	Loamy to gravelly clay deep dark reddish-brown soils	804.43
10	Moderately deep black clayey soils	287.31
11	Moderately deep calcareous black soils	1129.32
12	Shallow gravelly redsoils	473.84

Data Source: APSAC, Vijayawada

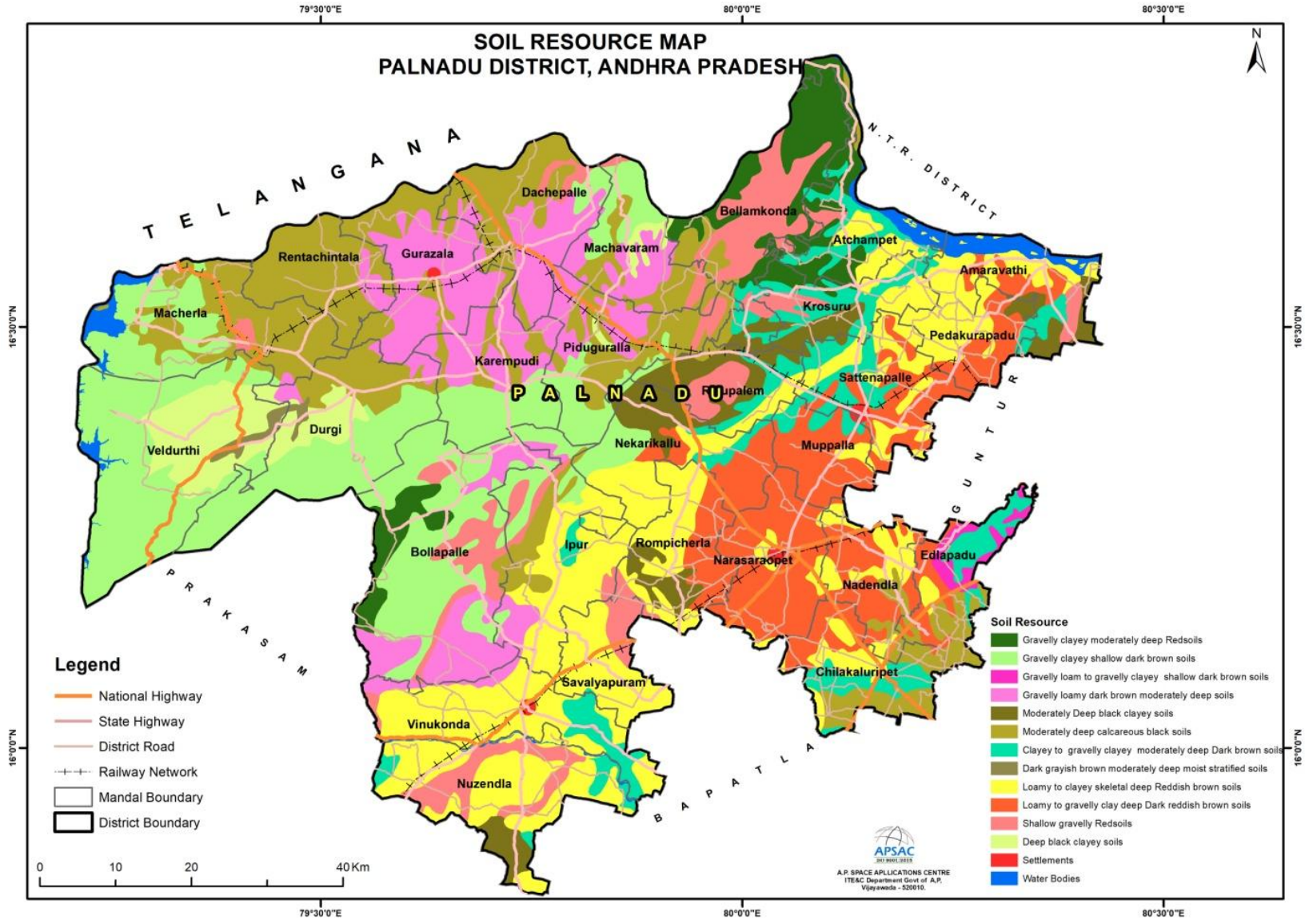


Figure-11: Soil resource map of Palnadu District

1.4.6 Salt-affected land:

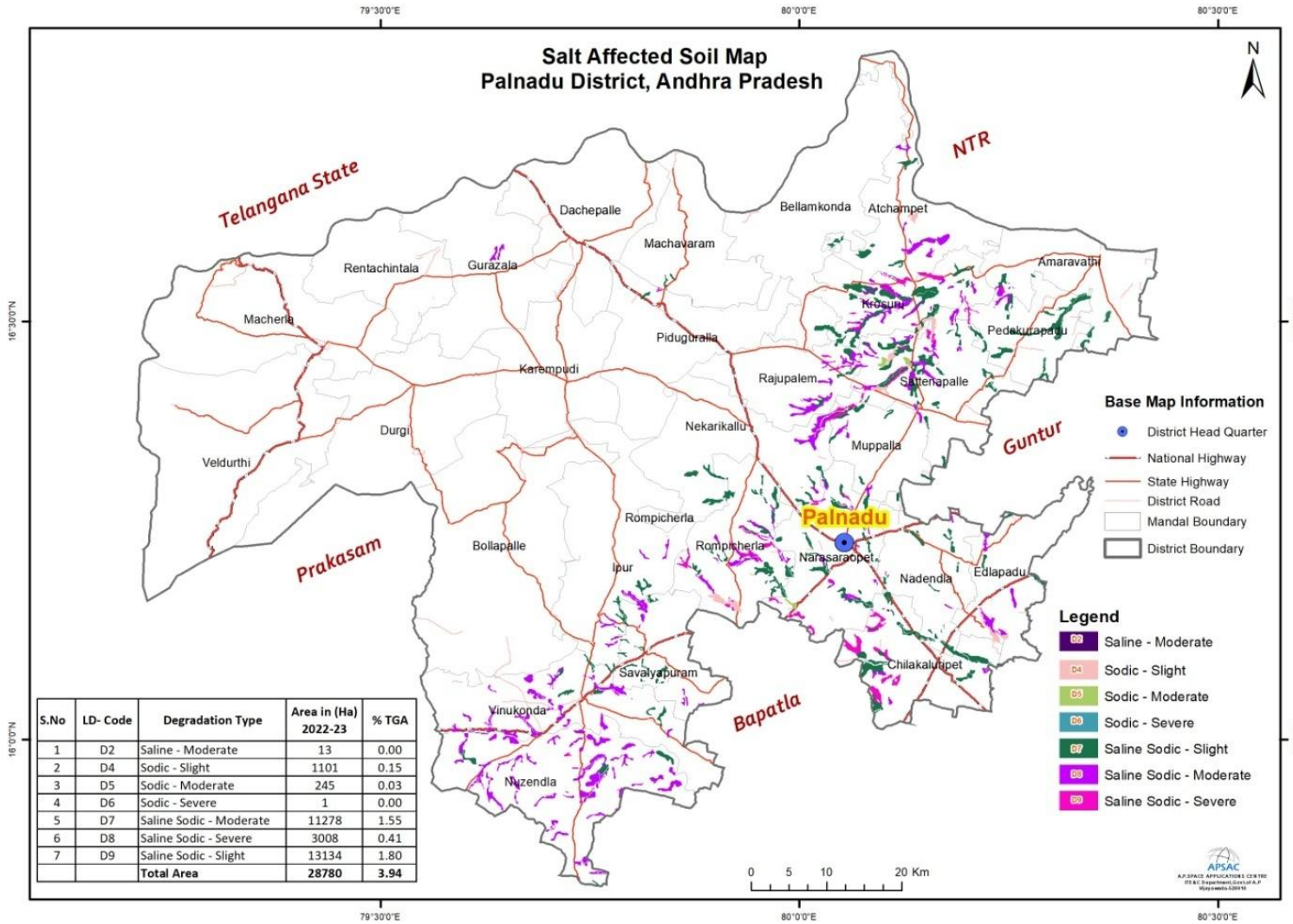
The term 'salt-affected soil/land' refers to soils in which salts interfere with normal plant growth. Salt-affected soils can be divided into saline, saline-sodic and sodic, depending on salt amounts, type of salts, the amount of sodium present, and soil alkalinity. (Reference FAO Soils Portal)

These lands are containing an excessive concentration of salts (soluble salts or exchangeable saline or both). Salinization can result from improper management of canal irrigation water resulting in the rise of the water table and consequent accumulation of salts in the root zone in arid, semi-arid, and sub-humid (dry) conditions and ingress of sea water in coastal regions and/or use of high salt containing groundwater. They also become saline when soils have developed on salt-containing parent materials or have saline ground water. Coastal saline soils may be with or without ingress or inundation by sea water. The salt-affected soil/ land area in the Palnadu district is 28,780 hectares. The spatial distribution of salt affected soils is shown in the Figure12.

1.4.7 Horticulture

Horticulture is a science, as well as, an art of production, utilisation and improvement of horticultural crops, such as fruits and vegetables, spices, ornamental, plantation, medicinal and aromatic plants. It also includes plant conservation, landscape restoration, landscape and garden design, construction, and maintenance, and arboriculture, ornamental trees, and lawns.

In the Palnadu district, sweat orange is the major horticulture crop, cultivated in an area of 84.52ha. followed by mangoes (36.43ha.), guava (25.81 ha.), and acid lime (21.51 ha.), and the total area under horticulture crops is 218.11 ha. The crop-wise detail is shown in the Table-9.



S.No	LD- Code	Degradation Type	Area in (Ha) 2022-23	% TGA
1	D2	Saline - Moderate	13	0.00
2	D4	Sodic - Slight	1101	0.15
3	D5	Sodic - Moderate	245	0.03
4	D6	Sodic - Severe	1	0.00
5	D7	Saline Sodic - Moderate	11278	1.55
6	D8	Saline Sodic - Severe	3008	0.41
7	D9	Saline Sodic - Slight	13134	1.80
		Total Area	**28780**	**3.94**

Figure-12: Illustrates the spatial distribution of salt affected soil in Palnadu district.

Table 9 Area of horticultural crops in Palnadu district

S.No	Crop	Area in ha
1	Anjura	2.03
2	Dragon fruit	7.44
3	Banana	2.01
4	Custard Apple	9.5
5	Sweet Orange	84.52
6	Sweet Lime	2.29
7	Ber	2.07
8	Mangoes	36.43
9	Guava	25.81
10	Pomegranate	10.87
11	Acid Lime	21.51
12	Mandarin Orange	1.01
13	Oil Palm	8.15
14	Coconut	1.58
15	Mulberry	2.89
Total Area		**218.11**

Source: Government of Andhra Pradesh Rashtriya Krishi Vikas Yojana-2022-23.

1.5 Ground Water Prospects in the District:

Ground water occurs in almost all geological formations and its potential depends upon the nature of geological formations, geographical setup, and incidence of rainfall, recharge and other hydrogeological characters of the aquifer. In consolidated formations, ground water occurs under unconfined to semi-confined conditions. Ground water is developed in these formations by dug wells, dug cum bore wells and bore wells tapping weathered and fractured zones. The ground water prospects in the district are shown in Figure-13. The groundwater prospects are very good in delta area,good to moderate in the middle, moderate to poor in the parts of Pidugurala, Gurazala, Dachepalli, Machavaram, etc and poor to negligible in the upland areas of Veldurthi, Bollapalli, Bellamkonda and its surroundings.

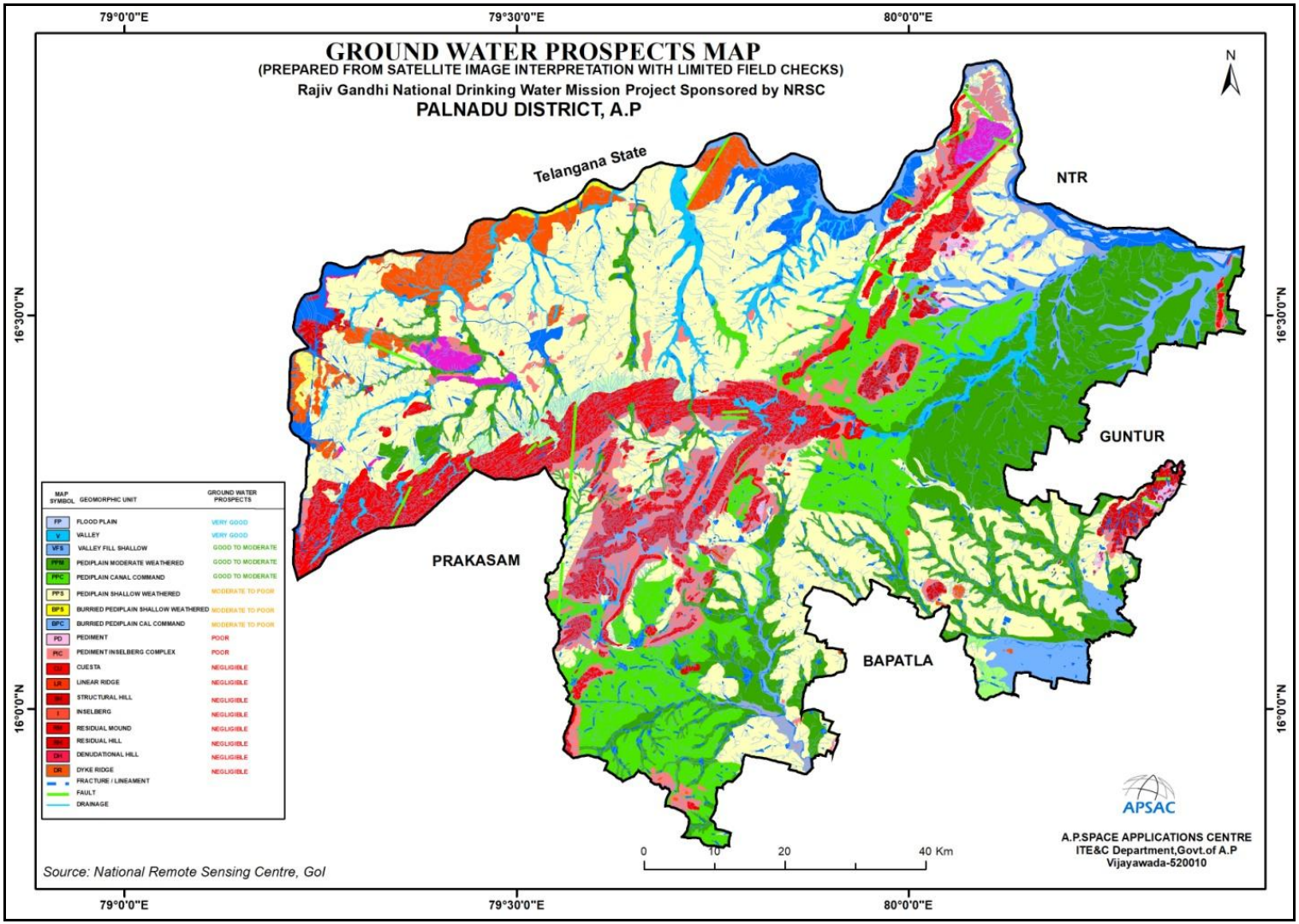


Figure-13: Ground Water prospects in Palnadu District, Andhra Pradesh

1.6 Infrastructure

1.6.1 Transport Network

Palnadu district has a well-connected by various modes of transportation such as Road, Rail and Air. The connectivity of each category is also depicted in Figure-14. The details of each transport network distribution in the district are given below.

1.6.1.1. Road Transport: The road network of the district has been delineated by using high resolution satellite data under Space Based Information Support for Decentralized Planning (SIS-DP) project and arrived the lengths of each type of road network. It can be observed that Palnadu district has a well-developed road network that facilitates connectivity to all towns within the district, and to other major cities and towns of nearby districts. The major road network includes National Highways (NH), State Highways (SH), and District Roads (DR). The remote rural areas of the district also good connectivity by Panchayat Raj roads / village roads.

The total length of the road network in the district is about 16,351.71 Km. of which, the length of the National Highways is about 248.36 Km, State Highways are having a length of about 702.90 km connecting all major towns and cities in the district. The district roads are connecting all towns and mandals having a length of 1307.44 Km. The length of each road category covered in the district is shown in Table-12.Palnadu district is traversed by Four National Highways. The traverse and description of each National highway is as given below:

1. National Highway 167A (NH167A): The highway Passes through the junction with Andhra Pradesh/Telangana border and enters at Dachepalle in Palnadu district and traverse through mandal headquarters such as Piduguralla, Nekarikallu, Narasaraopet, Chilakaluripet and passing through the towns such as Parchur, Karamchedu and connects at NH-16 near Chirala passing through parts of Bapatla district.

2. National Highway 544D (NH544D): The national highway starts at Karnataka border and enters in Anantapuramu district at Rayadurg Mandal, and connects the Junction with NH44 near Anantapuramu and passes through the mandals Singanamala and Tadipatri in Anantapuramu

district, Kolimigundla, Owk and Banaganapalle in Nandyal district, Giddalur, Cumbum, Tripurantakam mandals in Prakasam district before enters in to Palnadu district at Vinukonda. It passes through Savalyapuram, Narasaropeta and Phirangipuram mandals before enters into Guntur district.

3. National Highway 565 (NH565): The highway starts at Nakrekal on NH65 and passes through Nalgonda District in Telangana State before enters Palnadu district at Macherla mandal. It passes through Veldurthi mandal in Palnadu district before entering Prakasam district.

4. National Highway 16 (NH16): The NH16 is a major national highway that runs along the east coast of India traversing through West Bengal, Odisha, Andhra Pradesh, and Tamil Nadu States. It is a part of the Golden Quadrilateral project to connect India's major cities.

The national highway starts at Odisha border which passes through the coastal districts in Andhra Pradesh which enters in Srikakulam district at Ichchapuram Mandal and covers major mandals namely Bhogapuram, Anandapuram, Pendurthi, Anakapalle, Tuni, Prathipadu, Rajahmundry, Devarapalli, Eluru, Gannavaram, Vijayawada, Mangalagiri, Guntur mandals. It traverses through Palnadu District via Edlapadu and Chilakaluripet mandals.Some important State Highways in the district which covers more than 40 km.

The segments covered in the district are - Hyderabad-Guntur Road (SH021), Macherla-Karempudi-Vinukonda road (SH025), Sattenapalli - Madipadu road (SH034), Kondramutla - Bandlamotu - Durgi Road (SH038), Rajupalem-Amaravathi Road (SH023), Nekarikallu-Gurazala road (SH292).

Table 10 Road Category wise Lengths

S.No	Road Type	Length in Km
1	National Highway	248.36
2	State Highway	702.90
3	District Road	1307.44
4	Village Road	7280.88
5	Cart Track	3799.02
6	Foot Path	2929.45
7	City Road	83.66
Total Length		**16351.71**

Data source: SIS-DP project, APSAC Vijayawada

1.6.1.2. Railways: Palnadu district is traversed by a significant railway line that connects various parts of the district and provides connectivity to neighbouring regions. The Guntur-Guntakal railway line is a broad-gaugetype of railway line facilitates the movement of people and goods to the various regions. It passes through Palnadu district, connecting important railway stations such as Narasaraopet and Vinukonda. The Guntur-Secunderabad railway line which connects Palnadu District with the towns Pedakurapadu, Sattenapalle, Piduguralla, Nadikude Junction, Nalgonda, and Pagidipalle.

The Indian Railway line traversing from East to West and East to South in Palnadu district covering the various stations to cater the transportation needs of the people. The length of rail network in the district is about 205.43 km covering 21 railway stations. Among these, the important railway stations in the district are Nadikude Junction, Narasaraopet, Peddakurapadu, Piduguralla, Sattenapalle and Vinukonda. The train stations are Bellamkonda, Cheekategalapalem, Gudipudi, Gundlakamma, Gurujala Gate Halt, Lingamguntla, Macherla, Munumaka, Pondugula, Reddigudem, Rentachintala, Santamagulur, Satulur, Savalyapuram, Tummalacheruvu.

In addition to the main line, there are various branch lines and spur lines like Nadikude Junction to Macherla that extend from the main line to connect specific towns within Palnadu district. These lines provide local connectivity and transportation services to different parts of the district.

1.6.1.3. Air Transport: The district has an airport named Nagarjuna Sagar Airport, located at Vijayapuri, Macherla Mandal in Palnadu district in the State of Andhra Pradesh.The airport is located at an elevation of 658 feet (210 m) above mean sea level. It has one paved runway designated 09/27 oriented by measures of 4384 ft (1336 m) in length. The airport is used by private and chartered aircraft and has no scheduled services. It is a non-operational airport.

Nagarjuna Sagar Airport currently is used for flying training purpose, and it is managed and control by Airports Authority of India (AAI). The Airports Authority of India announced it was considering developing the airport into a water aerodrome for use by seaplanes.

1.6.2 Irrigation

1.6.2.1. Major and Medium Irrigation Projects in Palnadu district:

Irrigation has assumed an increasing significance in agriculture in the context of new technology, where high yielding varieties and multiple cropping are being practiced. The main reasons for low yields are inadequate rainfall, uneven and uncertain rains during the period of crop growth. It is generally found that the introduction of irrigation is associated with changes in the cropping pattern. The shift from a traditional cropping pattern to the most advantageous cropping pattern is possible only in the presence of irrigation facilities. The new agricultural technology is highly based on sufficient moisture conditions. Thus, the development of irrigation is crucial for increasing agricultural production. The irrigation projects are classified as major, medium and minor irrigation projects. The major and medium irrigation projects are shown in Table-11 and Figure-15.

A. Major Irrigation Projects:

Palnadu district there are two major irrigation projects (Completed) in the district, they are Nagarjunasagar Project (Nagarjunasagar Right Main Canal) with an ayacut of 5,65,028 Ac and K.L.Rao Sagar Pulichintala Project an ayacut of 13.08 Lakh Acres, Stabilization Ayacut of Krishna DeltaSystem (KDS) in Guntur, Krishna, West Godavari and Prakasam districts.

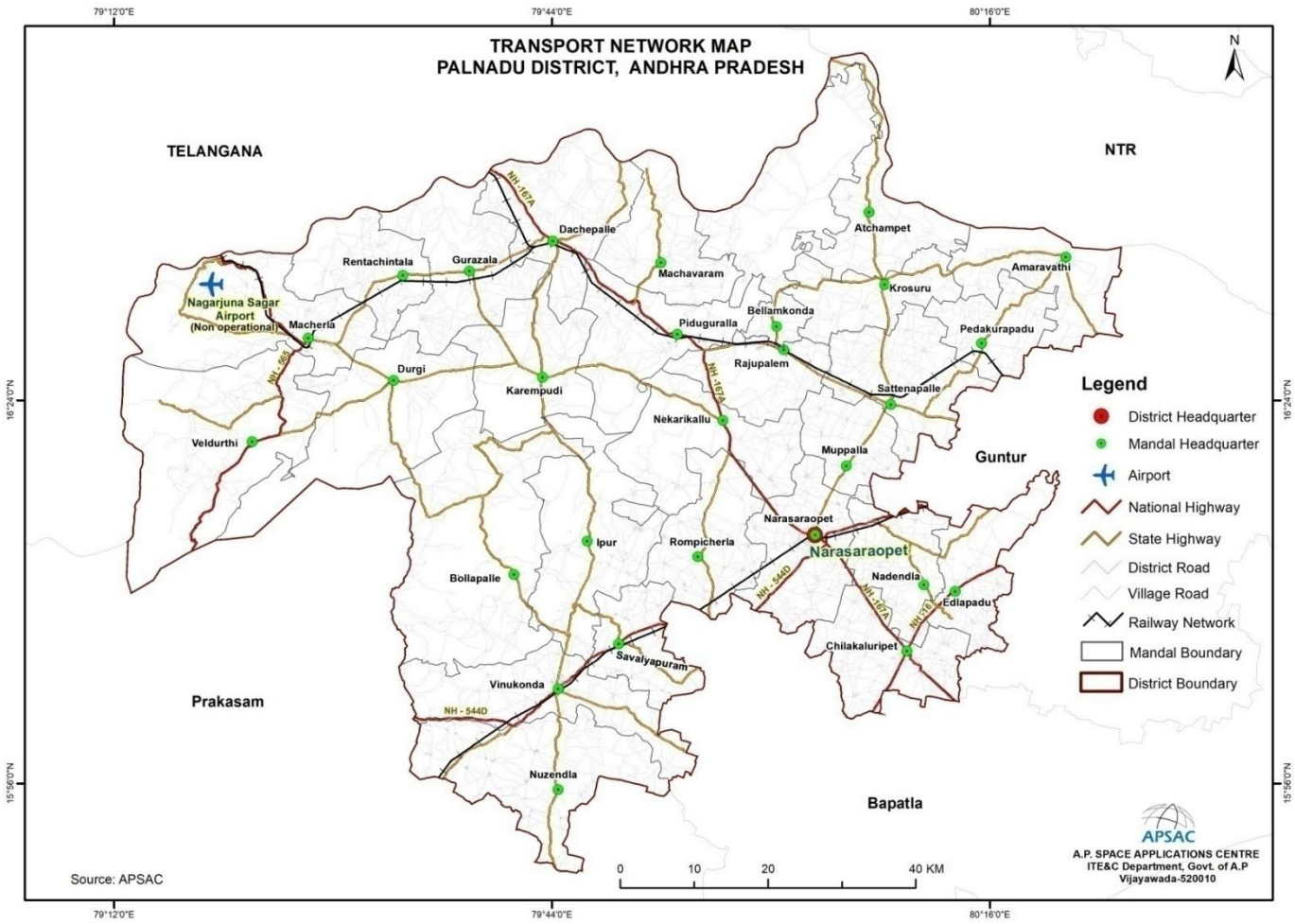


Figure-14: Transport Network of Palnadu district, Andhra Pradesh

B. Medium Irrigation Projects:

In Palnadu district Vykuntapuram Barrage (Ongoing) is an Indian barrage and water storage project and located at Vykuntapuram village, Amaravathi mandal. It is ongoing project on Krishna River 23 km upstream of existing Prakasam Barrage with FRL 25M. It is designed to store 10 TMC of flood water coming from the Vyra and Munneru rivers. The water mainly used for Irrigation and drinking water supply purpose.

The A.P.S.I.D.C (Andhra Pradesh State Irrigation Development Corporation Limited) Lift Irrigation Schemes (LIS) consists of existing LIS (222 Nos), ongoing LIS (8 Nos) and proposed LIS (16 Nos), under these schemes benefited an ayacut of 2,60,442 Ac in combined Guntur district. The major and medium irrigation project determine shower in Table-11 and Figure-14.

Table 11 Major and Medium Irrigation Projects in Palnadu District

S. No	Project Type	Name of the Project	Status	Ayacut in Ac
1	Major	Nagarjunasagar Project (NSRC)	Completed	5,65,028
2		K.L.Rao Sagar Pulichintala Project **(Stabilization Ayacut - Krishna Delta System -13,08,000 Ac)**		-
3	Medium	Vykuntapuram Barrage (Flood diversion)	Ongoing	-
4	Minor	Lift Irrigation Schemes Under A.P.S.I.D.C (222 Nos**) (Combined district)**	Completed	2,20,643
5		Lift Irrigation Schemes Under A.P.S.I.D.C (8 Nos) **(Combined district)**	Ongoing	15,390
6	Minor	Lift Irrigation Schemes Under A.P.S.I.D.C (16 Nos) **(Combined district)**	Contemplated	24,409
7		Minor Irrigation Tanks - Water Resources Dept. (above 100 Acres - 76 Nos)	Completed	20,357
8		Minor Irrigation Tanks (below 100 Acres - 149 Nos)		6,193
Total				**8,52,020**

Data source: WRD, APWRIMS, Govt. of A.P.

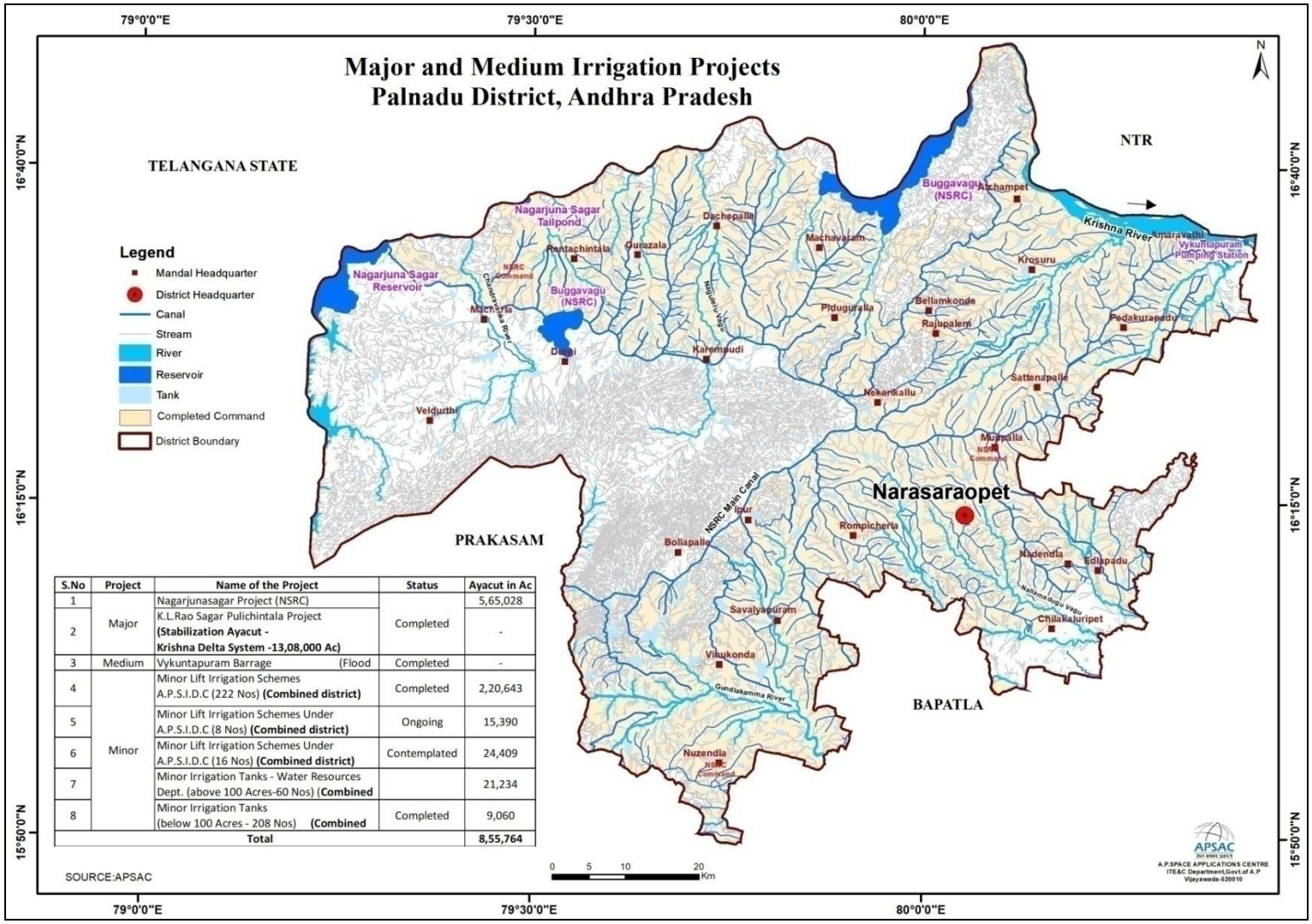


Figure-15: Major and Medium Irrigation Projects of Palnadu District

1.6.2.2. Tank Information System

As per the information of Water Resources Departmental portal Andhra Pradesh Water Resources Information & Management System (APWRIMS) and portal URL:https://apwrims.ap.gov.in/ in Palnadu district has 226 Minor Irrigation Tanks. The designed storage capacity of minor irrigation tanks in Palnadu district 2,810.87mcft and current Storage capacity is 2,187.67mcft. The mandal wise minor irrigation tanks details of Palnadu district are shown in Table-12.

Table 12 Mandal wise Minor Irrigation Tanks details of Palnadu district

S.No	Mandal	No. of MI Tanks	DesignedStorage Capacity (mcft)	Current Storage Capacity (mcft)
1	ACHAMPETA	8	92.63	58.21
2	AMARAVATHI	7	18.5	11.18
3	BELLAMKONDA	4	28.01	21.07
4	BOLLAPALLE	22	224.38	193.84
5	CHILAKALURIPET	1	3.31	0.83
6	DACHEPALLE	14	25.29	6.32
7	DURGI	9	553.26	401.5
8	EDLAPADU	8	19.24	13.97
9	GURAZALA	4	3.36	2.64
10	IPURU	9	122.94	122.78
11	KAREMPUDI	6	31.24	13.59
12	KROSURU	7	78.46	77.68
13	MACHAVARAM	11	64.12	58.19
14	MACHERLA	4	111.29	103.02
15	MUPPALLA	5	71.14	70.75
16	NADENDLA	5	15.58	14.59
17	NAKARIKALLU	7	48.41	24.91
18	NARASARAOPETA	9	27.59	25.59
19	NUZENDLA	15	111.68	92.69
20	PEDAKURAPADU	1	2.78	2.78
21	PIDUGURALLA	15	90.51	73.15
22	RAJUPALEM	3	25.69	22.2
23	RENTACHINTALA	6	2.84	1.87
24	ROMPICHERLA	9	94.66	76.71
25	SATTENAPALLE	4	72.57	58.25
26	SAVALYAPURAM	12	38.51	38.51
27	VELDURTHI	7	277.41	118.4
28	VINUKONDA	14	555.47	482.44
	TOTAL	**226**	**2,810.87**	**2,187.67**

Data source: WRD, APWRIMS, Govt. of A.P.

1.6.3 Eco Sensitive and Important places

Palnadu district has acquired special historic importance, by virtue of the association of Sri Nagarjuna, the great Acharya and learned scholar of the historic days, and the museum exhibiting the historic relics depicting the greatness of these days. The important popular tourist, religious and culturalplaces to visit in the Palnadu district are shown in the Table: 13 and the geographical location of each place is depicted in Figure-16. A brief description of certain tourist places is given below:

Table 13 Important places of Tourism in Palnadu district.

S.No	Name	Village	Mandal
1	Amaravathi 100 feet Buddhist Stupa	Amaravathi	Amaravathi
2	Amaravathi Archeological Museum (ASI)	Amaravathi	Amaravathi
3	Boudhsri Museum Nagarajuna Konda (ASI)	Amaravathi	Amaravathi
4	Dwida Amara Lingeswara Swami Temple	Amaravathi	Amaravathi
5	Vaikuntapuram Venkateswara swami Temple	Vykuntapuram	Amaravathi
6	Durgi Stone Curves	Durgi	Durgi
7	Kondaveedu Fort	Forest	Edlapadu
8	Karmpudu verla Gudi	Karempudi	Karempudi
9	Marcherla Chenna Kesava Temple	Macherla (M)	Macherla
10	Nagarjuna Konda	Nagarjuna Sagar	Macherla
11	Kotpakonda Trikoteswara Swami Temple	Petlurivaripalem	Narasaraopet
12	Chejerla Kapoteswara Swami Temple	Chejerla	Nekarikallu
13	Guthikoda Bilem	Guttikonda	Piduguralla
14	Sathrasala Siva Temple	Goli	Rentachintala
15	Rentachintala Church	Rentachintala	Rentachintala
16	Baji baba dargah	Thurumella	Rompicherla

Data Source: Tourism Department, Government of Andhra Pradesh.

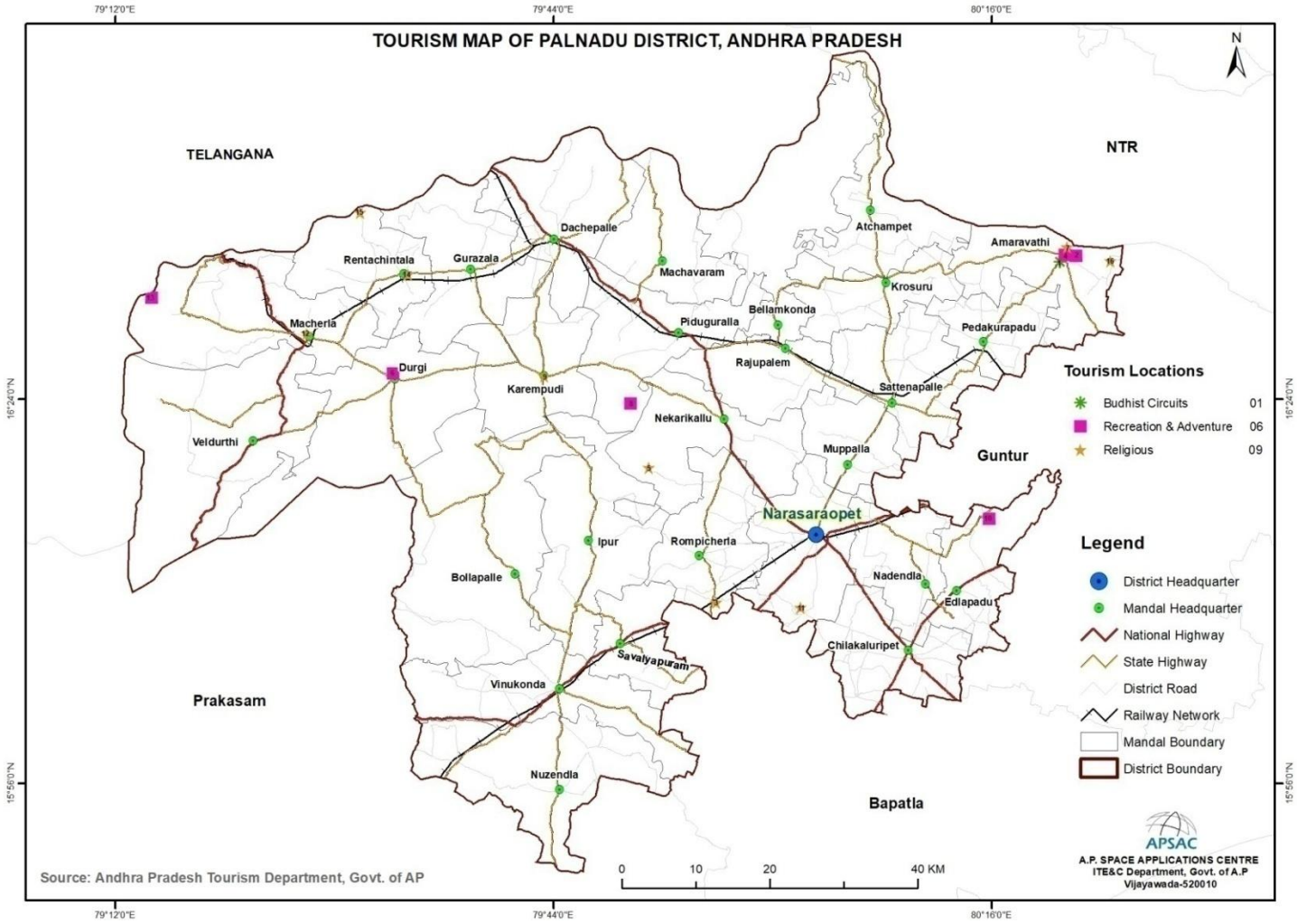


Figure- 16: Tourist Map of Palnadu District, Andhra Pradesh

A brief description of certain tourist places is given below:

1. Nagarjuna Sagar Dam: Nagarjuna Sagar Dam is located at 104 km from the district headquarter Narasaraopet. It is the World's highest Masonry gravity dam having World's largest discharging capacity of 20,000 Cu. Secs. (409 Feet maximum height) across the river Krishna situated at about 130 Kms. upto the Prakasam Barrage with a lake capacity of 31.05 million acre. The State Government is taking steps to develop Nagarjuna Sagar as a place of tourist attraction on the lines of Brindavan and Botanical gardens. This place has acquired special historic importance, by virtue of the association of Sri Nagarjuna, the great Acharya and learned scholar of the historic days, and the museum exhibiting the historic relics depicting the greatness of these days.

2. Ethipothala Waterfall: Ethipothala Waterfalls are located at 95.1 km from the district headquarter Narasaraopet. It is a sight of sheer beauty and excellence, Ethipothala Waterfall serve as another major attraction of the town. It is originally a popular mountain stream which falls from a height of nearly 21.3m into a lagoon.

The merging of three streams viz. Nakka Vagu, Chandravanka Vagu and Tummala Vagu give birth to this beautiful waterfall. One can also enjoy watching a crocodile breeding centre at the site offering splendid sights. Once the waterfalls into the lagoon, it joins the Krishna River further at 3 kms. Two famous temples namely Ranganatha and Dattatreya are situated on the site. This waterfall is situated nearly 15 miles from Nagarjunasagar Dam and lies on the way to Macherla. It also features a few caves that go till Srisailam.

3.Kondaveedu Fort: Kondaveedu Fort is located at 35.4 km from the district headquarter Narasaraopet. It is a historically significant ancient hill fortress located in Kondaveedu, a village in the Chilakaluripet constituency in Palnadu district, Andhra Pradesh, India. The site is located 16 miles west of the city of Guntur.

The fortresses were once the capital of the Kondavidu Reddi Kingdom that was delimited between the south of the Krishna River and the Gundlakamma River and located 13 km to the west of Guntur city. They were erected on a high ridge of a small range of hills with an

average elevation of 460. There are two hillsections, which form the hill ranges, one is to the north, which provides a very steep but short access to the forts. The preferred access is more circuitous and less tiring and involves 3.2 km of trekking. Kondaveedu and the surrounding forest areas have many Custard apple trees .

4.Durgi Stone Curves: Durgi Stone Curves are located at 67.7 km from the district headquarter Narasaraopet. Guntur region is popular for Durgi Stone crafts and these works typify that rich and wealthy cultural heritage of the region. In this district, there is a region called Palnadu and this region has a small town called as Durgi. The stone art is known to have evolved from this small town, thereby having its name during the 15th century. Even though, nowadays, costlier stones like granites are used for production of idols for gods and goddesses, simple, yet effective stones were popular those days and one such stone is Durgi.

5.Guttikonda Bilam: Guttikonda Bilam is located at 38.1 km from the district headquarter Narasaraopet. It is a historic cave and a hill in Piduguralla Mandal, Palnadu District of Andhra Pradesh, India. Guttikonda or Guthikonda is the name of a nearby village, while "Bilam" is the Sanskrit word for "cave". There are several caves in the region, collectively known as "Guthikonda Caves"; Guttikonda Bilam is the most well-known of these caves. The cave is located around 3 km south of the Guttikonda village, which lies 15 km from Piduguralla, in the Palnadu district.

6.Bellamkonda Fort: Bellamkonda Fort is located at 45.1 km from the district headquarter Narasaraopet. Hill fortress in the Sattanapalle taluka of Guntur District, Andhra Pradesh at a height of 1,569 metres above mean sea level. The fortress is roughly the shape of an equilateral triangle enclosing an area of approximately a square mile and consists of a single stone wall connecting the elevated parts of the hill with bastions at the south-east and north-west angles. The early history of the fortress is obscure; however, it is said to have been constructed by the Reddi kings of Kondavid.

1.6.4 Places of Religious and Cultural importance

Palnadu district is mostly known for its historical and religious significance. The most popular places here are shown below:

1.Kotappa Konda: Kotappa Konda is located at 18.1 km from the district headquarter Narasaraopet and hamlet of Kondakavuru is situated about 13 Kms to South-west of Narasaraopet town. The Presiding Diety of this place is Trikoteswara Swamy situated on the hillock and is one of the noted piligrim centres attracting thousands of visitors on Sivarathri day. The State Government is taking steps to develop Kotappa Konda as a tourist and piligrim centre by creating more facilities and a ghat-road.

2.Gopinatha Swamy Temple: Gopinatha Swamy Temple is located at 27.2 km from the district headquarter Narasaraopet.A temple known as the Gopinathaswami temple (dedicated to Lord Krishna) lies at the foot of the hill; its bunched stone pillars are carved out of a single rock. Both Hindu and Muslim architectural styles are seen in the forts. A mosque is also located within the fort.

3.Amaravathi: Amaravathi is located at 58 km from the district headquarter Narasaraopet. It is situated at 35 Km. the North-west of Guntur on the banks of River Krishna. It has many tourist facilities and commands a vast stream of pilgrims throughout the year. A large congregation of piligrims will assemble on 'Mahasivarathri Day' to worship of Lord Siva (Amareswara 15' height) and it one among the famous shrines of the Lord. There is a world-famous Buddhist Stupa depicting sceneries from the life of Buddha, inscribing there in various Buddhistic Anecdotes Symbols etc., in Pali script in addition to well organized museum.

4.Chejerla Kapoteswara Swami Temple: Chejerla Kapoteswara Swami Temple is located at 26.6 km from the district headquarter Narasaraopet. Chejarla Sri Kapoteswara Swamy Temple in Chejarla village (also called as Chejerla or Cezarla) near Nekarikallu Mandal of Palnadu district. Chejarla temple is the only temple in India dedicated to Lord Shiva as Kapotheswara (Kapotheswara) in Lingakara. Lord Siva, present in this temple is called as Kapotheswara, who has given a portion of his body to save a pigeon. Lord Subramanya Swami Temple is present on top of the hills and there are steps to reach the temple. The hill is surrounded by green farm fields and scenic beauty.

1.7 Drainage Pattern

1.7.1 Drainage

The Krishna is Major River in the district and the tributaries are Chandravanka, Goli Vagu, Naguleru, Eddu Vagu and Kondaveeti Vagu. The other part of the rivers flows through Gundlakamma and Vogeru Vagu. The tributaries of Krishna River Chandravanka, Goli Vagu, Eddu Vagu, Naguleru, and Kondaveeti Vagu are risesnear Mutukuru, Guttikonda Reserved Forest, flows towards north direction and joining to the Krishna River in between NagarjunaSagar Reservoir and Prakasam Barrage.

The Gundlakamma River (Part) enters the district near Tangirala village Nuzendla mandal and exit near Puvvada village, Nuzendla mandal. And, the GundlakammaRiverconsists oftributaries Konkeru, Kandleru and Vala Eru**.** The Vogeru Vagu (Part) raises Guttikonda Reserved Forest, flows towards Southwest direction and joining toBay of Bengal near Bapatla.

