

NATURAL RESOURCES DATA MANAGEMENT SYSTEM (NRDMS)

MONTHLY ACTIVITY REPORT

April - July 2025

Submitted by

**District NRDMS Centre
Zilla Panchayat, Mandya**



Submitted to

**Karnataka State Council of Science
and Technology (KSCST)**

**Indian Institute of Science Campus,
Bengaluru - 560012**

CONTENTS

1. **CHAPTER 1:**
 - a. *Basic Information of Mandya District.*
2. **CHAPTER 2:**
 - a. NRDMS background of the district.
3. **CHAPTER 3:**
 - i. 3.1) Geographical features of the district.
 - ii. 3.2) Occupation
 - iii. District Economy with chart.
 - iv. Area under major agricultural crops bar diagram.
 - v. 3.3) Industries
 - vi. Industries with chart.
4. **CHAPTER 4:**
 - a. Spatial and non-spatial data available in the District.
5. **CHAPTER 5:**
 - a. NRDMS Centre Activities (April -July 2025).
6. **CHAPTER 6:**
 - a. Training Programme Attended
7. **CHAPTER 7:**
 - a. Training Imparted to Line Departments
8. **CHAPTER 8:**
 - a. Conclusion
9. **CHAPTER 9:**
 - 9.1) **Annexures Maps**

CHAPTER 1

1.1) BASIC INFORMATION OF THE DISTRICT

- **DISTRICT NAME: MANDYA**
- **DIVISION: MYSURU**
- **DISTRICT ESTABLISHMENT: 2001**
- **HEADQUARTERS: MANDYA**
 - **CPO: SREE DHANUSH S.**
 - **CEO: SMT NANDINI K. R.**

| GENERAL STATISTICS | | | | | | |
|-------------------------------------|-------------------|----------|----------|----------------------|-------------|-------------|
| | Mandya District | | | Karnataka State | | |
| Area | 4962 sq. km. | | | 191791sq. km | | |
| Taluks | 7 | | | 176 | | |
| Hoblis | 45 | | | 747 | | |
| Gram Panchayaths | 233 | | | 5627 | | |
| Villages/ In-Habitated/ Uninhabited | 1477/1368/109 | | | 29,406/27,484/1924 | | |
| Population/Male / Female | Total | Male | Female | Total | Male | Female |
| | 18,05,769 | 9,05,085 | 9,00,684 | 6,10,95,297 | 3,09,66,657 | 3,01,28,640 |
| SC | 2,65,294 (14.69%) | | | 1,04,74,992 (17.15%) | | |
| ST | 22,402 (1.24%) | | | 42,48,987 (6.95%) | | |
| Density | 364/sq. km | | | 319/sq. km | | |
| Sex Ratio | 1000:995 | | | 1000: 973 | | |
| Literacy/ Male /Female | Total | Male | Female | Total | Male | Female |
| | 70.4% | 78.27% | 62.54% | 75.36% | 82.47% | 68.08% |

| | | |
|-------------------------------------|----------|---------------------|
| Farmers/ Agricultural Labours | 2,16,159 | 65,80,649/71,55,963 |
|-------------------------------------|----------|---------------------|