The drainage pattern, in general, is straight, parallel to sub-parallel and dendritic drainage pattern. All the streams are ephemeral in nature. The Krishna River is perennial, whereas most of the other streams are intermittent to ephemeral in nature. Figture-17 Illustrates of the drainage system and surface water bodies.

1.7.2 Geomorphology of the District:

Using IRS satellite data and GIS detailed geomorphological and structural map of Palnadu District was generated under Rajiv Gandhi National Drinking Water Mission (RGNDWM) guidelines on 1:50,000 scale. The objective of the mapping is to map lithology, geomorphology and structural characteristics of an area on 1:50,000 scale and to integrate the same to locate potential ground water prospect zones and to recommend suitable structures for ground water recharge. Various hydrogeomorphic units are delineated and suitable recharge structures are proposed at drinking water affected villages under this project. The description of geomorphic units of different origins (Figure-18) mapped in Palnadu District is described as follows.

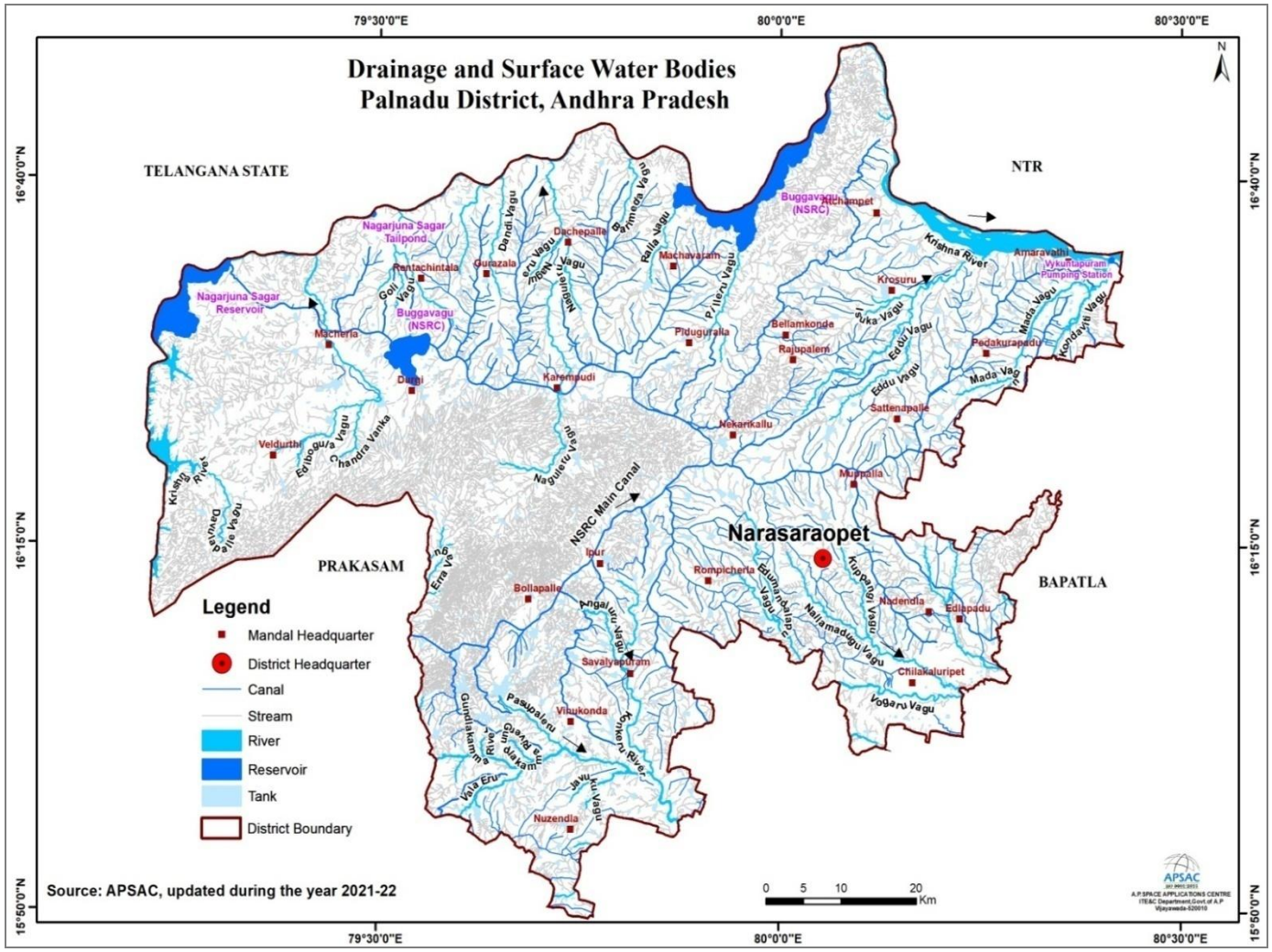


Figure - 17: Drainage Network and Surface Water Bodies of the Palnadu District

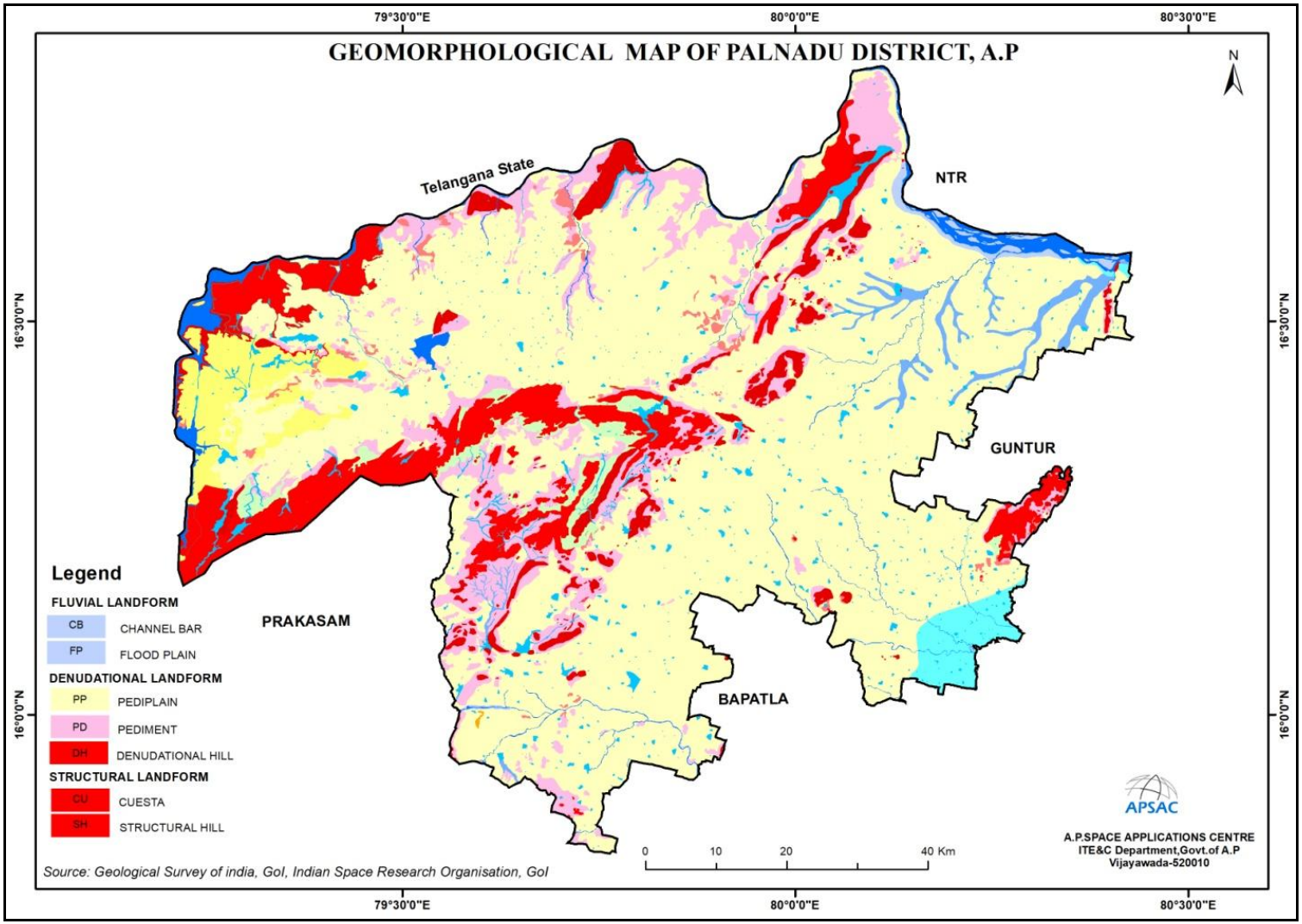


Figure 18: Geomorphology of Palnadu District, Andhra Pradesh

1.7.3 Landforms of Fluvial origin

The word fluvialis used in earth science to refer to processes and landforms produced by running water. As with other surficial processes, running water can either erode material from the earth's landscape, or deposit layers of sediment. The resulting landforms can thus be classified as either erosional landformsor depositional landforms. The incredible power of running water in carving various erosional and depositional landforms is well known. Although the quantity of water in a stream is small at one time during the year, very large volumes of water move through the channel and they form an important component in the hydrological cycle. The fluvial dissection of the landscape consists of valleys and their included channel ways organized into a system of connection known as a drainage network. Drainage networks display many types of quantitative regularity that are useful in analyzing both the fluvial systems and the terrains that they dissect (NRSA,2007).

1.7.3.1. Alluvial plain: A level or gently sloping tract or a slightly undulating land surface produced by extensive deposition of alluvium, usually adjacent to a river that periodically overflows its banks; it may be situated on a flood plain, a delta, or alluvial form. This landform is predominantly seen in the nothern part of the district.

1.7.3.2. Palaeochannel: Deep valleys cut in the bedrock terrain and today filled largely with alluvium, glacial outwash gravels and sands or with tills. These are good source of underground water.

1.7.3.3. Flood plain: The surface or strip of relatively smooth land adjacent to a river channel constructed (or in the process of being constructed) by the present river in its existing regimen and covered with water when the river overflows its banks at times of high water. It is built of alluvium carried by the river during floods and deposited in the sluggish water beyond the influence of the swiftest current.

1.7.3.4. Delta: The low, nearly flat, and alluvial tract of land deposited at or near the mouth of a river, commonly forming a triangular or fan shaped plain of the considerable area enclosed and crossed by many distributaries of the main river. Perhaps extending beyond the general trend of the coast and resulting from the accumulation in a wider body of

water (usually a sea) of sediment supplied by a river in such quantities that it is not removed by tides, waves and currents.

1.7.3.5. Valley fill: The unconsolidated sediment deposited by any agent to fill or partly fill a valley.

1.7.4 Landforms of Coastal origins

Coasts are the loci of a unique assemblage of erosional and depositional processes. Various landforms of coastal areas are almost exclusively the result of the action of ocean waves. Wave action creates some of the world's most spectacular erosional landforms. Where wave energy is reduced, depositional landforms like beaches are created. The source of energy for coastal erosion and sediment transport is wave action. A wave possesses potential energy as a result of its position above the wave trough, and kinetic energy caused by the motion of the water within the wave. This wave energy is generated by the frictional effect of winds moving over the ocean surface. Higher the wind speed and longer the fetch or distance of open water across which the wind blows and waves travel, the larger the waves and the more energy they therefore possess. Long open ocean waves or swells travel faster than short, locally generated sea waves. They also have longer wave periods and this is how they are distinguished from the short sea waves on reaching the coast. Long swells, which have travelled hundreds of kilometres, may have wave periods of up to 20 seconds. Smaller sea waves have wave periods of 5 to 8 seconds. Where ocean depths are greater than the length of the waves, the wave motion does not extend to the ocean floor and, therefore, remains unaffected by the floor. As the ocean depth falls below half the wavelength, the bottom increasingly affects the wave motion. As the depth of water decreases, the wave height increases rapidly, and the wavelength decreases rapidly. Thus, the wave becomes more and more peaked as it approaches the shore, finally curling over as a breaker and breaking on the shore. As the wave breaks, its potential energy is converted into kinetic energy, providing a large amount of energy for the wave to do the work along the shoreline. Transportation by waves and currents is necessary to move rock particles eroded from one part of a coastline to a place of deposition elsewhere. One of the most important transport mechanisms results from wave refraction. Since waves rarely break onto a shore at right angles, the upward movement of water onto the beach (swash) occurs at an oblique angle. However, the return of

water (backwash) is at right angles to the beach, resulting in the net movement of beach material laterally. This movement is known as beach drift. The endless cycle of swash and backwash and resulting beach drift can be observed on all beaches. Frequently, backwash and rip currents cannot remove water from the shore zone as fast as it is piled up there by waves. As a result, there is a build up of water that results in the lateral movement of water and sediment just offshore in a direction with the waves. The currents produced by the lateral movement of water are known as long shore currents. The movement of sediment is known as long shore drift, which is distinct from the beach drift described earlier, which operates on land at the beach. The combined movement of sediment via long shore drift and beach drift is known as littoral drift. Tidal currents along coasts can also be effective in moving eroded material. While incoming and outgoing tides produce currents in opposite directions daily, the current in one direction is usually stronger than in the other resulting in a net one-way transport of sediment. Long shore drift, long shore currents, and tidal currents in combination determine the net direction of sediment transport and areas of deposition. Using multi-temporal satellite data can bring out the dynamics of the coast (NRSA, 2007).

1.7.4.1. Beach: A gently sloping zone, typically with a concave profile, of unconsolidated material that extends landward from the low-water line to the place where there is a definite change in material or physiographic form (such as a cliff) or to the line of permanent vegetation (usually of the effective limit of the highest storm waves).

1.7.4.2. Beach ridge: A low, essentially continuous mound of beach or beach and dune material (sand, gravel, shingle) heaped up by the action of waves and currents on the backshore of a beach beyond the present limit of storm waves or the reach of ordinary tides and occurring singly or as one of a series of approximately parallel deposits. The ridges are roughly parallel to the shoreline and represent successive positions of an advancing shoreline.

1.7.4.3. Tidal flat: An extensive, nearly horizontal, marshy or barren tract of land that is alternately covered and uncovered by the rise and fall of the tide and consisting of unconsolidated sediment (mostly mud and sand). It may form the top surface of a deltaic deposit.

1.7.5 Landforms of Structural Origin

Landform of structural origin is related to structural aspect of the area. Most of the landforms under this class had genesis related to underlying structure. Structure plays an important role in reducing the resistance of rock which manifests itself in different geomorphic forms. Some of the variation is minor and some are in mega scale. The mega scale forms have a dramatic effect on the genesis of landforms and hence mapping of such forms indirectly indicates the structural set up of the area. The mega scale structural features like fault and fold depending on type plays an important role in genesis of structural landform. The influence of geologic structures on the development and appearance of landscapes is prominent. The influence of geologic structures ranges from large features, which exert a dominant influence on the form of an entire landscape, to small features, which affect an individual landform and the geomorphic processes operating on it. The structural control could be active structures whose form is directly impressed on the modern landscape or ancient structural features whose influence on a modern landscape is due primarily to differential erosion (NRSA, 2007).

1.7.5.1. Dome: A general term for any dome-shaped landform or rock mass, such as a smoothly rounded rock-capped mountain summit, roughly resembling the dome of a building.

1.7.5.2. Structural Hills: Hills and valleys, which are originated due to tectonic process and are highly dissected by the drainage lines. This can be further classified as highly, moderately and low dissection depending on the density of joints and drainage. Mostly this will be interpreted from planimetric satellite data, and the classification is highly subjective.

1.7.5.3. Dyke Ridge: Intrusive features that are emplaced within the pre-existing fractures or where the fluid pressure is great enough for them to form their own fracture during emplacements. They are discordant bodies.

1.7.5.4. Cuesta: A hill or ridge with a gentle slope on one side and a steep slope on the other; specifically an asymmetric ridge with one face (dip slope) long and gentle and conforming with the dip of the resistant bed or beds that form it, and the opposite face (scarp slope) steep or even cliff-like and formed by the out crop of the resistant rocks, the

formation of the ridge being controlled by the differential erosion of the gently inclined strata.

1.7.6 Landforms of denudational origins

The landform of denudational origin is formed where the denudation process dominates over the other process. Most of the landform resulting due to this process is the combined effect of mechanical and chemical weathering. Denudation is the process of removal of material by erosion and weathering. This has direct influence on the relief of the area especially in the reduction of relief to the base level. The agents are mostly water, ice and wind. The major factors affecting denudation are geology, climate, tectonics and anthropogenic effects. All rocks and minerals at or near-surface are attacked by a physical and chemical process. The effect of this process is not the same everywhere because of rocks' varying resistance to change. As a result, weathering and erosion yield several landforms, which have typical shapes and forms. Weathering is an essential part of the rock cycle. The parent material or rock weathered material is disaggregated to form smaller fragments and some of the minerals are dissolved and removed by the agent of water. This removal of material is erosion and is accomplished by running water, wind, glacier etc. The weathering provides the raw material for the sedimentary rock and soil (NRSA, 2007).

1.7.6.1. Denudational Hill: It is a highly dissected hill that has obliterated the structures.

1.7.6.2. Inselberg: A prominent, isolated, steep-sided, usually smoothed and rounded, residual knob, hill or small mountain of circumdenudation rising abruptly and surrounded by an extensive and nearly level, lowland erosion surface in a hot, dry region (as in the deserts of southern Africa or Arabia), generally bare and rocky although partly buried by the debris derived from and overlapping its slopes; it is characteristic of an arid or semiarid landscape in a late stage of the erosion cycle.

1.7.6.3. Pediment: A broad, flat or gently sloping, rock floored erosion surface or plain of low relief, typically developed by sub aerial agents (including running water) in an arid or semiarid region at the base of an abrupt and receding mountain front or plateau escarpment and underlain

by bedrock (occasionally by older alluvial deposits) that may be bare but more often partly mantled with and discontinuous veneer of alluvium derived from the upland masses and in transit across the surface.

1.7.6.4. Pediplain: An extensive, multi-concave, rock-cut erosion surface formed by the coalescence of two or more adjacent pediments and occasional desert domes and representing the result (the "peneplain") of the mature stage of the erosion cycle. Based on the thickness of weathering they are further classified as shallow, moderate and deep pediplains.

1.7.7 Structural Features of Palnadu District

All linear features are to be interpreted from the satellite image. The lineament may not be a single continuous line; rather it must be shown as discontinuous line segments. Lineaments from remote sensing data can be identified mainly based on their linear nature, presence of moisture, alignment of vegetation, alignment of ponds, straight stream segments, etc. However, interpretation of lineaments is to be done in conjunction with other diagnostic criteria such as channel offset, bank erosion and downcutting of channel along lineament, warping and displacement of sediment layer, abrupt change of river course, presence of dry channel in an active river course, channel rejuvenation and land subsidence, linear ridges, scarp surface, linear alignment of water bodies and straight channel segments. Major lineaments occurring in the Palnadu District have been mapped as part of the lineament map generation. The structural map (Figure.19) shows both faults and lineaments. There are two faults, one located in the northern area minute in nature running NE-SW direction and the other big in nature located in central part of Palnadu District and running in SW direction. There are number of dykes present in the study area West to East direction structures from the Narji Formations are prominent. Eastern part of Palnadu District is covered with delta area and lineaments cannot be deciphered because this area is totally covered alluvium. In Upland area mega lineaments and micro lineaments are present. In Palnad basin and its surrounding area strike and dip foliation is present. Charnokite rocks are present with vertical foliation and horizontal beds are present in Palnad basin. Gray granites and its surrounding area thrust faults are present. From the analysis of structural patterns and other details, lineaments are classified based on their length as Micro lineaments and Mega lineaments.

A. Micro lineaments - very small (magnitude) linear features frequently observed in the image. They correspond to minor faults, fractures, joints and bedding traces in the rock. Geomorphologically they are expressed as linear alignments of local depressions/ ponds and tonal changes in soil and vegetation. For quantification purpose, lineament length < 3 km is classified as micro lineaments which are covered in mandal of Atchampet, Veldurthi, Vinukonda, Macherla, Machavaram, Bollapalle, and Edlapadu

B. Mega lineaments - Large linear features coincides with regional trends/ structural features. It cuts across various geomorphic units both in time and space. Lineament length > 3 km is classified as mega lineaments majority of which are covered in mandal of Karempudi, Gurajala, Dachepalle, Bellamkonda, Sattenapalle, Krosur, Nakerekallu and Piduguralla.

1.7.8 Ground Water Quality in the Palnadu District

Ground Water quality laboratory analyzed for physico-chemical parameters like Total Dissolved Solids (TDS), Total Hardness (TH), Chloride (Cl-), Nitrate (NO_3), , Fluoride (F), Iron (Fe), Total Alkalinity (TA) and Sulphate (SO_4) using standard techniques, ground water quality samples were collected for two seasons i.e., post monsoon and pre monsoon in December 2017 and June 2019 from Rural Water Supply and Sanitation Department (RWS & S) and compared with the BIS (2015), in terms of desirable, permissible and non potable classes. Blue, yellow and red colours indicate pre monsoon quality and +, ., -, symbols indicate post monsoon quality for desirable, permissible and non-potable classes respectively.

From the analysis it has been observed that the ground water is polluted in pre-monsoon and post-monsoon about 15% of the area is under non potable category due to high concentration of Total Dissolved Solids, Flouride, Iron, Alkalinity, Nitrate and Total Hardness. About 75% of the area is potable category remaining 10% of the area is covered in hills and waterbodies of the entire district. The occurrence and movement of ground water in an area is governed by several factors such as topography, lithology, geological structure, depth of weathering, extent of factures, drainage pattern, climate conditions and inter relationship between these factors (Figure-20).

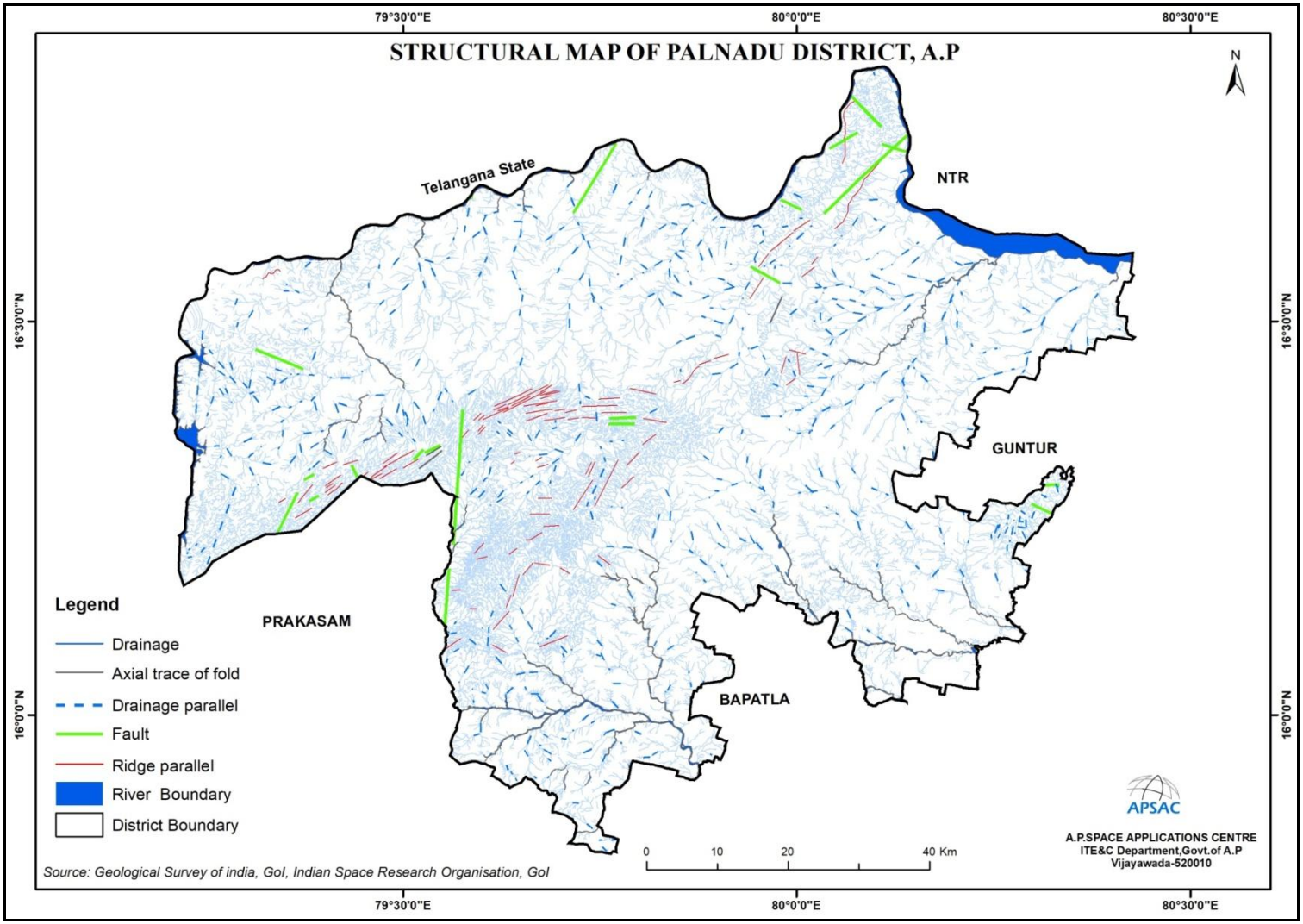


Figure-19 : Structural Map of Palnadu District, Andhra Pradesh

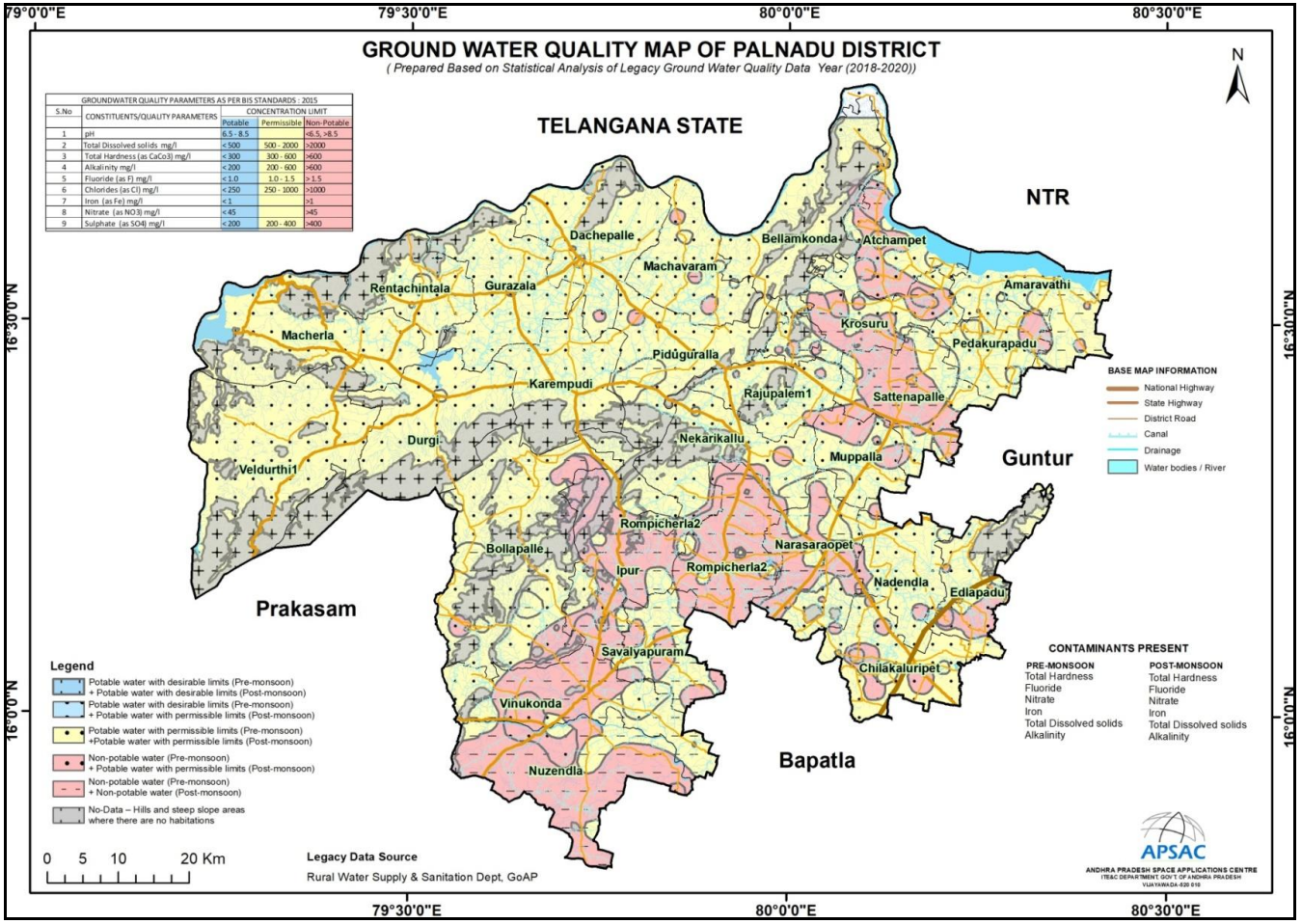


Figure-20: Ground Water Quality Map of Palnadu District

Chapter – II Minor Minerals

2.1 Overview of Mining Activity

Palnadu District is one of the chief minor minerals producing districts in the state and endowed with rich & varied minor mineral resources such as limestone useful for making of lime in traditional kilns, mosaic chips, feed for poultry and aquaculture and slabs useful for flooring. Dimensional Stone Granite, silica sand, road metal, gravel and brick earth are also present.

It is estimated that during the year 2022-23,6735 Cum of Color Granite, 17203Cum of Black Granite are produced. A total of 71492 MT of limestone (minor mineral), 221692 Cum of Road metal, etc are produced in Palnadu in 2022-23.

2.2 Geology of the District

Genaralized Litho-stratigraphic Succession of Andhra Pradesh

Geological Time (a)	Supergroup (b)	Group (c)	Formation (d)
Holocene	-	-	Alluvium, river terraces, beach sands and soils
Pleistocene	-	-	Laterite and Gravel
Mio-Pilocene	-	-	Rajahmundry Fm.
Late Cretaceous Eocene	-	-	Deccan Trap with infra-and inter-trappeans
Lower Cretaceous to Upper Carboniferous	Gondwana	Upper Gondwana	Godavari Valley (Fluviatile) Chikiala Fm. Gangapur Fm.
		Lower Gondwana	Kota Fm. Maleri Fm.
			Coastal Area (Fluvio-marine) Tirupati Fm. (Vejendla Fm) Raghavapuram Fm. (Vemavaram), Kandukuru, Sriperambadur Fms) Gollapalle Fm. (Satyavedu Fm.) Kamthi Fm. Barren Measures, Barakar Fm. Talchir Fm.

			Cuddapah Basin	**Pakhal Basin**
				Sullavai Sandstone
Middle to Upper Proterzoic (980-500 m.y)		Kurnool	Nandyala Shale Koilakuntla Limestone Panyam Quarzite Owk Shale Narji Limestone Banaganapalli Quartzite	Putnur Limestone Penganga Group Takalapalle Arkose
Middle Proterozoic (1600-1300 m.y.)	Cuddapah	Nallamalai Chitravathi Papaghni	**Srisailam Quartzite** Cumbum Fm. Mulug Group Bairankonda Quartzite Gandikota Quartzite Tadipatri Fm. Pulivendula Quartzite Mallampalli Group Vempalle Fm. Gulcheru Quartzite	**Alabaka Sandstone** Lankavaram Shale Pattipalle Quartzite Polavaram Fm. Jakaram Arkose Pandikunta Shale Gunjeda Dolomite Bayyaram Quartzite Bolapalle Fm.

EPARCHAEAN INTERVAL

Middle Proterozoic to Late Archean (2600-970 m.y)	Eastern Ghats	Charnockite	Charnockite with megacrystic k-feldspar charnockite
		Khondalites	Two pyrozene granulite / amphibolite Calc-silicate / granulite, Garnet-sillimanite-quartz-

			graphite gneiss (biotite-k-feldspar (Khondalite) Quartzite (gernet, sillimanite)
Late Archaean (2700 m.y)	Dharwar	Ramagiri-Penakacherla, Kolar, Kadiri, Gadwal-Narayanpet, Jonnagiri, Veligallu Peddavuru Schist Belts & W.Part of Nellore Belt.	Pyroclastic Rocks, local conglomerate / event conglomerate Metabasalt (Pillowed), Acid volcanics, minor andesite, dacite, rhyodacite, amphibolites, metaultramafics, minor quartzite, calcsilicates, phyllites, intrusives of basic rocks and granites, rare lamprophyres.
Middle Archaean (3100-2900 m.y.)	Older Supracrustals (Sargur)	Eastern and Southern parts of Nellore.	High Grade schists include include garnet, staurolite, kyanite, sillimanite, cordierite (rarely sapphirine-kornuropine as in Karimnagar) Mica schists, calcilicate rocks, crystalline limestone (minor). BIF, fuchsite quartzite, hornblende granulite, amphibolite, migmatite streaky biotite gneiss.
Gneissic Complex			Banded Tonalite-Trondhjemite Gneiss.

Geologically, the State of Andhra Pradesh forms a part of peninsular India and is one of the most ancient land masses. The geological formations of Andhra Pradesh range from the oldest to the recent.

Sargur Supracrustals is the oldest rock in Southern India. They are mostly present as enclaves. They occur as enclaves within the migmatitic gneiss. These supracrustals are exposed in the eastern and southern part of the Nellore schist best. The lithology of Sargur mostly comprises of garnet,

staurolite, kayanite schists, BIFs, quartzites, granulites, amphibolites. The gneissic complex comprises of banded tonalite trondhjhemite gneiss which is the basement rock of the study area alongwith migmatitic gneiss and biotite granite gneiss. TTGs are sodic, quartz-bearing granitic (plutonic) rocks with plagioclase as the most common feldspar, and K-feldspar ranging from subordinate to nearly absent. The Dharwarian rocks in Andhra Pradesh are exposed in the western part of the Nellore belt and in many other areas like Ananatapur, Ramagiri-Penakacherla, Kolar, Kadiri, Gadwal-Narayanpet, Jonnagiri, Veligallu Peddavuru Schist Belts &western part of Nellore Belt. The lithology mostly comprises of Metabasalt (Pillowed), Acid volcanics, minor andesite, dacite, rhyodacite, amphibolites, metaultramafics, minor quartzite, calcsilicates, phyllites, intrusives of basic rocks and granites, are lamprophyres also some Pyroclastic Rocks and local conglomerate / event conglomerate defining hiatus in stratigraphy is observed in the study area. Rocks of middle Proterozoic to late Archaen are exposed in the eastern ghat mobile belt, they are extremely high grade and fall under granulite metamorphic facies. They mostly include khondalites and charnockites. The metamorphic facies of rocks of eastern ghats goes upto granulite facies. Charnockite with megacrystic k-feldspar, Two pyrozene granulite / amphibolite, Calc-silicate / granulite, Garnet-sillimanite-quartz-graphite gneiss(Biotite-k-feldspar, Quartzite (gernet, sillimanite) and were exposed in most of the state. Cuddapah basin is a part of Dharwar craton and is the second largest purana basin of Peninsular India. It marks the profound unconformity Eparchaen unconformity in early literature. The Cuddapah basin formation exposes rocks of late Proterozoic to upper Proterozoic. The Cuddapah basin is divided into four groups, Nallamalai, Chitravathi, Papaghni and Kurnool. Papaghni comprises of dolomite and limestones, Chitravathi comprises of shale, dolomite and quartzites, Nallamalai comprises of shale, quartzites and arkosic sandstones, Kurnool comprises of shales, quartzites and limestones. The Cuddapah basin is characterised by rhythmic pattern of quartize-shale-carbonates cycle. Uraniferous limestone is also reported from Cuddapah basin. The major exposures of purana rock formations were in Prakasam, Kurnool, Cuddapah, Chittoor, Nellore. The Deccan traps are found in East and West Godavari districts, exposures are near Rajahmundry. Outcrops Tertiary formations are found in East and West Godavari and Visakhapatnam districts and the Quaternary sediments occurring as thick blankets of alluvium are found in the river valleys, deltas and along the East coast.

The Palnadu district area is underlain by various geological formations of different age groups ranging from Archaean to Recent. The Archaean basement complex comprising the Granite-Gneisses, schists, khondalites, charnockites and basic dykes of dolerites form the predominant rock types in the Central part of the district. The granitoids and granitic gneisses are intruded by number of Gabbros, Norite and Dolerite dykes. The fringe of the Archaeans in the central part is represented by Cuddapah basin, namely Nallamalai Group of Upper Cuddapahs. In a sequential order, the younger Kurnools occurring in the Cuddapahs and those in the western parts of the district are thrust over by the Cuddapahs and these in turn by the Archaean granite-gneisses. The Upper Gondwana Group of sandstones and shales crop out are seen at places between Guntur and Tenali. The youngest rock types of the district appear to be of Mio-Pliocene age, followed by the alluvial deposits of Recent to Sub-Recent age.

Basic Charnokites are exposed in the applied area in the form of boulders. They are made up of Hypersthene, Quartz, Biotite and Grey Feldspar and other Mafic minerals. These rocks belong to granulite facies of metamorphism, and they are expected to have been formed due to palingnetic fusion of and metamorphism. These rocks represent the pre-cambrian basement of the Easternghat Province. The khondalites of this area are Melanocratic (dark color), crystalline, size of the grain ranges from very medium to coarse grained anhedral to subhedral porphyritic texture is the characteristic feature. The geological map of the district is dipicted in Figure-22.

SUCCESSION OF THE EASTERN GHATS SUPERGROUP

Granitoid Suite	Granitoid with megacrystic k-feldspar	Intrusives	Layered anorthosite and associated mafic and chromiferous ultramafics.
	Undifferentiated (with migmatitic diatexite, augen / porphyroblastic granite, gneisses, garnet + biotite homophanous granite / gneiss	Charnochkite Group	Charnokite with magacrystic k-feldspar Charnockite Two pyroxene granulite / amphibolite

	leptynite, local charnockitic neosomes and relicts.	Khondalite Group	Calc-silicate, granulite
			Garnet + sillimanite + quartz + biotite + k-feldspar + graphite gneiss (khondalite) Quatzite + garnet + sillimanite

Data Source: P.K.Ramam and V.N. Murthy

Quaternary deposits occupy the coastal tract and are classified under three environments namely residual, marine and fluvial. The residual environment is represented by residual soils, fluvial sediments include flood basins and active channel deposits, and the marine environment includes paleotidal flat. The palaeobeach and active beach ridge, buff coloured volcanic ash occurs discontinuously along terrace of Gundlakamma River, which is correlated to Toba volcanic activity. The Rich haul of fossils, comprising limb bones of Bovides, Cervides. Eephus and Equs molar andpre-molars of Equshorn of stag and shell of turtle were made from Gundlakamma river valley.

The Archaean schists and gneiss show foliation varying from North-East (NE)-SouthWest (SW) to Northwest (NW)-Southeast (SE) with moderate to steep dips on either side. The general disposition of the plutonic bodies is concordant with the axes of folds. The layering in gabbro and nepheline syenite is conformable to the regional trend of the adjacent quartzo-feldspathic mica schist. The rocks of the Cuddapah Super Group show north and south plunging broad antiforms and narrow synforms. These antiforms resemble domal structures in some cases. The eastern contact of this Super Group with the schists shows en-echelon thrusts, sub-parallel or oblique to the basin margin, with moderate to steep dips towards east. Srisailam Quartzite is traversed by several WNW-ESE faults.

The Geological Survey of India (GSI, 2000) gave a detailed account of the geology/lithothogy of the district with a map on 1:250,000 scale (Figure-21) and an elaborate legend with stratigraphic sequence as below.

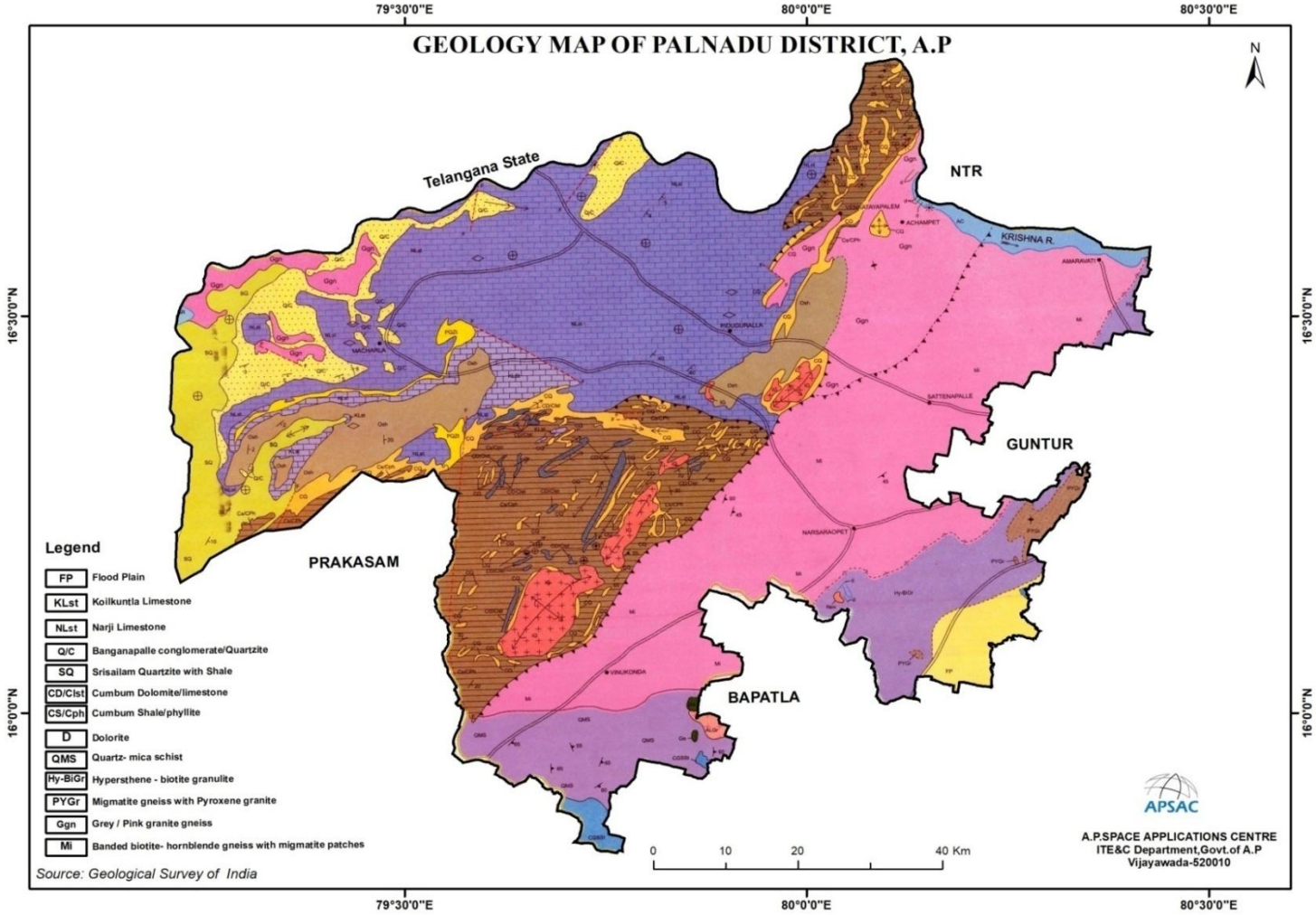
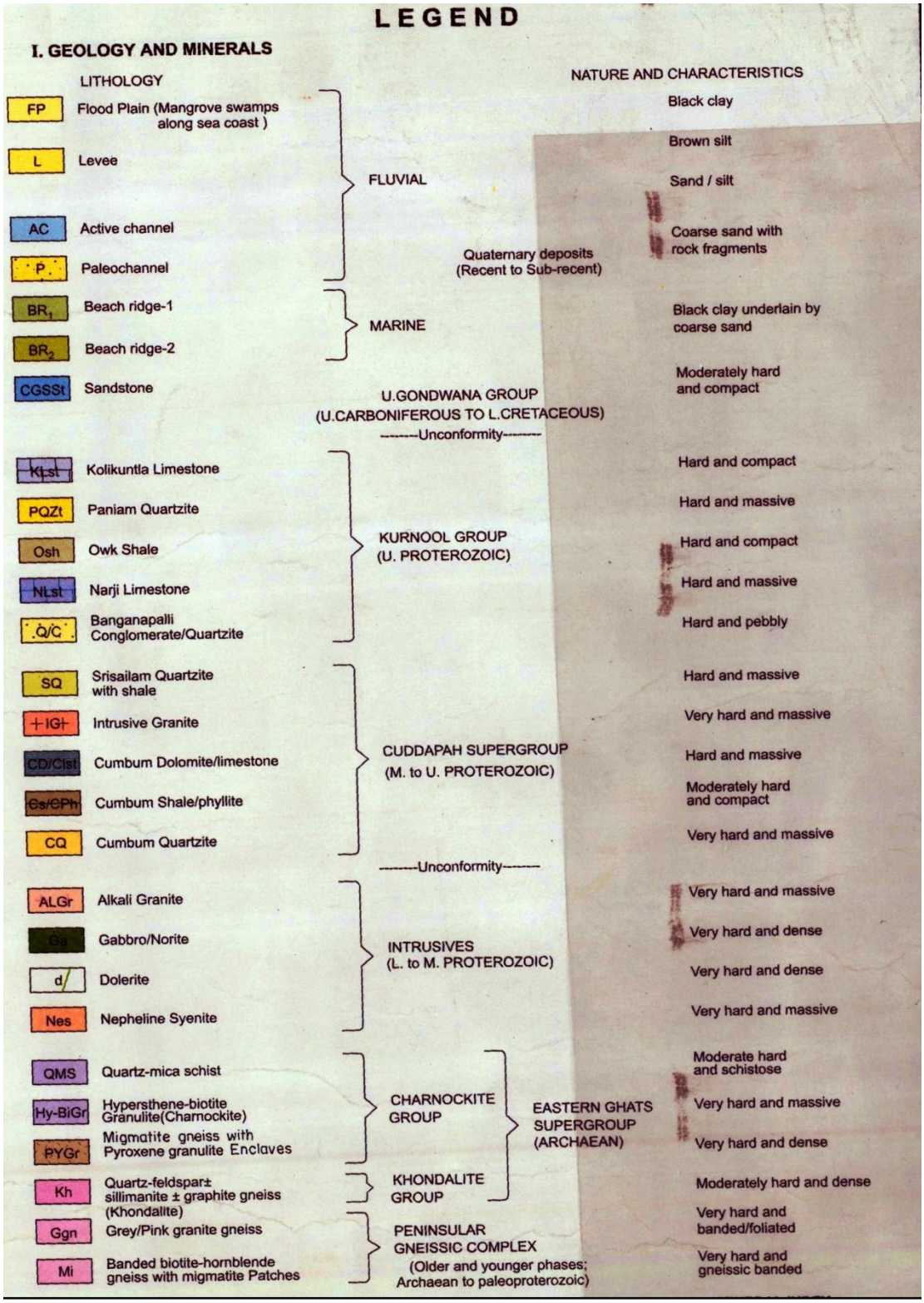


Figure 21: Geology of Palnadu District, Andhra Pradesh (Source: GSI, 2000)



Detailed Legend with Stratigraphic Sequence of Palnadu District

2.3 Minor Mineral Resources of Palnadu District:

As per literature (GSI, 2000) the following minerals are available in Palnadu District (Figure-22). The Palnadu District is endowed with mineral potentialities and the activity is spreaded throughout the district. The mineral deposits in the jurisdiction of the Asst. Director of Mines and Geology, Palnadu – I, predominantly granite (Black and Colour), road metal, gravel, sand, limestone, and mosaic chips etc are shown in Figure -22. The mineral revenue of this office is mainly depending on collection of Seig. The fee on road metal and granite. The details of Lease wise Production and Revenue Collections During the Last Three Years are given in Table-14.

2.3.1. Limestone: Under Act 1957, the mineral limestone is notified as major as well as minor mineral depending upon the end utilisation. Limestone is utilized in cement manufacturing it is categorised as major mineral. When limestone is used for lime manufacturing in traditional kilns, as a flooring slabs, making of mosaic chips, etc, it is categorized as minor mineral. The Palnadu district produces about 18 to 20% of all the grades of limestone in the state which is being utilized in cement, sugar, textiles, paper and pharmaceutical industries. Also used in steel manufacturing, mining, paper production, water treatment purification, plastic production and Cement industries. The Limestone is available Emmajigudem, Mannesultanpalem, Papayapalem Villages in Bellamkonda Mandal. Alugumallipadu, Bhatrupalem, Dachepalli, Gamalapadu, Kesanapalli, Nadikudi, Pondugala, Tangeda Villages in Dachepalli Mandal. Polepalli Village in Durgi Mandal.Petasannigandla,Sankarapuramsiddhayi Villages in Karempudi Mandal,Pillutla,Pinnelli,Srirukminipuram,Vemavaram Villages in Machavaram Mandal, Rayavaram Village in Macherla Mandal,Guthiknda,Konanki,PidugurallaVillages in Piduguralla Mandal,Kubadpuram,Kubadpuram Villages in Rajupalem Mandal,Goli, Rentala Villages in Rentachintala Mandal,Gothipalla,Mandadi Villages in Veldurthi Mandal.

2.3.2. Quartz: The quartz available in Palnadu district is used in Paint, Ceramic tiles and Glass Industries and is available in Nidanampadu Village in Durgi Mandal, Madugula Village in Gurazala Mandal, Chagallu, Chejerla Nakarikallu Mandal, Rupenaguntla, Tripura puram Villages in Nakarikallu

Mandal,Talarlapalli Village in Nuzendla Mandal,Thimmayapalem Village in Vinukonda Mandal.

2.3.3. Road Metal: Exfoliated massifs and sheet rocks of charnockite and pyroxene granulite provide excellent road-metal and construction material. The charnockite-pyroxene granulite belt, occurring along Guntur-Vijayawada State Highway and it is already under active exploitation by private entrepreneurs at several places for road-metal. The road metal utilized as construction purpose, also as railway ballast and available in Kondaveedu, Mydavolu, Vankayalapadu, Viswanadhunikhandrik Villages in Edlapadu Mandal, Madugula Village in Gurazala Mandal, Inumella Village in Ipuru Mandal, Hassanbada Village Krosuru Mandal, Gundlapalli Village in Nakarikallu Mandal, Kondakavuru Village in Narasaraopeta Mandal, Konanki Village in Piduguralla Mandal, Ganapavaram Village in Rajupalem Mandal,Vinukonda Village in Vinukonda Mandal.

2.3.4. Black Granite: Black granite that occurs in Palnadu is also commercially called as G 20 a premium Verity. Its appearance is of complete black and is predominantly used for Monuments and as dimension stones for flooring and wall tiling. Black Granite is available inBoppudi, Edavalli, Rajapeta and Murikipudi Villages in Chilakaluripet Mandal, Hassanbada Village Krosuru Mandal,Ellamanda Village in Narasaraopeta Mandal, Pamidipadu agraharam Village in Narasaraopeta Mandal,Puvvada Village in Nuzendla Mandal, Ummadivaram Village in Vinukonda Mandal

2.3.5. Mosaic Chips: Mosaic Chips are used in flooring and outdoor decarations. They are available in Gamalapadu, Kesanapalli, Nadikudi, Tangeda Villages in Dachepalli Mandal, Vemavaram Villages in Machavaram Mandal.

2.3.6. Slate: Slates are used as snooker tables, roofing, gravestones, flooring and garden decoration is available in Kondramutla Village in Ipuru Mandal.

2.3.7. Colour Granite: Colour Granite variety is predominantly used for m onuments and as dimension stones for flooring and wall tiling is available in Krosuru village in Krosuru Mandal, Nadendla Village in Nadendla Mandal, Reddigudem Village in Rajupalem Mandal, Karumanchi Village in Savalyapuram Mandal, Gokana konda Village in Vinukonda Mandal.

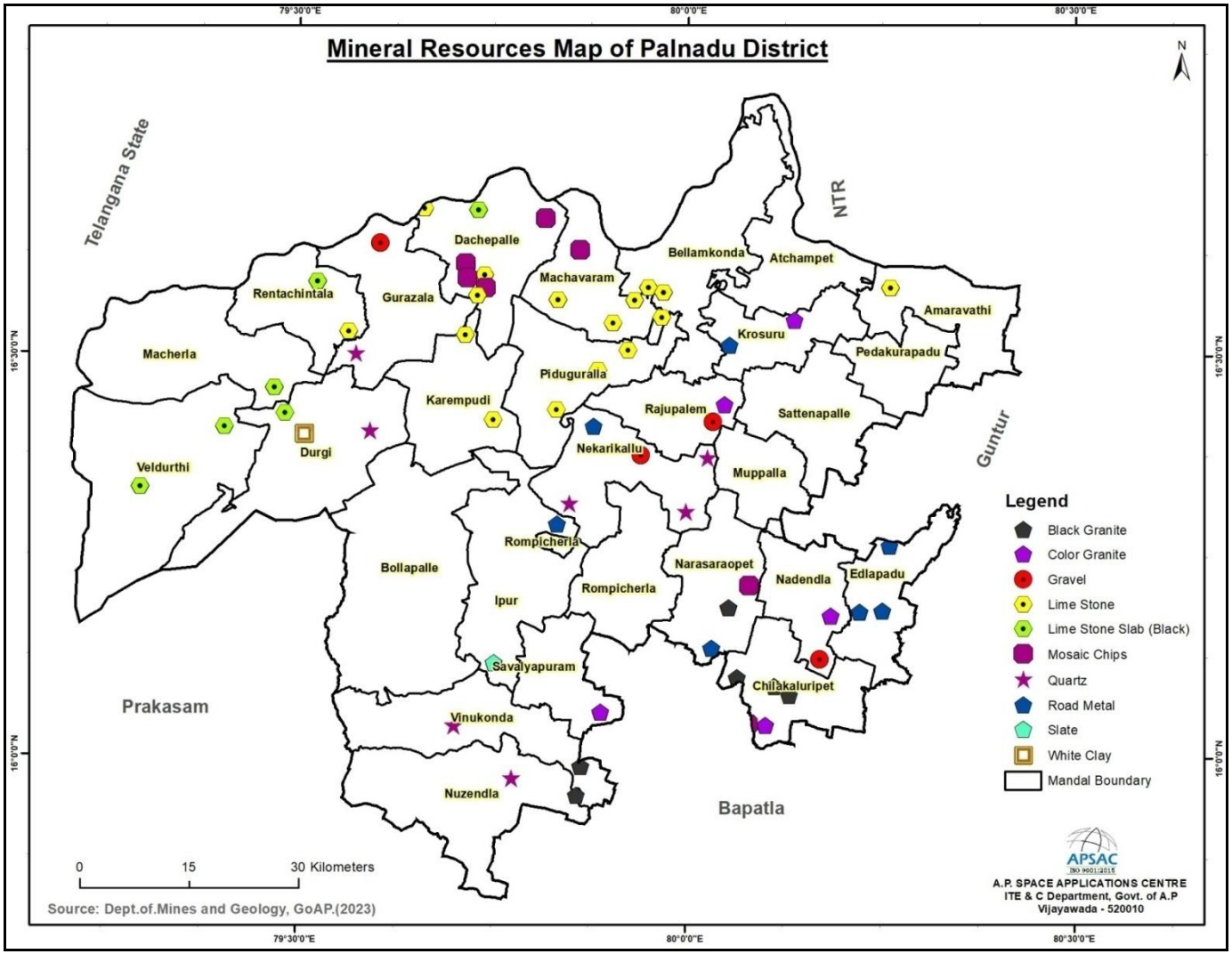


Figure-22: Mineral Resurce Map of Palnadu District

Table 14 List of Minor Minerals and Details of Lease wiseDMGO Narsaropeta, Palnadu District

List of Minor Minerals and Details of Lease wiseDMGO Narsaropeta, Palnadu District																
Sl. No.	**Name of the Mineral**	**ID Number**	**Name of the Lessee**	**Address & Contact No. of 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.,)**	**Capitive/Non-Capitiva**	**Obtained Enviornmentl Clearance (Yes/NO), If Yes Letter No with date of grant of EC**	**date of grant of EC**	**Location of the Mining lease (Latitute)**	**Location of the Mining lease (Longitude)**	**Method of Mining (Opencast/ Undergroun d)**
							From	**To**	**From**	**To**								
1	**2**		**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**Latitude**	**Longitude**	**16**
1	Road Metal	711140265	M/s Sri Lakshmi Durga Stone Crusher	M/s.Sri Lakshmi Durga Stone Crusher, Partner : Sri B.Srinivasa Rao, S/o.Purnaiah, Karlapudi Village, Amaravathi Mandal, Guntur District	6805/Q1/2012 18 Apr 2013,6805/Q1/2012 28 Jan 2014	1.805	7/23/2018	4/23/2022	nil	nil	7/23/2018	Non-working	Non-Capitiva			N16°30'12.77" N16°30'12.85" N16°30'13.99" N16°30'17.17" N16°30'17.31" N16°30'18.72"	E80°25'02.83" E80°25'05.28" E80°25'07.08" E80°25'01.36" E80°25'01.02" E80°25'01.60"	Open cast
2	Colour Granite	711220736	M Anil Kumar	M.Anil Kumar, S/o.Sikhamani, Jayalakshmi Nilayam, D.No.21-9/2-46, Plot No.S1, 2nd floor, Opp. Ramadevi School, Madhura Nagar, Vijayawada-1	2796/D7/2021, dt. 25.03.2022	1.954	5/16/2022	5/15/2042	nil	nil	5/16/2022	Non-working	Non-Capitiva	SEIAA/AP/GNT/MIN/12/221/3774	2/3/2022	N16°36'15.96492" N16°36'17.03531" N16°36'21.53521" N16°36'21.39574" N16°36'17.47341" N16°36'18.06141" N16°36'21.03572" N16°36'21.26212"	E80°08'59.15561" E80°08'06.44431" E80°08'56.62382" E80°08'00.46831" E80°08'01.10442" E80°08'54.70041" E80°08'55.05291" E80°08'56.61472"	Open cast
3	Road metal	ID Not Created	G.Kumaraswamy	Sri G.Kumaraswamy, S/o.Krishna Rao, H.No.2-40; 5/15, Danaboyinavari street, Gandhi Nagar, Tenali,	723/q1/2019, dt. 04.09.2020	0.554	11/16/2020	11/15/2030	nil	nil	11/16/2020	Non-working	Non-Capitiva	SEIAA/AP/GNT/MIN/11/219/1479		N16°35'33.8" N16°35'31.8" N16°35'31.3" N16°35'29.9" N16°35'30.3"	E80°09'00.7" E80°09'03.0" E80°09'03.5" E80°09'03.0" E80°09'01.6"	Open cast

				Guntur District											N16°35'30.5" N16°35'31.7" N16°35'32.0"	E80°09'01.7" E80°09'01.6" E80°09'00.2"	
4	Lime Stone Minor	711 080 417	G Satyav athi	Smt. G.Satyavathi, W/o. Lakshmana Babu, Nimmalathota Bazar, Piduguralla, Guntur District	5139/ Q1/20 07 31 Mar 2008	0.25 1	6/28/ 2018	6/2 7/2 02 8	nil	nil	6/28/ 2018	Non-working	Non-Capitiva			N16°35'57.33" N16°35'57.22" N16°35'56.70" N16°35'55.80"	E79°55'24.90" E79°55'27.46" E79°55'27.44" E79°55'24.62"	Open cast
5	Lime Stone Minor	711 210 654	M/s Siva Laksh mi Minera ls	M/s Siva Lakshmi Minerals, Prop: Sri K. Hanumantha Rao, H.No.7-422/2C, Bank Street, Behind Abhaya Hospital, Piduguralla Post, Vg & M, Guntur Dist	2310/ Q1/20 19, dt. 16.09. 2021	2.47	9/25/ 2021	9/2 4/2 03 1	nil	nil	9/25/ 2021	#N/A	Non-Capitiva	SEIAA/AP /GNT/MI N/11/219 /155/	2/ 11 /2 02 0	N16°32'06.34121" N16°32'07.70804" N16°32'06.96832" N16°32'06.59574" N16°32'05.50903" N16°32'05.79146" N16°32'03.84443" N16°32'04.62781" N16°32'02.98168" N16°32'01.54564" N16°32'00.49223" N16°32'59.04201"	E79°58'07.6670" E79°58'05.49043" E79°58'05.17044" E79°58'03.48506" E79°58'03.74691" E79°58'03.24190" E79°58'02.66372" E79°58'01.59285" E79°58'00.15793" E79°58'02.09528" E79°58'01.76791" E79°58'04.02145"	Open cast
6	Lime Stone Minor	711 220 732	Sri Gude Laksh man Babu	Sri Gude Lakshman Babu, S/o.Sitaramaiah, 7-187/1, Nimmathota Bazaar, Piduguralla Post & Mandal, Palnadu District	2309/ Q1/20 19, dt. 24.06. 2022	3.99 6	8/10/ 2022	8/9 /20 32	nil	nil	8/10/ 2022	#N/A	Non-Capitiva	SEIAA/AP /GNT/MI N/9/22/2 129/	12 /1 7/ 20 20	N16°32'19.95025" N16°32'20.43078" N16°32'15.96802" N16°32'16.45467" N16°32'20.23169" N16°32'21.83553" N16°32'23.73357" N16°32'18.05380" N16°32'13.35426"	E79°58'12.70893" E79°58'11.74540" E79°58'09.50547" E79°58'08.34754" E79°58'07.95401" E79°58'08.92863" E79°58'05.12294" E79°58'02.59129" E79°58'09.96412"	Open cast
7	Black Grani te	711 090 065	M/s. Sesha Sai Stone Crushe r	M/s. Sesha Sai Stone Crusher, Mg.P. M.V. Subbarao, Boppudi Village, chilakaluripet Mandal, Guntur District	8201/ R3-2/2009 23 May 2009	1.28 2	7/20/ 2009	7/1 1/2 02 7	nil	nil	7/20/ 2009	Non-working	Non-Capitiva			N16°04'23.8" N16°04'25.8" N16°04'24.0" N16°04'2.4" N16°04'21.3"	E80°07'28.8" E80°07'33.9" E80°07'34.06" E80°07'32.0" E80°07'29.8"	Open cast
8	Black Grani te	711 100 054	M/s Jai Hanu man Granit es	M/s.Jai Hanuman Granites, Prop. Sri O.Anjaneyulu, Kattubadivaripalem **(transferred from Sri Ch.Seetha Ramaiah)**	29940/ R3-2/2009 02 Sep 2009	1	20.04. 2010	29. 05. 20 27	nil	nil	20.04 .2010	Non-working	Non-Capitiva					Open cast

9	Black Granite	711110042	M/s.Surya Teja Exports	M/s.Surya Teja Exports, Mg.P. Smt. P.Renuka, Martur Post & Mandal, Prakasam District	32452/R3-2/2011, dt. 29.09.2011	2.104	31.10.2011	20.05.2027	nil	nil	31.10.2011	Non-working	Non-Captiva			N16°04'19.49" N16°04'19.89" N16°04'24.92" N16°04'24.52"	E80°07'59.21" E80°07'54.31" E80°07'54.79" E80°07'59.65"	Open cast
10	Black Granite	711140059	Ch. Chenchu Kumari	Smt. Ch.Chenchu Kumari, W/o.Sivaiah, Vankayalapadu Village, Edlapadu Mandal, Guntur District	5340/R3-2/2013, dt. 27.01.2014	2.7	22.02.2014	08.02.2027	nil	nil	22.02.2014	Non-working	Non-Captiva			N16°04'13.39" N16°04'14.68" N16°04'20.70" N16°04'18.64" N16°04'17.17" N16°04'15.97"	E80°07'54.19" E80°07'49.65" E80°07'51.20" E80°07'55.35" E80°07'54.58" E80°07'57.01"	Open cast
11	Black Granite	711190504	Sri Vahin Granites	M/s.Sri Vahin Granites, Prop. Smt. M.Venkata Sunitha Prasanna Mani Kumari, W/o.M.Santhosh Phani Kumar, D.No.80-4-9, Vikas Nagar, Kanchana Heights, J.N. Road, Rajahmundry, East Godavari District	7041/R3-3/2018, dt. 08.01.2019	1.039	1/31/2019	1/30/2039	nil	nil	1/31/2019	Non-working	Non-Captiva	174/DEIA/AP/GNT/18		N16°06'47.29" N16°06'46.73" N16°06'47.61" N16°06'47.91" N16°06'45.70" N16°06'44.93" N16°06'43.14" N16°06'46.77"	E80°03'12.00" E80°03'17.93" E80°03'18.23" E80°03'21.70" E80°03'21.17" E80°03'23.32" E80°03'22.56" E80°03'11.87"	Open cast
12	Black Granite	711190505	Sri Vishnu Granites	M/s.Sri Vishnu Granites, Prop. Sri S.V.V.Sudheer Kumar, S/o.Raghava Rao, D.No.8-24, Dhanuvukondavari street, Lawyerpet Extension, Ongole, Prakasam District	7042/R3-3/2018, dt. 08.01.2019	1.983	1/31/2019	1/30/2039	nil	nil	1/31/2019	Non-working	Non-Captiva	173/DEIA/AP/GNT/18		N16°06'47.29" N16°06'46.73" N16°06'47.61" N16°06'46.91" N16°06'45.70" N16°06'44.93" N16°06'43.14" N16°06'46.77"	E80°03'12.00" E80°03'17.93" E80°03'18.23" E80°03'21.70" E80°03'21.17" E80°03'23.32" E80°03'22.56" E80°03'11.87"	Open cast
13	Black Granite	ID Not Created	M/s.GVPR Minerals Pvt. Ltd	M/s.GVPR Minerals Pvt. Ltd., Mg.Director : G.V.Pratap Reddy, S/o.Veera Reddy, Plot No.32, Hindi Nagar, Panjagutta, Hyderabad	9066/D7/2020, dt. 05.07.2021	1.073	2/25/2019	2/24/2039	nil	nil	2/25/2019	Non-working	Non-Captiva			N16°07'02.66720" N16°07'06.29009" N16°07'03.37640" N16°07'58.52574" N16°07'58.33815" N16°07'58.70824"	E80°03'08.42185" E80°03'08.43736" E80°03'10.19618" E80°03'14.59669" E80°03'13.29627" E80°03'13.38712"	Open cast
14	Black Granite	ID Not Created	M/s.GVPR Minerals Pvt. Ltd.	M/s.GVPR Minerals Pvt. Ltd., Mg.Director : G.V.Pratap Reddy, S/o.Veera Reddy, Plot No.32, Hindi Nagar, Panjagutta, Hyderabad	9073/D7/2020, dt. 05.07.2021	1.020	2/25/2019	2/24/2039	nil	nil	2/25/2019	Non-working	Non-Captiva			N16°07'02.66720" N16°07'06.29009" N16°07'03.37640" N16°06'58.52574" N16°06'58.38815" N16°06'58.70824"	E80°03'08.42185" E80°03'08.43736" E80°03'10.19618" E80°03'14.59669" E80°03'13.29627" E80°03'13.38712"	Open cast

15	Black Granite	711150404	Veerasiva Granites & Exports (P) Ltd.,	M/s. Veera Siva Granites & Exports (P) Ltd., Mg.D: G.V.Pratap Reddy, Admn. Off : 3-A, Sivasai Sannidhi, PNo. 32, Hindi Nagar, Panjagutta, Hyd	1809/R2-3/2013 dt 30/03/2015	1.45	6/20/2015	6/19/2035	nil	nil	6/20/2015	Non-working	Non-Captiva	SEAA/AP/GNT-18/214/13	8/1/2015	N16°03'44.05104" N16°03'42.39543" N16°03'39.52849" N16°03'39.19877" N16°03'38.76601" N16°03'37.90295" N16°03'37.76881" N16°03'30.87721" N16°03'32.45981" N16°03'37.09784" N16°03'41.54843" N16°03'42.37642" N16°03'44.46732"	E80°05'32.34857" E80°05'32.34857" E80°05'32.18909" E80°05'32.39488" E80°05'34.64391" E80°05'38.73574" E80°05'38.57332" E80°05'40.00133" E80°05'35.74951" E80°05'34.33902" E80°05'32.66579" E80°05'31.06015" E80°05'30.16884"	Open cast
16	Black Granite	711040133	M/s.Madhucon Granites Ltd.,	M/s. Madhucon Granites, S.P.Attorney:-N.Hanumantha Rao, H.No.17-70, Madhu complex, Jublipura, Khammam.	20538/R3-3/2004 23 Aug 2004	3.733	9/27/2004	9/26/2024	nil	nil	9/27/2004	#N/A	Non-Captiva	SEIAA/AP/GNT-43/213/57	7/27/2004	No coordinates	No coordinates	Open cast
17	Black Granite	711120490	Sri Vishnu Granites	Sri Vishnu Granites, Mg.Partner : Sri M.Venkata Rao, Opp. Kalyani Hotel, D.No.31-719/3, S.B. Complex, K.B. Road, Chilakaluripet Post & mandal, Guntur District	3987/R3-2/2012, 25.08.2012	3	9/27/2012	9/26/2032	nil	nil	9/27/2012	#N/A	Non-Captiva	SEIAA/AP/GNT/3/22/199-826	12/18/2020	N16°06'22.9" N16°06'18.1" N16°06'16.8" N16°06'18.6" N16°06'17.9" N16°06'20.5" N16°06'22.7" N16°06'20.7"	E80°02'02.1" E80°02'01.0" E80°02'5.8" E80°02'06.4" E80°02'09.9" E80°02'10.9" E80°02'08.5" E80°02'07.9"	Open cast
18	Black Granite	711180495	Om Sri Enterprises	M/s.Om Sri Enterprises, Mg.Partner : Sri S.Bharath Kumar, Flat No.G6, Sudha Towers, Lakshmipuram main Road, Guntur Town	20217/R3-3/2016, dt. 08.06.2018	2.477	7/5/2018	7/4/2038	nil	nil	7/5/2018	#N/A	Non-Captiva	152/DEIAA/AP/GNT/17	1/3/2018	N16°06'33.0" N16°06'31.8" N16°06'31.4" N16°06'29.0" N16°06'28.0" N16°06'24.6" N16°06'24.8" N16°06'25.9" N16°06'26.4" N16°06'29.1"	E80°02'51.6" E80°02'57.0" E80°02'56.4" E80°02'53.9" E80°02'53.2" E80°02'50.1" E80°02'49.7" E80°02'50.4" E80°02'49.0" E80°02'50.1"	Open cast
19	Black Granite	711180491	Kishore slabs Tiles	M/s.Kishore Slabs & Tiles, Prop. Smt. G.Jhansi, C/o.Kishore Stones, G.T.Road, Ganapavaram, Nadendla Mandal,	16142/R3-3/2017, dt. 07.05.2018	2.444	5/18/2018	5/17/2038	nil	nil	5/18/2018	Non-working	Non-Captiva	155/DEIAA/AP/GNT/17	2/14/2018	N16°06'51.7" N16°06'51.00" N16°06'50.60" N16°06'50.20" N16°06'48.60" N16°06'48.00"	E80°03'04.4" E80°03'06.4" E80°03'06.3" E80°03'06.9" E80°03'06.30" E80°03'05.80"	Open cast

				Guntur District											N16°06'44.70" N16°06'44.50" N16°06'42.00" N16°06'42.40" N16°06'42.70" N16°06'42.00" N16°06'42.30" N16°06'45.20" N16°06'47.60" N16°06'47.80" N16°06'49.10"	E80°03'02.90" E80°03'04.60" E80°03'03.40" E80°03'01.90" E80°03'00.70" E80°03'00.40" E80°03'59.30" E80°03'00.60" E80°03'02.70" E80°03'02.30" E80°03'03.00"	
20	Black Granite	7111905 49	Smt Velpula Kumari	Smt. Velpula Kumari, W/o.Pethuru, D.No.4-130, Edavalli Village, Chilakaluripet Mandal, Guntur District	22591/R3-3/2015, dt. 12.08.2016	1.27	2/25/2019	2/24/2039	nil	nil	2/25/2019	Non-working	Non-Capitiva	171/DEIAA/AP/GNT/218	11/19/2018			Open cast
21	Black Granite	711170 483	Sri K.Srinivasa Rao	Sri K.Srinivasa Rao, S/o. Nageswara Rao, D.No.1-3-660, 1st line, parvathipuram, Near Jute Mill, Guntur Town	18666/R3-3/2013 29 Jun 2017	2.023	7/19/2017	7/18/2037	nil	nil	7/19/2017	#N/A	Non-Capitiva	92/DEIAA/AP/GNT/17	4/20/2017	N16°06'51.1" N16°06'55.1" N16°06'54.9" N16°06'56.5" N16°06'53.6" N16°06'52.5"	E80°03'19.0" E80°03'21.6" E80°03'19.0" E80°03'17.5" E80°03'16.0" E80°03'17.7"	Open cast
22	Black Granite	711140 117	M/s.S.G.S. Granites	S.G.S. Granites, Mg.P. Smt. C. Sulochana, Flat No. 30, 3rd Floor, New No. 150 (old No. 105), Habibullah Road, T. Nagar, Chennai-600017	37438/R3-3/2013-1 dt:24.01.14	2.392	3/21/2014	3/20/2034	nil	nil	3/21/2014	Non-working	Non-Capitiva			N16°06'16.7" N16°06'7.1" N16°06'6.0" N16°06'14.8"	E80°02'53.1" E80°02'52.3" E80°02'57.1" E80°02'59.7"	Open cast
23	Black Granite	711050 421	M/s.Venkata Manjunadha Granites	M/s. Venkata Manjunadha Granites, Prop. Sri S.Venkata BalaSubr ahmanyam, S/o Panduranga Rao, Chimakurhy, Prakasam(Dt).	10349/R3-3/2005 13 Jun 2005	2.844	11/23/2005	11/22/2025	nil	nil	11/23/2005	#N/A	Non-Capitiva	SEIAA/AP/MIN/GNT-48/213-2487	7/10/2013	N16°06'31.9" N16°06'29.5" N16°06'26.9" N16°06'27.3" N16°06'29.7" N16°06'29.7" N16°06'34.0"	E80°03'16.2" E80°03'17.5" E80°03'17.3" E80°03'23.1" E80°03'23.3" E80°03'23.0" E80°03'23.3"	Open cast
24	Black Granite	711030 129	Sri Raghavendra Granites	Sri Raghavendra Granites, Smt. S. Dhanalakshmi, Plot No. 104, Block A Ramakrishna Towers, 1st Line, Vidya Nagar, Guntur	19821/R3-3/2003 20 Aug 2003	0.7	10/14/2003	10/13/2023	nil	nil	10/14/2003	#N/A	Non-Capitiva	SEIAA/AP/GNT-8/213	10/23/2013	N16°06'25.33733" N16°06'25.07341" N16°06'26.41972" N16°06'25.91945" N16°06'24.63792" N16°06'22.93967" N16°06'20.86352"	E80°02'48.46399" E80°02'48.95930" E80°02'49.46345" E80°02'50.44637" E80°02'49.97469" E80°02'49.10996" E80°02'48.24663"	Open cast

															N16°06'21.35581"	E80°02'46.90752"	
25	Black Granite	711140120	M/s. Golden Global Enterprises	M/s. Golden Global Enterprises, Mg.P. Smt. C. Sulochana, Flat No. 30, 3rd Floor, New No. 150 (old No. 105), Habibullah Road, T. Nagar, Chennai-17	37438/R3-3/2013 24 Jan 2014	2	3/21/2014	3/20/2034	nil	nil	3/21/2014	#N/A	Non-Captiva	SEIAA/AP/GNT-87/213-496	10/25/2013	N16°06'21.1" N16°06'21.9" N16°06'19.9" N16°06'20.2" N16°06'16.1" N16°06'17.0"	E80°02'55.8" E80°02'52.3" E80°02'51.5" E80°02'50.5" E80°02'49.4" E80°02'53.5"	Open cast
26	Black Granite	711070131	M/s.Hara Minerals Pvt Ltd	M/s. Hara Minerals Pvt.Ltd., D:- V.Srinivas, No.3, 1st Floor, Saisurya Towers, Market centre, Ongole, Prakasam(Dt).	24427/R3-3/2005 14 Sep 2005	2.639	5/9/2007	5/8/2027	nil	nil	5/9/2007	#N/A	Non-Captiva	SEIAA/AP/GNT-82/213	10/23/2013	N16°06'27.6948" N16°06'26.7192" N16°06'21.9842" N16°06'20.6748" N16°06'21.8520" N16°06'19.6560" N16°06'20.0412" N16°06'23.6952"	E80°02'54.9060" E80°02'57.5808" E80°02'57.3108" E80°02'55.8168" E80°02'52.2780" E80°02'51.4428" E80°02'50.4960" E80°02'52.0800"	Open cast
27	Black Granite	711150397	M/s.Veerabhadra Minerals Pvt. Ltd.,	M/s.Veerabhadra Minerals Pvt. Ltd., Mg.D. Sri G.Veera Pratap Reddy, S/o.Veera Reddy, Siva Sai Sannidhi , Plot No.32, Panjagutta, Hyderabad	39162/R2-3/2013 30 Mar 2015,22591/R3-3/2015 12/08/2016	1.465	9/14/2016	5/6/2035	nil	nil	9/14/2016	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT-113/214-1151/193.V	1/13/2015	N16°06'53.03" N16°06'55.00" N16°06'51.04" N16°06'48.55"	E80°03'23.39" E80°03'21.59" E80°03'19.13" E80°03'23.01"	Open cast
28	Black Granite	711040134	Victorian Stones & Exports Pvt Ltd	M/s.Victorian Stone & Exports Pvt. Ltd., Mg.P. Sri T. Venkateswara Rao, H.No. 8-3-902/1, Nagarjuna Nagar, Ameerpet, Hyderabad	33351/R3-3/2003 23 Aug 2004	2.5	9/24/2004	9/23/2024	nil	nil	9/24/2004	#N/A	Non-Captiva	SEIAA/AP/GNT-45/213	6/14/2013	N16°06'55.88" N16°06'57.10" N16°06'58.03" N16°07'00.41" N16°07'01.15" N16°07'02.69" N16°07'00.27" N16°06'58.04" N16°07'00.01" N16°06'56.16"	E80°03'06.77" E80°03'02.91" E80°03'01.79" E80°03'03.15" E80°03'05.52" E80°03'08.46" E80°03'11.41" E80°03'10.64" E80°03'07.76" E80°03'06.84"	Open cast
29	Colour Granite	711100148	Ind-Rock Exports	M/s.Ind-Rock Exports, Mg.Partner:- M.Diwakar Reddy D.No. 1-329, 10th line, Pandaripuram, Chilakaluripet	19224/R3-2/2008 15 Oct 2009	1.554	3/26/2010	3/25/2030	nil	nil	3/26/2010	Non-working	Non-Captiva			N16°08'49.2" N16°08'52.5" N16°08'52.1" N16°08'49.2" N16°08'48.9" N16°08'47.2"	E80°05'51.3" E80°05'52.8" E80°05'54.2" E80°05'57.3" E80°05'56.3" E80°05'53.1"	Open cast

30	Black Granite	711200548	Smt E. Siva Parvathi	SMt. E.Sivaparvathi, W/o.Srinivasa Rao, D.No.5-49/2K, K.Rajupalem Village, Ballikurava Mandal, Prakasam District	3904/D7/2019, dt. 04.03.2020	0.923	3/11/2020	3/10/2040	nil	nil	3/11/2020	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/1/219/1265/	12/18/2019	N16°02'51.83861" N16°02'51.08842" N16°02'48.88420" N16°02'48.86711" N16°02'35.14201" N16°02'51.78483"	E80°05'30.56893" E80°05'34.36901" E80°05'34.68992" E80°05'30.65170" E80°05'42.59684" E80°05'43.74335"	Open cast
31	Colour Granite	711130510	A.Narasimha Rao	A. Narasimha Rao, S/o. Venkata Subbaiah, D.No. 22-2-21/1, Nancharamma Colony, Kandukur Post & Mandal, Prakasam District	40249/R3-2/2013, dt. 26.11.2013	4.784	11/20/2018	3/13/2032	nil	nil	11/20/2018	#N/A	Non-Captiva	SEIAA/AP/GNT/MIN/1/22/1266-541	11/25/2020	N16°02'53.50" N16°02'52.60" N16°02'51.30" N16°02'46.90" N16°02'46.90" N16°02'48.00" N16°02'49.00" N16°02'49.10" N16°02'51.30" N16°02'51.80" N16°02'53.00" N16°02'52.40"	E80°05'23.20" E80°05'25.60" E80°05'27.90" E80°05'27.90" E80°05'26.40" E80°05'21.80" E80°05'22.00" E80°05'21.70" E80°05'22.30" E80°05'20.50" E80°05'20.90" E80°05'22.90"	Open cast
32	Colour Granite	711210761	M/s.Vijaya Sai Exports,	M/s.Vijaya Sai Exports, Mg.P. Smt. E.Naga Malleswari, W/o.Venkata Rami Reddy, D.No.2-111A, Budawada village, J.Panguluru Mandal, Prakasam District	8216/D7/2019, DT. 23.03.2021	3.407	4/23/2021	4/22/2041	nil	nil	4/23/2021	#N/A	Non-Captiva		12/8/2020	N16°02'51.15562" N16°02'50.27652" N16°02'56.77520" N16°02'58.26589" N16°02'57.45740" N16°02'57.40173" N16°02'59.25462"	E80°06'22.79241" E80°06'27.88767" E80°06'29.47494" E80°06'24.00201" E80°06'23.89437" E80°06'24.05956" E80°06'30.06762"	Open cast
33	Colour Granite	CFO Submit	M/s. Veera Shiva Granites & Exports (P) Ltd.,	M/s. Veera Shiva Granites & Exports (P) Ltd., Mg.D: G.Veera Shiva Reddy, Plot No. 32, Opp. to Shiridi Sai Baba Temple, Hindi Nagar, Panjagutta, Hyderabad.	5205/D7/2021, dt. 05.09.2022	1.979	10/29/2022	10/28/2042	nil	nil	10/29/2022	Non-working	Non-Captiva			N16°02'54.10753" N16°02'55.95724" N16°02'55.28261" N16°02'53.77272" N16°02'53.82454" N16°02'52.98803" N16°02'52.79035" N16°02'51.48802" N16°02'49.40054" N16°02'49.00915" N16°02'49.43646" N16°02'52.55006" N16°02'52.47356"	E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304" E80°05'47.32304"	Open cast
34	Colour Granite	CFO Submit	M/s. Veera Shiva Granit	M/s. Veera Shiva Granites & Exports (P) Ltd., Mg.D: G.Veera Shiva Reddy, Plot No.	5207/D7/2021, dt. 05.09.	3.86	10/29/2022	10/28/2042	nil	nil	10/29/2022	Non-working	Non-Captiva					Open cast

			es & Exports (P) Ltd.,	32, Opp. to Shiridi Sai Baba Temple, Hindi Nagar, Panjagutta, Hyderabad.	2022												
35	Colour Granite	CFO Submit	Sri G. Veeera Dinesh Reddy,	Sri G. Veeera Dinesh Reddy, S/o. G. Veera Pratap Reddy, Plot No. 32, Opp. to Shiridi Sai Baba Temple, Hindi Nagar, Panjagutta, Hyderabad.	5210/D7/2021, dt. 05.02.2022	3.86	10/29/2022	10/28/2042	nil	nil	10/29/2022	Non-working	Non-Capitiva			N16°03'27.09087" N16°03'26.06927" N16°03'24.11451" N16°03'24.16042" N16°03'22.63841" N16°03'19.92133" N16°03'20.08601" N16°03'19.06623" N16°03'18.11786" N16°03'21.15254" N16°03'20.77344" N16°03'20.94196"	E80°05'37.72532" E80°05'41.47641" E80°05'40.80023" E80°05'42.63575" E80°05'41.23490" E80°05'40.69992" E80°05'39.65212" E80°05'39.08345" E80°05'34.66201" E80°05'33.68284" E80°05'34.94332" E80°05'34.01752"	Open cast
36	Black Granite	711070154	M/s.Kishore Stones	M/s. Kishore Stones, Mg.P.Smt G.Radhika, G.T.Road, Ganapavaram, Nadendla Mandal, Guntur District	39294/R3-1/200602 May 2007	1.285	6/16/2007	8/18/2026	nil	nil	6/16/2007	Non-working	Non-Capitiva	SEIAA/AP/GTR-4/212-4325	12/2/2012	N16°04'07.9" N16°04'05.6" N16°04'02.6" N16°03'57.8" N16°03'58.6" N16°03'59.8" N16°04'00.3" N16°04'02.0" N16°04'02.0" N16°04'02.3" N16°04'03.4" N16°04'04.2" N16°04'05.5" N16°04'06.1" N16°04'06.3"	E80°06'59.3" E80°07'04.1" E80°07'07.0" E80°07'03.8" E80°07'01.8" E80°07'02.4" E80°07'01.3" E80°07'04.4" E80°07'03.1" E80°07'00.8" E80°07'00.1" E80°07'00.5" E80°06'59.4" E80°06'59.6" E80°06'58.9"	Open cast
37	Colour Granite	711130150	M/s.Venkateswara Stone Inds	M/s. Venkateswara Stone Industries, Mg.P. Sri G. Eswaraiah, D.No. 5-89-28, 3rd Lane, Lakshmipuram, Guntur	41065/R3-1/201215/02/2013	2	2/28/2013	4/21/2024	nil	nil	2/28/2013	#N/A	Non-Capitiva	SEIAA/AP/GNT-6/213-3117	8/12/2013	No coordinates	No coordinates	Open cast

38	Road Metal	711 070 351	M/s.Padmavathi stone crusher	M/s.Padmavathi Stone Crusher, Mg.Partner: O. Janardhana Reddy, D.No. 1-2-75, Vijayapuri, J.K.C. College, Guntur	7534/ Q/2006 31/08/ 2007	1.254	9/13/ 2007	9/12/2022	nil	nil	9/13/ 2007	Non-working	Non-Captiva			N16°15'22.7" N16°15'22.4" N16°15'16.4" N16°15'17.1" N16°15'18.3" N16°15'20.2" N16°15'17.5" N16°15'18.1" N16°15'21.1" N16°15'19.9"	E80°19'07.4" E80°19'08.6" E80°19'08.6" E80°19'07.4" E80°19'08.3" E80°19'06.2" E80°19'03.8" E80°19'03.1" E80°19'06.6" E80°19'04.4"	Open cast
39	Road Metal	711 120 049	M/s P.U.S Stone Crusher	M/s.PUS Stone Crusher, Mg.Partner : Sri T.Subba Rao, Perecherla Village, Medikondur Mandal, Guntur District	6252/ Q1/96 19/07/ 97,604 7/Q/2011 24/01/ 2012	2.21	8/14/ 2018	2/21/2027	nil	nil	8/14/ 2018	Non-working	Non-Captiva			N16°15'19.70" N16°15'14.70" N16°15'11.03" N16°15'12.78" N16°15'14.90" N16°15'20.60"	E80°19'14.10" E80°19'12.80" E80°19'10.26" E80°19'9.68" E80°19'9.60" E80°19'10.80"	Open cast
40	Road Metal	711 070 058	M. Ramireddy	M.Rami Reddy, S/o Venkat Reddy, Vankayalapadu(V), Edlapadu(M), Guntur District	1527/ Q1/97 28/05/ 97,144 0/Q/2007 07/09/ 2007	0.404	7/11/ 2007	7/10/2017	nil	nil	7/11/ 2007	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast
41	Road Metal	711 040 050	M/s. Balaji Stone Crusher	M/s Balaji Stone Crusher Prop:Sri D.Bhaskar Rao, D.No.24-4-11, R.Agraharam, Guntur(Dt).	2684/ Q/AD(GNT) 29/08/ 03	1.619	2/19/ 2004	2/18/2019	nil	nil	2/19/ 2004	Non-working	Non-Captiva			N16°11'17.37" N16°11'16.36" N16°11'13.54" N16°11'14.90"	E80°14'05.30" E80°14'12.12" E80°14'10.12" E80°14'04.52"	Open cast
42	Road Metal	711 060 051	D.Bhaskara Rao	Sri D.Bhaskara Rao, S/o D.V.RamaMurthy, D.No.24-4-11, R.Agraharam, Guntur.	4079/ Q/AD/ GNT/06 28 Sep	1.881	12/26 /2006	12/25/ 2016	nil	nil	12/26 /2006	Non-working	Non-Captiva			N16°11'14.90" N16°11'13.54" N16°11'11.14" N16°11'11.45" N16°11'10.18"	E80°14'04.52" E80°14'10.12" E80°14'08.40" E80°14'6.01" E80°14'06.56"	Open cast

					2006										N16°11'11.56"	E80°14'03.62"	
43	Road Metal	711 130 052	D. Padma latha	Smt. Dasarai Padmalatha W/o Bhaskara Rao H.No : 24-4-11, R-Agraharam Guntur	1907/ Q1/20 00 02/07/ 2002,3 648/Q 1/2012 23/04/ 2013	0.42 1	9/28/ 2012	9/2 7/2 02 2	nil	nil	9/28/ 2012	Non-working	Non-Capitiva			N16°11'11.73" N16°11'10.71" N16°11'09.11" N16°11'08.11" N16°11'09.26"	E80°14'03.29" E80°14'05.47" E80°14'04.65" E80°14'03.01" E80°14'02.52"	Open cast
44	Road Metal & Gravel	711 170 482	Sri K.Siva Gopala krishna	Sri K.Sivagopala Krishna, S/o.Hari Babu, D.No.4-65, China Library centre, Jaggapuram Village, Edlapadu Mandal, Guntur District	3034/ Q1/20 16, dt. 23.06. 2017	2.10 4	7/22/ 2017	7/2 1/2 02 7	nil	nil	7/22/ 2017	#N/A	Non-Capitiva	52/DEIA A/AP/GN T/16	2/ 4/ 20 17	N16°11'00.17" N16°11'00.10" N16°11'03.10" N16°11'02.85" N16°11'02.07" N16°11'01.39" N16°11'02.47" N16°11'04.10" N16°11'04.30" N16°11'05.60"	E80°14'07.47" E80°14'07.97" E80°14'09.85" E80°14'12.64" E80°14'12.17" E80°14'13.36" E80°14'14.06" E80°14'15.77" E80°14'13.34" E80°14'07.92"	Open cast
45	Road Metal & Gravel	711 170 481	Sri K.Siva Gopala krishna	Sri K.Sivagopala Krishna, S/o.Hari Babu, D.No.4-65, China Library centre, Jaggapuram Village, Edlapadu Mandal, Guntur District	3034/ Q1/20 16 23-06- 2017	0.87 4	7/22/ 2017	7/2 1/2 02 7	nil	nil	7/22/ 2017	Non-working	Non-Capitiva			N16°10' 59.59" N16°10' 59.88" N16°11' 03.10" N16°11' 02.85"	E80°14'10.63" E80°14'07.84" E80°14'09.85" E80°14'12.64"	Open cast
46	Road Metal & Gravel	711 180 496	Sri K. Siva Gopala Krishna	Sri K.Sivagopala Krishna, S/o.Hari Babu, D.No.4-65, China Library centre, Jaggapuram Village, Edlapadu Mandal, Guntur District	1090/ Q1/20 17, dt. 10.07. 2018	2.02 3	8/13/ 2018	8/1 2/2 02 8	nil	nil	8/13/ 2018	#N/A	Non-Capitiva	149/DEIA A/AP/GN T/17	1/ 3/ 20 18	N16°10'59.59" N16°10'59.88" N16°11'03.10" N16°11'02.85"	E80°14'10.63" E80°14'07.84" E80°14'09.85" E80°14'12.64"	Open cast
47	Road Metal	711 090 055	Gruhalakshmi Stone Crusher	M/s. Gruhalakshmi Stone Crusher, Prop. M. Nageswara Rao, Tummalapalem Village, Prathipadu Mandal, Guntur District	4449/ Q/200 7 04/02/ 2009	1.37 1	2/11/ 2009	2/1 0/2 02 4	nil	nil	2/11/ 2009	#N/A	Non-Capitiva	38/DEIA A/AP/GN T/16	10 /2 1/ 20 16	N16°10'32.08" N16°10'31.02" N16°10'30.09" N16°10'29.86" N16°10'25.98" N16°10'26.13"	E80°14'07.51" E80°14'10.33" E80°14'10.05" E80°14'12.04" E80°14'12.23" E80°14'10.23"	Open cast