CHAPTER 2

2.1) NRDMS BACKGROUND OF THE DISTRICT

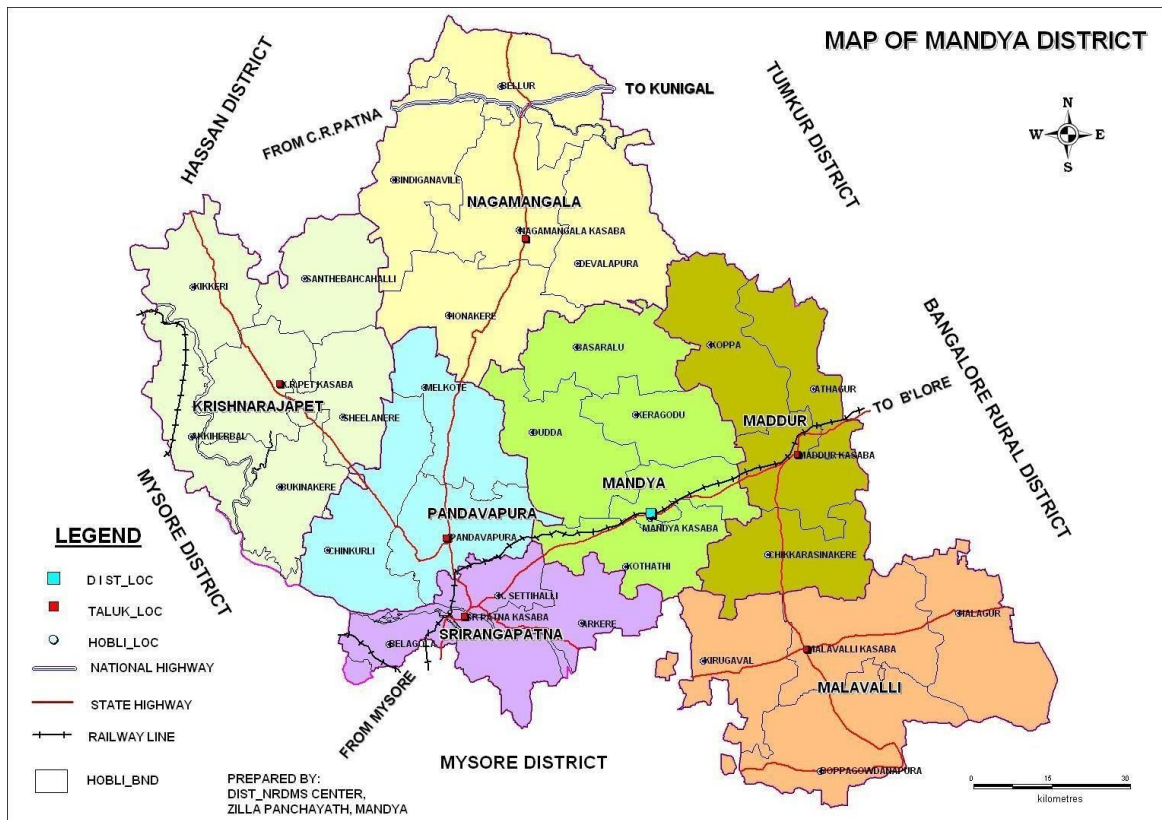
Mandya NRDMS Centre was established in the year 2001-02 in Zilla Panchayath Premises. Since then the centre is been providing required maps to the line departments. In the year 2012-13 a new chamber or Centre was allotted to NRDMS in the first floor of Zilla Panchayth premises with a peon to the Centre to assist.



NRDMS has successfully demonstrated utilities of Geospatial Technologies in decision making and developed capacity for geospatial data and information management at District and local levels.

CHAPTER 3

3.1) GEOGRAPHICAL FEATURES OF THE DISTRICT



Mandya district popularly known as 'Land of Sugar' came into existence on 1st of July 1939. Earlier it was part of Mysore district. It is one of the districts with fertile land in south Karnataka.

The district is located in the south east of Karnataka State and shares its borders with the districts of Mysore, Hassan, Tumkur and Bangalore. Most of the land is flat, interspersed with hilly region and sparsely vegetated by thorns and bushes. The district is situated at the height of 762 to 914 meters from the sea level.

The district consists of 7 revenue namely Mandya, Maddur, Nagamangala, K R Pete, Pandavapura, Srirangapatna and Malavalli Taluks/ blocks and for the easy educational administration the district is divided into 8 educational blocks. Total area of the district is 4961 square kms, out of which 3.11 lakh hectares are cultivated land, 0.24 lakh hectares are covered by forest area and remaining 1.63 lakh hectares are barren and uncultivable.

The prominent rivers that have influenced the life of the people of Mandya district are Cauvery, Hemavathi, Lokapavani, Simsha and Veera vaishnavi. Branches of river Cauvery descends from the height of 200 feet at Shivanasamudra of Malavally taluk to form beautiful falls by name ' Gaganachukki ' and ' Bharachukki'.

The famous Krishna Raja Sagara dam is built across the river Cauvery in Srirangapatna taluk and world famous 'Brindavan garden' is situated near the dam.