48	Road Metal	711090056	Kanakadurga Stone Crusher	M/s. Kanakadurga Stone Crusher, Partner: R. Satyanarayana, S/o. Veeraju, Boyapalem Village, Edlapadu Mandal, Guntur District	2668/Q1/2009 06 June 2009	0.695	7/4/2009	7/3/2024	nil	nil	7/4/2009	#N/A	Non-Capitiva	114/DEIAA/AP/GNT/17	4/20/2017	N16°10'29.91" N16°10'29.55" N16°10'30.08" N16°10'26.82" N16°10'27.10" N16°10'31.31"	E80°14'18.36" E80°14'18.22" E80°14'16.65" E80°14'15.58" E80°14'14.95" E80°14'15.01"	Open cast
49	Road Metal	711160477	M/s Gruhalakshmi Stone Crusher	M/s. Gruhalakshmi Stone Crusher, Prop. M. Nageswara Rao, Tummalapalem Village, Prathipadu Mandal, Guntur District	2716/Q1/2016 21 Nov 2016	0.817	12/13/2016	12/12/2031	nil	nil	12/13/2016	#N/A	Non-Capitiva	19/DEIAA/AP/GNT/16	10/21/2016	N16°10' 34.57" N16°10' 33.49" N16°10' 32.08" N16°19' 31.02"	E80°14'8.35" E80°14'11.15" E80°14'07.51" E80°14'10.33"	Open cast
50	Road metal	711030061	M/s.Vijaya Durga Stone Crusher,	M/s.Vijaya Durga Stone Crusher, Prop. Sri R.Nageswara Rao, Boyapalem Village, Edlapadu Mandal, Guntur District	178/q1/2001 17/09/2002	0.55	2/9/2003	2/8/2018	nil	nil	2/9/2003	Non-working	Non-Capitiva			N16°10'09.3" N16°10'09.4" N16°10'07.3" N16°10'07.1"	E80°14'12.2" E80°14'16.4" E80°14'16.2" E80°14'12.8"	Open cast
51	Road Metal	711130434	M/s.Sai Durga Stone Crusher	M/s. Sai Durga Stone Crusher, Mg.P. Sri A. China yellamandaiah, Lingampalli Village, Edlpadu mandal, Guntur District	1237/Q1/9702/04/97,1081/Q1/2012 11/02/2013	0.971	7/26/2012	7/25/2027	nil	nil	7/26/2012	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
52	Road Metal	711080070	Para Padmini	Sri Para Padmini, W/o.Late Kishore, Edlapadu Village & mandal, Guntur District	5249/Q1/2006 17/11/2006,5249/Q1/2006 27/12/2007,5803/Q1/2016 23/03/2017	0.85	11/23/2016	11/22/2026	nil	nil	11/23/2016	Non-working	Non-Capitiva	77/DEIAA/AP/GNT/16	2/4/2017	N16°10'17.81" N16°10'21.65" N16°10'21.60" N16°10'17.67"	E80°14'10.50" E80°14'11.39" E80°14'8.70" E80°14'8.46"	Open cast
53	Road Metal	711090071	M/s Sri Lakshmi Balaji	M/s. Sri Lakshmi Balaji Stone Crusher, Mg.Partner: N. Chalapathi Rao, 5th	1802/Q1/0902 May	2.023	7/10/2019	6/26/2024	nil	nil	7/10/2019	Non-working	Non-Capitiva			N16°10'32.15" N16°10'29.20" N16°10'29.34" N16°10'32.69"	E80°14'18.22" E80°14'18.83" E80°14'12.77" E80°14'13.57"	Open cast

			Stone Crusher	Lane, Chandramouli Nagar, Guntur	2009										N16°10'32.63" N16°10'33.28" N16°10'33.98"	E80°14'14.95" E80°14'15.05" E80°14'18.75"	
54	Road Metal	711 110 076	M/s Sri Laksh mi Balaji Stone Crusher	M/s. Sri Lakshmi Balaji Stone Crusher, Mg.Partner: N. Chalapathi Rao, 5th Lane, Chandramouli Nagar, Guntur	9930/ Q1/20 04 05/05/ 2011,9 930/Q/ 2014 06/01/ 2015	0.68 8	7/10/ 2019	1/5 /20 30	nil	nil	7/10/ 2019	Non-working	Non-Capitiva			N16°10'10.20" N16°10'14.19" N16°10'15.10" N16°10'11.90"	E80°14'16.15" E80°14'16.45" E80°14'12.22" E80°14'12.80"	Open cast
55	Road Metal	711 050 063	Kanak adurga Stone Crusher	Kanaka Durga Stone Crusher Inds., Mg.P.R.satyanarayana, Boyapalem(M), Guntur(Dt)	1461/ Q/AD/ GNT/0 4 31 Dec 2004	1.41 6	2/17/ 2020	2/1 6/2 03 5	nil	nil	2/17/ 2020	#N/A	Non-Capitiva	113/DEIA A/AP/GN T/217	4/ 20 /2 01 7	N16°10'24.61" N16°10'26.82" N16°10'30.08" N16°10'29.55" N16°10'29.27" N16°10'27.68"	E80°14'18.38" E80°14'15.58" E80°14'16.65" E80°14'18.22" E80°14'20.95" E80°14'20.66"	Open cast
56	Road Metal	711 090 069	Sri Laksh mi Balaji Stone Crusher	M/s. Lakshmi Balaji Stone Crusher, Mg.Partner: N. Chalapathi Rao, S/o. Gangaiah, V.Kandrika Village, Edlapadu Mandal, Guntur District	2667/ Q1/09 06 Jun 2009	1.91 2	7/4/2 009	7/3 /20 24	nil	nil	7/4/2 009	#N/A	Non-Capitiva	67/DEIA A/AP/GN T/16	2/ 4/ 20 17	N16°10'16.75" N16°10'23.64" N16°10'24.53" N16°10'17.15"	E80°14'15.61" E80°14'18.55" E80°14'15.66" E80°14'12.60"	Open cast
57	Road Metal	711 130 079	Para Singar ao	Para Singarao, S/o. Koteswara Rao, Edlapadu Village &mandal, Guntur District	179/Q/ 2002 17/03/ 2009,6 743/Q 1/2012 15/12/ 2012	0.48 6	1/10/ 2013	1/9 /20 23	nil	nil	1/10/ 2013	Non-working	Non-Capitiva	78/DEIA A/AP/GN T/16	2/ 4/ 20 17	N16°10'9.19" N16°10'10.34" N16°10'11.81" N16°10'10.64"	E80°14'15.11" E80°14'15.49" E80°14'11.38" E80°14'11.14"	Open cast
58	Road Metal	711 130 073	Sri Laksh mi Balaji Stone Crusher	Sri Lakshmi Balaji Stone Crusher, Mg.P. Sri N. Chalapathi Rao, V.Kandrika Village, Edlapadu mandal, Guntur District	606/Q 1/08 29/01/ 2008,6 06/Q1/ 2008 14/08/ 2013	1.30 7	4/18/ 2018	4/1 7/2 03 3	nil	nil	4/18/ 2018	#N/A	Non-Capitiva	69/DEIA A/AP/GN T/216	2/ 4/ 20 17	N16°10'14.28" N16°10'16.80" N16°10'17.08" N16°10'14.82"	E80°14'16.04" E80°14'15.10" E80°14'13.08" E80°14'12.43"	Open cast

59	Road Metal	711130074	Sri Lakshmi Balaji Stone Crusher	Sri Lakshmi Balaji Stone Crusher, Mg.P. Sri N. Chalapathi Rao, V.Kandrika Village, Edlapadu mandal, Guntur District	1798/Q/2009 25/05/2009,1798/Q/2009 14/08/2013	0.793	6/6/2019	6/5/2034	nil	nil	6/6/2019	#N/A	Non-Capitiva	65/DEIAA/AP/GNT/16	2/4/2017	N16°10'14.28" N16°10'16.80" N16°10'17.08" N16°10'14.82"	E80°14'16.04" E80°14'15.10" E80°14'13.08" E80°14'12.43"	Open cast
60	Road Metal	711120072	Sri Lakshmi Balaji Stone Crusher	M/s. Sri Lakshmi Balaji Stone Crusher, Mg.Partner: N. Chalapathi Rao, 5th Lane, Chandramouli Nagar, Guntur	2500/Q1/2008 03/08/2011,3406/Q1/2016 01 Jul 2016	2.440	5/28/2016	5/27/2031	nil	nil	5/28/2016	#N/A	Non-Capitiva	66/DEIAA/AP/GNT/16	2/4/2017	N16°10'17.15" N16°10'25.32" N16°10'25.97" N16°10'25.87" N16°10'22.10" N16°10'22.13" N16°10'17.81"	E80°14'12.60" E80°14'16.00" E80°14'13.91" E80°14'11.19" E80°14'12.34" E80°14'11.50" E80°14'10.50"	Open cast
61	Road Metal	711180492	Sri Lakshmi Balaji Stone Crusher	Sri Lakshmi Balaji Stone Crusher, Mg.P. Sri N. Chalapathi Rao, V.Kandrika Village, Edlapadu mandal, Guntur District	622/Q1/2014, dt. 20.03.2014	1	7/21/2017	7/20/2032	nil	nil	7/21/2017	#N/A	Non-Capitiva	7/DEIAA/AP/GNT/216	2/4/2017	N16°10'9.50" N16°10'9.56" N16°10'11.28" N16°10'13.90" N16°10'13.92"	E80°14'11.23" E80°14'8.86" E80°14'8.22" E80°14'7.96" E80°14'10.67"	Open cast
62	Road Metal	711080104	P. Lakshmaiah	P. Lakshmaiah, S/o. Ankamma, Upprapalem Village, Edlapadu Mandal, Guntur District	930/Q/2007 25 Sep 2008	0.243	12/15/2008	12/14/2018	nil	nil	12/15/2008	Non-working	Non-Capitiva			N16°11'44.15053" N16°11'45.13174" N16°11'45.28036" N16°11'44.29918"	E80°14'42.74981" E80°14'42.69203" E80°14'45.39534" E80°14'45.45312"	Open cast
63	Road Metal	711080113	T. China Ankamma Rao	T. China Ankamma Rao, S/o. Kotaiah, Upparapalem Village, Edlapadu mandal, Guntur District	6108/Q1/0804 Oct 2008	0.304	12/30/2008	12/29/2018	nil	nil	12/30/2008	Non-working	Non-Capitiva			N16°11'55.88477" N16°11'58.85880" N16°11'59.47129" N16°11'59.53394" N16°11'58.03916" N16°11'57.36462" N16°11'57.11754" N16°11'59.19167" N16°11'59.15806"	E80°14'41.27543" E80°14'40.45242" E80°14'40.84888" E80°14'43.37185" E80°14'43.26794" E80°14'43.08548" E80°14'42.64981" E80°14'42.68607" E80°14'41.33265"	Open cast
64	Road Metal	711080391	T. China Ankamma Rao	T. China Ankamma Rao, S/o. Kotaiah, Upparapalem Village, Edlapadu mandal, Guntur District	4782/Q4/9821 Sep 1998,4782/Q/	0.405	12/30/2008	12/29/2018	nil	nil	12/30/2008	Non-working	Non-Capitiva			N16°11'55.88477" N16°11'59.15806" N16°11'59.19167" N16°11'55.91838"	E80°14'41.27543" E80°14'41.33265" E80°14'42.68607" E80°14'42.62884"	Open cast

					98 04 Oct 2008												
65	Road Metal	711 100 111	M. Sambrajyam	Smt.M.Sambrajyam, W/o. Nageswara Rao, Thummalapalem Village, Prathipadu mandal, Guntur District	6736/Q1/1999 29 Feb 2000,6736/Q1/1999 01 Aug 2002,1189/Q1/2010 25 May 2010	0.405	5/26/2010	5/25/2020	nil	nil	5/26/2010	Non-working	Non-Capitiva			N16°11'28.40773" N16°11'29.97805" N16°11'30.72810" N16°11'29.80330"	E80°14'44.54293" E80°14'44.05306" E80°14'46.22186" E80°14'47.53293"	Open cast
66	Road Metal	711 130 107	P. Suresh Babu	Pallapu Suresh Babu, S/o. Lakshmaiah, Upparapalem Village, Vankayalapadu, Edlapadu mandal, Guntur Dist	781/Q1/2000 17 Feb 2000,1176/Q/2010 04 Nov 2010,1176/Q/2010 15 JUN 2013	1.012	8/13/2013	5/14/2020	nil	nil	8/13/2013	Non-working	Non-Capitiva			N16°11'54.43478" N16°11'52.15710" N16°11'51.07441" N16°11'49.15470" N16°11'49.12374" N16°11'54.25199"	E80°14'40.78442" E80°14'41.03942" E80°14'41.52500" E80°14'39.68522" E80°14'38.14312" E80°14'39.25362"	Open cast
67	Road Metal	711 140 114	T. China Ankamma Rao	T. China Ankamma Rao, S/o. Kotaiah, Upparapalem Village, Edlapadu mandal, Guntur District	2714/Q1/2006 12 July 20007, 6663/Q1/2013 11 Feb 2014	0.182	2/25/2014	10/8/2017	nil	nil	2/25/2014	Non-working	Non-Capitiva			N16°11'50.68777" N16°11'52.50085" N16°11'52.07328" N16°11'50.46793"	E80°14'37.06541" E80°14'37.36053" E80°14'38.78180" E80°14'38.43416"	Open cast
68	Road Metal	711 080 105	P.Lakshmaiah	P. Lakshmaiah, Upparapalem Village, Edlapadu mandal, Guntur Ditrict	12706/Q1/2004 25 Sep	0.809	8/13/2015	12/14/2018	nil	nil	8/13/2015	Non-working	Non-Capitiva			N16°11'40.88209" N16°11'44.15053" N16°11'44.22484" N16°11'35.06926"	E80°14'42.94225" E80°14'42.74981" E80°14'44.10146" E80°14'44.64051"	Open cast

					2008,12706/Q1/2004, 28 May 2015										N16°11'34.99496" N16°11'36.96382" N16°11'37.01336" N16°11'40.93163"	E80°14'43.28888" E80°14'43.17295" E80°14'44.07404" E80°14'43.84334"	
69	Road Metal	711060086	T. Srinivasa Rao	Sri T.Srinivasa Rao, S/o.late Ramulu, Vankayalapadu Village, Edlapadu Mandal, Guntur(Dt).	3602/Q1/2015 28 Jun 2016	0.202	9/25/2015	9/24/2025	nil	nil	9/25/2015	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
70	Road Metal	711160406	M/s.Sri Lakshmi Stone Crusher	Sri Lakshmi Stone Crusher, Prop. Smt. B.Lakshmi Parvathi, W/o.Srinivasa Rao, Boyapalem village, Edlapadu Mandal, Guntur District	5622/Q/1999 11 Jan 2000,7132/Q/2009 25 Feb 2010,18/Q1/2016 22 Jan 2016	0.943	2/12/2016	3/30/2020	nil	nil	2/12/2016	Non-working	Non-Capitiva			N16°11'45.35466" N16°11'47.82567" N16°11'47.67970" N16°11'47.13316" N16°11'45.25747"	E80°14'46.74699" E80°14'46.53207" E80°14'50.96484" E80°14'50.87628" E80°14'50.26827"	Open cast
71	Road Metal	711160407	M/s. Sri Lakshmi Stone Crusher	Sri Lakshmi Stone Crusher, Prop. Smt. B.Lakshmi Parvathi, W/o.Srinivasa Rao, Boyapalem village, Edlapadu Mandal, Guntur District	5622/Q1/1999 11 Jan 2000,7132/Q1/2009 25 Feb 2010,17/Q1/2016 22 Jan 2016	0.299	2/12/2016	6/17/2024	nil	nil	2/12/2016	Non-working	Non-Capitiva			N16°11'45.25747" N16°11'47.13316" N16°11'47.58325" N16°11'47.62189" N16°11'46.97888" N16°11'45.10518"	E80°14'50.26827" E80°14'50.87628" E80°14'50.94921" E80°14'52.33165" E80°14'52.22746" E80°14'51.61290"	Open cast

72	Road Metal	711160441	M/s.Baba Stone Crusher	M/s.Baba Stone Crusher, Prop. Sri Ch.Sivaiah, S/o.Venkaiah, Vankayalapadu Village, Edlapadu Mandal, Guntur District	5622/Q1/1999 11 Jan 2000,7132/Q1/2009 25 Feb 2010,1847/Q1/2016 06 Apr 2016	0.935	5/12/2016	3/30/2020	nil	nil	5/12/2016	Non-working	Non-Captiva			N16°11'47.82567" N16°11'49.84918" N16°11'49.01413" N16°11'50.58178" N16°11'49.82851" N16°11'48.42561" N16°11'47.67970"	E80°14'46.53207" E80°14'46.35606" E80°14'49.28233" E80°14'49.78139" E80°14'52.07697" E80°14'51.08571" E80°14'50.96484"	Open cast
73	Road Metal	711160432	Pallapu Venkata Rao	Pallapu Venkata Rao, S/o.Ankamma, Upparapalem Village, Edlapadu Mandal, Guntur District	705/Q1/2016 23 Feb 2016	1.133	5/12/2016	5/11/2026	nil	nil	5/12/2016	Non-working	Non-Captiva			N16°11'55.87022" N16°11'57.52691" N16°11'58.85880" N16°11'55.88477"	E80°14'40.68961" E80°14'39.59498" E80°14'40.45242" E80°14'41.27543"	Open cast
74	Road Metal	711070090	Ayyappa Stone Crusher	Ayyappa Stone Crusher, Prop: Sri A.Venkat Rao, S/o Venkataiah, Mother Terisa Road, Mutyala Reddy nagar, Guntur.	3577/Q1/2007 12 Jul 2007	2.723	7/16/2007	7/15/2022	nil	nil	7/16/2007	Non-working	Non-Captiva	88/DEIAA/AP/GNT/16	2/4/2017	N16°11'55.23688" N16°11'53.91629" N16°11'52.83811" N16°11'48.09387" N16°11'48.99689" N16°11'50.26502" N16°11'52.1537"	E80°14'51.94738" E80°14'55.48472" E80°14'57.09429" E80°14'57.15982" E80°14'54.60602" E80°14'50.74933" E80°14'51.31268"	Open cast
75	Road Metal	711090103	Sri Lakshmi Ganapathi Stone Crusher	Sri Lakshmi Ganapathi Stone Crusher, Prop. Smt. V.Ratna Kumari, W/o.Siva Sankara Rao, Boyapalem Vg, Edlapadu Mandal, Guntur District	651/Q1/2009 16 Feb 2009	0.528	2/19/2009	2/18/2024	nil	nil	2/19/2009	Non-working	Non-Captiva	76/DEIAA/AP/GNT/16	2/4/2017	N16°11.41.61" N16°11'44.05" N16°11'45.45" N16°11'47.53" N16°11'48.19" N16°11'48.75" N16°11'44.68" N16°11'44.13" N16°11'42.57"	E80°14'40.50" E80°14'40.57" E80°14'41.75" E80°14'41.60" E80°14'40.72" E80°14'42.23" E80°14'42.50" E80°14'41.58" E80°14'41.79"	Open cast
76	Road Metal	711090116	Chaitanya Stone Crusher	M/s. Chaitanya Stone Crusher, Mg.P. R. Satyanarayana, S/o. Veeraju, Boyapalem Village, Edlapadu Mandal, Guntur District	2598/Q1/2009 06 Jun 2009	2.023	7/4/2009	7/3/2024	nil	nil	7/4/2009	#N/A	Non-Captiva	119/DEIAA/AP/GNT/17	4/20/2017	N16°11'30.88846" N16°11'32.99621" N16°11'34.44840" N16°11'36.97785" N16°11'37.56432" N16°11'33.33864"	E80°14'44.42921" E80°14'42.82502" E80°14'45.07735" E80°14'46.20210" E80°14'48.14358" E80°14'49.41154"	Open cast

77	Road Metal	711 110 118	Chaitanya Stone Crusher	M/s. Chaitanya Stone Crusher, Mg.P. R. Satyanarayana, S/o. Veeraju, Vankayalapadu Village, Edlapadu Mandal, Guntur District	9143/ Q1/20 10 16 Mar 2011	0.42 5	4/3/2 011	4/2 /20 26	nil	nil	4/3/2 011	#N/A	Non-Capitiva	12/DEIA A/AP/GN T/17	4/ 20 /2 01 7	N16°11'37.86804" N16°11'39.73804" N16°11'39.03243" N16°11'37.16244"	E80°14'47.80447" E80°14'48.43096" E80°14'50.68661" E80°14'50.06012"	Open cast
78	Road metal	711 120 097	Sri Sivasankara Stone Crusher	Sri Sivasankara Stone Crusher, Prop: V. Siva Sankara Rao, S/o. Markandeyulu, Boyapalem Village, Edlapadu mandal, Guntur District	1840/ Q1/20 12 02 Apr 2012	0.40 5	5/29/ 2012	5/2 8/2 02 7	nil	nil	5/29/ 2012	Non-working	Non-Capitiva	64/DEIA A/AP/GN T/16	2/ 4/ 20 17	N16°11'53.11489" N16°11'52.73137" N16°11'48.43180" N16°11'47.71316" N16°11'48.50274" N16°11'49.20007"	E80°14'44.33784" E80°14'45.20810" E80°14'45.16375" E80°14'43.03556" E80°14'42.80621" E80°14'44.70802"	Open cast
79	Road Metal	711 120 123	R. Satyanarayana	Sri R. Satyanarayana, S/o. Veerraju, Boyapalem Village, Edlapadu Mandal, Guntur Dist	9207/ Q1/20 01 07 Mar 2002,3 045/Q/ 12 15 Jun 2012	0.80 9	7/11/ 2012	7/1 0/2 02 2	nil	nil	7/11/ 2012	Non-working	Non-Capitiva	11/DEIA A/AP/GN T/17	4/ 20 /2 01 7	N16°11'29.40617" N16°11'31.55130" N16°11'32.53723" N16°11'29.59258"	E80°14'49.77764" E80°14'48.21570" E80°14'51.44634" E80°14'52.48517"	Open cast
80	Road Metal	711 130 098	Sri Gayathri Stone Crusher	Sri Gayathri Stone Crusher, Mg.P. V. Siva Nageswara Rao, Boyapalem Village, Edlapadu Mandal, Guntur District	10757/ Q/200 5 02/12/ 2005,2 020/Q 1/2008 02/05/ 2008,2 020/Q 1/2008 08/02/ 2013	1.61 9	2/12/ 2013	3/1 5/2 02 1	nil	nil	2/12/ 2013	#N/A	Non-Capitiva	63/DEIA A/AP/GN T/16	3/ 16 /2 02 1	N16°11'39.72459" N16°11'45.28036" N16°11'45.35466" N16°11'45.25747" N16°11'45.10518" N16°11'40.42535" N16°11'40.33555" N16°11'42.86031" N16°11'42.96682" N16°11'44.79190" N16°11'44.49687" N16°11'42.00281" N16°11'40.03765"	E80°14'45.72247" E80°14'45.39534" E80°14'46.74699" E80°14'50.26827" E80°14'51.61290" E80°14'50.98025" E80°14'50.30636" E80°14'50.25398" E80°14'49.68530" E80°14'48.93008" E80°14'46.91901" E80°14'48.03035" E80°14'48.07112"	Open cast
81	Road Metal	711 130 101	Sri Gayathri Stone Crusher	M/s. Sri Gayathri Stone Crusher, Mg.P. V. Siva Nageswara Rao, Boyapalem Village, Edlapadu Mandal, Guntur district	5154/ Q1/20 13 01 Nov 2013	0.62 7	5/16/ 2020	5/1 5/2 03 5	nil	nil	5/16/ 2020	#N/A	Non-Capitiva	75/DEIA A/AP/GN T/16	2/ 4/ 20 17	N16°11'45.11289" N16°11'45.97604" N16°11'48.25144" N16°11'48.86335" N16°11'45.35466"	E80°14'42.34939" E80°14'44.90551" E80°14'44.62962" E80°14'46.44181" E80°14'46.74699"	Open cast

82	Road Metal	711 140 102	Sri Gayathri Stone Crusher	M/s. Sri Gayathri Stone Crusher, Mg.P. V. Siva Nageswara Rao, Boyapalem Village, Edlapadu Mandal, Guntur district	6827/Q/2011 06 Jan 2012,6827/Q1/2011 01 Nov 2013	0.567	1/24/2014	1/24/2027	nil	nil	1/24/2014	#N/A	Non-Capitiva	74/DEIAA/AP/GNT/16	1/24/2014	N16°11'45.11289" N16°11'47.38895" N16°11'48.25144" N16°11'45.97604"	E80°14'42.34939" E80°14'42.07542" E80°14'44.62962" E80°14'44.90551"	Open cast
83	Road Metal	711 150 445	Sri Gayatri Stone Crusher	M/s.Sri Gayatri Stone Crusher, Mg.P. Sri V. Siva Nageswara Rao, Boyapalem Village, Edlapadu mandal, Guntur Dist	5493/Q1/AD(GNT)/2002 10 Feb 2003,7764/Q1/2002 08 Aug 2013,9567/Q1/2014 08 Aug 2013,1369/Q1/2015 23 Mar 2015	1.323	4/1/2015	3/30/2018	nil	nil	4/1/2015	Non-working	Non-Capitiva	73/DEIAA/AP/GNT/16	2/4/2017	N16°11'25.80758" N16°11'28.55208" N16°11'30.22792" N16°11'29.26629" N16°11'26.65670" N16°11'27.10558"	E80°14'45.30465" E80°14'44.85222" E80°14'48.44269" E80°14'50.00489" E80°14'49.80949" E80°14'48.40948"	Open cast
84	Road Metal	711 150 443	Sri Siva Sankara Stone Crusher	M/s. Sri Siva Sanakara Stone Crusher, Prop: Sri V.Siva Sankara Rao, Boyapalem(V), Edlapadu(M), Guntur(Dt).	2802/Q1/2006 21 Jun 2007,1302/Q1/2008 02 Sep 2008,5952/Q1/2009 12 Oct 2009,1295/Q1/2015 26 Mar	1.659	4/1/2015	6/21/2022	nil	nil	4/1/2015	Non-working	Non-Capitiva	72/DEIAA/AP/GNT/16	2/4/2017	N16°11'27.10558" N16°11'26.6567" N16°11'29.26629" N16°11'29.42555" N16°11'27.00226" N16°11'24.89872" N16°11'26.31100" N16°11'24.17159" N16°11'24.18446"	E80°14'48.40948" E80°14'49.80949" E80°14'50.00489" E80°14'53.65561" E80°14'54.69427" E80°14'53.38704" E80°14'49.80056" E80°14'48.99096" E80°14'48.82310"	Open cast

					2015											
85	Road Metal	711150444	Sri Siva Sankara Stone Crusher	M/s. Sri Sivasankara Stone Crusher, Prop:Sri V.Sankara Rao, Boyapalem(V), Guntur(Dt).	481/Q1/2008 29 Jan 2008,3971/Q1/2011 08 Aug 2011,1304/Q1/2008 26 Mar 2015	0.907	4/1/2015	4/11/2023	nil	nil	4/1/2015	Non-working	Non-Captiva	68/DEIAA/AP/GNT/16	2/4/2017	N16°11'40.03765" N16°11'42.00281" N16°11'44.49687" N16°11'44.7919" N16°11'42.96682" N16°11'42.86031" N16°11'40.33555"	E80°14'48.07112" E80°14'48.03035" E80°14'46.91901" E80°14'48.93008" E80°14'49.6853" E80°14'50.25398" E80°14'50.30636"	Open cast
86	Road Metal	711000115	Chaitanya Stone Crusher	M/s. Chaitanya Stone Crusher,Mg.P. R. Satyanarayana, D.No. 1-6-3/C, Brundavan Colony, pattabhipuram, Guntur	6117/Q1/1999 21 Jul 2000,6117/Q1/1999 22 May 2015	1.416	7/21/2015	7/20/2030	nil	nil	7/21/2015	#N/A	Non-Captiva	118/DEIAA/AP/GNT/17	4/20/2017	N16°11'33.35747" N16°11'34.99496" N16°11'35.06926" N16°11'39.65029" N16°11'39.72459" N16°11'40.33555" N16°11'39.24355" N16°11'39.73804" N16°11'37.86804" N16°11'37.66142" N16°11'36.97785" N16°11'34.44840"	E80°14'43.38529" E80°14'43.28888" E80°14'44.64051" E80°14'44.37079" E80°14'45.72247" E80°14'50.30636" E80°14'50.01175" E80°14'48.43096" E80°14'47.80447" E80°14'48.46500" E80°14'46.20210" E80°14'45.07735"	Open cast

87	Road Metal	711 150 419		M/s.Sri Venkata Ramana Stone Crusher, Prop. Sri K.Nageswara Rao, Boyapalem village, Edlapadu mandal, Guntur District	3285/ Q1/19 93 06 May 1993,1 296/Q/ 2008 22 May 2008,3 338/Q 1/2015 07 Sep 2015	2.06 7	10/5/ 2015	5/3 1/2 02 3	nil	nil	10/5/ 2015	Non-working	Non-Capitiva			N16°11'21.10603" N16°11'24.17159" N16°11'26.31100" N16°11'24.89872" N16°11'22.98257" N16°11'21.73441" N16°11'19.27798"	E80°14'47.45985" E80°14'48.99096" E80°14'49.80056" E80°14'53.38704" E80°14'52.93373" E80°14'51.83264" E80°14'50.27035"	Open cast
88	Road Metal	711 150 418	Sri Venkata Ramana Stone Crusher	M/s.Sri Venkata Ramana Stone Crusher, Prop. Sri K.Nageswara Rao, Boyapalem village, Edlapadu mandal, Guntur District	6385/ Q1/19 93 07 Sep 1993,6 385/Q 1/1993 11 Jun 2008,3 337/Q 1/2015 07 Sep 2015	1.90 3	10/5/ 2015	10/ 4/2 02 3	nil	nil	10/5/ 2015	Non-working	Non-Capitiva	95/DEIA A/AP/GN T/16	4/ 20 /2 01 7	N16°11'25.80758" N16°11'27.10558" N16°11'24.18446" N16°11'21.04353" N16°11'19.48807" N16°11'17.96407" N16°11'18.22046" N16°11'18.98689" N16°11'19.15895" N16°11'21.03905" N16°11'24.27225"	E80°14'45.30465" E80°14'48.40948" E80°14'48.82310" E80°14'47.25435" E80°14'49.64579" E80°14'48.68740" E80°14'47.57358" E80°14'47.38626" E80°14'47.67209" E80°14'45.78912" E80°14'45.25751"	Open cast
89	Road Metal	711 110 095	Sri Sivasankara Stone Crusher	M/s. Siva Sankara Stone Crusher, Prop: V. Siva Sankara Rao, Boyapalem Village, Edlapadu Mandal, Guntur District	7103/ Q1/20 06 06 Mar 2007,2 305/Q! /2008 07 Jun 2008,2 305/Q 1/2008 24 Aug 2011,6 787/Q 1/2016 21/03/	1.15 3	3/11/ 2017	3/1 0/2 03 2	nil	nil	3/11/ 2017	Non-working	Non-Capitiva	71/DEIA A/AP/GN T/16	2/ 4/ 20 17	N16°11'49.20007" N16°11'48.50274" N16°11'52.40475" N16°11'52.15710" N16°11'54.43478" N16°11'54.94520" N16°11'52.67446" N16°11'53.11489"	E80°14'44.70802" E80°14'42.80621" E80°14'42.36880" E80°14'41.03942" E80°14'40.78442" E80°14'42.74808" E80°14'43.06303" E80°14'44.33784"	Open cast

					17												
90	Road Metal	711 120 078	M/s Sri Siva Sai Constructions	M/s.Siva Sai Constructions, Mg.P. Sri V.Siva Sankara Rao, S/o. Markandeyulu, Boyapalem Village, Edlapadu Mandal, Guntur District	2444/ Q1/20 05 05 May 2011,5 976/Q/ 2011 23 Nov 2011	1.23 8	11/28 /2018	1/2 6/2 02 7	nil	nil	11/28 /2018	#N/A	Non-Capitiva	SEIAA/AP /GNT/MI/ 4/22/189 /827	12 /1 8/ 20 20	N16°11'53.90824" N16°11'52.34188" N16°11'53.11489" N16°11'52.67446" N16°11'54.94520" N16°11'54.43478" N16°11'55.87022" N16°11'55.91838" N16°11'57.11754" N16°11'57.36462"	E80°14'46.59525" E80°14'46.09198" E80°14'44.33784" E80°14'43.06303" E80°14'42.74880" E80°14'40.78442" E80°14'40.68961" E80°14'42.62884" E80°14'42.64981" E80°14'43.08548"	Open cast
91	Road Metal & Gravel	711 080 121	R. Satyan arayan a	Sri R. Satyanarayana, S/o. Veerraju, Boyapalem Village, Edlapadu Mandal, Guntur Dist	6959/ Q1/20 07 20/12/ 2007	1.13 3	3/11/ 2018	3/1 0/2 02 8	nil	nil	3/11/ 2018	Non-working	Non-Capitiva			N16°11'30.65706" N16°11'30.14067" N16°11'31.46718" N16°11'32.44695" N16°11'34.96609" N16°11'34.95762" N16°11'29.66606" N16°11'29.59258" N16°11'32.53723" N16°11'31.55130"	E80°14'48.86685" E80°14'47.41162" E80°14'46.54542" E80°14'49.67909" E80°14'48.92321" E80°14'51.28448" E80°14'53.55253" E80°14'52.48517" E80°14'51.44634" E80°14'48.21570"	Open cast
92	Road Metal	721 140 174	Sri Y. Venkat a Manm ohan	Sri Y. Venkata Manmohan, S/o. Y.V. Krishna Mohan, D.No.40-9/1-18A, Vasavyanagar, Vijayawada (Transfer Sri A. Sambasiva Rao)	5528/ Q2/20 11, dt.04.0 3.2014	1.01 1	4/18/ 2015 Transf er	31. 03. 20 23	nil	nil	4/18/ 2015 Trans fer	Non-working	Non-Capitiva			N16°16'51.28877" N16°16'52.76849" N16°16'55.38673" N16°16'55.46755" N16°16'54.09712" N16°16'53.79559"	E79°48'34.81026" E79°48'37.18577" E79°48'35.10087" E79°48'34.44079" E79°48'31.99559" E79°48'32.59182"	Open cast
93	Road Metal	721 170 338	Y.VEN KATA MAN MOHA	Sri Y. Venkata Manmohan, S/o. Y.V. Krishna Mohan, D.No.40-9/1-18A,	6826/ Q2/20 16, dt.22.0	4.85 6	10/18 /2017	10/ 17/ 20 27	nil	nil	10/18 /2017	#N/A	Non-Capitiva	122/DEIA A/AP/GN T/17	5/ 31 /2 02	N16°16'50.31" N16°16'51.31" N16°16'52.76" N16°16'55.41"	E79°48'35.58" E79°48'4.70" E79°48'37.08" E79°48'35.04"	Open cast

			N	Vasavyanagar, Vijayawada	7.2017									2	N16°16'55.41"	E79°48'34.37"	
94	Road Metal	721 170 334	SriVeeraVenkataSatyanarayanaSwamy Constructions	M/s. Sri Veera Venkata Satyanarayana Sway constructions, Mg. P. Sri Gade Venkatappa Reddy, S/o. Nagi Reddy, Vallabhapuram Village, Kollipara Mandal, Guntur District	6326/Q2/2016-3, dt.17.04.2017	4.046	4/21/2017	4/20/2027	nil	nil	4/21/2017	Non-working	Non-Capitiva			N16°16'58.53" N16°17'01.61" N16°16'08.03" N16°16'04.63"	E79°48'23.10" E79°48'19.64" E79°48'27.32" E79°48'30.37"	Open cast
95	Road Metal	721 170 335	Daka Minerals	M/s. Daka Minerals, Prop: D. Ramana Reddy, S/o. Subba Reddy, D.No.11-31-113, Sri Chaitanya Techno School, Back Side, Pullareddy Nagar, Kavali, Nellore District	6326/Q2/2016-4, dt. 17.04.2017	2.994	5/2/2017	5/1/2027	nil	nil	5/2/2017	Non-working	Non-Capitiva			N16°17'03.81" N16°17'06.07" N16°17'12.98" N16°17'10.29"	E79°48'17.61" E79°48'15.67" E79°48'22.88" E79°48'25.28"	Open cast
96	Road Metal	721 180 343	ANTHARVEDI MINES AND MINERALS PVT. LTD	M/s. Antharvedhi Mines and Minerals Private Limited,	6326/Q2/2016-2 17.07.2018	4.046	9/19/2018	9/18/2028	nil	nil	9/19/2018	Non-working	Non-Capitiva	16/DEIAA/AP/GNT/17	1/3/2018	N16°24'29.29200" N16°24'30.78709" N16°24'33.48601" N16°24'31.96407"	E79°54'24.29778" E79°54'21.37546" E79°54'23.55282" E79°54'25.96467"	Open cast
97	Slate Stone	721 140 189	D. SRINIVASA RAO	Sri. D. Srinivasa Rao, S/o. Subba Rao, D.No.21-216, Old Market Street, Vinukonda Post & Mandal, Guntur District	462/Q2/2014, dt. 18.02.2014	1	4/23/2014	4/22/2024	nil	nil	4/23/2014	Non-working	Non-Capitiva			N16°07'6.21" N16°07'4.66" N16°07'5.36" N16°07'4.35" N16°07'3.34" N16°07'1.88"	E79°43'59.70" E79°43'1.19" E79°43'39.40" E79°43'59.24" E79°43'59.38" E79°43'0.33"	Open cast
98	Slate Stone	721 140 189	D. SRINIVASA RAO	Sri. D. Srinivasa Rao, S/o. Subba Rao, D.No.21-216, Old Market Street, Vinukonda Post & Mandal, Guntur District	462/Q2/2014, dt. 18.02.2014	1	07.06.2015	06.06.2025	nil	nil	07.06.2015	Non-working	Non-Capitiva			N16°07'10.02" N16°07'10.51" N16°07'11.06" N16°07'09.11" N16°07'06.86" N16°07'06.93"	E79°43'58.30" E79°43'59.63" E79°44'00.81" E79°44'01.86" E79°44'01.42" E79°43'59.73"	Open cast

99	Slate Stone	721190361	Orsu Venkateswarlu	Sri O. Venkateswarlu, H.No. 29-188, Vinkonda (V&E), Guntur (dt)	861/Q2/2017, dt. 06.12.2018	0.404	01.03.2019	29.02.2029	nil	nil	01.03.2019	Non-working	Non-Capitiva	157/DEIAA/AP/GNT/17	1/3/2018	N16°7'4.53" N16°7'3.66" N16°7'0.69" N16°7'1.66"	E79°44'1.42" E79°44'2.64" E79°44'1.82" E79°44'0.43"	Open cast
100	Colour Granite	711150409	M/s Lucky Granites	M/s.Lucky Granites, Prop. Smt. T.Mary, W/o.Parisudha Rao, 4th line, Srinagar, Guntur	32940/R3-1/2006 20 Nov 2006,14814/R2-3/2015 28 Aug 2015	1	10/5/2015	11/23/2026	nil	nil	10/5/2015	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
101	Road Metal & Gravel	711220680	Sri M. Nityananda Sarma	Sri M.Nityananda Sarma, S/o Nagabharana Sarma, Flot Np.2A, Royalasubbarao Towers, 3rd line, Chandramoulai Nagar, Guntur	1410-1/Q1/2021, dt. 16.02.2022	4.983	3/9/2022	3/8/2032	nil	nil	3/9/2022	Non-working	Non-Capitiva	SEIAA/AP/GNT/MIN/7/221/3368	1/6/2022	N16°31'31.98754" N16°31'32.36124" N16°31'20.62542" N16°31'18.72145" N16°31'21.09542" N16°31'24.53124" N16°31'26.06321" N16°31'26.90124" N16°31'28.86541" N16°31'30.42145"	E80°01'43.83210" E80°01'48.58124" E80°01'49.76452" E80°01'47.84512" E80°01'45.74541" E80°01'44.37452" E80°01'44.53214" E80°01'44.06125" E80°01'44.69145" E80°01'44.95421"	Open cast
102	Colour Granite	711130166	V. Bala Vajra Babu	Sri V. Bala Vajra Babu, S/o. V. Dass (late), D.No. 7-17369/15, 5th Lane, Mallikarjunapet, Guntur	20539/R3-3/2004 15 Oct 2004,18383/R3-2/2003 20 Jul 2013	0.862	12/5/2013	10/19/2024	nil	nil	12/5/2013	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
103	Colour Granite	711060168	M/s.Jyothi Enterprises	M/s.Jyothi Enterprises, Prop: A. Abdul Vaheed, L-I, Maher Apartment, VIP Road, CBM Compound, Vishakapatnam-003	16193/R3-1/2003 11 Sep 2006	1.866	11/7/2006	11/6/2026	nil	nil	11/7/2006	Non-working	Non-Capitiva			N16°11'11.24" N16°11'10.96" N16°11'07.50" N16°11'05.44" N16°11'06.67"	E80°11'39.82" E80°11'43.19" E80°11'41.79" E80°11'38.70" E80°11'36.54"	Open cast

104	Colour Granite	711120170	M/s.Krishna Sai Exports	M/s. Krishna Sai Exports Pvt. Ltd., Mg.Director: Sidda Hanumantha Rao, D.No. 7-5-82, Iswarya Nagar, Anjaiah Road, Ongole	15049/R3-2/2012 05 Oct 2012	5.677	10/29/2012	9/17/2028	nil	nil	10/29/2012	Non-working	Non-Captiva			N16°11'07.54" N16°11'08.39" N16°11'09.60" N16°11'09.71" N16°11'13.62" N16°11'13.74" N16°11'15.92" N16°11'19.71" N16°11'20.10" N16°11'15.53" N16°11'14.12" N16°11'11.17"	E80°11'36.65" E80°11'39.67" E80°11'30.27" E80°11'41.72" E80°11'41.81" E80°11'45.55" E80°11'45.80" E80°11'44.00" E80°11'30.90" E80°11'36.30" E80°11'36.43" E80°11'36.20"	Open cast
105	Colour Granite	711090173	M/s.K.J.Quarries (P) Ltd.,	M/s. K.J. Quarries Pvt. Ltd., M.D. G. Kalyankumar, S/o. K.S. Gokul Das, 9th Floor, Rain Tree Place No. 9, M.C. Micholas Road, Cheetpet, Chennai	41258/R3-2/2009 27 Oct 2009	2.873	11/27/2009	5/14/2024	nil	nil	11/27/2009	#N/A	Non-Captiva	SEIAA/AP/GNT-46/213/2486	7/10/2019	N16°11'05.7"	E80°11'29.5"	Open cast
106	Colour Granite	711130176	Rock India Exports	M/s.Rock India Exports, Prop. Sri Abdul Vaheed, L-I, Meher Apartment, VIP Road, CBM compound, Visakhapatnam-530 003	6409/R3-1/2005 25 Apr 2008,50847/R3-2/2012 22 Aug 2013	1.201	12/28/2013	10/9/2028	nil	nil	12/28/2013	#N/A	Non-Captiva			N16°11'10.64" N16°11'14.44" N16°11'13.96" N16°11'12.74" N16°11'10.23"	E80°11'39.38" E80°11'39.97" E80°11'43.29" E80°11'43.27" E80°11'42.59"	Open cast
107	Colour Granite	711100178	Kishore Slabs & Tiles	M/s. Kishore Slabs & Tiles,Prop: G. Jhansi, G.T. Road, Jonnatala Village, Marturu mandal, Prakasam District	4458/R3-2/2010 16 Jun 2010	1.74	6/23/2010	6/22/2030	nil	nil	6/23/2010	Non-working	Non-Captiva	17/DEIAA/AP/GNT/217	4/20/2017	N16°06'51.7" N16°06'51.00" N16°06'50.60" N16°06'50.20" N16°06'48.60" N16°06'48.00" N16°06'48.50" N16°06'44.70" N16°06'44.50" N16°06'42.00" N16°06'42.40" N16°06'42.70" N16°06'42.00" N16°06'42.30"	E80°03'04.4" E80°03'06.4" E80°03'06.3" E80°03'06.9" E80°03'06.30" E80°03'05.80" E80°03'04.60" E80°03'02.90" E80°03'04.60" E80°03'03.40" E80°03'01.90" E80°03'00.70" E80°03'00.40" E80°03'59.30"	Open cast

															N16°06'45.20" N16°06'47.60" N16°06'47.80" N16°06'49.10"	E80°03'00.60" E80°03'02.70" E80°03'02.30" E80°03'03.00"	
108	Quartz	721130315	V. Srinivasa Rao	Sri V. Srinivasa Rao, Rupeniguntla, Nakerikallu, Guntur District	GO MS No. 109, dt. 11.10.2023	1.671	16.12.2013	15.12.2033	nil	nil	16.12.2013	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/3/221/2969/168	11/2/2021	N16°17'52.6" N16°17'51.3" N16°17'52.0" N16°17'50.1" N16°17'48.6" N16°17'49.8" N16°17'46.3" N16°17'47.2" N16°17'47.7" N16°17'50.0" N16°17'50.3"	E80°00'29.9" E80°00'32.3" E80°00'33.6" E80°00'37.9" E80°00'37.6" E80°00'35.4" E80°00'33.9" E80°00'31.9" E80°00'31.1" E80°00'31.9" E80°00'29.5"	Open cast
109	Gravel	721200365	Yerramsetty sambasiva Rao	Sri Yerramsetty Sambasiva Rao, S/o chalapathi Rao, D.No. 4-150, Takkellapadu Village, Phirangipuram Mandal, Guntur District	2764/Q2/2019, dt. 17.07.2020	2.428	06.08.2020	05.08.2025	nil	nil	06.08.2020	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/122/161/4	6/11/2020	N16°22'02.03839" N16°21'57.02757" N16°21'58.83952" N16°22'03.74592"	E79°56'12.20790" E79°56'07.06099" E79°56'03.24947" E79°56'08.64892"	Open cast
110	Black Granite	711170487	Kakatiya Granites Pvt Ltd.	Kakatiya Granites (P) Ltd., Director : Smt. D.Padmalatha, Plot No.8, Mini Industrial Estate, Hafeezpet Village, Miyapur, Serilingampalli Mandal, Hyderabad	8433/R3-3/2013 11 Jul 2017	1	9/4/2017	9/3/2037	nil	nil	9/4/2017	Non-working	Non-Captiva			N16°09'2.74" N16°09'3.79" N16°09'5.90" N16°09'3.46" N16°09'7.32" N16°09'7.41" N16°09'5.64"	E80°4'50.02" E80°4'52.80" E80°4'51.91" E80°4'49.36" E80°4'50.43" E80°4'49.59" E80°4'48.12"	Open cast
111	Road Metal	711070278	V. Latchaiah	Sri V. Latchaiah, S/o Venkateswarlu, Kondakavuru(V),Narasaraopet(M), Guntur.	636/Q1/07 15 Jun 2007	0.765	4/21/2007	4/20/2017	nil	nil	4/21/2007	Non-working	Non-Captiva			N16°8'4.12" N16°8'1.45" N16°8'0.59" N16°8'1.44" N16°8'1.99" N16°8'3.05"	E80°2'26.49" E80°2'29.20" E80°2'28.89" E80°2'26.54" E80°2'26.79" E80°2'25.26"	Open cast
112	Road Metal	711090378	M/s. Vigneswara Stone Crusher	M/s.Vigneswara Stone Crusher, Mg.P. J.Venkateswara Reddy,& B.Nageswara Rao, Kotappakonda village, Narasaraopet Mandal, Guntur District	5212/Q/2007 10/10/2008	1.433	1/7/2009	1/6/2024	nil	nil	1/7/2009	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast

113	Road Metal	711100285	M/s. Siva Parvathi Stone Crusher,	M/s. Siva Parvathi Stone Crusher, Partner: V. Brahmaiah, Boyapalem Village, Edlapadu mandal, Guntur District	1979/Q/AD(GNT)2004 13 May 2005,9469/Q/2004 01/04/2010	0.255	6/18/2010	6/29/2020	nil	nil	6/18/2010	Non-working	Non-Capitiva			N16°8'1.86" N16°8'1.02" N16°7'59.10" N16°8'0.02"	E80°2'13.27" E80°2'13.51" E80°2'11.68" E80°2'11.36"	Open cast
114	Road Metal	711100286	M/s. Siva Parvathi Stone Crusher	M/s. Siva Parvathi Stone Crusher, Partner: V. Brahmaiah, Boyapalem Village, Edlapadu mandal, Guntur District	12076/Q1/2004 25 Apr 2008,12076/Q1/2004 01/04/2010	0.931	6/18/2010	5/7/2023	nil	nil	6/18/2010	Non-working	Non-Capitiva			N16°8'4.73" N16°8'1.86" N16°8'1.04" N16°8'3.21"	E80°2'20.63" E80°2'25.20" E80°2'24.45" E80°2'19.64"	Open cast
115	Road Metal	711130287	Seetharama Stone Crusher	M/s.Seetha Rama Stone Crusher, Mg.P.N. Ramakrishna, S/o. Venkateswarlu, H.No. 12-20-8/3, Prakash Nagar, Near Park, Narasaraopet, Guntur D	3957/Q/1997 7/11/1997,9370/Q1/2003 12/05/2004,222/Q/2004 12/05/2004,8513/Q/2005 02/12/2005,6745/Q/2012 11/01/2013	1.097	12/2/2012	12/1/2027	nil	nil	12/2/2012	Non-working	Non-Capitiva			N16°8'12.82" N16°8'9.72" N16°8'7.84" N16°8'10.51" N16°8'11.80" N16°8'12.25"	E80°2'15.88" E80°2'18.84" E80°2'16.81" E80°2'14.21" E80°2'15.69" E80°2'15.26"	Open cast

116	Road Metal	711140290	Sri Venkateswara Stone Crusher	Sri Venkateswara Stone Crusher,Mg. Partner: P. Sambasiva Rao, S/o. Venkata Rao, Kotappakonda Village, Narasaraopet M, Guntur Dt	708/Q/1999 11/03/1999,512/Q/2007 18/08/207,3785/Q/2010 02/09/2010,6213/Q/2013 18/03/2014	1.951	3/14/2014	3/13/2029	nil	nil	3/14/2014	Non-working	Non-Captiva			N16°04'20.96" N16°04'19.65" N16°04'17.70" N16°04'17.11" N16°04'16.60" N16°04'16.61" N16°04'18.41" N16°04'21.66"	E80°06'38.67" E80°06'38.31" E80°06'37.84" E80°06'37.91" E80°06'39.80" E80°06'41.95" E80°06'43.16" E80°06'42.27"	Open cast
117	Road Metal	711140291	Sri Venkateswara Stone Crusher	Sri Venkateswara Stone Crusher,Mg. Partner: P. Sambasiva Rao, S/o. Venkata Rao, Kotappakonda Village, Narasaraopet M, Guntur Dt	5683/Q1/2013 18 Mar 2014	2.75	5/19/2014	5/18/2029	nil	nil	5/19/2014	Non-working	Non-Captiva			N16°7'51.65" N16°7'49.50" N16°7'48.49" N16°7'47.31" N16°7'44.19" N16°7'47.63"	E80°2'45.65" E80°2'49.15" E80°2'48.47" E80°2'50.64" E80°2'48.71" E80°2'43.05"	Open cast
118	Road Metal	711080288	Sri Srinivasa Stone Crusher	Sri Srinivasa Stone Crusher, Prop. Sri Y.Pattabhi, D.No.12-94/3, Prakash Nagar, Narasaraopet	1019/Q!/93 dt 16/02/93,	1.412	2/25/2015	6/16/2023	nil	nil	2/25/2015	Non-working	Non-Captiva			N16°8'7.72" N16°8'7.71" N16°8'7.61" N16°8'3.85" N16°8'8.23"	E80°2'18.84" E80°2'20.65" E80°2'19.26" E80°2'18.21" E80°2'15.78"	Open cast
119	Road metal	711150392	M/s.Vigneswara Stone Crusher	M/s.Vigneswara Stone Crusher, Mg.P. J.Venkateswara Reddy,& B.Nageswara Rao, Kotappakonda village, Narasaraopet Mandal, Guntur District	5961/Q/2013 24/03/2015	0.567	6/22/2015	6/21/2030	nil	nil	6/22/2015	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast
120	Road metal	711150394	M/s.Vigneswara Stone Crushe	M/s.Vigneswara Stone Crusher, Mg.P. J.Venkateswara Reddy,& B.Nageswara Rao, Kotappakonda	5962/Q1/2013 24/03/2015	0.283	6/22/2015	6/21/2030	nil	nil	6/22/2015	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast

			r	village, Narasaraopet Mandal, Guntur District													
121	Road metal	711150393	M/s.Vigneswara Stone Crusher	M/s.Vigneswara Stone Crusher, Mg.P. J.Venkateswara Reddy,& B.Nageswara Rao, Kotappakonda village, Narasaraopet Mandal, Guntur District	5964/Q/2013 24/03/2015	0.324	6/22/2015	6/21/2030	nil	nil	6/22/2015	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
122	Road Metal	711120280	Sri Lakshmi Balaji Stone Crusher	M/s. Sri Lakshmi Balaji Stone Crusher, Mg.P. P. Lakshmi Narayana, D.No. 12-1-15, Prakash Nagar, Narasaraopet	2691/Q1/2015 16/06/2015	1.34	7/4/2015	5/29/2023	nil	nil	7/4/2015	Non-working	Non-Capitiva			N16°10'9.50" N16°10'9.56" N16°10'11.28" N16°10'13.90" N16°10'13.92"	E80°14'11.23" E80°14'8.86" E80°14'8.22" E80°14'7.96" E80°14'10.67"	Open cast
123	Road Metal	711090281	Naga Jyothi Stone Crusher	Naga Jyothi Stone Crusher, Partner : Sri Vamsi Krishna, NGO Colony, 3rd Line, Guntur Town, Guntur District	2715/Q1/2004 20/03/2009,2562/Q1/2012 16/02/2015,2690/Q/2015 15/09/2016	2.631	10/6/2016	7/24/2019	nil	nil	10/6/2016	Non-working	Non-Capitiva			N16°7'59.28" N16°7'57.26" N16°7'53.86" N16°7'50.90" N16°7'54.58" N16°7'56.28"	E80°2'31.64" E80°2'34.73" E80°2'39.06" E80°2'37.49" E80°2'33.15" E80°2'30.27"	Open cast
124	Road Metal	711100273	M/s. Sri Dhanalakshmi Stone Crusher	M/s. Sri Dhanalakshmi Stone Crusher, Mg.P. Sri V. Sanjeeva Reddy, Kondakakavuru Village, Narasaraopet Mandal, Guntur District	2726/Q1/1022 Jun 2010	5.233	8/30/2010	1/4/2022	nil	nil	8/30/2010	Non-working	Non-Capitiva			N16°08'50.03491" N16°08'01.74212" N16°07'58.62501" N16°07'59.46963" N16°07'55.23571" N16°07'55.35232" N16°07'55.83362" N16°07'57.10591" N16°07'56.79902" N16°07'59.22302" N16°08'01.73972"	E80°02'28.74331" E80°02'34.92922" E80°02'33.89642" E80°02'32.44621" E80°02'31.51281" E80°02'30.39041" E80°02'30.53441" E80°02'26.13992" E80°02'26.05762" E80°02'20.05392" E80°02'20.73871"	Open cast

															N16°07'59.32651" N16°08'00.91041" N16°08'01.09072" N16°08'02.84691" N16°08'04.14062"	E80°02'26.73732" E80°02'27.16353" E80°02'29.86602" E80°02'29.70783" E80°02'27.75153"	
125	Road Metal	711050271	Sri Dhanalakshmi Stone Crusher	Sri Dhanalakshmi Stone Crusher, Mg.P. Sri V.Sanjeeva Reddy, Kondakavuru Village, Narasaraopet mandal, Guntur Dist.	3667/Q/2007 07/01/2015	1.4	2/2/2015	5/2/2020	nil	nil	2/2/2015	Non-working	Non-Captiva			N16°8'6.97" N16°8'7.61" N16°8'6.44" N16°8'9.19" N16°8'7.84" N16°8'7.23" N16°8'6.94" N16°8'4.11"	E80°2'10.27" E80°2'11.33" E80°2'10.27" E80°2'12.25" E80°2'15.47" E80°2'16.81" E80°2'15.85" E80°2'12.15"	Open cast
126	Road Metal	711160420	M/s.Lakshmi Ganapathi Stone Crusher	M/s.Lakshmi Ganapathi Stone Crusher, Mg.P. Sri B.Venkatesh, S/o.Nageswara Rao, D.No.11-15-8, Ramireddypet, Narasaraopet, Guntur District	4510/Q1/2015 29 Oct 2015,4385/Q1/2015 17 Oct 2015,134/Q1/2015 20 Jan 2016	2.343	3/2/2016	10/19/2017	nil	nil	3/2/2016	Non-working	Non-Captiva			N16°7'59.14" N16°7'59.84" N16°8'7.62" N16°8'9.22" N16°8'8.71" N16°8'7.11" N16°8'6.93"	E80°2'8.34" E80°2'10.94" E80°2'8.23" E80°2'7.89" E80°2'5.94" E80°2'6.29" E80°2'5.63"	Open cast
127	Road Metal	711080277	Lepakshi Stone Crusher	M/s. Lepakshi Stone Crusher, Prop: G. Leela Krishna Murthy, Kattubadivaripalem Village, Chilakaluripet mandal, Guntur District	3071/Q/2007 08/08/2008	2	11/4/2008	11/3/2023	nil	nil	11/4/2008	Non-working	Non-Captiva			N16°7'55.43" N16°7'53.77" N16°7'51.51" N16°7'53.35"	E80°2'42.94" E80°2'50.67" E80°2'49.48" E80°2'41.43"	Open cast
128	Road Metal	711180502	Lepakshi Stone Crusher	M/s.Lepakshi Stone Crusher, Prop: Sri G.Leela Krishna Murthy, Kondakavuru(V), Narasaraopet (M), Guntur(Dist).	3858/Q1/2016, dt. 26.09.2018	0.607	12/19/2018	12/18/2033	nil	nil	12/19/2018	#N/A	Non-Captiva	156/DEIAA/AP/GNT/17	1/3/2018	N16°7'55.43" N16°7'53.85" N16°7'53.86" N16°7'55.60"	E80°2'42.94" E80°2'41.78" E80°2'39.06" E80°2'37.96"	Open cast
129	Road Metal & Gravel	711070353	T. Venkateswarlu	Sri T.Venkateswarlu, D.No.1-12-9/6A, Barampeta, Narasaraopet, Guntur(Dist).	151/Q1/07 25 Jul 2007	1	8/20/2007	8/19/2017	nil	nil	8/20/2007	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast

130	Road Metal & Gravel	711090352	T. Sivaprasad	T. Sivaprasad, S/o. T. Venkateswarlu, Kondakavuru Village, Narasaraopet Mandal, Guntur District	5663/Q1/2009 25 Sep 2009	1.991	12/15/2009	12/14/2019	nil	nil	12/15/2009	Non-working	Non-Captiva			N16°8'14.77" N16°8'15.51" N16°8'14.07" N16°8'10.31" N16°8'9.41"	E80°2'7.05" E80°2'11.77" E80°2'10.26" E80°2'9.18" E80°2'5.26"	Open cast
131	Road Metal & Gravel	711090282	Naga Jyothi Stone Crusher	Naga Jyothi Stone Crusher, Partner : Sri Vamsi Krishna, NGO Colony, 3rd Line, Guntur Town, Guntur District	7533/Q/2006 04/07/2007,514/Q/2007 04/07/2007,7533/Q/2006 23/03/209	2.525	5/21/2009	7/31/2022	nil	nil	5/21/2009	Non-working	Non-Captiva					Open cast
132	Road Metal & Gravel	711070276	Lepakshi Stone Crusher	M/s.Lepakshi Stone Crusher, Prop: Sri G.Leela Krishna Murthy, Kondakavuru(V), Narasaraopet (M), Guntur(Dist).	7400/Q/2006 13/03/2007	1.42	3/14/2007	3/13/2022	nil	nil	3/14/2007	Non-working	Non-Captiva			N16°07'50.99" N16°07'53.86" N16°07'55.60" N16°07'58.37"	E80°02'36.50" E80°02'39.06" E80°02'37.96" E80°02'39.20"	Open cast
133	Road Metal & Gravel	711220738	Sri Kamjula Siva Bhaskar Reddy	Sri Kamjula Siva Bahskar Reddy, S/o Balarami Reddy, D.No.12-4-25, DSP Bunglow Backside, Prakash nagar, narasaraqopet, Palnadu Dist	518/Q1/2022, dt. 03.09.2022	3.82	10/14/2022	10/13/2032	nil	nil	10/14/2022	#N/A	Non-Captiva	SEIAA/AP/GNT/MMIN/4/222/4152	7/27/2022	N16°07'52.92201" N16°07'52.12371" N16°07'48.23501" N16°07'48.35721" N16°07'43.76021" N16°07'42.19451" N16°07'43.50831" N16°07'43.50721"	E80°02'55.96281" E80°02'58.51542" E80°02'59.40841" E80°02'59.82032" E80°02'57.06732" E80°02'49.49941" E80°02'49.99451" E80°02'52.93681"	Open cast
134	Black Granite	711080458	Smt.Ch.Venkata Subbamma	Ch.Venkata Subbamma, D/o.Venkata Siva Rao, D.No.26-8-57, Nagarampalem, Guntur Town	10778/R3-1/2007 20 Feb 2008	2.662	4/19/2008	4/18/2028	nil	nil	4/19/2008	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast
135	Colour Granite	711220748	Sri Ch. Hanumantha Rao	Sri Ch. Hanumantha Rao, S/o Sri Jagannatham, Kammavaripalem Vg, Chilakaluripet M, Palnadu Dist	7741/D7/2017, dt. 19.09.2022	2.441	11/15/2022	11/14/2042	nil	nil	11/15/2022	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/12/22/2647/	7/29/2021	N16°8'21.40" N16°8'20.70" N16°8'15.60" N16°8'16.30"	E80°4'41.60" E80°4'46.70" E80°4'44.40" E80°4'39.90"	Open cast

136	Quartz	722140182	MICRO MINERALS	M/s. Micro Minerals, Mg.Partner Sri Y. Naresh, D.No.10-5-33, Arundelpet, Narasaraopet, Guntur District	194, 27.12.2013	20.032	06/19/2014	6/18/2034	nil	nil	06/19/2014	Non-working	Non-Captiva			N16°19'40.08" N16°19'41.2" N16°19'41.1" N16°19'40.5" N16°19'40.9" N16°19'40.5" N16°19'40.0" N16°19'40.7" N16°19'40.5" N16°19'38.9" N16°19'38.9" N16°19'33.0" N16°19'31.4" N16°19'29.4" N16°19'29.4" N16°19'26.9" N16°19'27.3" N16°19'26.0" N16°19'26.1" N16°19'24.0" N16°19'25.7" N16°19'25.4" N16°19'25.1" N16°19'25.3" N16°19'26.2" N16°19'27.6"	E79°49'52.5" E79°49'51.3" E79°49'49.8" E79°49'48.4" E79°49'45.5" E79°49'41.6" E79°49'40.0" E79°49'39.0" E79°49'38.4" E79°49'36.6" E79°49'32.8" E79°49'34.1" E79°49'34.9" E79°49'34.2" E79°49'33.8" E79°49'33.5" E79°49'28.8" E79°49'28.4" E79°49'27.8" E79°49'27.2" E79°49'49.0" E79°49'49.0" E79°49'51.3" E79°49'51.4" E79°49'51.5" E79°49'47.8"	Open cast
137	Quartz	722140181	MICRO MINERALS	M/s. Micro Minerals, Mg.Partner Sri Y. Naresh, D.No.10-5-33, Arundelpet, Narasaraopet, Guntur District	193, 27.12.2013	19.668	06/19/2014	6/18/2034	nil	nil	06/19/2014	Non-working	Non-Captiva			N16°20'16.00" N16°20'29.00" N16°20'30.02" N16°20'30.02" N16°20'17.06"	E79°50'45.6" E79°50'44.5" E79°50'57.9" E79°50'57.9" E79°51'01.5"	Open cast
138	Quartz	722060187	MAITREYA MINERALS	M/s Maitreya Minerals, Mg.P.Sri Kesa Venkatra Rao, S/o Venkateswarlu, D.No.12-18-16, Prakash Nagar, Naresa Rao Pet, Guntur District	276, 13.10.2005	61.9	01/02/2006	1/1/2026	nil	nil	01/02/2006	Non-working	Non-Captiva			N16°20'24.21861" N16°20'21.62417" N16°20'20.95737" N16°20'15.91201" N16°20'15.61537" N16°20'14.20785" N16°20'12.70131" N16°20'11.15433" N16°20'11.07050" N16°20'07.06726" N16°20'07.11296"	E79°50'25.18559" E79°50'25.29407" E79°50'27.92549" E79°50'25.74788" E79°50'24.50887" E79°50'24.13847" E79°50'24.01478" E79°50'23.15846" E79°50'24.06268" E79°50'25.27059" E79°50'25.68822"	Open cast

															N16°20'06.88803" N16°20'03.76707"	E79°50'28.98808" E79°50'30.87355"	
139	Road Metal	721100114	VISWANATHA STONE CRUSHER	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Guntur District. (Transferred from Ch. Sambasiva Rao).	2796/Q2/2010, dt. 20.07.2010	0.809	04/02/2008	31.03.2023	nil	nil	04/02/2008	Non-working	Non-Capitiva			N16°24'31.57"	E79°53'49.90"	Open cast
140	Road Metal	721090117	VISWANATHA STONE CRUSHER	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Guntur District. (Transferred from M/s. Sambasiva Stone Crusher).	8627/Q2/2002, dt. 07.07.2009	0.692	06/01/2015	31.03.2023	nil	nil	06/01/2015	Non-working	Non-Capitiva	135/DEIAA/AP/GNT/17	4/20/2017	N16°24'24.16"	E79°53'53.64"	Open cast
141	Road Metal	721090116	VISWANATHA STONE CRUSHER	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Guntur District. (Transferred from M/s. Sambasiva Stone Crusher)	6492/Q2/2007, dt.07.07.2009	0.404	6/4/2009 Unexpired period upto	31.03.2023	nil	nil	6/4/2009 Unexpired period upto	Non-working	Non-Capitiva			N16°24'25.82"	E79°53'56.17"	Open cast
142	Road Metal	721090115	VISWANATHA STONE CRUSHER	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Guntur District. (Transferred from M/s. Sambasiva Stone Crusher)	5824/Q2/2006, dt.07.07.2009	1.092	6/4/2009 Unexpired period upto	31.03.2023	nil	nil	6/4/2009 Unexpired period upto	Non-working	Non-Capitiva			N16°24'36.57" N16°24'37.82" N16°24'33.45" N16°24'32.35"	E79°53'48.69" E79°53'51.74" E79°53'50.45" E79°53'48.29"	Open cast
143	Road Metal	721150237	SAI STONE CRUSHER	M/s. Sai Stone Crusher, Mg. P. M. Hari Krishna, Bank Bazar, Opp: AirTel Tower, Nekarikallu Village & Mandal, Guntur District (Transfer from M/s. Sri Sai Stone Crusher)	6338/Q2/2006, dt. 16.02.2015	1.315	4/18/2015 Transfer	31.03.2023	nil	nil	4/18/2015 Transfer	Non-working	Non-Capitiva			N16°24'21.26"	E79°54'15.38"	Open cast

144	Road Metal	721130110	N. RADHIKA	Smt N. Radhika, S/o. Rangaiah, 6th Lane, Symalanagar, Guntur District.	4489/Q2/2008	1.869	12/04/2008	31.03.2023	nil	nil	12/04/2008	Non-working	Non-Captiva			N16°24'35.53012" N16°24'33.63082" N16°24'27.23649" N16°24'28.43981" N16°24'32.31491" N16°24'33.75255"	E79°53'57.66004" E79°54'00.96420" E79°53'57.15407" E79°53'55.13544" E79°53'58.25513" E79°53'56.41496"	Open cast
145	Road Metal	721180342	N.R.Stone Industries	M/s. N.R. Stone Industries, Prop: N. Radhika, No.3/4, 3rd Lane, Ganesh Homes, Ashok Nagar, Guntur transfer from M/s. Srinivasa Stone Crusher	2817/Q2/2017 dt.18.06.2018	2.023	05.07.2018	04.07.2033	nil	nil	05.07.2018	Non-working	Non-Captiva	163/DEIAA/AP/GNT/17	7/5/2018	N16°24'34.86" N16°24'29.30" N16°24'29.01" N16°24'29.19" N16°24'29.71" N16°24'31.86"	E79°53'27.13" E79°53'26.93" E79°53'28.41" E79°53'30.77" E79°53'32.32" E79°53'32.71"	Open cast
146	Road Metal	721220430	Viswanadha Stone Crusher	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Guntur District. (Transferred from M/s. Sambasiva Stone Crusher)	740/Q2/2022, dt. 06.08.2022	0.917	09.09.2022	08.09.2032	nil	nil	09.09.2022	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/2/222/3966	3/31/2022	N16°24'29.29200" N16°24'30.78709" N16°24'33.48601" N16°24'31.96407"	E79°54'24.29778" E79°54'21.37546" E79°54'23.55282" E79°54'25.96467"	Open cast
147	Road Metal	721070220	M. SIVAMMA	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Palnadu District. (Smt M. Sivamma, W/o. Late Pulla Reddy)	3288/Q2/2015 09.07.2015	2	16.11.2022	8/26/2025	nil	nil	16.11.2022	Non-working	Non-Captiva			N16°24'34.69" N16°24'37.16" N16°24'36.31" N16°24'34.17"	E79°54'22.74" E79°54'22.92" E79°54'14.06" E79°54'13.95"	Open cast
148	Road Metal	721220434	Viswanadha Stone Crusher	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Palnadu District.	3799/Q2/2021, dt. 20.10.2022	1.517	16.11.2022	15.11.2032	nil	nil	16.11.2022	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/6/222/4352/	8/3/2022	N16°24'34.36659" N16°24'32.31491" N16°24'28.43981" N16°24'30.49148"	E79°53'55.61508" E79°53'58.25513" E79°53'55.13544" E79°53'52.49539"	Open cast
149	Road Metal	721220435	Viswanadha stone crusher	M/s. Viswanatha Stone Crusher, Mg.P. Sri. V. Narasimha Rao, Janapadu (V), Piduguralla (M), Palnadu District.	3798/Q2/2021, dt. 20.10.2022	1	16.11.2022	15.11.2032	nil	nil	16.11.2022	#N/A	Non-Captiva	SEIAA/AP/GNT/6/222/4346/192/	8/3/2022	N16°24'34.36659" N16°24'32.31491" N16°24'28.43981" N16°24'30.49148"	E79°53'55.61508" E79°53'58.25513" E79°53'55.13544" E79°53'52.49539"	Open cast

150	Quartz & Gravel	722130268	K. SRINIVASA RAO	Sri Kolli Srinivasa Rao, S/o. Venkateswarlu, Machavaram Village & Mandal, Guntur District	139, 29.04.2006	6.07	07/05/2013	7/4/2033	nil	nil	07/05/2013	#N/A	Non-Captiva	SEIAA/AP/GNT/MIN/1/221/2757/195.19/192.14	9/20/2022	N16°24'13.00" N16°24'14.45" N16°24'3.42" N16°24'2.07"	E79°56'1.12" E79°56'6.95" E79°56'9.51" E79°56'3.73"	Open cast
151	Black Granite	721180348	N.R Global Granites	M/s N.R. Global Granites, Mg.Director: Sri. K.Ekanand, S/o Late Kothamasu Prasada Rao, D.No: 3-29-40/B,2nd Line, krishna Nagar, Guntur- 5220006	8008/R3-3/2015	3.035	05.10.2018	04.10.2038	nil	nil	05.10.2018	Non-working	Non-Captiva					Open cast
152	Gravel	711220707	Sri Marri Subba Reddy	Sri Marri Subba Reddy, S/o.Narsi Reddy, Flat No.3A, RSR Towers, 3rd Line, Lakshmipuram, Guntur Town	3669/Q1/2021, dt. 06.05.2022	1.578	5/26/2022	5/25/2027	nil	nil	5/26/2022	Non-working	Non-Captiva	SEIAA/AP/GNT/MIN/3/222/482	4/16/2022	N16°26'58.13241" N16°26'45.17281" N16°26'55.76112" N16°26'56.16501" N16°26'51.40441" N16°26'48.29692" N16°26'48.15341" N16°26'44.76021" N16°26'44.55751" N16°26'51.15091"	E79°59'28.5642" E79°59'28.06112" E79°59'24.04601" E79°59'24.47552" E79°59'26.82845" E79°59'27.19961" E79°59'25.96551" E79°59'25.76211" E79°59'24.14451" E79°59'24.68231"	Open cast
153	Mosaic Chips	711130007	Sri Saikrishna Minerals	Sri Sai Krishna Minerals, Mg.P. R. Jacob, Kondamodu(V), Rajupalem(M), Guntur(Dt).	6091/Q1/AD/(GTR)/02 04/02/2003,686/Q1/2013 11/02/2013	1.781	3/6/2013	3/5/2023	nil	nil	3/6/2013	Non-working	Non-Captiva			N16°15'22.7" N16°15'22.4" N16°15'16.4" N16°15'17.1" N16°15'18.3" N16°15'20.2" N16°15'17.5" N16°15'18.1" N16°15'21.1" N16°15'19.9"	E80°19'07.4" E80°19'08.6" E80°19'08.6" E80°19'07.4" E80°19'08.3" E80°19'06.2" E80°19'03.8" E80°19'03.1" E80°19'06.6" E80°19'04.4"	Open cast
154	Mosaic Chips	711130005	B. Narasimha Rao	B.Narasimha Rao, S/o. Satyanarayana, 8-467, Near Water Tank, Piduguralla Post & Mandal, Guntur Dist	685/Q1/2013 06 Feb 2013,685/Q1/2013 25 March	1.214	4/6/2015	7/15/2023	nil	nil	4/6/2015	Non-working	Non-Captiva	98/DEIAA/AP/GNT/17	4/21/2017	N16°28'22.17" N16°28'23.06" N16°28'18.59" N16°28'18.35" N16°28'21.26"	E79°55'44.14" E79°55'40.90" E79°55'38.62" E79°55'41.53" E79°55'42.50"	Open cast

					2015												
155	Lime Stone Minor	711220728	Sri Punyala Rami Reddy	Sri Punyala Rami Reddy, S/o.Srirami Reddy, D.No.3-416, Kondamodu Village, Rajupalem Mandal	2598/Q1/2021, dt. 25.06.2022	0.991	7/30/2022	7/29/2032	nil	nil	7/30/2022	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT/12/221/3841	5/27/2022	N16°28'10.31252" N16°28'04.43252" N16°28'16.73921" N16°28'16.28972" N16°28'10.66354" N16°28'11.16031"	E79°55'50.48004" E79°55'51.27121" E79°55'51.09752" E79°55'52.73205" E79°55'49.28175" E79°55'49.59832"	Open cast
156	Lime Stone Minor	711220734	Sri Pasam Venkateswara Reddy	Sri Pasam Venkateswara Reddy, S/o.Koti Reddy, D.No.7-401, Bellamkonda donka, Medara Bazaar, Piduguralla Post & Mandal, Palnadu District	679/Q1/2022, dt. 02.08.2022	1.311	8/26/2022	8/25/2032	nil	nil	8/26/2022	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT/5/222/4247	7/6/2022	N16°28'11.1046" N16°28'11.1891" N16°28'10.0293" N16°28'06.8928" N16°28'07.5698" N16°28'05.1520" N16°28'05.9302" N16°28'09.1095"	E79°55'33.9347" E79°55'34.1965" E79°55'37.1387" E79°55'36.3996" E79°55'34.4330" E79°55'33.9136" E79°55'32.2466" E79°55'33.9969"	Open cast
157	Lime Stone Minor	711220712	Sri Dudekula Moulali	Sri Dudekula Moulali, S/o.Meeravali, D.No.4-216/2A, Kondamodu village, Rajupalem Mandal, guntur District	1771/Q1/2020, dt. 16.05.2022	0.797	6/17/2022	6/16/2032	nil	nil	6/17/2022	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT/4/221/3113/176	3/17/2022	N16°28'17.97454" N16°28'16.71457" N16°28'13.77154" N16°28'14.87451" N16°28'15.59951"	E79°55'49.05142" E79°55'51.12412" E79°55'49.18261" E79°55'47.42124" E79°55'47.24712"	Open cast
158	Mosaic Chips	711110008	Sri A. Nageswara Rao	Sri A. Nageswara Rao, D.No. 4-16, Dharanikota Village, Amaravathi Mandal, Guntur District	5492/Q1/1099 07/08/2000,861/Q1/2011 24/03/2011	0.607	1/25/2011	1/24/2021	nil	nil	1/25/2011	Non-working	Non-Captiva			N16°28'10.29" N16°28'07.69" N16°28'06.34" N16°28'09.05"	E79°55'26.81" E79°55'31.28" E79°55'30.91" E79°55'26.22"	Open cast
159	Mosaic Chips	711080004	S.V.Srinivasa Rao	Sri S.V.Srinivasa Rao, Piduguralla Village & Mandal, Guntur District	859/Q1/98 11/05/98,605/Q1/2008 29/01/2008	5.544	5/19/2008	5/18/2018	nil	nil	5/19/2008	Non-working	Non-Captiva			N16°28'12.08" N16°28'12.03" N16°28'20.34" N16°28'21.02"	E79°55'41.31" E79°55'45.89" E79°55'47.58" E79°55'43.37"	Open cast

160	Mosaic Chips	711060003	Smt. V. Prasanthi	Smt.V.Prasanthi, W/o V.Rajanikanth, D.No.7-325, Back side of Vijayasree Hotel, Piduguralla, Guntur Dist.	2476/Q/AD(GNT)/2006 02 Nov 2006	0.485	11/20/2006	11/19/2016	nil	nil	11/20/2006	Non-working	Non-Captiva			No coordinates	No coordinates	Open cast
161	Limestone(Minor)	ID Not Created	Sri Marri Subba Reddy	Sri Marri Subba Reddy, S/o.Narsi Reddy, Flat No.3A, RSR Towers, 3rd Line, Lakshmipuram, Guntur Town	3152/Q1/2021, dt. 01.11.2022	0.757	23.09.2023	22.09.2033	nil	nil	23.09.2023	Non-working	Non-Captiva			N16°28'11.09561" N16°28'06.09662" N16°28'05.01863" N16°28'03.19972" N16°28'02.35981" N16°28'02.23701" N16°28'02.14612" N16°28'03.06072" N16°28'11.09561"	E79°55'49.00982" E79°55'45.37921" E79°55'44.18172" E79°55'43.47662" E79°55'42.94531" E79°55'43.05421" E79°55'43.13531" E79°55'42.67561" E79°55'41.12732"	Open cast
162	Limestone(Minor)	2311230005	ORCHU PRAKASH RAO	ORCHU PRAKASH RAO	3150/Q1/2021, dt. 15.02.2023	0.323	3/6/2023	3/5/2033	nil	nil	3/6/2023	#N/A	Non-Captiva	SEIAA/AP/MIN/PLN/11/222/476/	12/28/2022	N16°28'23.41462" N16°28'23.14532" N16°28'22.34994" N16°28'22.57901"	E79°55'36.26561" E79°55'38.90681" E79°55'38.81962" E79°55'35.58664"	Open cast
163	Lime Stone Minor	711200545	Sri Venna Srinivasa Reddy	Sri Venna Srinivasa Reddy, S/o.Narasimha Reddy, D.No.49, Railway Station Road, Piduguralla Post & Mandal, Guntur District	3240/Q1/2019, dt. 23.09.2020	1.19	10/1/2020	9/30/2030	nil	nil	10/1/2020	#N/A	Non-Captiva	SEIAA/AP/GNT/MIN/1/22/1642-	7/8/2020	N16°28'11.14121" N16°28'10.46021" N16°28'10.04012" N16°28'06.80012" N16°28'06.59001" N16°28'05.18100" N16°28'05.92112" N16°28'05.14011" N16°28'05.81062"	E79°55'48.99010" E79°55'50.17021" E79°55'50.28001" E79°55'47.93031" E79°55'50.09011" E79°55'49.12110" E79°55'47.26001" E79°55'46.66011" E79°55'45.27110"	Open cast
164	Lime Stone Minor	711210581	Smt R. Prakash Rani	Smt. R.Prakash Rani, W/o.Jacob, Kondamodu village, Rajupalem Mandal, Guntur District	1725/Q1/2019, dt. 11.01.2021	1.497	1/18/2021	1/17/2031	nil	nil	1/18/2021	#N/A	Non-Captiva	SEIAA/AP/GNT/MIN/7/22/198	11/26/2020	N16°28'21.12" N16°28'2122" N16°28'10.95" N16°2810.09" N16°28'13.21" N16°28'13.48"	E79°55'34.57" E79°55'35.31" E79°55'37.73" E79°55'34.56" E79°55'34.68" E79°55'35.49"	Open cast
165	Mosaic Chips	711140002	T. Seetharamanjaneyulu	T. Seetharamanjaneyulu, S/o. D. Narayana Sarma, D.No. 14-9-17, 1st Lane, Netaji Nagar, Piduguralla, Guntur District	7127/Q1/2006 12/12/2006,7127/Q1/2006	2.432	12/18/2016	12/17/2026	nil	nil	12/18/2016	#N/A	Non-Captiva	SEIAA/AP/GNT/MIN/7/22/222/675	12/1/2020	N16°28'29.44818" N16°28'28.32109" N16°28'25.57675" N16°28'27.24828" N16°28'28.28342"	E79°55'34.89138" E79°55'34.13668" E79°55'53.24473" E79°55'51.15903" E79°55'34.39900"	Open cast

					31/12/2012,7127/Q1/2006 29/01/2014												
166	Mosaic Chips	711120006	R. Prakashrani	R. Prakashrani, W/o. Jacob, Seetharampuram Mines Road, Kondamodu, Piduguralla	547/Q1/2002 05 Aug 2002,3236/Q1/2012 12 Dec 2012	1.214	10/9/2012	10/8/2022	nil	nil	10/9/2012	Non-working	Non-Capitiva					Open cast
167	Colour Granite	711150357	Kandula Narasimha Rao	K. Narasimha Rao, S/o. Subbaiah, Flat No. 303, Srinivasa Residency, Annapurna Nagar, 5th Lane, Gorantla Village,	34747/R2-3/2013 09 Feb 2015	1.457	2/27/2015	2/26/2035	nil	nil	2/27/2015	Non-working	Non-Capitiva			N16°27'10.00" N16°27'08.08" N16°27'08.43" N16°27'09.06" N16°27'07.31" N16°27'09.02" N16°27'10.52" N16°27'09.55" N16°27'11.09" N16°27'10.25"	E80°03'46.30" E80°03'45.42" E80°03'44.51" E80°03'43.00" E80°03'42.19" E80°03'38.81" E80°03'39.59" E80°03'41.76" E80°03'42.24" E80°03'45.35"	Open cast
168	Colour Granite	711140347	Velpula Venkateswarlu	V. Venkateswarlu, S/o. Venkaiah, Uppalapadu Village, Rajupalem mandal, Guntur District	35599/R3-2/2007 31 Jan 2014	2	10/25/2014	10/24/2034	nil	nil	10/25/2014	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
169	Colour Granite	721140231	M/s Swastick Exports	M/s Swastick Exports, Mg.Part: Sro Kota Srinivasa Kumar, S/o Lakshmaiah, D.No. 11-63-1, Ploice station Road, Addanki (V& M), Prakasam District (Transfer from Sri Bolla Srinivasa Rao, D.No. 12-13-27/A, Prakash Nagar, Narasaraopet Village & Mandal, Guntur District)	4707/R2-3/2014 , dt.23.08.2014	1	15.02.2022 Transfer	4/2/2029	nil	nil	15.02.2022 Transfer	Non-working	Non-Capitiva	DEIAA/AP/MIN/GNT/215-2741/186	7/6/2022	N15°57'00.20828" N15°56'56.91658" N15°56'57.29256" N15°56'58.68609"	E79°52'34.67856" E79°52'34.80570" E79°52'30.69127" E79°52'29.69925"	Open cast

170	Colour Granite	721140232	Swastick Exports	M/s Swastick Exports, Mg.Part: Sro Kota Srinivasa Kumar, S/o Lakshmaiah, D.No. 11-63-1, Ploice station Road, Addanki (V& M), Prakasam District (Transfer from Sri Bolla Srinivasa Rao, D.No. 12-13-27/A, Prakash Nagar, Narasaraopet Village & Mandal, Guntur District)	4706/R2-3/2014, dt.30.09.2014	1	4/18/2015 Transfer	4/2/2029	nil	nil	4/18/2015 Transfer	#N/A	Non-Capitiva	SEIAA/AP/GN/215-2742/199	11/29/2022	N15°56'44.75147" N15°56'45.61488" N15°56'49.66999" N15°56'53.64993" N15°56'53.41842" N15°56'48.66191" N15°56'48.31175"	E79°52'33.01642" E79°52'30.02026" E79°52'30.73963" E79°52'31.38852" E79°52'34.20381" E79°52'33.32985" E79°52'34.22960"	Open cast
171	Road Metal	721130306	Sri. A. Rama Krishna	Sri. A. Rama Krishna, S/o. Veeraiah, Flat No.303, Srinivasa Towers, 3/1 Ashok Nagar, Guntur	6125/Q/2012, dt.28.01.2013	1.011	4/26/2013	4/25/2023	nil	nil	4/26/2013	Non-working	Non-Capitiva			No coordinates	No coordinates	Open cast
172	Black Granite	721220442	Sri Srinivasam Granites	M/s Sri Srinivasam Granites, Mg.Pt: Sri Atla Chinna Venkata Reddy, D.No. 5-9A, Santhamaguluru Village and Mandal, Prakasam District.	1943/D7-1/2020, dt. 20.05.2022	1.752	16.07.2022	15.07.2042	nil	nil	16.07.2022	Non-working	Non-Capitiva	SEIAA/AP/GNT/MIN/8/221/3434/1	1/26/2022	N15°57'22.53247" N15°57'23.27786" N15°57'22.54584" N15°57'25.06769" N15°57'28.06036" N15°57'28.89860" N15°57'28.52707" N15°57'28.10240"	E79°53'57.05002" E79°53'55.54415" E79°53'55.39434" E79°53'54.13274" E79°53'54.62818" E79°53'53.61525" E79°53'56.60334" E79°53'58.51583"	Open cast
173	Black Granite	721220441	Sri Srinivasam Granites	M/s Sri Srinivasam Granites, Mg.Pt: Sri Atla Chinna Venkata Reddy, D.No. 5-9A, Santhamaguluru Village and Mandal, Prakasam District.	1942/D7-1/2020, dt. 25.05.2022	1.060	16.07.2022	15.07.2042	nil	nil	16.07.2022	Non-working	Non-Capitiva	SEIAA/AP/GTR/MIN/11/22/2533/	1/20/2022	N15°57'16.90824" N15°57'16.09956" N15°57'13.53826" N15°57'14.16076"	E79°53'49.98244" E79°53'54.10714" E79°53'53.48268" E79°53'49.23498"	Open cast
174	Black Granite	CFO Submit	M/s Sri Srinivasam Granites	M/s Sri Srinivasam Granites, Mg.Pt: Sri Atla Chinna Venkata Reddy, D.No. 5-9A, Santhamaguluru Village and Mandal, Prakasam	1941/D7-1/2020, dt. 20.05.2022	3.837	16.07.2022	15.07.2042	nil	nil	16.07.2022	Non-working	Non-Capitiva			N15°57'28.93551" N15°57'28.75601" N15°57'27.64481" N15°57'24.92092" N15°57'22.17237" N15°57'20.00644"	E79°53'49.78874" E79°53'50.29714" E79°53'53.66573" E79°53'53.27773" E79°53'54.62967" E79°53'55.28397"	Open cast

				District.											N15°57'20.81599" N15°57'19.42190" N15°57'20.54524" N15°57'19.08405" N15°57'20.20835" N15°57'25.37868" N15°57'25.77251"	E79°53'58.06901" E79°53'58.09579" E79°53'55.00481" E79°53'54.72569" E79°53'50.24588" E79°53'50.34993" E79°53'49.12107"	
175	Colour Granite	721220429	Swastick Exports	M/s Swastick Exports, Mg.Part: Sro Kota Srinivasa Kumar, S/o Lakshmaiah, D.No. 11-63-1, Ploice station Road, Addanki (V& M), Prakasam District	1969/D7-1/2021, dt. 21.09.2022	1.658	27.10.2022	26.10.2042	nil	nil	27.10.2022	#N/A	Non-Capitiva	SEIAA/AP/GNT/MIN/5/222/4245/	7/9/2022	N15°56'55.86486" N15°56'55.96596" N15°56'56.92998" N15°56'57.67070" N15°56'59.43364" N15°57'01.30812" N15°57'00.56445" N15°57'00.96369" N15°57'00.20828" N15°56'58.68609" N15°56'57.29256" N15°56'56.97421"	E79°52'34.14030" E79°52'31.52064" E79°52'28.64959" E79°52'27.36193" E79°52'28.32791" E79°52'29.35501" E79°52'30.72865" E79°52'32.35584" E79°52'34.67852" E79°52'29.69925" E79°52'30.69127" E79°52'34.17519"	Open cast
176	Colour Granite	2311230006	M/s Swastick Exports	M/s Swastick Exports, Mg.Part: Sro Kota Srinivasa Kumar, S/o Lakshmaiah, D.No. 11-63-1, Ploice station Road, Addanki (V& M), Prakasam District	1968/D7-1/2021, dt. 31.01.2023	2.015	29.03.2023	28.03.2043	nil	nil	29.03.2023	#N/A	Non-Capitiva	SEIAA/AP/GNT/MIN/8/222/4526/	9/30/2022	N15°56'44.75147" N15°56'45.41026" N15°56'49.54505" N15°56'53.64996" N15°56'53.44461" N15°56'48.66191" N15°56'48.31175"	E79°52'33.01642" E79°52'30.73042" E79°52'31.06064" E79°52'31.38852" E79°52'33.88546" E79°52'33.32985" E79°52'34.22960"	Open cast
177	Quartz	722050032	A. NARENDRA	Sri A. Narendra, Prasanthi Nagar, Tadipatri, Anathapur District	302, 8.12.2004	9.975	05/09/2005	5/8/2025	nil	nil	05/09/2005	Non-working	Non-Capitiva			N16°01'11.96" N16°01'9.24" N16°01'8.02" N16°01'3.13" N16°00'57.56" N16°01'0.84" N16°00'54.73" N16°00'58.55" N16°01'11.96" N16°01'1.65" N16°01'4.52" N16°01'4.89" N16°01'3.56" N16°01'6.65" N16°01'3.16" N16°01'5.06"	E79°40'29.65" E79°40'26.37" E79°40'29.13" E79°40'31.93" E79°40'37.58" E79°40'40.72" E79°40'48.03" E79°40'50.02" E79°40'46.51" E79°40'45.36" E79°40'46.48" E79°40'44.29" E79°40'44.17" E79°40'39.14" E79°40'38.08" E79°40'33.93"	Open cast