Soil of the district can be classified into three groups, such as,

3.1)1. Red sandy loams

3.1)2. Red clayey loams

3.1)3. Clayey loams

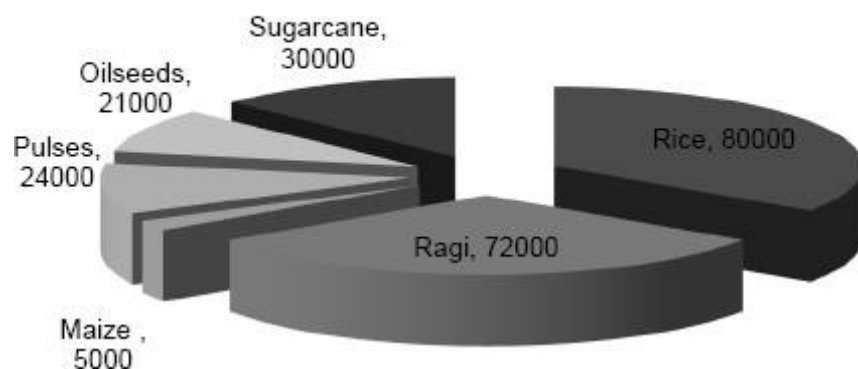
These type of soils are suitable to cultivate different crops like sugarcane, Paddy, Ragi, Jowar, ground nuts etc.,

3.2) OCCUPATION

Agriculture is the major occupation in the district. The prominent crops are Sugarcane, Paddy, Ragi, Jowar, Groundnut, Sericulture and Coconut to some extent in K.R. Pet and Nagamangala taluks. Most of the people are depending on agriculture to earn their livelihood. Women folk also engaged themselves in Agriculture activity. Sugarcane and Paddy are the commercial crops and in recent days sericulture place a vital role in improving the economy of the district.

| | |
|-------------------------------|---------------------|
| Area under agriculture | 0.25 Mn Hectares |
| % of irrigated area | 48% of total area |
| Agro Climatic Zone | Southern Dry Zone |
| % of small & marginal farmers | 92% |

Area under Major Agricultural crops (in Ha)



3.3) INDUSTRIES

| | | | |
|--------------------|--------|---------------------------------|--------------|
| No of SSIs | 5,866 | Investments in MSME | INR 1,708 Mn |
| No of MSME units | 8,948 | No of Industrial Areas/ Estates | 9 |
| No of MSME workers | 40,618 | | |

Since the sugarcane is the major crop in the district; there are four sugar factories, several khandasari sugar units and many Jaggery producing units. Milk products producing factory, edible oil producing factory, BPL battery factory and several small scale industries are there in the district.

CHAPTER 4

4.1) SPATIAL AND NON SPATIAL DATAS AVAILABLE IN THE DISTRICT

SPATIAL DATABASE

| Sector / Subsector | Scale | Source | Survey / Publn. Year | Area cover ed | Status Code | File For mat |
|-----------------------------|----------|---------------|----------------------------|---------------------|----------------|--------------------|
| 1. Natural Resources | | | | | | |
| <i>Land</i> | | | | | | |
| 1. Topography | | | | | | |
| Contour Map | 20 Mtr | ASTER DEM | | District | CC | .Shp |
| Slope Map | 1:50,000 | KRSAC | | District | CC | .Shp |
| 2. Geology – A | | | | | | |
| Rock features | 1:50,000 | KRSAC | | District | CC | .Shp |
| Structural features | 1:50,000 | KRSAC | | District | CC | .Shp |
| 3. Geology – B | | | | | | |
| Rock features | | NA | | | | |
| Structural features | | NA | | | | |
| 4. Mineral Resources | | NA | | | | |
| 5. Geomorphology | 1:50,000 | KRSAC | | District | CC | .Shp |
| 6. Land use | 1:50,000 | KRSAC | | District | CC | .Shp |
| 7. Waste Lands | | NA | | | | |
| 8. Soils | 1:25,000 | NBSS & LUP | | District | CC | .Shp |
| 9. Forest & Wildlife | | | | | | |
| Forest type | | NA | | | | |

| | | | | | | |
|----------------------|----------|-------------|--|----------|----|------|
| Crown Density | | NA | | | | |
| Forest | | NA | | | | |
| Category | | | | | | |
| Forest admn. | 1:50,000 | KFD | | District | CC | .Shp |
| Wild Life | | NA | | | | |
| Water | | | | | | |
| 1.Ground water | | | | | | |
| Hydro Geology | | NA | | | | |
| Hydro chemistry | | NA | | | | |
| Ground water budget | | NA | | | | |
| 2.Surface water | | | | | | |
| Drainage | 1:50,000 | SOI | | District | CC | .Shp |
| Surface water bodies | 1:50,000 | SOI & KRSAC | | District | CC | .Shp |
| 3.Climate | | NA | | | | |