178	Black Granite	721090266	S. Bala Krishna	Sri. S. Bala Krishna, S/o. Siva Rama Krishnaiah, Kavuru Village, Cherukupalli Mandal, Guntur District.	35505/R3.2/05, dt. 7.02.09	5	12/02/2009	12/1/2029	nil	nil	12/02/2009	Non-working	Non-Captiva	55/DEIAA/AP/GNT/16	2/4/2017	N15°58'58.25767" N15°58'57.60968" N15°58'59.09086" N15°59'07.67304" N15°59'10.42215" N15°59'07.36681" N15°59'05.33097"	E79°51'33.77183" E79°51'30.47536" E79°51'29.16042" E79°51'29.54964" E79°51'37.53604" E79°51'38.02177" E79°51'32.63224"	Open cast
179	Black Granite	721130327	Mahanandi Minerals	M/s Mahanandi Minerals,	19950/R3-1/2013	1	06.12.2013	05.12.2033	nil	nil	06.12.2013	Non-working	Non-Captiva			N15°59'25.80" N15°59'26.30" N15°59'25.20" N15°59'24.80" N15°59'25.10" N15°59'25.00" N15°59'23.30" N15°59'21.70" N15°59'21.70" N15°59'22.10" N15°59'23.95"	E79°52'21.60" E79°52'21.50" E79°52'22.40" E79°52'23.80" E79°52'24.0" E79°52'25.50" E79°52'25.10" E79°52'24.10" E79°52'22.80" E79°52'21.20" E79°52'21.60"	Open cast
180	Black Granite	721220431	Veera Hanuman Granites	M/s. Veera Hanuman Granites, Mg.Pt: Sri Pothuri Anjaneyulu, D.No. 3-138, Velpuru Village, Savalyapuram Mandal, Palnadu District.	2111/D7-1/2021, dt. 21.09.2022	2.499	14.10.2022	13.10.2042	nil	nil	14.10.2022	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT/5/222/4248/	7/9/2022	150 59'45.574736" 150 59'42.816336" 150 59'37.772412" 150 59'42.118913" 150 59'42.567891" 150 59'40.426036" 150 59'37.633376" 150 59'36.438012" 150 59'36.994042" 150 59'38.826436" 150 59'40.298852"	790 53'09.737374" 790 53'08.825052" 790 53' 06.492125" 790 52'56.943549" 790 52'58.907944" 790 53'03.079874" 790 53'03.991584" 790 53'03.458925" 790 53'00.330825" 790 52'58.684852" 790 52'56.075520"	Open cast
181	Black Granite	231123000 2	Mannepalli Venkata Rao	Mannepalli Venkata Rao, S/o. Mannepalli Guravaiah, D.No. 1-135, Ummadivaram Village, Vinukonda Mandla, Palnadu District.	2112/D7-1/2021, dt. 31.01.2023	2	06.03.2023	05.03.2043	nil	nil	06.03.2023	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT/5/222/4249-	7/9/2022	150 59'21.308815" 150 59'17.809413" 150 59'15.405391" 150 59'15.938836" 150 59'13.947996" 150 59'14.683012" 150 59'15.622942" 150 59'20.440805" 150 59'19.884036" 150 59'17.993152"	790 52'33.937612" 790 52'32.746449" 790 52'31.929144" 790 52'30.145774" 790 52'29.580284" 790 52'26.536325" 790 52'26.806825" 790 52'28.788312" 790 52'29.562752" 790 52'32.464420"	Open cast
182	Black Granite	231123000 7	VEERA HANUMAN MINER	M/s. Veera Hanuman Minerals, Mg.Pt: Sri Pothuri Anjaneyulu, D.No. 3-138, Velpuru	5816/D7-1/2021, dt.	2.78	06.03.2023	05.03.2043	nil	nil	06.03.2023	#N/A	Non-Captiva	SEIAA/AP/MIN/GNT/11/222/4681/	12/12/20	N15°59'07.83451" N15°59'08.17994" N15°59'08.95610" N15°59'10.60525"	E79°52'25.07135" E79°52'24.04479" E79°52'22.03976" E79°52'22.56482"	Open cast

			ALS	Village, Savalyapuram Mandal, Palnadu District.	31.01.2023									22	N15°59'12.70121" N15°59'15.14660" N15°59'14.89463" N15°59'14.82031" N15°59'13.99615" N15°59'10.59555" N15°59'10.67899" N15°59'10.24588" N15°59'10.94717"	E79°52'23.46277" E79°52'24.80392" E79°52'26.19254" E79°52'26.54819" E79°52'29.57245" E79°52'28.50440" E79°52'27.89028" E79°52'27.49272" E79°52'26.17224"	
183	Road Metal	721080204	Venkata Ramatheertha Stone Crusher	M/s. Venkata Ramatheertha Stone Crusher, Mg.P. K. Vaddikasulu, Kotakatla Bazar, Cheemakurthy (P&M), Prakasam Dist.	5912/Q2/07, dt. 06.08.2008	1	18.02.2008	31.03.2023	nil	nil	18.02.2008	Non-working	Non-Captiva			N16°2'49.20" N16°2'50.18" N16°2'46.71" N16°2'45.48"	E79°42'32.29" E79°42'34.89" E79°42'36.11" E79°42'33.59"	Open cast
184	Road Metal	721080205	Venkata Ramatheertha Stone Crusher	M/s. Venkata Ramatheertha Stone Crusher, Mg.P. K. Vaddikasulu, D.No. 5-119, Kotakatla Bazar, Cheemakurthy (P&M), Prakasam Dist.	5913/Q2/07, dt. 06.08.2008	0.971	02/18/2008	31.03.2023	nil	nil	02/18/2008	Non-working	Non-Captiva			N16°2'35.99" N16°2'37.47" N16°2'40.77" N16°2'39.26"	E79°42'37.17" E79°42'34.92" E79°42'37.28" E79°42'39.44"	Open cast
185	Road Metal	721150248	Varalakshmi Stone Crusher	M/s. Varalakshmi Stone Crusher, Mg.P. Venkata Subba Rao, Kothapet, Vinukonda (P&M), Guntur Dist. (Transfer from Smt. V. Lakshmi)	2203/Q/2006, dt. 29.05.2015	1.808	4/18/2015	7/19/2017	nil	nil	4/18/2015	Non-working	Non-Captiva			N16°03'09.54402" N16°03'09.38516" N16°03'04.49930" N16°03'04.51278" N16°03'00.16488" N16°03'00.29970"	E79°43'21.85100" E79°43'24.07871" E79°43'23.71283" E79°43'23.51024" E79°43'23.18466" E79°43'21.15878"	Open cast
186	Road Metal	721090226	L. VENKATA SUBBAIAH	Sri. Lavu Venkata Subbaiah, S/o. Peeraiah, Cheekategalapalem (Post) Vinukonda (Mandal) Guntur District.	7044/Q2/2008, dt. 07.01.2009	0.546	04/02/2009	31.03.2023	nil	nil	04/02/2009	Non-working	Non-Captiva			N16°02'49.81244" N16°02'51.75441" N16°02'52.05485" N16°02'50.11287"	E79°42'34.63293" E79°42'34.42577" E79°42'37.43811" E79°42'37.64519"	Open cast

187	Road Metal	721080197	I. Ravi kumar	I. Ravi Kumar	531/Q2/1998, dt. 03.07.2008	0.51	25.09.2008	31.03.2023	nil	nil	25.09.2008	Non-working	Non-Capitiva			N16°2'52.50" N16°2'54.10" N16°2'52.84" N16°2'51.11"	E79°43'9.67" E79°43'8.18" E79°43'6.14" E79°43'7.52"	Open cast	

List of Minor Minerals and Details of Lease wiseDivMGO Dachepalli, Palnadu District:

Sl.No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of 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.,)	Capitive/Non-Capitiva	Obtained Enviornmentl Clearance (Yes/NO), If Yes Letter No with date of grant of EC		Location of the Mining lease (Latitute & Longitude)	Method of Mining (Open cast/ Underground)
							From	To	From	To							
1	2	3	4	5		6	7	8	9	10	11	12	13	14		15	16
				Grant Order	Date									EC Letter No.	EC date		
1	Limestone(Minor)	K Venkata Purushothama Rao	K Venkata Purushothama Rao	257-2/Q2/2022	19/11/2022	2	15/02/2023	14/02/2033	nil	nil	15/02/2023	Working	Non Captive	**SEIAA/AP/MIN/GNT/8/2022**	**10-07-2022**	16° 42' 30.63512"N 79° 44' 43.19779"E	Opencast
2	Limestone(Minor)	M/s Vaishnavi Minerals	M/s Vaishnavi Minerals	236-2/Q2/2022	19/11/2022	3.35	18/04/2023	13/02/2033	nil	nil	18/04/2023	Working	Non Captive	**SEIAA/AP/MIN/GNT/7/2022**	**26/08/2022**	16° 42' 17.11283"N 79° 44' 47.90121"E	Opencast
3	Limestone(Minor)	M/s Radhakrishna Minerls	M/s Radhakrishna Minerls	238-2/22/2022	19/11/2022	3.7	18/04/2023	13/02/2033	nil	nil	18/04/2023	Working	Non Captive	**SEIAA/AP/MIN/GNT/6/2022**	**18/08/2022**	16°20' 30.62211"N 79° 31'26.15322"E	Opencast
4	Limestone(Minor)	M/s V N R Constructions	M/s V N R Constructions	234-2/Q2/2022	31-01-2022	3.67	18-04-2023	13/02/2033	nil	nil	18-04-2023	Working	Non Captive	**SEIAA/AP/MIN/GNT/6/2022**	**26/08/2022**	16° 42' 08.67989"N 79° 44' 35.77409"E	Opencast
5	Limestone(Minor)	M/s Vaishnavi Minerals	M/s Vaishnavi Minerals	247/Q2/2022	19/11/2022	3.52	18/04/2023	13/02/2033	nil	nil	18/04/2023	Working	Non Captive	**SEIAA/AP/MIN/27880 1/2022**	**08-04-2022**	16° 42' 45.32127"N 79° 44' 31.57167"E	Opencast

6	Limestone(Minor)	Sri Alluri Siva Krishna Phani Prasad	Sri Alluri Siva Krishna Phani Prasad	254-2/Q2/2022	19/11/2022	2	14/02/2023	13/02/2033	nil	nil	14/02/2023	Working	Non Captive	**SEIAA/AP/MIN/GNT/7/2022/4464**	**26/08/2022**	16° 42' 32.70288"N 79° 44' 48.35514"E	Opencast
7	Limestone(Minor)	Musyam Venkateswarlu	Musyam Venkateswarlu	2747/Q2/2021	19/04/2023	0.352	31/05/2023	30/05/2033	nil	nil	31/05/2023	Working	Non Captive	**SEIAA/AP/MIN/PLN/11/2022**	**03-02-2023**	16° 35' 02.43104"N 79° 44' 01.67445"E	Opencast
8	White Clay (Crude), White Clay (Procees ed),White Clay (Washed)	V.Kranthi Kumar reddy	V.Kranthi Kumar reddy	339	31/12/2008	8.178	16/03/2012	15/03/2032	nil	nil	16/03/2012	Working	Non Captive	nil	nil	16°20' 30.62211"N 79° 31'26.15322"E	Opencast
9	Limestone(Minor)	Smt Kola Radhika	Smt Kola Radhika	3683/Q2/2022	14/06/2022	1.235	09-08-2022	09-07-2032	nil	nil	09-08-2022	Working	Non Captive	**SEIAA/AP/MIN/GNT/02/2022/3993/**	**04-07-2022**	16°35' 20.38620"N 79° 31'07.53593"E	Opencast
10	Limestone(Minor)	Shaik Rajak	Shaik Rajak	3452/Q2/2020	29/01/2021	0.939	24/01/2022	23/01/2032	nil	nil	24/01/2022	Working	Non Captive	**SEIAA/AP/GNT/MIN/02/2021/163/1**	**26/08/2021**	16°28' 58.29893"N 79° 56'03.89788"E	Opencast
11	Lime Stone Slab (Color),Limestone(Minor)	Konduti Koti Veera Nagaiah	Konduti Koti Veera Nagaiah	1939-2/Q2/2019	27/07/2022	3.237	20/10/2022	19/10/2032	nil	nil	20/10/2022	Working	Non Captive	**SEIAA/AP/MIN/GNT/6/2020/1968/1**	**20/01/2022**	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
12	Gravel	Akkinapalli Chandu	Akkinapalli Chandu	318/Q2/2022	23/09/2022	2	18/11/2022	17/11/2027	nil	nil	18/11/2022	Working	Non Captive	**SEIAA/AP/GNT/MIN/05/2022/4246/**	**27/07/2022**	16°39' 01.49406"N 79° 35'36.45377"E	Opencast
13	Limestone(Minor)	Janga Suresh	Janga Suresh	731/Q2/2022	10-01-2022	0.556	20/10/2022	31/03/2032	nil	nil	20/10/2022	Working	Non Captive	**SEIAA/AP/MIN/GNT/6/2022/4411/1**	**18/08/2022**	16° 35' 10.99763"N 79° 44'02.72652"E	Opencast

14	Limeston e(Minor)	Shaik Azhar Hussian	Shaik Azhar Hussian	727/Q2 /2022	26/07/ 2022	0.3 59	08-04-2022	08-03-2032	nil	nil	08-04-2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 04/2022/4 219/**	**07-06-2022**	16° 34' 47.0931"N 79° 43' 53.8855"E	Openca st
15	Limeston e(Minor)	Mandapa ti Ramesh Reddy	Mandapati Ramesh Reddy	726/Q2 /2022	26/07/ 2022	1.0 75	08-04-2022	08-03-2032	nil	nil	08-04-2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 04/2022/4 220/**	**07-06-2022**	16° 34' 55.41567"N 79° 43'40.75029"E	Openca st
16	Limeston e(Minor)	Nelluri Ravi Kumar	Nelluri Ravi Kumar	2293/Q 2/2021	16/06/ 2022	1.6 51	17/06/2 022	16/06 /2032	nil	nil	17/06/ 2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 10/2021/3 542**	**01-06-2022**	16° 34' 47.38709"N 79° 44'04.06408"E	Openca st
17	Limeston e(Minor)	Morjamp ati Mohamm ad Khasim	Morjampati Mohamma d Khasim	1285/Q 2/2020	01-11-2021	1	23/06/2 022	Ba	nil	nil	23/06/ 2022	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 07/2020/2 016**	**12-01-2020**	16° 26' 17.42496"N 79° 51'59.76626"E	Openca st
18	Limeston e(Minor)	Basu Linga Reddy	Basu Linga Reddy	3134/Q 2/2020	28/04/ 2022	2.0 23	24/06/2 022	23/06 /2032	nil	nil	24/06/ 2022	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2022/2 851**	**26/08/ 2021**	16° 30' 28.17341"N 79° 52' 32.95413"E	Openca st
19	Limeston e(Minor)	Morjamp ati Sabira	Morjampati Sabira	152/Q2 /2022	05-06-2022	0.8 42	21/05/2 022	20/06 /2032	nil	nil	21/05/ 2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 02/2022**	**31/03/ 2022**	16° 37' 10.95376"N 79° 44' 40.86331"E	Openca st
20	Limeston e(Minor)	Sambasiv a Limeston e Minerals	Sambasiva Limestone Minerals	436/Q2 /2022	18/05/ 2022	0.9 42	21/05/2 022	20/05 /2032	nil	nil	21/05/ 2022	Non Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 02/2022**	**16/04/ 2022**	16° 38' 03.19069"N 79° 39'44.70555"E	Openca st
21	Limeston e(Minor)	Panditi Rami Reddy	Panditi Rami Reddy	3800/Q 2/2021	05-06-2022	0.6 92	17/05/2 022	16/05 /2032	nil	nil	17/05/ 2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 02/2022**	**04-07-2022**	16° 28' 52.00682"N 79° 56'05.7974"E	Openca st
22	Limeston e(Minor)	Pallapu Venkates wara Rao	Pallapu Venkatesw ara Rao	1182/Q 2/2021	23/03/ 2022	0.6 07	25/03/2 022	24/03 /2032	nil	nil	25/03/ 2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 7/2021/33 02**	**25/03/ 2022**	16° 37' 05.40917"N 79° 42' 19.04206"E	Openca st
23	Limeston e(Minor)	Sri Lakshmi Venkates wara Mines and	Sri Lakshmi Venkatesw ara Mines and Minerals	1495/Q 2/2021	21/02/ 2022	1.6 39	04-11-2022	04-10-2032	nil	nil	04-11-2022	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 7/2021/33 67**	**04-11-2022**	16° 28' 39.79378"N 79° 56'26.37915"E	Openca st

		Minerals														
24	Limeston e(Minor)	Siva Sai Stones	Siva Sai Stones	3454/Q 2/2020	29/10/ 2021	1.4 29	21/01/2 022	20/01 /2032	nil	nil	21/01/ 2022	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2021/2 866/163**	**21/01/ 2022**	16° 29' 36.54750"N 79° 52' 53.15760"E	Openca st
25	Limeston e(Minor)	Chinta Subba Reddy	Chinta Subba Reddy	992/Q2 /2021	24/11/ 2021	0.5 86	21/01/2 022	20/01 /2032	nil	nil	21/01/ 2022	Working	Non Captive	**SEIAA/AP/ MIN/GTR/ 6/2021/32 92**	**26/10/ 2021**	16° 28' 36.66304"N 79° 56' 20.50000"E	Openca st
26	Gravel	Guda Venkata Siva Reddy	Guda Venkata Siva Reddy	1958/Q 2/2020	28/07/ 2021	1.3 68	25/10/2 021	24/10 /2026	nil	nil	25/10/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2020/2 233/155 &150-126**	**25-10- 2022**	16° 28' 16.87975"N 79° 55' 24.04978"E	Openca st
27	Limeston e(Minor)	Vemula Nagaman i	Vemula Nagamani	3580/Q 2/2019	19/01/ 2021	0.4 09	22/04/2 021	21/04 /2031	nil	nil	22/04/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 04/2020/1 811-516**	**25/11/ 2020**	16° 28' 38.41361"N 79° 56'16.64754"E	Openca st
28	Limeston e(Minor)	Sri Sanikom mu Srinivasa Reddy	Sri Sanikomm u Srinivasa Reddy	247/Q2 /2021	20/10/ 2021	0.8 09	15/12/2 021	14/12 /2031	nil	nil	15/12/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 04/2021/3 149/165- 796**	**21/09/ 2021**	16° 28' 46.514567"N 79° 56'10.220494"E	Openca st
29	Limeston e(Minor)	Nishka Enterpris es Pvt Ltd	Nishka Enterprises Pvt Ltd	2882/Q 2/2020	17/11/ 2021	0.3 97	24/11/2 021	23/11 /2031	nil	nil	24/11/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 01/2021/2 760/**	**26/08/ 2021**	16°30'01.6"N 79°55'34.7"E	Openca st
30	Mosaic Chips	Jaya Mines and Minerals	Jaya Mines and Minerals	2882/Q 2/2020	26/10/ 2021	1.6 23	11-10- 2021	11- 09- 2031	nil	nil	11-10- 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2021/2 935/163/2 721**	**31/08/ 2021**	16° 35' 55.32782"N 79° 42' 41.92858"E	Openca st
31	Limeston e(Minor)	Konatam Siva Reddy	Konatam Siva Reddy	1241/Q 2/2020	31/08/ 2021	0.7 48	13/09/2 021	09- 12- 2031	nil	nil	13/09/ 2021	Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 08/2020/2 045/**	**22/06/ 2021**	16° 33' 30.25750"N 79° 44' 14.23408"E	Openca st
32	Limeston e(Minor)	Sri Nidhi Mines	Sri Nidhi Mines	2261/Q 2/2020	31/08/ 2021	1.0 29	09-02- 2021	09- 01- 2031	nil	nil	09-02- 2021	Non Working	Non Captive	**SEIAA/AP/ MIN/GNT/ 10/2020/2 251/161/1**	**09-02- 2021**	16° 28' 36.91019"N 79° 56' 20.61194"E	Openca st

														58/473			
33	Limeston e(Minor)	K.Rami Reddy	K.Rami Reddy	914/Q2 /2020	07-09-2021	2	09-02-2021	09-01-2031	nil	nil	09-02-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 07/2020/1 976**	**14/06/ 2021**	16° 34' 39.41365"N 79° 44' 13.11749"E	Openca st
34	Limeston e(Minor)	Gannavar apu Srinivasa Reddy	Gannavara pu Srinivasa Reddy	2887/Q 2/2020	31/08/ 2021	0.6 96	09-02-2021	09-01-2031	nil	nil	09-02-2021	Working	Non Captive	**SEIAA/AP/ MIN/GTR/ 11/2020/2 453/**	**13/07/ 2021**	16° 28' 42.75716"N 79° 56' 14.30691"E	Openca st
35	Limeston e(Minor)	Momin Saida Saheb	Momin Saida Saheb	916/Q2 /2020	07-09-2021	1.2 14	25/08/2 021	24/08 /2031	nil	nil	25/08/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 07/2020/1 977**	**14/06/ 2021**	16° 34' 38.65337"N 79° 44' 10.16015"E	Openca st
36	Limeston e(Minor)	Gunnama reddy Peda Ramana Reddy	Gunnamar eddy Peda Ramana Reddy	2196/Q 2/2020	07-05-2021	0.4 05	07-06-2021	07-06-2031	nil	nil	07-06-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2020/2 245/**	**14/06/ 2021**	16° 28' 43.84194"N 79° 56' 09.32913"E	Openca st
37	Limeston e(Minor)	Burri Vengal Reddy	Burri Vengal Reddy	2256/Q 2/2020	07-05-2021	0.6 6	07-06-2021	07-05-2031	nil	nil	07-06-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2020/2 238/155/1 50/128**	**14/06/ 2021**	16° 28' 40.19100"N 79° 56' 16.769954"E	Openca st
38	Limeston e(Minor)	Panditi Rami Reddy	Panditi Rami Reddy	1864/Q 2/2020	07-05-2021	0.9 27	07-06-2021	07-05-2031	nil	nil	07-06-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2020/2 244/**	**14/06/ 2021**	16° 29' 36.54750"N 79° 52'53.15760"E	Openca st
39	Limeston e(Minor)	Kakuman u Siva Ramanja neyulu	Kakumanu Siva Ramanjane yulu	2296/Q 2/2020	07-06-2021	1.2 4	07-08-2021	07-07-2031	nil	nil	07-08-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2020/2 254/**	**14/06/ 2021**	16°30'01.6"N 79°55'34.7"E	Openca st
40	Limeston e(Minor)	Vinayaka Minerals	Vinayaka Minerals	720/Q2 /2020	07-09-2021	2.4 32	15/07/2 021	14/07 /2031	nil	nil	15/07/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 07/2020/1 803**	**26/06/ 2021**	16° 36' 52.98974"N 79° 44' 47.79683"E	Openca st
41	Limeston e(Minor)	Thota Uday Sankar Rao	Thota Uday Sankar Rao	485/Q2 /2020	26/03/ 2021	0.5 28	24/06/2 021	23/06 /2031	nil	nil	24/06/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 07/2020/2 005/**	**12-01-2020**	16° 28' 47.00043"N 79° 55'49.10048"E	Openca st

42	Limeston e(Minor)	Unnam Naga Mallikarju na Rao	Unnam Naga Mallikarjun a Rao	505/Q2 /2020	25/01/ 2021	0.8 37	02-03- 2021	02- 02- 2031	nil	nil	02-03- 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 03/2020/1 799**	**25/11/ 2020**	16° 28' 28.91159"N 79° 56'10.17704"E	Openca st
43	Lime Stone Slab (Color),Li mestone(Minor)	Thanda Hasenbe e	Thanda Hasenbee	1939/Q 2/2019 -1	05-05- 2021	3.3 27	06-10- 2021	06- 09- 2031	nil	nil	06-10- 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2019/1 267**	**26/11/ 2020**	16° 36' 46.21383"N 79° 43'46.42407"E	Openca st
44	Limeston e(Minor)	Dareddy Subba Reddy	Dareddy Subba Reddy	3582/Q 2/2019	19/01/ 2021	0.7 69	22/04/2 021	21/04 /2031	nil	nil	22/04/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 04/2020/1 810**	**25/11/ 2020**	16° 28' 55.84578"N 79° 56'12.55193"E	Openca st
45	Limeston e(Minor)	Battula Srinivasa Rao	Battula Srinivasa Rao	506/Q2 /2020	22/02/ 2021	1	03-04- 2021	03- 03- 2031	nil	nil	03-04- 2021	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 09/2020/2 130**	**17/12/ 2020**	N 16041'36.94335 " E 790 50' 36.04618"	Openca st
46	Limeston e(Minor)	Siddadap u Gandhi	Siddadapu Gandhi	507/Q2 /2020	22/02/ 2021	0.9 17	03-04- 2021	03- 03- 2031	nil	nil	03-04- 2021	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 09/2020/2 131-894**	**17/12/ 2020**	16° 41' 38.23685"N 79° 50'26.43391"E	Openca st
47	Limeston e(Minor)	Komera Venkates warta Rao	Komera Venkatesw arta Rao	3581/Q 2/2019	24/02/ 2021	0.6 98	16/04/2 021	15/04 /2031	nil	nil	16/04/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 09/2020**	**17/12/ 2020**	16° 28' 43.39304"N 79° 55' 41.21318"E	Openca st
48	Limeston e(Minor)	Sri Venkatat eswara Mines	Sri Venkatates wara Mines	840/Q2 /2020	18/02/ 2021	0.6 11	03-03- 2021	03- 02- 2031	nil	nil	03-03- 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 08/2020/2 053**	**18/12/ 2020**	16° 28' 55.84578"N 79° 56' 12.55193"E	Openca st
49	Limeston e(Minor)	Mohamm ed Khayyum	Mohamme d Khayyum	3239/Q 2/2019	02-02- 2021	1.0 73	16/03/2 021	15/03 /2031	nil	nil	16/03/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2020/1 707**	**26/11/ 2020**	16° 30' 38.12505"N 79° 51'38.03959"E	Openca st
50	Limeston e(Minor)	K.Rama Krishna	K.Rama Krishna	2259/Q 2/2019	02-08- 2021	1.9 5	03-08- 2021	03- 07- 2031	nil	nil	03-08- 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2019/1 330-**	**14/12/ 2020**	16° 36' 53.00637"N 79° 44' 42.17480"E	Openca st

51	Limeston e(Minor)	Mitra Mines and Minerals	Mitra Mines and Minerals	842/Q2 /2020	02-05-2021	2.0 65	03-03-2021	03-02-2031	nil	nil	03-03-2021	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 06/2020/1 935**	**26/11/ 2020**	16° 34' 30.71585"N 79° 44'11.45556"E	Openca st
52	Limeston e(Minor)	Nandipati Kantham ma	Nandipati Kanthamm a	843/Q2 /2020	25/01/ 2021	1.0 94	02-03-2021	02-02-2031	nil	nil	02-03-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 06/2020/1 918**	**25/11/ 2020**	16° 28' 39.96129"N 79° 56'31.57529"E	Openca st
53	Limeston e(Minor)	Y Gurava Reddy	Y Gurava Reddy	251/Q2 /2020	23/01/ 2021	0.2 5	02-02-2021	02-01-2031	nil	nil	02-02-2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 08/2020/2 059**	**18/12/ 2020**	16° 28' 32.68734"N 79° 56'14.73687"E	Openca st
54	Limeston e(Minor)	G.Jagade esh Reddy	G.Jagadee sh Reddy	921/Q2 /2020	19/12/ 2020	1.3 15	30/01/2 021	29/01 /2031	nil	nil	30/01/ 2021	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 06/2020/1 825**	**25/11/ 2020**	16° 28' 50.69484"N 79° 56'07.38530"E	Openca st
55	Limeston e(Minor)	Surabutt ula Srinivasa Rao	Surabuttul a Srinivasa Rao	2854/Q 2/2019	12-11-2020	0.3 8	22/12/2 020	21/12 /2030	nil	nil	22/12/ 2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 12/2019/1 571**	**06-11-2020**	16° 28' 38.19890"N 79° 56'13.66287"E	Openca st
56	Limeston e(Minor)	Ch.Pulla Reddy	Ch.Pulla Reddy	2892/Q 2/2019	12-11-2020	1	22/12/2 020	21/12 /2030	nil	nil	22/12/ 2020	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 12/2019/1 526**	**06-11-2020**	16° 33' 27.61563"N 79° 53'34.06463"E	Openca st
57	Gravel	Potla Narasimh a Rao	Potla Narasimha Rao	3015/Q 2/2019	18/11/ 2020	2.4	26/11/2 020	25/11 /2025	nil	nil	26/11/ 2020	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 03/2020/1 777**	**10-06-2020**	16° 39' 11.91578"N 79° 36'22.13151"E	Openca st
58	Limeston e(Minor)	Mayukha Minerals	Mayukha Minerals	525/Q2 /2020	12-01-2020	0.7 77	12-04-2020	12-03-2030	nil	nil	12-04-2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2020/1 730**	**07-08-2020**	16° 36' 44.13815"N 79° 44'58.81291"E	Openca st
59	Limeston e(Minor)	Mayukah a Minerals	Mayukaha Minerals	526/W2 /2020	12-01-2020	1.5 91	12-04-2020	12-03-2030	nil	nil	12-04-2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2020/1 729**	**07-08-2020**	16° 36' 49.14857"N 79° 45'03.91584"E	Openca st
60	Limeston e(Minor)	Karpurap u Venkates wara Rao	Karpurapu Venkatesw ara Rao	1808/Q 2/2019	15/09/ 2020	2.5 92	16/10/2 020	15/10 /2030	nil	nil	16/10/ 2020	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 01/2020/1 614**	**08-03-2020**	16° 28' 43.39304"N 79° 55'41.21318"E	Openca st

61	Limeston e(Minor)	Rajeswar y Quarry	Rajeswary Quarry	1858/Q 2/2019	09-08-2020	2.8 77	09-10-2020	09-09-2030	nil	nil	09-10-2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 10/2019/1 359**	**02-11-2020**	16° 30' 24.76881"N 79° 52'57.13158"E	Openca st
62	Limeston e(Minor)	Sandeep Lime Corporati on	Sandeep Lime Corporatio n	2255/Q 2/2019	07-07-2020	4.7 96	09-10-2020	09-09-2030	nil	nil	09-10-2020	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 11/2019/1 480**	**02-11-2020**	16° 30' 24.76881"N 79° 52'57.13158"E	Openca st
63	Limeston e(Minor)	Passam Pulla Reddy	Passam Pulla Reddy	2142/Q 2/2019	13/08/ 2020	0.9 39	21/08/2 020	20/08 /2030	nil	nil	21/08/ 2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 02/2020/1 735**	**01-07-2020**	16° 28' 32.42"N 79° 56'09.41"E	Openca st
64	Limeston e(Minor)	Venna Srinivasa Reddy	Venna Srinivasa Reddy	2146/Q 2/2019	15/06/ 2020	2.9 34	07-01-2020	30/06 /2030	nil	nil	07-01-2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 11/2019/1 409**	**02-11-2020**	16° 30' 35.62793"N 79° 51'59.44972"E	Openca st
65	Limeston e(Minor)	Bunga Nagaraju	Bunga Nagaraju	2773/Q 2/2019	15/06/ 2020	0.9 79	26/06/2 020	25/06 /2030	nil	nil	26/06/ 2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 11/2019/1 450**	**02-11-2020**	16° 28' 51.94972"N 79° 56'5.65886"E	Openca st
66	Limeston e(Minor)	pasam venkates wara reddy	pasam venkatesw ara reddy	2857/Q 2/2019	15/04/ 2020	0.4 05	05-01-2020	30/04 /2030	nil	nil	05-01-2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 11/2019/1 454**	**02-11-2020**	16° 28' 38.05435"N 79° 56'16.66929"E	Openca st
67	Limeston e(Minor)	Yeraveda Gurava Reddy	Yeraveda Gurava Reddy	2439/Q 2/2019	21/03/ 2020	0.4 49	24/03/2 020	23/10 /2024	nil	nil	24/03/ 2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 11/2019/1 396**	**02-11-2020**	16° 28' 32.68734"N 79° 56' 14.73687"E	Openca st
68	Limeston e(Minor)	Jakka Rama Koteswar rao	Jakka Rama Koteswar rao	2458/Q 2/2019	19/03/ 2020	1.6 02	24/03/2 020	23/03 /2030	nil	nil	24/03/ 2020	Non Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 11/2019/1 431**	**01-07-2020**	16° 38' 05.77513"N 79° 39'58.11469"E	Openca st
69	Limeston e(Minor)	sri Venkates wara Vaddera Cooperati ve Society Limited President Sri B.Bayann	sri Venkatesw ara Vaddera Cooperativ e Society Limited President Sri B.Bayanna	2311/Q 2/2019	23/01/ 2020	0.6 72	02-12-2020	02-11-2030	nil	nil	02-12-2020	Working	Non Captive	**SEIAA/AP/ GNT/MIN/ 09/2019/1 317**	**24/12/ 2019**	16° 34' 55.41567"N 79° 43'40.75029"E	Openca st

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70	Limestone(Minor)	Duggempudi Vengal Reddy	Duggempudi Vengal Reddy	2459/Q2/2019	02-06-2020	0.48	02-10-2020	02-09-2030	nil	nil	02-10-2020	Working	Non Captive	**SEIAA/AP/GNT/MIN/10/2019/1341**	**01-07-2020**	16° 28' 33.49484"N 79° 56'10.11749"E	Opencast
71	Limestone(Minor)	K Chennakeswa Naik	K Chennakeswa Naik	4746/Q2/2018	01-08-2020	1.497	13/01/2020	01-12-2030	nil	nil	13/01/2020	Working	Non Captive	**SEIAA/AP/GNT/MIN/07/2019/1194**	**25/11/2019**	16° 35' 9.76"N 79° 42'59.40"E	Opencast
72	Lime Stone Slab (Black)	M.SIDDAPPA	M.SIDDAPPA	1052/Q2/2017	07-09-2019	1.59	18/10/2019	17/10/2029	nil	nil	18/10/2019	Working	Non Captive	**176/DEIAA/AP/GNT/18**	**19/11/2018**	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
73	Limestone(Minor)	Ch. Mangi Reddy	Ch. Mangi Reddy	4745/Q2/2018	31/10/2019	3.496	11-05-2019	11-04-2029	nil	nil	11-05-2019	Working	Non Captive	**SEIAA/AP/GNT/MIN/06/2019/1023**	**13/09/2019**	16° 31' 10.91"N 79° 34'28.24"E	Opencast
74	Limestone(Minor)	N.Nehru Venkata Ramana	N.Nehru Venkata Ramana	754/Q2/2019	21/10/2019	0.526	25/10/2019	24/10/2029	nil	nil	25/10/2019	Non Working	Non Captive	**SEIAA/AP/GNT/MIN/06/2019**	**13/09/2019**	16° 30' 33.63"N 79° 51'36.82"E	Opencast
75	Limestone(Minor)	A.Ratnakar Rao	A.Ratnakar Rao	812/Q2/2017	20/10/2018	2.517	11-05-2018	11-04-2028	nil	nil	11-05-2018	Working	Non Captive	**158/DEIAA/AP/GNT/17**	**01-03-2018**	16° 30' 27.7"N 79° 51'31.5"E	Opencast
76	Limestone(Minor)	Diyya Srinivasa Rao	Diyya Srinivasa Rao	811/Q2/2017	20/10/2018	1.566	11-05-2018	11-04-2028	nil	nil	11-05-2018	Non Working	Non Captive	**-**	**-**	16° 30' 30.85"N 79° 51' 33.35"E	Opencast
77	Mosaic Chips	B.Purnachandra Rao	B.Purnachandra Rao	813/Q2/2017	06-06-2018	0.303	07-10-2018	07-09-2028	nil	nil	07-10-2018	Working	Non Captive	**165/DEIAA/AP/GNT/17**	**01-03-2018**	16° 35' 7.29"N 79° 44'8.44"E	Opencast
78	Lime Stone Slab (Color)	Ch. Amaralingeswara Rao	Ch. Amaralingeswara Rao	6837/Q2/2006	07-11-2017	0.202	19/08/2017	31/03/2024	nil	nil	19/08/2017	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

79	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	K.S. SANKARA RAO	K.S. SANKARA RAO	845/Q2/2016	20/04/2016	2.29	05-09-2016	05-08-2026	nil	nil	05-09-2016	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
80	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	K. JOJI REDDY	K. JOJI REDDY	5070/Q2/2014	06-09-2015	1.416	24/03/2015	23/03/2025	nil	nil	24/03/2015	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
81	Limestone(Minor)	Dharani Industries	Dharani Industries	6210/Q2/2013	27/12/2013	2.128	02-05-2014	31/03/2024	nil	nil	02-05-2014	Non Working	Non Captive	nil	nil	16° 34' 15.66"N 79° 54' 31.37"E	Opencast
82	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	K. VAMSI KRISHNA	K. VAMSI KRISHNA	817/Q2/2011	13/08/2014	1.011	25/08/2011	08-12-2027	nil	nil	25/08/2011	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

83	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	K.V. BHARATHI	K.V. BHARATHI	3144/Q2/2014	21/08/2014	1.618	09-09-2014	14/09/2024	nil	nil	09-09-2014	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
84	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	S. PADMAJA	S. PADMAJA	3143/Q2/2014	21/08/2014	0.59	09-09-2014	08-05-2024	nil	nil	09-09-2014	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
85	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	Y. VENKATESWARLU	Y. VENKATESWARLU	3450/Q2/2011	29/03/2014	0.789	20/06/2014	19/06/2024	nil	nil	20/06/2014	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
86	Limestone(Minor)	Gnaneswari Quarry	Gnaneswari Quarry	2788/Q2/2013	05-10-2013	0.809	22/05/2013	31/03/2024	nil	nil	22/05/2013	Working	Non Captive	nil	nil	16° 30' 39.00"N 79° 53' 05.10"E	Opencast
87	Lime Stone Slab (Black),Lime Stone Slab (Color),Li	G. KRISHNA MURTHY	G. KRISHNA MURTHY	2571/Q2/2013	16/04/2013	1.201	05-07-2013	31/03/2024	nil	nil	05-07-2013	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

	me Stone Slab (White)															
88	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	P.Srinivasa Rao	P.Srinivasa Rao	5660/Q2/2012	23/04/2013	1.723	05-07-2013	31/03/2024	nil	nil	05-07-2013	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
89	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	U. TARAKA PRASANNA	U. TARAKA PRASANNA	6710/Q2/2009	23/04/2013	0.404	15/05/2013	31/03/2024	nil	nil	15/05/2013	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
90	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	K.V. NAGESWARA RAO	K.V. NAGESWARA RAO	5659/Q2/2012	23/04/2013	5.536	05-07-2013	31/03/2024	nil	nil	05-07-2013	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
91	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	U. LAKSHMI	U. LAKSHMI	5121/Q2/2009	03-10-2010	0.546	26/04/2010	17/02/2029	nil	nil	26/04/2010	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

92	Quartz	D.V. Pullaiah	D.V. Pullaiah	340	31/12/2008	4.046	22/12/2009	21/12/2028	nil	nil	22/12/2009	Working	Non Captive	nil	nil	16° 40' 32.95"N 79° 49' 02.12"E	Opencast
93	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	O. SRINIVASA RAO	O. SRINIVASA RAO	7187/Q2/2008	06-11-2009	0.979	07-04-2009	07-03-2029	nil	nil	07-04-2009	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
94	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	K.S. SANKARA RAO	K.S. SANKARA RAO	5023/Q2/2008	06-11-2009	0.356	07-04-2009	07-03-2029	nil	nil	07-04-2009	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
95	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	SK. RAMJAN	SK. RAMJAN	1473/Q2/2009	08-06-2009	0.736	23/10/2009	22/10/2029	nil	nil	23/10/2009	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
96	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	S. RAMAKRISHNA PRASAD	S. RAMAKRISHNA PRASAD	1135/Q2/2007	06-11-2009	0.841	08-12-2009	08-10-2029	nil	nil	08-12-2009	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

97	Limestone(Minor)	K.V. NAGESWARA RAO	K.V. NAGESWARA RAO	3308/Q2/2009	08-06-2009	2.67	16/09/2009	14/09/2029	nil	nil	16/09/2009	Non Working	Non Captive	nil	nil	16° 35' 23.87444"N 79° 31' 06.61297"E	Opencast
98	Quartz	Penusila Mining Company	Penusila Mining Company	228	02-11-2006	16.997	23/07/2008	22/07/2028	nil	nil	23/07/2008	Non Working	Non Captive	nil	nil	16° 30' 01.79886"N 79° 35' 08.06477"E	Opencast
99	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	Sai Teja Slab Traders	Sai Teja Slab Traders	2388/Q/2008	05-09-2008	1.448	14/05/2008	15/05/2028	nil	nil	14/05/2008	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
100	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	U. GURULINGA RAJU	U. GURULINGA RAJU	3456/Q2/1998	21/06/2008	2.217	25/08/2008	09-08-2028	nil	nil	25/08/2008	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
101	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	S. RAMAKRISHNA PRASAD	S. RAMAKRISHNA PRASAD	6303/Q2/2007	19/03/2008	1.104	04-10-2008	17/02/2028	nil	nil	04-10-2008	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

102	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	M/s. Sri Venkata Srinivasa Stones	M/s. Sri Venkata Srinivasa Stones	4646/Q2/2007	15/02/2008	1.773	13/05/2008	05-11-2028	nil	nil	13/05/2008	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
103	Lime Stone Slab (Black),Lime Stone Slab (Color),Lime Stone Slab (White)	M. SIVA KOTESWARA RAO	M. SIVA KOTESWARA RAO	791/Q/2007	14/08/2007	0.809	11-02-2007	31/10/2027	nil	nil	11-02-2007	Non Working	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
104	Mosaic Chips	P.Srinivasa Rao	P.Srinivasa Rao	1879/Q2/2005	21/05/2005	0.404	29/06/2005	19/02/2025	nil	nil	29/06/2005	Non Working	Non Captive	nil	nil	16° 35' 24.18497"N 79° 42'43.24829"E	Opencast
105	Lime Stone Slabs	U. SEETHARAMAIAH	U. SEETHARAMAIAH			0.829	24/11/2005	11-09-2025	nil	nil	24/11/2005	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
106	Quartz	R. Venkataiah	R. Venkataiah			10.522	27/07/2005	26/07/2025	nil	nil	27/07/2005	Active	Non Captive	nil	nil	16° 30' 01.79886"N 79° 35' 08.06477"E	Opencast
107	Lime Stone Slabs	K.S. SANKARA RAO	K.S. SANKARA RAO			0.461	19/04/2007	17/04/2127	nil	nil	19/04/2007	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
108	Mosaic Chips	P. PITCHAMMA	P. PITCHAMMA			1	27/01/2007	27/01/2027	nil	nil	27/01/2007	Active	Non Captive	nil	nil	16° 40' 32.95"N 79° 49' 02.12"E	Opencast
109	Lime Stone Slabs	N. MALLAIAH	N. MALLAIAH			0.554	01-09-2008	01-08-2029	nil	nil	01-09-2008	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast

110	Lime Stone Slabs	M. SRINIVASA REDDY	M. SRINIVASA REDDY			0.797	29/05/2009	27/05/2029	nil	nil	29/05/2009	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
111	Lime Stone Slabs	K. PULLA RAO	K. PULLA RAO			1.214	27/04/2009	25/04/2029	nil	nil	27/04/2009	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
112	Quartz	K. Pitchi Reddy	K. Pitchi Reddy			4.129	16/12/2009	14/03/2028	nil	nil	16/12/2009	Active	Non Captive	nil	nil	16°29'45.4"N 79°34'45.0"E	Opencast
113	Lime Stone Slabs	Y. RAMA RAO	Y. RAMA RAO			2.334	05-07-2013	07-03-2029	nil	nil	05-07-2013	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
114	Lime Stone Slabs	V. SEETHARAVAMMA	V. SEETHARAVAMMA			0.704	13/11/2014	06-01-2024	nil	nil	13/11/2014	Active	Non Captive	nil	nil	16° 27' 37.76342"N 79° 27' 28.67464"E	Opencast
115	Lime Stone Slabs	Smt Ambati Rajya Lakshmi	Smt Ambati Rajya Lakshmi			5.074	20/02/2014	31/03/2024	nil	nil	20/02/2014	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
116	Lime Stone Slabs	G. NARSI REDDY	G. NARSI REDDY			0.72	22/07/2014	21/07/2024	nil	nil	22/07/2014	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
117	Lime Stone Slabs	K.V. BHARATHI	K.V. BHARATHI			1.825	22/03/2014	31/03/2024	nil	nil	22/03/2014	Active	Non Captive	nil	nil	16° 36' 46.21383"N 79° 43'46.42407"E	Opencast
118	Limestone(Minor)	B. Venkayamma	B. Venkayamma			2.047	24/02/2014	31/03/2024	nil	nil	24/02/2014	Active	Non Captive	nil	nil	16°34'20.5"N 79°54'35.2"E	Opencast
119	Lime Stone Slabs	K. VAMSI KRISHNA	K. VAMSI KRISHNA			0.607	26/03/2015	25/03/2025	nil	nil	26/03/2015	Active	Non Captive	nil	nil	16° 35' 48.78735"N 79° 31' 17.53395"E	Opencast
120	Lime Stone Slabs	K. VAMSI KRISHNA	K. VAMSI KRISHNA			1.25	26/03/2015	25/03/2025	nil	nil	26/03/2015	Active	Non Captive	nil	nil	16° 35' 44.62260"N 79° 31' 20.97986"E	Opencast
121	Lime Stone Slabs	Ambaji Rocks	Ambaji Rocks			2.775	14/03/2016	20/10/2027	nil	nil	14/03/2016	Active	Non Captive	nil	nil	16° 40' 22.33"N 79° 49' 09.95"E	Opencast

122	Mosaic Chips	Sri Ch. Hasan Ahmed	Sri Ch. Hasan Ahmed			0.951	26/11/2018	25/11/2028	nil	nil	26/11/2018	Active	Non Captive	nil	nil	16° 40' 22.33"N 79° 49' 09.95"E	Opencast
123	Mosaic Chips	Sri G. Nageswara Rao	Sri G. Nageswara Rao			0.951	26/11/2018	25/11/2028	nil	nil	26/11/2018	Active	Non Captive	nil	nil	16° 40' 31.04"N 79° 49' 13.01"E	Opencast
124	Mosaic Chips	Lakshmi Mines and Minerals	Lakshmi Mines and Minerals			3.15	21/11/2019	20/11/2029	nil	nil	21/11/2019	Active	Non Captive	nil	nil	16° 41' 42.95"N 79° 51' 39.85"E	Opencast
125	Limestone(Minor)	Jakka Rama Koteswar rao	Jakka Rama Koteswar rao			1.602	24/03/2020	23/03/2030	nil	nil	24/03/2020	Active	Non Captive	nil	nil	16° 38' 02.0173"N 79° 39' 59.7141"E	Opencast

The Details of statement showing the letter of intent (LoI) in the district is showing in Table-15:

Table 15 Statement showing the list of the letter of intent (LoI) in the district

Sl. No.	Name of the Mineral	Name of the Lessee	Address & Contact No. of Letter of Intent Holder	Letter of Intent Grant Order No. and Date	Area of quarry lease to be allotted	Validity of LoI	Use (Captive / Non-captive)	Location of the quarry lease (Latitude & Longitude)	Remarks
1	2	3	4	5	6	7	8	9	10
1	Limestone (Minor)	Sri V.Siva Gangadhar Rao	Sri Vadavalli Siva Gangadhara Rao, S/o. Hanumaiah, H.No.8-503B, Opp. Andhra bank Bazar, Piduguralla Village & Mandal, Guntur District	2139/Q2/2014, dt. 28.09.2019	Sy.No. 695 & 704, Konanki Village, Piduguralla Mandal, extent 1.615 hectares			N16^{0}30'27.13172" E79^{0}52'47.60281" N16^{0}30'25.37900" E79^{0}52'47.36767" N16^{0}30'25.97790" E79^{0}52'44.95624" N16^{0}30'27.79539" E79^{0}52'45.20116" N16^{0}30'27.89597" E79^{0}52'44.83722" N16^{0}30'32.54901" E79^{0}52'45.47746" N16^{0}30'31.75866" E79^{0}52'48.23522"	The applicant has submitted all the staturoty clearances for grant. But, this office has directed the ADM&G to submit report on complaint filed by Gurazala MLA on 04.01.2021
2	Limestone (Minor)	M/s.Vaishnavi Minerals, Mg.Partner: Sri Unnam Naga Mallikarjuma Rao	M/s.Vaishnavi Minerals, Mg.Partner: Sri V.Naga Mallikarjuna Rao, D.No.16-567, Vunnam Hospitals, Main Road, Piduguralla Village and Mandal, Palnadu District	3902/Q2/2021, dt 07.01.2022	Sy.No. 283/P, Dachepalli Village and Mandal, extent 1.380 hect.	05.01.2024		N16^{0}36'59.89969" E79^{0}44'43.03697" N16^{0}36'59.12698" E79^{0}44'47.27605" N16^{0}36'55.40019" E79^{0}44'46.81777" N16^{0}36'56.61399" E79^{0}44'42.62242"	LoI Extention of time issued on 23.01.2023
3	Limestone (Minor)	M/s.Vaishnavi Minerals, Mg.Partner: Sri Unnam Naga Mallikarjuma Rao	M/s.Vaishnavi Minerals, Mg.Partner: Sri V.Naga Mallikarjuna Rao, D.No.16-567, Vunnam Hospitals, Main Road, Piduguralla Village and Mandal, Palnadu District	3901/Q2/2021, dt 07.01.2022	Sy.No. 285/1P, 284/P, 282/BP, 291/P, 290/P, Dachepalli Village and Mandal, extent 4.699 hect.	07.01.2024		N16^{0}36'51.32933" E79^{0}44'52.63709" N16^{0}36'52.00542" E79^{0}44'50.66624" N16^{0}36'53.07939" E79^{0}44'47.55601" N16^{0}36'54.93855" E79^{0}44'48.13794" N16^{0}36'55.40019" E79^{0}44'46.81777" N16^{0}36'59.44096" E79^{0}44'47.74383" N16^{0}37'01.63339" E79^{0}44'48.19557" N16^{0}36'59.68675" E79^{0}44'52.19140" N16^{0}36'57.94927" E79^{0}44'54.91922"	LoI Extention of time issued on 23.01.2023

								N16^{0}36'56.03109" E79^{0}44'54.04501" N16^{0}36'53.36892" E79^{0}44'53.37138"	
4	Limestone (Minor)	Kamalesh Kumar Reddy	Sri Kamalesh Kumar Reddy Annapureddy, D.No.1-25, Main Road, Vellala Cheruvu Village, Santhamaguluru Mandal, Prakasam District.	1360/Q2/2021, 31.05.2021	Sy.No. 218/22, Nadikudi Village, Dachepalli Mandal, extent of 0.405 hect	31.05.2023			LoI Extension of time iissued on 22-11-2022
5	Limestone (Minor) / Limekankar	Sri Mudela Venkateswara Reddy	Sri Mudela Venkateswara Reddy, S/o. Mudela Ambi Reddy, D.No. 15-6-13B, 2nd Lane, Reddy's Bazaar, Nandivelugu Road, Old Guntur, Guntur District.	3801/Q2/2021, 30.12.2021	Sy.No. 753/4, Konanki Village, Piduguralla Mandal, extent 0.465 hect	29.12.2022			EC, CFE, CFO not submitted
6	Limestone Minor	Gali Jagadeesh Reddy	Sri Gade Jagadeesh Reddy, S/o. Venkata Reddy, D.No.1-7, Bosubomma Street, Konanki Village, Piduguralla Mandal, Palnadu District	4724/Q2/22, dt. 04.01.2023	Sy.No. 279/4A, Konanki Village, Piduguralla Mandal, extent 0.400 hect	03.01.2026		N16^{0}28'44.66071" E79^{0}56'09.49325" N16^{0}28'43.66389" E79^{0}56'14.30751" N16^{0}28'42.78047" E79^{0}56'14.33054" N16^{0}28'43.80038" E79^{0}56'09.28413"	LoI issued on 04.01.2023
7	Limestone Minor	G. Venkata Krishna Reddy	Sri Gunapati Venkat Krishna Reddy, S/o. Venkata Reddy, D.No.2-4-31, Stambalagaruvu, Guntur.	4725/Q2/2022, 31.12.2022	Sy.No. 281/15-2, Konanki Village, Piduguralla Mandal, extent 1.400 hect	30.12.2025		N16^{0}28'41.01928" E79^{0}56'24.18822" N16^{0}28'40.21312" E79^{0}56'26.56755" N16^{0}28'34.10238" E79^{0}56'24.08191" N16^{0}28'34.86317" E79^{0}56'22.02399"	LoI issued on 31.12.2022
8	Limestone Minor	P. Ravindra Reddy	Sri Palakolanu Ravindra Reddy, S/o. P.Janakirami Reddy, Flat No.103, SRJ Residency, Block-A, PR Layout, Opp. Home Town, Munnekolalla, Marathahalli Colony, Benguluru, Karnataka – 560037. Cell No. 9014615547	3857Q2/2022, dt. 20.02.2023	Sy.No. 598/23-D-20, Mandadi Village, Veldurthy Mandal, extent 4.980 hect.	19.02.2026		N16^{0}25'23.55065" E79^{0}23'27.57722" N16^{0}25'21.68605" E79^{0}23'30.80494" N16^{0}25'18.26669" E79^{0}23'34.12275" N16^{0}25'16.44281" E79^{0}23'32.52586" N16^{0}25'18.92362" E79^{0}23'29.77934" N16^{0}25'12.86535" E79^{0}23'25.38043" N16^{0}25'15.19960" E79^{0}23'21.84021"	LoI issued 20.02.2023

9	Napa Slabs (Black)	D. Bangaru Reddy	Sri D.Bangaru Reddy, S/o. Venkata Reddy, D.No.NA/8/A6/1, Near Kanyakaparameswari Temple, Rentachinthala Village & Mandal, Guntur District.	2477/Q2/2018, dt. 12.11.2020	Sy.No. 630, Goli Village, Rentachintala Mandal, extent 1.133 hect	12.11.2023		N16^{0}35'52.05082" E79^{0}31'35.35792" N16^{0}35'49.36851" E79^{0}31'35.05330" N16035'50.14032" E79^{0}31'30.45303" N16035'52.05082" E79031'35.35792" N16^{0}35'52.76817" E79^{0}31'31.47841"	LoI 2nd Extension of time on 12.01.2023
10	Gravel	Bhavanam Ravindra Reddy	Sri Bhavanam Ravindra Reddy, S/o.B.Raghava Reddy, D.No.3-14, Dechavaram Village, Nekarikallu Mandal, Palanadu District - 533006 Cell No. 7989811221	4447/Q2/2022, 25.11.2022	Sy.No. 604/P, Challagundla Village, Nekarikallu Mandal, Extent 4.047 hect	24.11.2025		N16^{0}21'44.22399" E79^{0}56'22.06792" N16^{0}21'48.11652" E79^{0}56'24.64656" N16^{0}21'45.92236" E79^{0}56'27.44662" N16^{0}21'41.30806" E79^{0}56'30.60662" N16^{0}21'41.93618" E79^{0}56'31.59062" N16^{0}21'38.51615" E79^{0}56'33.93271" N16^{0}21'36.65872" E79^{0}56'31.02287" N16^{0}21'43.70279" E79^{0}56'26.80837" N16^{0}21'39.55698" E79^{0}56'24.86931" N16^{0}21'42.56639" E79^{0}56'24.14689"	Auction File LoI issued on 25.11.2022
11	Limestone (Minor)	M/s.Radha Krishna Minerals	M/s.Radha Krishna Minerals, Mg.Partner: Sri V.Naga Mallikarjuna Rao, D.No.16-567, Vunnam Hospitals, Main Road, Piduguralla Village and Mandal, Palnadu District.	182/Q1/2022, dt. 13.12.2021	Sy.No. 338/7-6, Papayyapalem Village, Bellamkonda Mandal, extent 2.618 hect	31.01.2024		N16^{0}32'14.16181" E79^{0}58'06.29430" N16^{0}32'12.44682" E79^{0}58'08.94372" N16^{0}32'06.56112" E79^{0}58'06.76772" N16^{0}32'07.69690" E79^{0}58'05.46781" N16^{0}32'08.52012" E79^{0}58'05.82441" N16^{0}32'09.27721" E79^{0}58'04.24522" N16^{0}32'10.44911" E79^{0}58'02.73451" N16^{0}32'11.09631" E79^{0}58'06.29430" N16^{0}32'09.42131" E79^{0}58'01.90131" N16^{0}32'06.99231" E79^{0}58'00.48981" N16^{0}32'08.45132" E79^{0}57'58.84608" N16^{0}32'12.30201" E79^{0}58'00.41712" N16^{0}32'10.00741" E79^{0}58'01.60541" N16^{0}32'11.55761" E79^{0}58'02.28131" N16^{0}32'11.05470" E79^{0}58'06.01591" N16^{0}32'12.12651" E79^{0}58'06.61671" N16^{0}32'13.28921" E79^{0}58'05.51051"	Extention of time issued on 10.03.2023
12	Road Metal	M/s. Srinivasa Edifice Pvt. Ltd	M/s.Srinivasa Edifice Pvt. Ltd., Director: Sri Venkata Yelamanchali, D.No.40-9/1-18A, Beside Vasavya Mahila Mandali,	05/Q1/2022, dt. 31.01.2022	Sy.No. 17, V.Kandrika Village, Edlapadu Mandal, extent 0.947 hect	30.01.2023		N16^{0}10'19.27191" E80^{0}14'09.62831" N16^{0}10'19.28771" E80^{0}14'09.86252" N16^{0}10'18.71341" E80^{0}14'09.93571" N16^{0}10'18.23012" E80^{0}14'09.93792" N16^{0}10'15.67801" E80^{0}14'09.40601" N16^{0}10'14.26441" E80^{0}14'09.63772" N16^{0}10'14.02631" E80^{0}14'08.08191"	SCN issued on 19.04.2023

			Vasavya Nagar, Vijayawada					N16^{0}10'17.12001" E80^{0}14'08.35021"	
13	Road Metal and Gravel	M. Nityanan da Sharma	Sri M.Nityananda Sarma, S/o. Naga Bharana Sarma, Flat No.2A, Rayala Subba Rao Towers, 3rd Line, Chandramouli Nagar, Guntur.	1410-2/Q1/2021, dt. 25.09.2020	Sy.No. 10, Hasanabad Village, Krosuru Mandal, extent 23.425 hects	31.05.2023		N16^{0}31'31.89124" E80^{0}01'43.12542" N16^{0}31'33.02145" E80^{0}01'57.05421" N16^{0}31'39.88142" E80^{0}01'42.71456" N16^{0}31'41.92145" E80^{0}01'47.46325" N16^{0}31'47.37452" E80^{0}01'57.01248" N16^{0}31'46.82541" E80^{0}01'58.87654" N16^{0}31'47.15421" E80^{0}01'59.27845" N16^{0}31'45.95641" E80^{0}01'01.34587" N16^{0}31'44.96541" E80^{0}02'03.70124" N16^{0}31'46.56213" E80^{0}02'05.25896" N16^{0}31'46.47512" E80^{0}02'06.56235" N16^{0}31'47.38124" E80^{0}02'06.86879" N16^{0}31'47.35131" E80^{0}02'07.60235" N16^{0}31'47.25121" E80^{0}02'07.64589" N16^{0}31'43.11212" E80^{0}02'05.87456" N16^{0}31'37.74212" E80^{0}02'04.72895" N16^{0}31'36.14542" E80^{0}02'03.68564" N16^{0}31'32.75421" E80^{0}02'02.31789" N16^{0}31'33.76521" E80^{0}01'56.54786" N16^{0}31'32.95623" E80^{0}01'56.31256" N16^{0}31'31.98845" E80^{0}01'43.83589" N16^{0}31'32.14218" E80^{0}01'43.73896" N16^{0}31'33.73125" E80^{0}01'43.75412" N16^{0}31'33.77451" E80^{0}01'43.35212"	Extension of time issued on 21.04.2022
14	Road Metal and Gravel	M/s. VVD Construct ions Pvt. Ltd.	M/s. V.V.D Constructions Private Limited, MD: Sri Makireddy Venkata Reddy, Pedakakani Post and Mandal, Guntur District.	2391/Q1/2020, dt. 01.06.2021	Sy.No. Sy.No. 10, Hasanabad Village, Krosuru Mandal, extent 4.241 hect	01.06.2023		N16^{0}31'31.89124" E80^{0}01'43.12542" N16^{0}31'33.02145" E80^{0}01'57.05421" N16^{0}31'32.36704" E80^{0}01'48.59261" N16^{0}31'32.96121" E80^{0}01'55.33978" N16^{0}31'30.62554" E80^{0}01'55.68082" N16^{0}31'28.34351" E80^{0}01'55.90232" N16^{0}31'26.04761" E80^{0}01'55.29854" N16^{0}31'25.77048" E80^{0}01'49.24822"	extention of time issue on 05.11.2022

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

2.4 Details of Royalty in last 3 years

The royalty of last three years in the Palnadu district detailed list is given in Table-16.

Table 16 Details of Royalty in Last 3 Years

Royalty for 2022-23

S. No.	Mineral	Royalty (in Rs. Lakhs)	Consideration Amt. (in Rs. Lakhs)	DMF (In Rs. Lakhs)	MERIT (in Rs. Lakhs)
1	Black Granite	408.925	204.4625	51.048	8.168
2	Colour Granite (Others)	128.983	64.4915	16.123	2.58
3	Gravel	514.078	514.078	154.223	10.282
4	Limestone(Minor)	46.312	46.312	13.894	0.926
5	Mosaic Chips	18.855	18.855	5.657	0.377
6	Quartz	8.308	8.308	2.492	0.166
7	Road Metal	312.139	312.139	93.636	6.242
8	Slate	1.19	1.19	0.357	0.024
TOTAL		**1439**	**1170**	**337**	**29**

Royalty for 2021-22

S. No.	Mineral	Royalty (in Rs. Lakhs)	Consideration Amt. (in Rs. Lakhs)	DMF (In Rs. Lakhs)	MERIT (in Rs. Lakhs)
1	Black Granite	665.857	166.46425	83.232	13.317
2	Colour Granite (Others)	231.169	57.79225	28.896	4.623
3	Gravel	21.676	10.838	6.503	0.434
4	Limestone(Minor)	12.465	6.2325	3.74	0.249
5	Mosaic Chips	13.815	6.9075	4.145	0.276
6	Ordinary Earth	0.076	0.038	0.023	0.002
7	Quartz	8.298	4.149	2.489	0.166
8	Road Metal	289.738	144.869	86.916	5.794
Total		**1246**	**399**	**217**	**25**

Royalty for 2020-21

S. No.	Mineral	Royalty (in Rs. Lakhs)	DMF (In Rs. Lakhs)	MERIT (in Rs. Lakhs)
1	Black Granite	805.593	100.699	16.112
2	Colour Granite (Others)	481.373	60.172	9.627
3	Gravel	11.968	3.59	0.24

S. No.	Mineral	Royalty (in Rs. Lakhs)	DMF (In Rs. Lakhs)	MERIT (in Rs. Lakhs)
4	Limestone(Minor)	7.11	2.133	0.142
5	Mosaic Chips	24.3	7.29	0.486
6	Quartz	8.495	2.549	0.17
7	Road Metal	345.234	103.57	6.905
8	Slate	1.905	0.572	0.038
Total		**1686**	**281**	**34**

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

2.5 Details of Production in last 3 years

Production of last three years in the Palnadu district details is given in Table-17.

Table 17 Details of Production in last 3 years

Production for 2022-23

S. No.	Mineral	Unit	Production (in MT)
1	Black Granite	Cubic Meter	17203
2	Colour Granite (Others)	Cubic Meter	6735
3	Gravel	Cubic Meter	1129221
4	Gravel	MT	17449
5	Limestone(Minor)	MT	50542
6	Mosaic Chips	MT	20950
7	Quartz	MT	9091
8	Road Metal	Cubic Meter	221692
10	Slate	MT	680

Production for 2021-22

S. No.	Mineral	Unit	Production (in MT)
1	Black Granite	Cubic Meter	27540
2	Colour Granite (Others)	Cubic Meter	11606
3	Gravel	Cubic Meter	44203
4	Gravel	MT	3498
5	Limestone(Minor)	MT	13850
6	Mosaic Chips	MT	15332
7	Ordinary Earth	Cubic Meter	45

8	Quartz	MT	9156
9	Road Metal	Cubic Meter	240167
11	Slate	MT	1770

Production for 2020-21

S. No.	Mineral	Unit	Production (in MT)
1	Black Granite	Cubic Meter	31044
2	Colour Granite (Others)	Cubic Meter	21419
3	Gravel	Cubic Meter	18601
4	Gravel	MT	7820
5	Limestone(Minor)	MT	7900
6	Mosaic Chips	MT	27000
7	Quartz	MT	9159
8	Road Metal	Cubic Meter	313821
10	Slate	MT	1270

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

2.6 Impact on environment

The extraction and utilization of minor minerals have become integral to our modern way of life, fueling infrastructure development, construction, and various industries. However, the impact of these activities on the environment cannot be underestimated. Minor minerals, which include granite, road metal, gravel, clay, and more, play a significant role in shaping the natural landscape and ecosystems. The various environmental consequences associated with the extraction and uses of minor minerals are:

i. **Habitat Destruction:** The mining of minor minerals often entails the removal of topsoil and vegetation, leading to habitat destruction. This can disrupt ecosystems, displace wildlife, and threaten the survival of numerous species. Loss of biodiversity is a significant concern in regions with extensive mining operations.

ii. **Land Degradation:** Mining activities can lead to land degradation, including soil erosion and compaction. This not only reduces the land's fertility but also affects its ability to support agriculture and vegetation growth. Moreover, land degradation

can contribute to increased vulnerability to natural disasters like floods.

iii. **Water Pollution:** Mining operations can contaminate nearby water bodies through the discharge of sediments, chemicals, and heavy metals. This pollution can have detrimental effects on aquatic life, disrupt local hydrology, and compromise the quality of water available for human consumption.

iv. **Air Quality:** Dust emissions from mining sites can deteriorate air quality in surrounding areas. The fine particles and pollutants released during excavation and transportation of minor minerals can pose health risks to both workers and nearby communities.

v. **Regulatory Challenges:** Enforcing regulations and monitoring mining activities in remote or unregulated areas can be challenging, allowing illegal and unsustainable practices to persist.

The extraction and utilization of minor minerals are essential for economic development, but they come at a cost to the environment. Recognizing the environmental impacts of these activities is crucial for sustainable resource management.

2.7 Remedial Measures

The provisions of Rule 12 (1) and Rule 12 (5) and of Andhra Pradesh Minor Mineral Concession Rules, 1966 allows the State Government to issue the Letters of Intent with the stipulated conditions to submit Approved Mining Plan (AMP), Environment Clearance (EC) and Consent for Establishment (CFE) for grant of lease.

Mine Plan stipulates the maximum permissible annual production of the mineral from the designated lease area and also includes estimated quantum of solid waste generation and its method of disposal, etc. Based on the Approved Mine Plan projections, Environment Management Plan shall be prepared and SEIAA makes the decision to grant the EC based on the EMP.

Leaseholders commit to all the remedial measures in the Mining Plan and the State Environment Impact Assessment Authority (SEIAA)

ensures the remedial measures are being adhered to during the tenure of the Environmental Clearance.

Leaseholders in the district have adopted various remedial measures to mitigate the impact of mining on the environment. These measures aim to reduce the environmental footprint of mining operations and address the associated challenges. Some common practices include:

i. **Environmental Impact Assessments (EIAs):** Leaseholders conduct comprehensive EIAs to evaluate the potential environmental consequences of mining projects. They shall use this information to develop mitigation strategies.

ii. **Reclamation and Rehabilitation:** Leaseholders work to restore mined areas by re-contouring landscapes, replanting native vegetation, and stabilizing soils to promote ecosystem recovery.

iii. **Water Management:** Proper management of water resources is crucial. Leaseholders use techniques like sedimentation ponds, water recycling, and water treatment facilities to minimize water pollution and ensure responsible water use.

The following preventive measures are being followed for minimizing adverse effects on water regime:

- Small Gully checks, gully check dams, silt settling tanks, silt traps, etc. shall be constructed.
- Along all discharge points leaving the mining lease, into the surrounding area, suitable number of filter walls of sufficient lengths shall be erected across the flow, at intervals, all along the length to prevent suspended solids entering the surrounding streams/ drains/ water courses, to confine the discharge water quality to the permissible limits.
- Regular monitoring may be carried out and further remedial steps as may be necessary may be taken.

iv. **Waste Management:** Effective management of mining waste, such as tailings and slag, involves containment in secure facilities to prevent soil and water contamination. Advances in waste disposal technologies are also being explored.

Steps being followed for effective waste management:

- Implementation of practices to minimize waste generation at the source. This involves optimizing extraction techniques, reducing overburden removal, and improving resource utilization.
- Encouraging recycling and reuse of waste materials wherever possible within the mining operation.
- Selection of an appropriate disposal methods based on waste characteristics and environmental considerations. Common methods include land-filling, controlled dumping, and backfilling.
- Treatment of contaminated water and effluents using appropriate technologies before discharge.

v. **Afforestation:** Leaseholders carry out a year-wise afforestation plan for the initial years with detailed costing of each plant, its maintenance per piece, etc.

While these measures represent positive steps toward mitigating environmental impact, it's important to note that the effectiveness of these practices can vary widely depending on factors such as the location, scale, and specific mineral being mined. Continuous improvement and adaptation are essential in the mining industry's ongoing efforts.

2.8 Reclamation Measures

As per Rule 7A (ii) of Andhra Pradesh Minor Mineral Concession Rules, 1966, Mine Closure Plan shall be submitted by the leaseholder before 6 months of expiry of the lease in the proforma as prescribed by the Director. The Deputy Director concerned shall approve the mine closure plan and ensure compliance of conditions of the approved mine closure plan before expiry of the lease period.

Financial assurance of Rs.50,000/-(Rupees Fifty Thousand) for the quarry lease granted below five (5) hectares and Rs.10,000/- (Rupees Ten Thousand) per Hectare or part thereof for the quarry lease granted five (5) hectares and above, shall be submitted in the form of deposit. If the leaseholder does not reclamate the area as mentioned in the Mine Closure Plan, the deposit shall be forfeited, and the Department of Mines & Geology ensure the proper implementation of the Mine Closure Plan.

2.9 Risk Assessment & Disaster Management Plan

Leaseholders conduct comprehensive risk assessment, prepare a model disaster management plan and submit in the Mining Plan.

The leaseholders maintain and arrange following resources at the mine site:

a) Firefighting equipment

b) Ambulance services with location

c) List of volunteer organizations

d) List of Civil, Police and other authorities to be informed in case of an accident

e) Last of mobile crane operators (Government, Public Sector, and Private Sector).

f) List of mines, contacts, facility available nearby

g) List of first aiders and contacts.

h) List of Officers of DGMS to be informed in case of serious accidents Concerned DGMS officers concerned is displayed at the mine head.

The leaseholders shall monitorthe total execution of the disaster management plan. The resources of all departments including men and material are being promptly made available. They are also conducting regular mock rehearsals with their staff to update the risk register and accordingly, disaster management plan.

Mineral Regulatory:

The important functioning of District Mines and geology Officer, Palnadu are:-

1. Achievement of Targets of Mineral Revenue collections being fixed to this office annually

2. Receiving and processing of the Mineral Concession Applications duly conducting the technical inspection, Survey and demarcation of the Mineral bearing applied areas

3. Execution and Regulation of the operations of the Mining / Quarry leases in accordance with the Acts and Rules

4. Issuing of dispatch permits duly collecting the Advance Royalty / Seig.fee from the lease holders on the minerals produced and intend to dispatch from their leased areas through online permit system

5. Controlling the illegal Mining / Quarrying and transportation by conducting the periodical inspections of the Mines and Quarries and also conducting the surprise vehicular checking and imposing the penalties

6. Finalisation of Demand, Collection and Balance statements of the leases on annual basis

2.10 Plantation & Green Belt Development

Leaseholders are complying with the plantation and green belt development programmes as committed in their Mining Plans.

CHAPTER III: SAND

3.1 Sand Mineral Resources of the Palnadu District

3.1.1 General Sand Mineral Details Palnadu District

(Prepared as per Sustainable Sand Mining Management Guidelines 2016 and 2020)

In Palnadu District, there is 01 Major River, i.e., River Krishna covering a total length of 442 kms. This River is the Major contributor for sand deposits. The said River is perennial flowing in full spate during flood season whereas in the remaining period of the year, it flows in small channels, resulting in exposure of the sand deposits on the Riverbed. In addition to this, there are 05 streams covering a length of 182 kms. There are 166 existing check dams and 02 Major Reservoirs across the River Krishna. The Table-18 has shown production of sand in last three years.

Table 18 Details of Production of Sand in Last three years in the District

Month-Wise Production Details in Palnadu District				
Sl. No.	**Year**	**Month**	**Production (in MTs)**	**Revenue Generated**
	2020-21	--	--	
1	2021-22	May	115396	
2		Jun	444147	
3		Jul	0	
4		Aug	0	
5		Sep	0	
6		Oct	0	
7		Nov	1455	
8		Dec	42259	
9		Jan	74929	
10		Feb	86955	
11		Mar	95633	
Total			**860774**	**7,57,48,112**
12	2022-23	Apr	95719	
13		May	99104	
14		Jun	540212	
15		Jul	0	
16		Aug	0	
17		Sep	0	

Month-Wise Production Details in Palnadu District				
Sl. No.	**Year**	**Month**	**Production (in MTs)**	**Revenue Generated**
	2020-21	--	--	
18		Oct	0	
19		Nov	8455	
20		Dec	62680	
21		Jan	2550	
22		Feb	0	
23		Mar	0	
Total			**808720**	**7,11,67,360**

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

3.1.2 River Basins in Palnadu District

The Krishna basin covered 70% in the district and also the remaining part of the district covered with Gundlakamma and Romperu basins. The catchment area of each basin is delineated using the boundaries from master plan records and updated by super imposing on Survey of India toposheets (1:50K). The Krishna basin catchment is 4611.87 Sq.km of an area in the district. The district covered with total number (1,541) of tanks and ponds. The hydrological units of Palnadu district shown in Table-19, Drainage system with description of main rivers shown in the Table-20, Salient features and altitudes origin of rivers shown in the Table-21 and River's lengths of Palnadu district are shown in Table-22.

Table 19 Hydrological units of Palnadu District

S.No	Major Basin	Minor Basin	Catchment Area (Sq.km)	No of. Tanks
1	Gundlakamma	Gundlakamma	1,497.03	400
2	Krishna	Krishna Basin in Guntur District	2,868.26	526
3		Lower Krishna	1,743.61	416
4	Romperu	Romperu	49.84	12
5		Vogeru Vagu	1,133.51	187
Total			**7,292**	**1,541**

Data source: APSAC, Vijayawada

Table 20: Drainage System with Description of main rivers

S.No	Name of the Minor Basin	Area Drained (Sq.Km)	% Of Area Drained in the District
1	Lower Krishna	1,740.12	23.86
2	Krishna Basin in Guntur District	2,873.75	39.41
3	Gundlakamma	1,494.47	20.49
4	Vogeru Vagu	1,134.05	15.55
5	Romperu	49.84	0.68

Data source: APSAC, Vijayawada

Table 21 Salient Features of Important Rivers in Palnadu district

S.No	Name of the River	Place of Origin	Altitude at Origin (m)
1	Krishna	Mahabaleswaram, Maharastra	1,337
2	Naguluru	Nallmalai Forest, Bollapalle of Palnadu district	591
3	Goli Vagu	Mutukuru Extention, Durgi of Palnadu district	596
4	Kondaveedu Vagu	Kondaveedu Hills, Medikonduru, Guntur district	510
5	Eddu Vagu	Nemalipuri Hills, Rajupalem of Palnadu district	395
6	Chandravanka	Mutukuru Extention, Durgi of Palnadu district	607
7	Gundlakamma	Nallamalai Hills, Giddalur, Prakasm district	971
8	Vogeru Vagu	Nekarikallu of Palnadu district	358

Data source: APSAC, Vijayawada

Table 22: River Lengths in Palnadu District

S.No	Name of the Major Basin	Name of the Minor Basin	Name of the River	River Length in Km
1	**Gundlakamma**	**Gundlakamma**	Angaluru Vagu	12.62
2			Erra Vagu	4.44
3			Gundlakamma River	13.03
4			Javuku Vagu	14.95
5			Kandleru River	46.49
6			Konkeru River	34.63
7			Pasupaleru	12.18
8			Vala Eru	17.460
9	**Krishna**	**Krishna Basin in Guntur District**	Barimeda Vagu	10.31
10			Eddu Vagu	67.98
11			Erra Vagu	4.55
12			Isuka Vagu	11.50
13			Krishna River	39.67
14			Mada Vagu	9.71
15			Naguleru Vagu	73.67
16			Pilleru Vagu	18.04
17			Ralla Vagu	13.12
18			Vati Vagu	4.26
19		**Lower Krishna**	Bottala Vagu	5.31
20			Bugga Vagu	12.31
21			Chandra Vanka	11.22
22			Chandravanka River	25.39
23			Dandi Vagu	17.79
24			Davulapalle Vagu	15.12
25			Edibogula Vagu	19.92
26			Edumangalam Vagu	14.73
27			Gadidela Vagu	14.10
28			Goli Vagu	12.63
29			Krishna River	41.15
30		**Vogeru Vagu**	Edumandalapu Vagu	10.72
31			Kuppangi Vagu	15.58
32			Nakka Vagu	0.20
33			Vogaru Vagu	0.25
			Total	**624.93**

Data source: APSAC, Vijayawada

The details on drainage system with area of drained shown in Table-23

Table 23: The drainage system with area drained

S.No	Name of the Minor Basin	Area Drained (Sq.Km)	% of Area Drained in the District
1	Lower Krishna	1,740.12	23.86
2	Krishna Basin in Guntur District	2,873.75	39.41
3	Gundlakamma	1,494.47	20.49
4	Vogeru Vagu	1,134.05	15.55
5	Romperu	49.84	0.68

Data Source: APSAC, Andhra Pradesh

3.1.2.1. The Krishna River: After the Ganga, Godavari, and Brahmaputra, the Krishna River is the fourth-largest river in terms of watercourses and river basin in India. The river, also called Krishnaveni, is around 1,288 kilometers (800 miles) long. In India's Maharashtra, Karnataka, Telangana, and Andhra Pradesh, it is a significant source of irrigation. Krishna River enters into northeast part of the district near Chilumuru village, Kolluru mandal and joining to Bay of Bengal near Gangadipalem village, Nizampatnam mandal in Bapatla district.

The Krishna Delta is sub-arcuate and lobate type occupying an area of 4600 km2 extending from Baptla District in the west to Kaikalur in the east and the apex centred near Vijayawada. A slope of 0.0002 is estimated for the delta and it has 125 km long coastline. The geological formations in the Krishna River basin are mainly Deccan Trap, in the upper reaches, and Archaean Kadapa and Kurnool, Upper Gondwana and Tertiary formations in the lower reaches.

3.1.2.2. Gundlakamma River is located in east-central of Andhra Pradesh state, southern India. The Gundlakamma rises in the Nallamalla Range of the Eastern Ghats. After crossing the mountains, it enters the plains and flows in a northeasterly direction past Markapur to the Coromandel Coast of the Bay of Bengal, into which it empties 12 miles (19 km) east of Ongole, after a course of 140 miles (225 km). Numerous Mountain streams join it as it descends the thickly forested hills through a series of curves and tight bends. It follows a north-easterly direction and enters the plains near Cumbum, after flowing through a town named after

it. Gundlakamma is the largest of all the rivers that originate from the Nallamalla Hills.

3.1.2.3. The Vogeru Vagu is Major River in the district and the tributaries are Nallamada Vagu, Nakka Vagu. The Nallamada Vagu and Nakka Vagu originated near Gouthikonda hills, Nekarikallu of Palnadu district and enter north part of the Bapatla district, merged with Nagaraju Kalva and joining to Bay of Bengal near Perali in Bapatla district.

3.1.3 Process of Deposition of Sediments in the Rivers of the District

Sediment transport is a natural process, and many have argued that the point of rivers is to move sediment downstream. However, with land use changes, e.g., deforestation and construction; agricultural practices; and development activities, accelerated erosion rates are ubiquitous. Sediment in the water column reduces transparency and can be deposited downstream and exacerbate flooding. Three principal sources of sediment are the following:

Sediment transport is the movement of organic and inorganic particles by water. In general, the greater the flows, the more sediments that will be conveyed. Water flow can be strong enough to suspend particles in the water column as they move downstream, or simply push them along the bottom of a waterway. Transported sediment may include mineral matter, chemicals and pollutants, and organic material. Another name for sediment transport is sediment load. The total load includes all particles moving as bedload, suspended load, and wash load.

3.1.3.1. Bedload

As the name suggests, this element of sediment movement consists of loose, granular particles at the sediment-water interface (such as a stream bed or tidal flat). Air or water that moves across the bed will being to move grains if the flow velocity is great enough to overcome the force of gravity and any resistance at grain contacts. This is the **threshold velocity**. The bedload contains two main components: the **traction load**, or traction carpet, and the **saltation loads.** The details are shown in Figure-23.

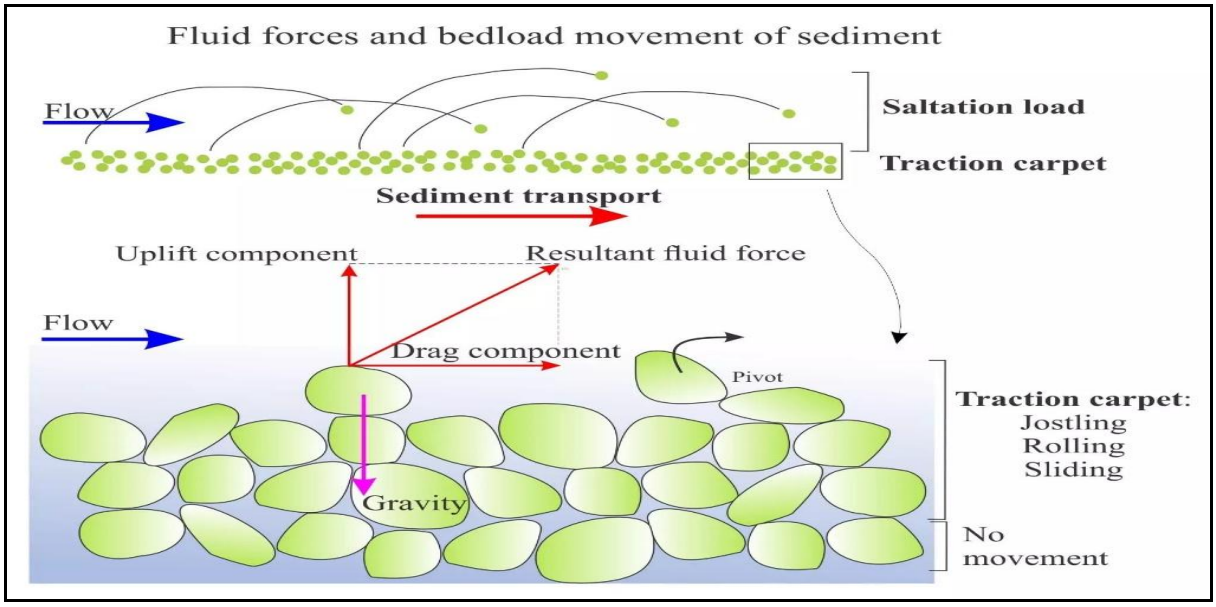

Figure-23: Bedload Movement of Sediment

The various components of force involved in initiation of grain movement are shown above. Here, fluid flowing over a sediment bed produces shear stresses that can be resolved into a component of drag (parallel to the bed) and a lift component normal to the bed. At the threshold velocity when the resultant fluid force on grains is greater than gravity, grains begin to roll, slide and jostle along the bed like a moving carpet – the **traction carpet**.

3.1.3.2. Suspended Load Most natural flows in rivers, shallow marine settings and air are turbulent. Even at low-flow velocities, the speed and trajectories of flow can vary considerably – witness the eddies and boils in seemingly tranquil streams. Very fine particulate sediment (particularly clays) can be kept in suspension for long periods by turbulence; the stresses generated by turbulent flow balance or overcome the gravitational force acting on the particles.

If turbulence decreases significantly, for example when a river empties into a lake, then most particles will gradually settle to the sediment bed. The rate at which a particle settles out of suspension is called the **settling velocity**, where the force of gravity (downwards) exceeds the combined effects of upward-directed **buoyancy forces** acting on a grain and the drag on a particle caused by **fluid (viscous) resistance**. Thus, the rate of settling depends on the size, shape and density of particles,

and the viscosity of the fluid. In general, settling through air is much more rapid than through water and shown in Figure-24.

Both bedload and suspension load are important processes in the generation of sedimentary structures. In particular, bedload transport of loose sand is the critical process for growth of bedforms and their internal cross-stratification (crossbedding). The description of **bedforms** (crossbeds) and the flow conditions (**flow regime**) under which they form have been described in other posts.

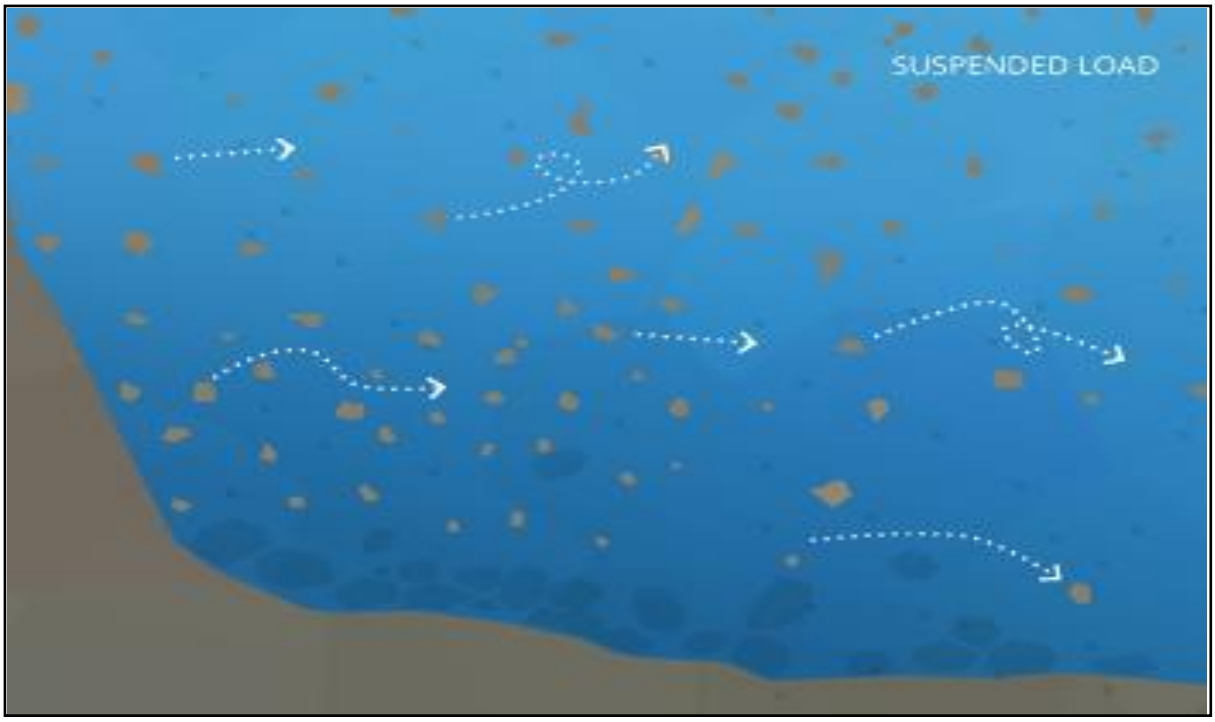

Figure-24: Sediment Load

3.1.3.3. Wash Load

The wash load is the portion of sediment that will remain suspended even when there is no water flow. The wash load is a subset of the suspended load. This load is comprised of the finest suspended sediment (typically less than 0.00195 mm in diameter). The wash load is differentiated from the suspended load because it will not settle to the bottom of a waterway during a low or no flow period. Instead, these particles remain in permanent suspension as they are small enough to bounce off water molecules and stay afloat. However, during flow periods, the wash load and suspended load are indistinguishable (Figure-25). Turbidity in lakes and slow-moving rivers is typically due the wash load. When the flow

rate increases (increasing the suspended load and overall sediment transport), turbidity also increases. While turbidity cannot be used to estimate sediment transport, it can approximate suspended sediment concentrations at a specific location.

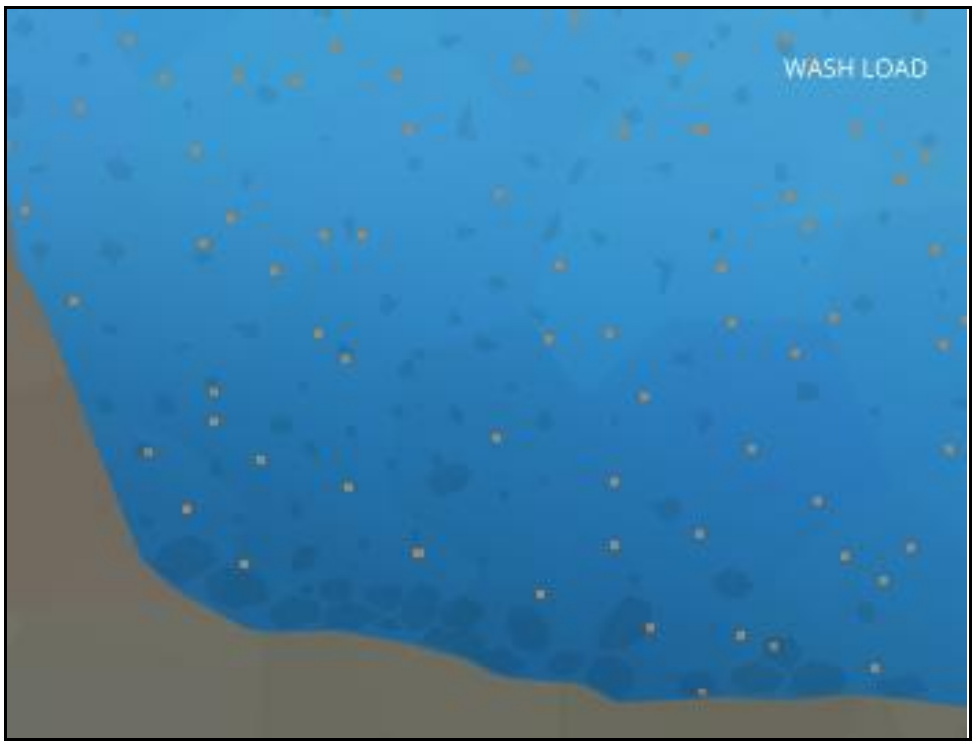

Figure-25: Wash Load

3.1.3.4. Settleable Solids

The suspended particles that fall to the bottom of a water body are called settleable solids. As they are found in riverbeds and streambeds, these settled solids are also known as bedded sediment. The size of settleable solids will vary by water system – in high flow areas, larger, gravel-sized sediment will settle out first. The details are shown in Figure-26. Finer particles, including silt and clay, can be carried all the way out to an estuary or delta.

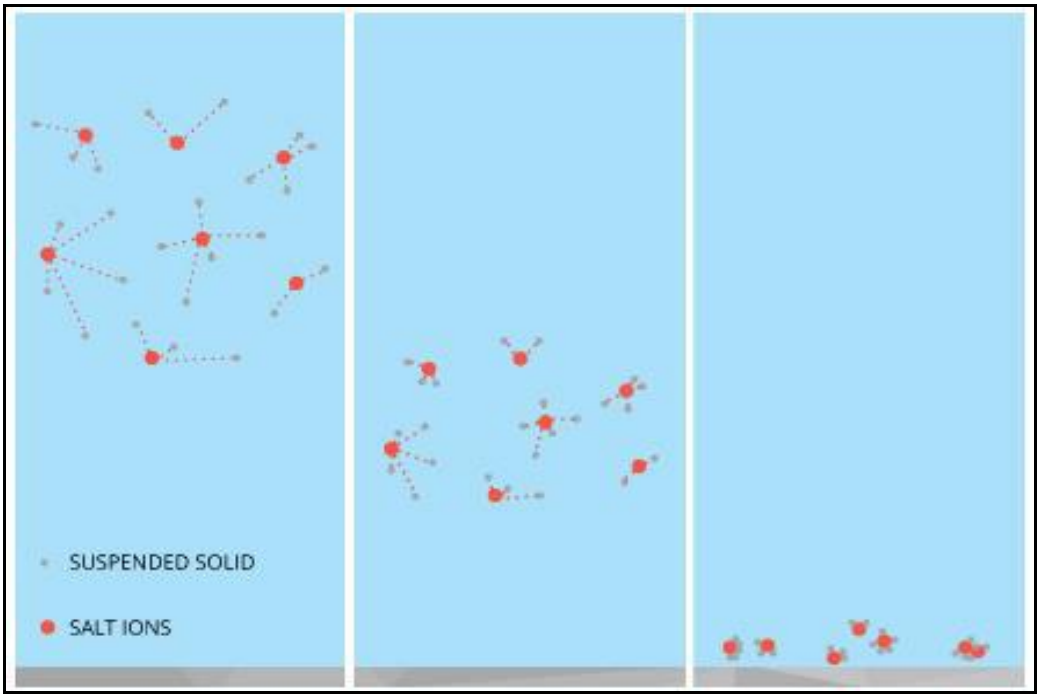

Figure-26: Settleable Solids

3.1.3.5. Sediment Deposition

Sediment is necessary to the development of aquatic ecosystems through nutrient replenishment and the creation of benthic habitat and spawning areas. These benefits occur due to sediment deposition – when suspended particles settle down to the bottom of a body of water. This settling often occurs when water flow slows down or stops and heavy particles can no longer be supported by the bed turbulence. Sediment deposition can be found anywhere in a water system, from high mountain streams, to rivers, lakes, deltas and floodplains. However, it should be noted that while sediment is important for aquatic habitat growth, it can cause environmental issues if the deposition rates are too high, or too low. Sediment transportation and Deposition depends upon various factors like Slope of the Area, Annual Rainfall, Lithology, flow intensity of River, Geomorphology, Soil, Geology and Land use.

In sediment transport a distinction is generally made between fine and coarse sediment, because the transport mechanisms differ. Coarse sediment (grain size >63 μm) tends to be characterised by particles that remain separate and are chemically inert; fine sediments (<63 μm) on the other hand tend to come together as flocculated populations (flocs) and have the tendency to attract organic material and contaminants to

their surface. A great deal has been researched and written about the break up and flocculation of these primary particles under turbulence and subsequent settling (e.g., Uncles et al., 2010). These differences imply important variations in the rate of transport and settling characteristics for the same flow conditions for different sediments. The nature of the physical environment also has an important bearing on this, in that fine sediment tend to be found in sheltered environments (shallow, enclosed estuarine systems), while beaches on open coasts are characterised by coarser materials. This reflects the energy of the water in which the particles become suspended and their subsequent fate.

Rates of transport of material are generally expressed in terms of a flux, as kg/s for example, where this figure is generally obtained by considering the product of the flow rate (in m^3/s) and the concentration of material in suspension (kg/m^3). This does not necessarily imply a requirement for the material to be suspended; it is equally possible to express a bed load using the same units, for example, but it does imply that to obtain an estimate of the sediment flux it is necessary to know both the concentration and the flow rate over a given cross section. Both these quantities can be measured and there are a variety of techniques available to do this, using insitu collection or sampling, in situ optical or acoustic methods, or remote sensing from aircraft or satellites (Uncles and Mitchell, 2017)

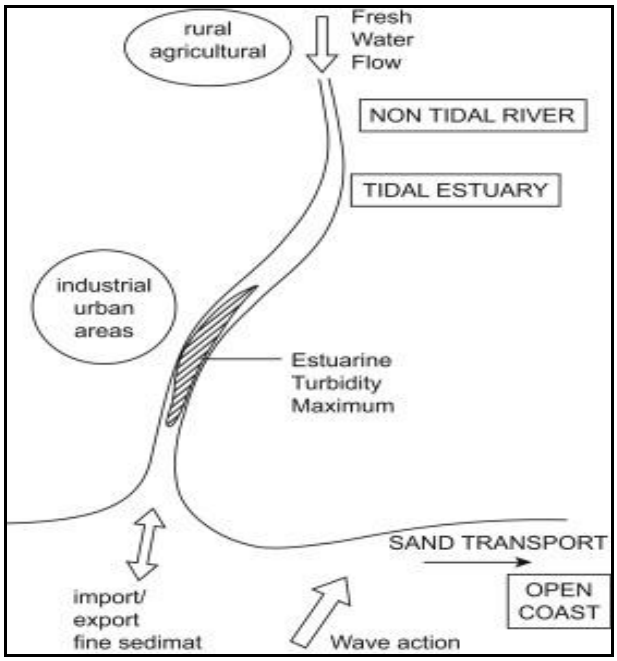

Figure-27: Sediment Deposition Process

Process of Deposition of Sediments in the Rivers of the District Sand is deposited because of the following reasons: (a) Floods: The surface or strip of relatively smooth land adjacent to a river channel constructed (or in the process of being constructed) by the present river in its existing regimen and covered with water when the river overflows its banks at times of high water. It is built of alluvium carried by the river during floods and deposited in the sluggish water beyond the influence of the swiftest current (b) Valley fill: The unconsolidated sediment deposited by any agent so as to fill or partly fill a valley and shown in Figure-27.

3.1.4 Replenishment Study

A replenishment study for riverbed sand is required in order to nullify the adverse impacts arising due to excessive sand extraction. Mining within or near the riverbed has a direct impact on the stream's physical characteristics, such as channel geometry, bed elevation, substratum composition and stability, in-stream roughness of the bed, flow velocity, discharge capacity, sediment transport capacity etc. For sustainable river sand mining, it is necessary that the mine pits formed as a result of sand excavation are refilled with sand by the natural process of replenishment in a reasonable period so that the area is again available for mining. The rate of gross erosion is dependent upon many physical factors like climatic conditions, the nature of the soil, the slope of the area, topography and land use. The effect of any of these variables may vary greatly from one geographic location to another, and the relative importance of controlling factors often varies within a given land resource area (Dendy, 1976).

There is no denial of the fact that bed load changes from hour to hour, day to day, and year to year; estimating annual bed load rates is a dynamic process involving careful examination. Therefore, proper care has been taken before applying the empirical model to calculate the sediment yield from the watershed. However, as far as Kerala is concerned, the topography, geomorphology and soil are different from a typical plateau region. Hence, due weightage is given to actual field studies, and replenishment occurred on the stretches under consideration in the river. As a matter of fact, the modelling activity and replenishment studies are viewed from an angle of an add-on to the physical verification and rate of replenishment.

The estimation of sand replenishment is based on empirical and analytical approaches. There are many sediment transport equations as well as models which are suitable for use in the prediction of the replenishment rate of rivers/watersheds. The sedimentation models include SWAT, HEC-HMS etc. These models are developed based on the fundamental hydrological and sedimentological processes. They may provide detailed temporal and spatial simulation but usually require extensive data input. Hourly/daily input values of meteorological and radiation variables are required for continuous simulations. Some of the empirical equations for estimating sediment transport are as follows.

Annual Replenishment Rate for sand for Major Sand Resource Area is determined using empirical mathematical expression Dendy Bolton Equation and reproduced below:

- Einstein (1950)
- Laursen (1958)
- Bagnold (1966)
- Engelund-Hansen equation (1967)
- Yang equations (1973)
- Dendy- Bolton equation (1976)
- Modified Universal Soil Loss Equation (MUSLE) developed by Williams and Berndt (1977)
- Van Rijn (1984)
- Zanke (1987)

To estimate the transport capacity or the sediment load being conveyed by a water stream, one of the many transport equations that are available in the literature is frequently used. Einstein (1950) introduced statistical methods to represent the turbulent behavior of the flow. Bagnold (1966) introduced an energy concept and related the sediment transport rate to work done by the fluid. Engelund and Hansen (1967) presented a simple and reliable formula for the total load transport in rivers. The Yang equation makes use of the total bed hydraulic radius, and studies show that it is good for estimating the sediment transport in the channel for the condition of dunes on the bed. MUSLE includes only one type of sediment Yield (sheet and rill Erosion). Van Rijn (1984) solved the equations of motions of an individual bed-load particle and computed the saltation characteristics and the particle velocity as a function of the flow conditions and the particle diameter for plane bed conditions. The equations of Zanke and Van Rijn seem to be only moderately satisfactory

in estimating the sediment transport in the channel for the condition of dunes on the bed. However, it appears that no single equation could provide reliable estimates of a total load of sediment transport for all of the bed forms that could occur sequentially or randomly in alluvial channels or natural water courses. The comparison of the equations for estimating sediment rate is given below Table-24. –

Table 24: Sediment Transport Equations and its remarks

Sl.No.	Sediment Transport Equation	Remarks
1	Einstein (1950)	Bed load function was determined for many but not all types of stream channels
2	Laursen (1958)	Laursen equation outperforms other transport equations in the silt range
3	Bagnold (1966)	Bagnold related the sediment transport rate to work done by the fluid
4	Engelund-Hansen equation (1967)	The original Engelund-Hansen relation (OEH) is based on a single characteristic grain size, which limits its applicability in sand-bed rivers with a wide GSD
5	Yang equations (1973)	It makes use of a total bed hydraulic radius
6	Dendy- Bolton equation (1976)	It uses both drainage area and means annual runoff for estimation of sediment yield. It calculates all types of sediment yield like sheet and rill erosion, gully erosion, channel bed and bank erosion and mass movement
7	Modified Universal Soil Loss Equation (MUSLE) developed by Williams and Berndt (1977)	MUSLE includes only one type of sediment yield (sheet and rill Erosion)

Sl.No.	Sediment Transport Equation	Remarks
8	Van Rijn (1984)	Calculated equations of motions of an individual bed-load particle for plane bed conditions
9	Zanke (1987)	Zanke was found to be moderately satisfactory for the condition of the dunes on the bed.

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh.

In this study, the rate of gross silt production in the watershed and the ability of the stream system to transport the eroded material in a river have been carried out by the Dendy-Bolton equation. Dendy-Bolton formula is often used to calculate the sedimentation yield asit uses both drainage area and mean annual runoff as key parameters to give a yield value. Also, Dendy-Bolton equation calculates all types of sediment yield like sheet and ril erosion, gully erosion, channel bed and bank erosion and mass movement.

The drainage area of Krishna River in Palnadu district is situated upstream of the Prakasam Barrage. The Water Resource Department of Andhra Pradesh records the surplus discharge from the Prakasam Barrage, which is considered as the downstream run-off the river Krishna. For calculation of sediment yield, the total surplus discharge of the Prakasam Barrage for water year 2022-23 (June 2022 to May 2023) of 1525 TMC is taken as run-off.

Annual Replenishment Rate for sand for Major Sand Resource Area is determined using empirical mathematical expression Dendy Bolton Equation and reproduced below:

For Average Annual Run-off less than 2”

$S = 1280 \times Q0.46 [1.43 - 0.26 \log(A)]$-------- FORMULA (A)

For Average Annual Run-off more than 2”

$S = 1965 \times (e^{-0.055 \times Q}) [1.43 - 0.26 \log(A)]$-------- FORMULA (B)

Q = Mean Annual Run-off in mm

A = Net drainage Area in Sq. km

S = Sediment yield (tons/Sq. km/yr)

The sedimentation yield for Krishna River in Palnadu District is arrived based on the above Dendy Bolton Equation or Formula (B) as the runoff is morethan 2 inches in the River. The Sedimentation yield for Krishna River in Palnadu District is shown in Table-24.

Table 25 Sedimentation yield for Krishna River in Palnadu District

Name of the River	Area Drained (sq. km)	Mean Annual Run-off (in mm)	Rate of Annual Deposition in the River (M. Tons / sq. km /year)	Annual Deposition (tonne/yr)
Krishna	1740.12	67.99	412.96	7,18,606*

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh.

In this report, the sediment yield was calculated using the standard records of Department of Water Resources. To ensure systematic and scientific studies, Department of Mines & Geology is in the process of selection of NABET Accredited agency for conducting detailed & regular replenishment studies for potential sand bearing areas.

3.1.5 Details of Sand Mining Leases:

The river Krishna is the main source of sand in the district flowing in the eastern side of the Palnadu district through following mandals. Sand is feasible only in Atchampeta and Amaravathi mandals.

Sl.No	Mandals
1	Veldurthi
2	Macherla
3	Rentachintala
4	Gurajala
5	Dachepalli
6	Machavaram
7	Bellamkonda
8	Atchampeta
9	Amaravathi

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

***Note**: The sedimentation yield was calculated manually by APSAC and the value is **7,91,843 Tones/ year**. The details are provided as an Annexure at page number 171-172.

Proposed potential Sand Mining Leases in Palnadu district shown in Table-26.

Table 26: The detail of Potential Sand Mining Leases

Sl. No.	Name of the Reach	Extent in Ha	Approved Quantity in MTs	Geo-coordinates	Remarks
1	Vykuntapuram 4	2.1	47,250	N16°34'36.92" E80°24'45.22" N16°34'37.44" E80°24'46.46" N16°34'39.63" E80°24'49.31" N16°34'41.55" E80°24'49.82" N16°34'42.34" E80°24'49.69" N16°34'42.90" E80°24'48.38" N16°34'42.48" E80°24'46.80" N16°34'41.49" E80°24'45.85" N16°34'39.96" E80°24'44.70" N16°34'38.46" E80°24'42.70" N16°34'37.78" E80°24'42.90"	AMP and EC obtained for semi-mechanizm.
2	Pondugala	4.850	72,750	N16°34'30.87" E80°15'58.48" N16°35'36.60" E80°15'59.95" N16°35'36.13" E80°16'08.21" N16°35'29.49" E80°16'06.85"	
3	Ambadipudi 6	4.840	72600	N16°34'50.97" E80°22'54.32" N16°34'54.70" E80°22'52.61" N16°34'56.85" E80°23'04.94" N16°34'52.80" E80°23'06.19"	
4	Ambadipudi 7	4.830	72,450	N16°38'06.79" E80°10'56.56" N16°38'10.91" E80°11'02.72" N16°38'05.23" E80°11'07.31" N16°38'01.43" E80°11'00.21"	
5	Ambadipudi 8	4.750	71,250	N16°37'38.99" E80°10'57.08" N16°38'43.04" E80°11'05.38" N16°37'38.04" E80°11'06.84" N16°38'32.79" E80°11'02.06"	
6	Konuru 8	4.820	72,300	N16°37'21.11" E80°11'18.50" N16°37'25.77" E80°11'22.37" N16°37'19.37" E80°11'28.74" N16°37'14.94" E80°11'25.72"	
7	Konuru 9	4.850	72,750	N16°37'04.02" E80°11'42.97" N16°37'09.03" E80°11'46.13" N16°37'04.19" E80°11'53.80" N16°36'59.39" E80°11'50.40"	

8	Amaravathi 6	4.66	69,900	N16°38'21.10" E80°11'43.60" N16°38'25.41" E80°11'47.41" N16°38'30.98" E80°11'38.81" N16°38'27.08" E80°11'35.87"	
9	Vykuntapuram 3	4.98	74,700	N16°34'59.03" E80°24'40.47" N16°35'02.54" E80°24'41.96" N16°35'04.39" E80°24'25.15" N16°35'01.83" E80°24'24.07"	
10	Didugu-1	4.930	49300	N16°35'37.96" E 80°16'44.99" N16°35'34.14" E 80°16'46.90" N16°35'41.50" E 80°1'54.83" N16°35'37.65" E 80°16'59.30"	Proposed
11	Pondugala-2	4.860	48600	N16°35'44.28" E 80°16'15.61" N16°35'45.08" E 80°16'22.77" N16°35'37.81" E 80°16'23.92" N16°35'37.21" E 80°16'16.45"	
12	Pondugala-1	4.830	48300	N16°35'38.56" E 80015'53.86" N16°35'36.97" E 80015'59.81" N16°35'28.65" E 80015'54.91" N16°35'31.50" E 80015'49.78"	
13	Konuru-1	3.930	39300	N16°37'00.95" E 80011'35.50" N16°37'04.38" E 80011'39.84" N16°37'00.06" E 80011'45.30" N16°36'56.60" E 80011'45.71" N16°36'56.66" E 80011'42.87" N16°36'57.86" E 80011'42.12" N16°36'57.11" E 80011'40.82"	
14	Ambadipudi-3	4.830	48300	N16°37'47.97" E 80°11'22.48" N16°37'43.30" E 80°11'24.59" N16°37'38.30" E 80°11'16.53" N16°37'42.66" E 80°11'13.38"	
15	Ambadipudi-2	4.830	48300	N16°38'06.79" E 80°10'56.56" N16°38'10.91" E 80°11'02.72" N16°38'05.23" E 80°11'07.31" N16°38'01.43" E 80°11'00.21"	
16	Ambadipudi-1	4.840	48400	N16°38'21.10" E 80°10'43.60" N16°38'25.41" E 80°10'47.41" N16°38'30.98" E 80°10'38.81" N16°38'27.08" E 80°10'35.87"	

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

Probable Sand Mining reaches in Palnadu district shown in Table-27. The name of the sand bearing index are given from North to South direction. The Probable Sand bearing areas were identified through field survey with the help of hand held GPS (Global Positional System) and the help of existing literature.

Table 27 : Probable Sand bearing in the Palnadu District

S.No	Name of the River	Sand Bearing Area	Central Coordinates		Area in Ha.
			Latitude	Longitude	
1	Krishna River	A	16° 37' 56.145" N	80° 11' 11.016" E	74.66
2	Krishna River	B	16° 36' 27.145" N	80° 12' 35.662" E	22.22
3	Krishna River	C	16° 35' 29.173" N	80° 15' 26.436" E	13.85
4	Krishna River	D	16° 35' 42.291" N	80° 20' 43.251" E	144.42

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh

3.1.6 Details of De-Siltation Location: (Lakes/Ponds/Dams etc.)

The detailed list of proposed de-siltation locations and quantity of the district are shown in Table-28. There are at present no existing de-siltation locations in Palnadu district.

Table 28 List of Potential De-Siltation Location: (Lakes/Ponds/Dams etc.) (Proposed)

Sl.No.	Location	Tehsil	Size (Ha)	Quantity Proposed (in MT/Year)
1	Vykuntapuram -2	Amaravathi	10.070	160500
2	Dharanikota	Amaravathi	8.000	120000
3	Didugu	Amaravathi	12.500	187500
4	Chamarru	Atchampeta	2.598	39000
5	Madipadu	Atchampeta	2.100	31500

Data Source: Assistant Director of Mines and Geology, Palnadu District, Andhra Pradesh.

3.1.7 Details of Patta Lands in the District:

The detail list of Patta Lands in the Palnadu district is shown in Table-29.

Table 29 Details of Patta Lands.

Owner	Sy. No.	Area (Ha)	District	Tehsil	Village	Total Reserve (MT)	Total Mineral to be mined (MT)	Existing/ Proposed
NIL								

Data Source: Assistant Director of Mines and Geology, Palnadu District, Andhra Pradesh

3.1.8 Details of M-Sand Plants in the District:

The details list of Manufacturing Sand in Palnadu district is shown in Table-30.

Table 30 Shown Details of Details of M-Sand Plants

Plant Name	Owner	District	Tehsil	Village	Geo-location	Quantity Tonnes/Annum
NIL There are no existing M - Sand units under this Palnadu office jurisdiction						

Data Source: Assistant Director of Mines and Geology, Palnadu District, Andhra Pradesh

3.1.9 Details of Cluster of Sand Mining Leases

The area of Cluster of Mining Leases in Palnadu jurisdiction is shown in Table-31.

Table 31 Details Cluster of Mining Leases in Palnadu District

Sl.No	Name of the Cluster	Location (Latitude and Longitude)	Extent (in Ha)	Total No. of Mining Leases in the Cluster	No.of Leases working	Extent of the working leases (in Ha)
NIL						

Data Source: Asst. Director of Mines and Geology (FAC), Palnadu District, Andhra Pradesh

3.1.10 Details of Contiguous Clusters

The area of Contiguous Cluster of Sand Reaches in Palnadu jurisdiction is shown in Table-32.

Table 32: Details of Contiguous Cluster of Sand Reaches in Palnadu District

Sl.No	Name of the Cluster	Location (Latitude and Longitude)	Extent (in Ha)	Total No. of Mining Leases in the Cluster	No.of Leases working	Extent of the working leases (in Ha)
NIL						

Data Source: Asst. Director of Mines and Geology (FAC),Palnadu District, Andhra Pradesh

3.1.11 Sand Reaches Details in Palnadu District

The department of Mines and Geology has already identified sand reaches points in Palnadu district. Further, there are many sand reaches points are identify near Amaravathi Vuillage, Amaravathi mandal area, Krishna River places. The sand reaches points are shown in Figure-28, and Figure-29. Apart from the existing, new sand reaches identified and shown in Figure-30. Also, the sand reaches maps are compared with pre-monsoon and post-monsoon seasons shown in Figure-31, Figure-32.

The Probable Sand bearing areas were identified through field survey with the help of hand held GPS (Global Positional System) and the help of existing literature. The Probable Sand bearing areas in the Palnadu District is showing in Figure-33.

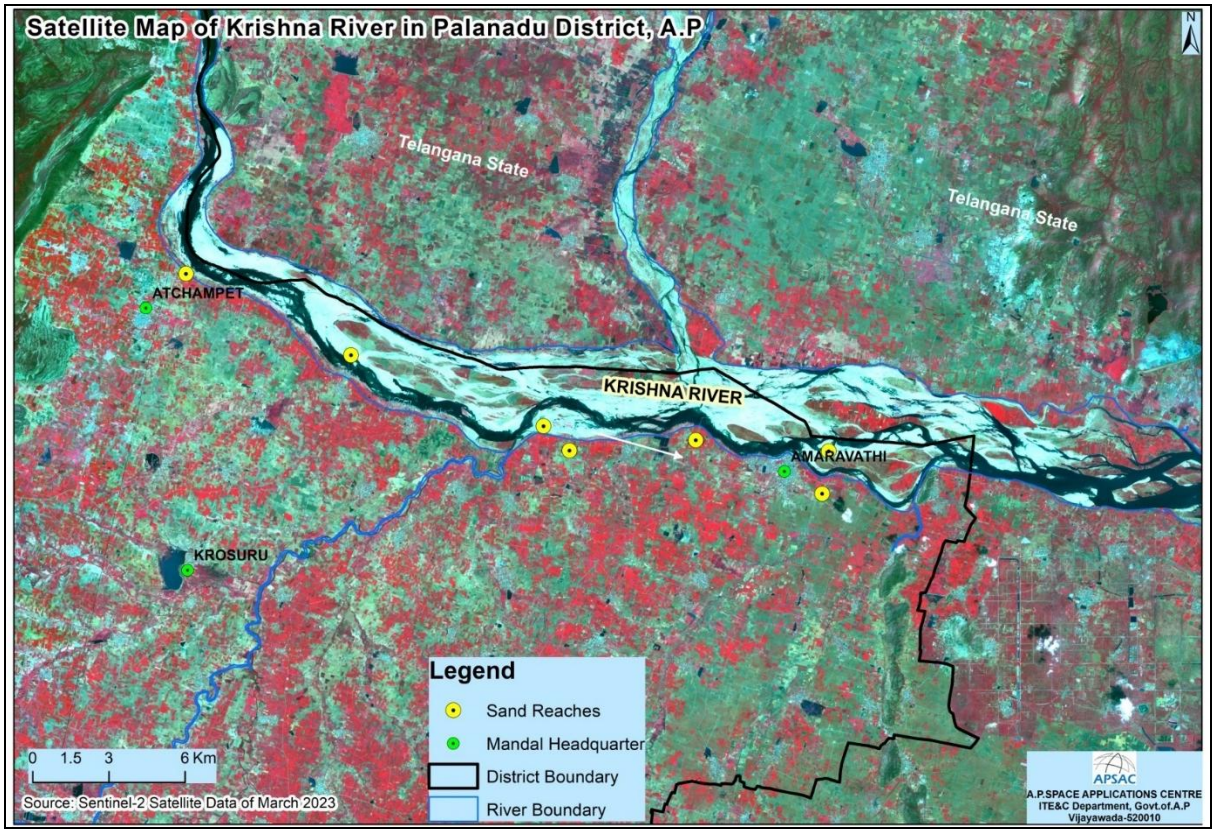

Figure-28: Satellite View of Krishna River map in Palnadu District.

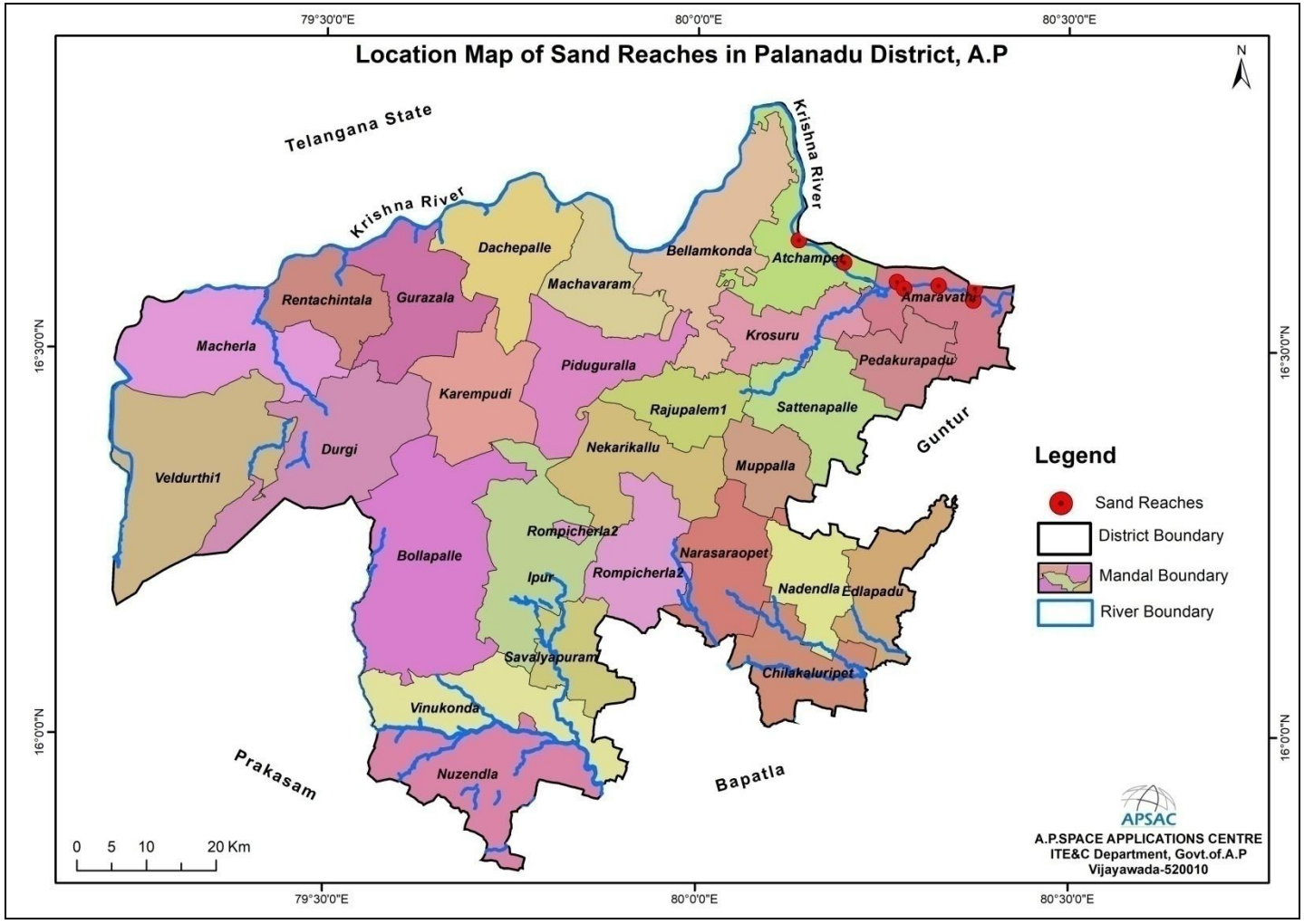

Figure-29: Mandal wise Sand Reaches map in Palnadu District

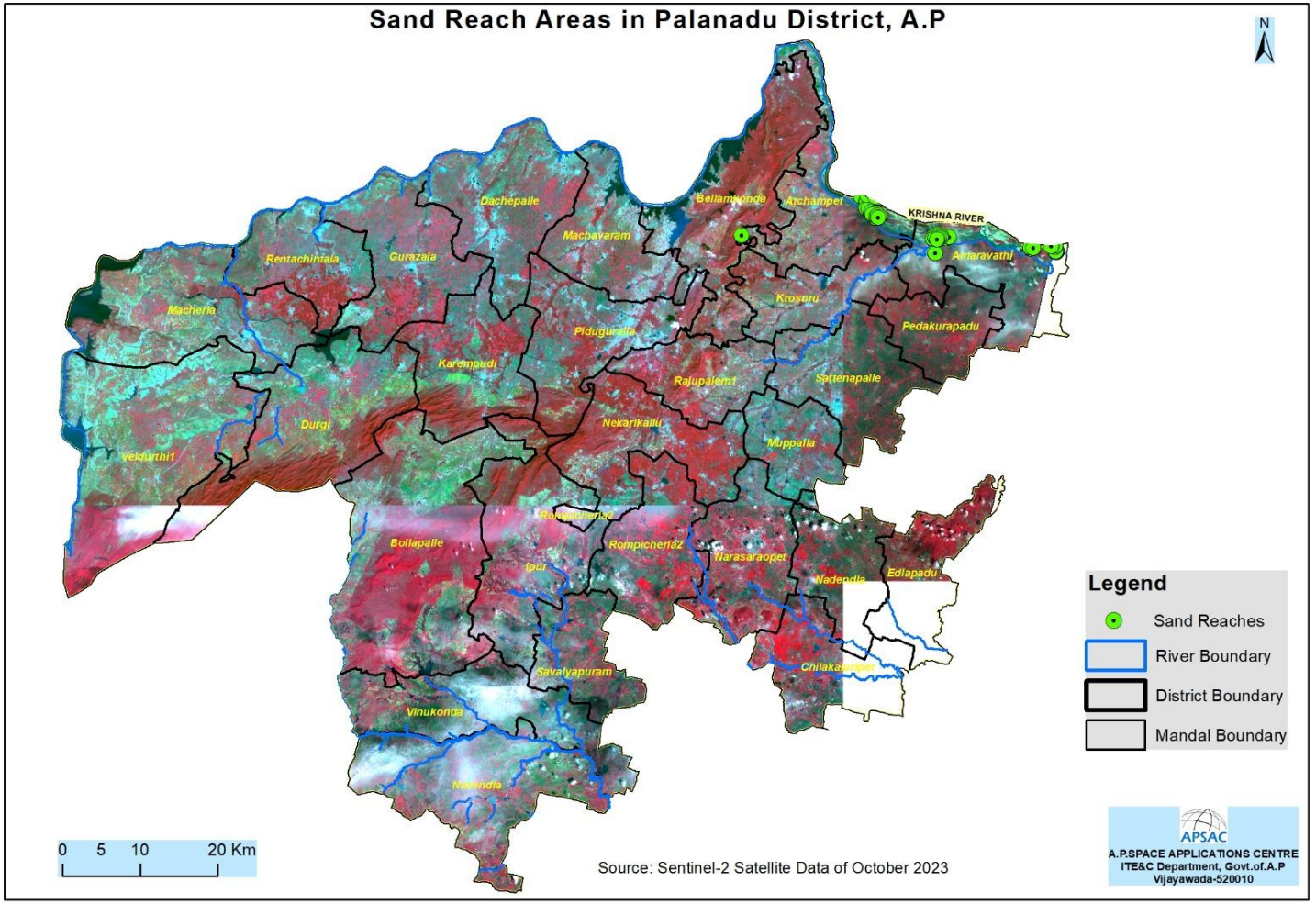

Figure-30: Satellite Map of Sand reaches in Palnadu District

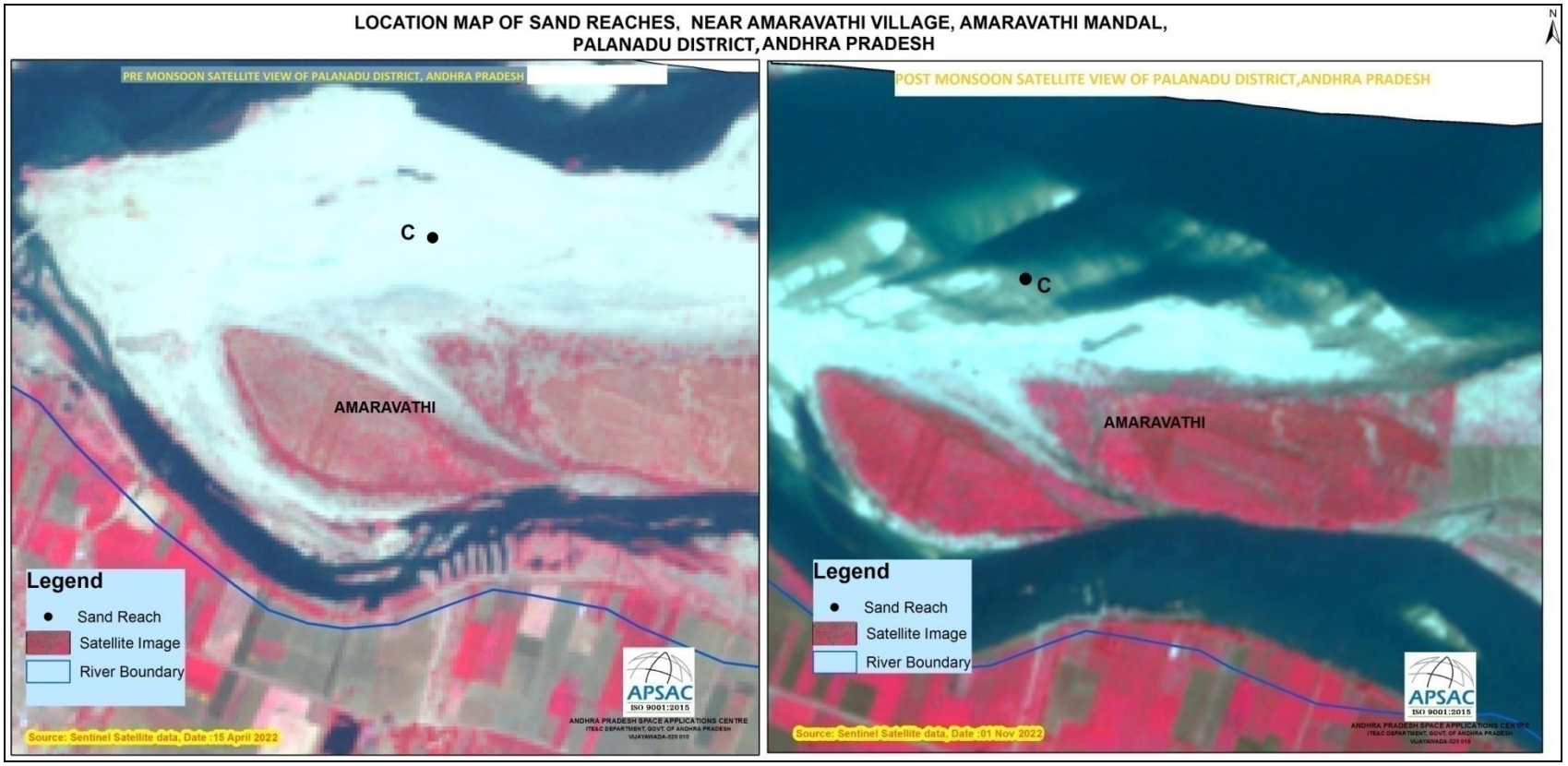

Figure-31:Pre and Post Monsoon Sand Reach point at C

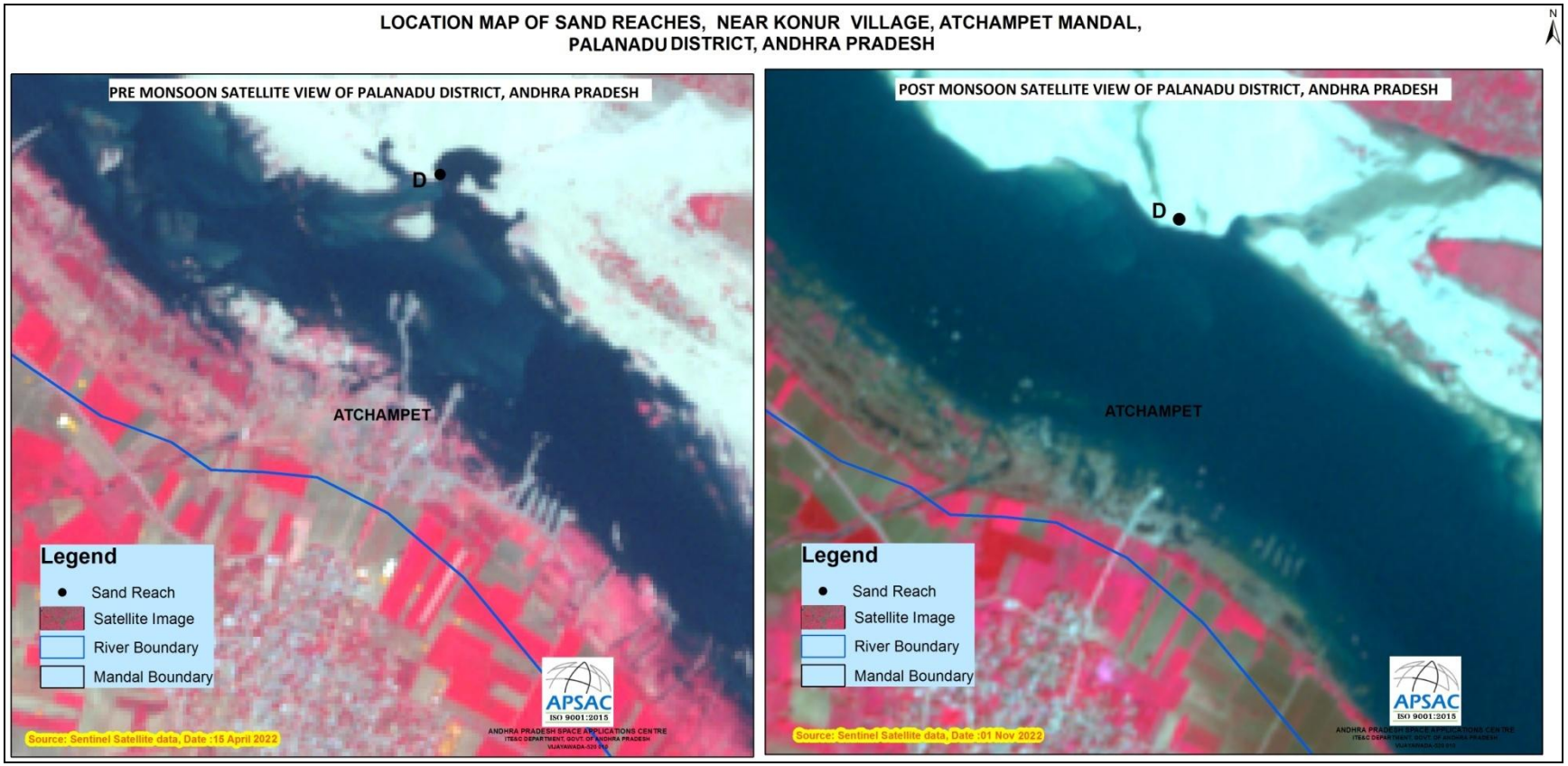

Figure-32:Pre and Post Monsoon Sand Reach point at D

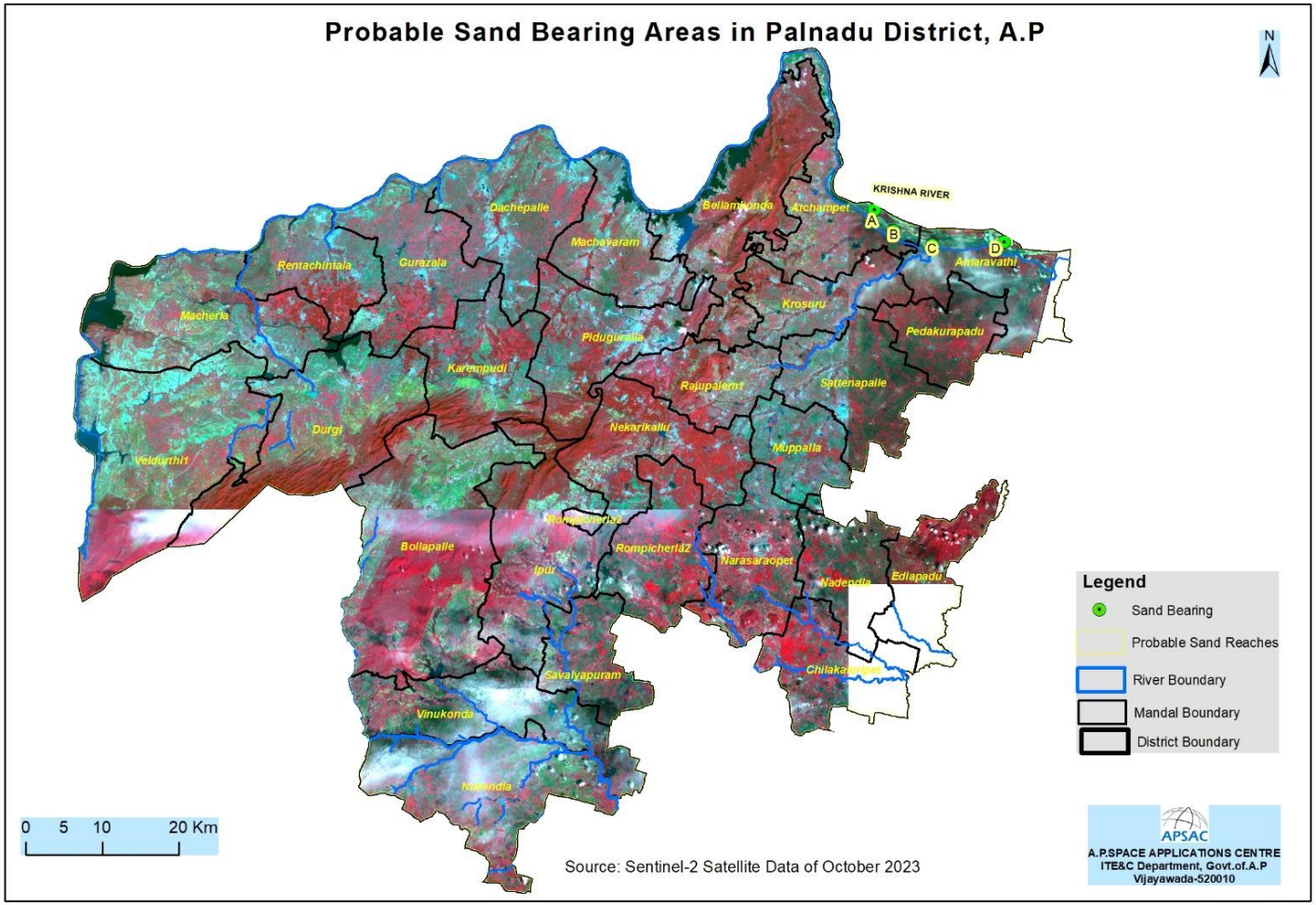

Figure-33: Probable Sand bearing areas in the Palnadu District

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ANNEXURE

As the average annual run-off more than 2" in the Palnadu District, the sedimentation yield for Krishna River in Palnadu District, APSAC arrived manually based on the above Dendy Bolton Equation or Formula and is given below.

$$S = 1965 \times (e^{-0.055 \times Q}) [1.43 - 0.26 \log(A)]$$

Q = Mean Annual Run-off in mm

A = Net drainage Area in Sq. km

S = Sediment yield (tons/Sq. km/yr)

Name of the River	Area Drained (sq. km)	Mean Annual Run-off (in mm)
Krishna	1740.12	67.99

Data Source: District Mines and Geology Officer, Palnadu District, Andhra Pradesh and APSAC, Vijayawada

The given area drained area value converted from Sq.Km to Sq.mile and the mean annual run-off converted from mm to inches for the calculations.

$$S = 1965 \times (e^{-0.055 \times Q}) [1.43 - 0.26 \log(A)]$$ **Tones/sq.mile/year**

Drainage Area (A) = 1740.12 sq. Km (1 Sq.km = 0.386 Sq.mile)

= 1740.12 x 0.386

A = 671.864 Sq.mile ----------(1)

Mean Annual Run-off (Q) = 67.99 mm (1 mm = 0.0393 inches)

= 67.99 x 0.0393

Q = 2.676 inches ----------(2)

e is Euler's number and the value is =2.718 ----------(3)

$$S = 1965 \times (e^{-0.055 \times Q}) [1.43 - 0.26 \log(A)]$$ **Tones/sq.mile/year**

$S = 1965 \times (2.718^{-0.055 \times 2.676}) [1.43 - 0.26 \log(671.864)]$

Log 67 of 1 = 0.8267
0.8 = 5
As per base, the value = 2.0000
_____(+)
Log 671.864=2.8272 ----------(4)

$= 1965 \times (2.718^{-0.055 \times 2.676}) [1.43 - 0.26 \times 2.8272]$

$= 1965 \times (2.718^{-0.1472}) [1.43 - 0.735]$

$= 1965 \times (2.718^{-0.1472}) [0.695]$

The value of $2.718^{-0.1472}$
$1/2.718^{0.1472}$ = 0.863 ----------(5)

$= 1965 \times 0.863 \times 0.695$

$= 1178.57$

$S = 1178.57$ **Tones/sq.mile/year** ----------(6)

For total district Sedimentation Yield =

Per Sq.mile Sedimentation Yield (6) x Total Drainage Area (1)

1178.57 x 671.864 = 7,91,843

As the Sedimentation yield calculated manually,

The sedimentation in the total River in the Palnadu District = **7,91,843 Tones/ year**

****END****