| Sector / Subsector | Scale | Source | Survey / Publn. Year | Area covered | Status Code | File Format |
|------------------------|----------|--------|----------------------|--------------|-------------|-------------|
| 2.Demography | | | | | | |
| Population | | | | | | |
| Tehsil boundary | 1:50,000 | SOI | | District | CC | .Shp |
| District boundary | 1:50,000 | SOI | | District | CC | .Shp |
| Current popln. distbn. | 1:50,000 | SOI | | District | CC | .Shp. |
| Literacy | | | | | | |

| | | | | | | |
|---------------------------------|----------|-----|--|----------|----|------|
| Levels of education | | NA | | | | |
| Occupation | | | | | | |
| Village boundary | 1:50,000 | SOI | | District | CC | .Shp |
| Employment | | | | | | |
| District scenario | | NA | | | | |
| Employment exchange | | NA | | | | |
| Assets & Expenditure | | NA | | | | |
| Migration | | NA | | | | |
| Destitutes | | NA | | | | |

| Sector / Subsector | Scale | Source | Survey / Publn. Year | Area covered | Status Code | File Format |
|------------------------|----------|--------|----------------------|--------------|-------------|-------------|
| 2.Demography | | | | | | |
| Population | | | | | | |
| Tehsil boundary | 1:50,000 | SOI | | District | CC | .Shp |
| District boundary | 1:50,000 | SOI | | District | CC | .Shp |
| Current popln. distbn. | 1:50,000 | SOI | | District | CC | .Shp. |
| Literacy | | | | | | |
| Levels of education | | NA | | | | |
| Occupation | | | | | | |
| Village boundary | 1:50,000 | SOI | | District | CC | .Shp |
| Employment | | | | | | |

| | | | | | | |
|--|--|----|--|--|--|--|
| District scenario | | NA | | | | |
| Employment exchange | | NA | | | | |
| <i>Assets & Expenditure</i> | | NA | | | | |
| <i>Migration</i> | | NA | | | | |
| <i>Destitutes</i> | | NA | | | | |

| Sector / Subsector | Scale | Source | Survey / Publn. Year | Area covered | Status Code | File Format |
|-------------------------------|----------|-----------|----------------------|--------------|-------------|-------------|
| 5.Infrastructure | | | | | | |
| Communications | | | | | | |
| Post offices | 1:50,000 | NA | | | | . |
| Telecommunication | | NA | | | | |
| Drinking water | | NA | | | | |
| Educational facilities | | NA | | | | . |
| Electricity | 1:50,000 | CESCOM | | District | CC | Shp. |
| Financial institutions | | NA | | | | |
| Markets | | NA | | | | |
| Health | 1:50,000 | DHO | | District | CC | .Shp |
| NGO's | | NA | | | | |
| Tourism | 1:50,000 | KSTDC | | District | . CC | .Shp |
| Transport | 1:50,000 | PWD & SOI | | District | . CC | .Shp |

| | | | | | | |
|---|----------|------------|--|----------|------|------|
| 6.Miscellaneous | | | | | | |
| District map with taluks | 1:50,000 | SOI | | District | . CC | .Shp |
| District & taluk boundaries | 1:50,000 | SOI | | District | . CC | .Shp |
| District map with hoblies | 1:50,000 | DLR & SS | | District | . CC | .Shp |
| Village boundary with settlement | 1:50,000 | SOI/KSR AC | | District | . CC | .Shp |
| Police station details | 1:50,000 | SP | | District | . CC | .Shp |
| Details on Assembly constituencies | 1:50,000 | DC | | District | . CC | .Shp |
| Gram Panchayhs & Zilla Panchayaths, its jurisdiction for all taluks | 1:50,000 | DC | | District | . CC | .Shp |

NON SPATIAL DATABASE

| Sector / Subsector | Source | Survey / Publn. Year | Area covered | Status Code | File Format |
|-----------------------------|--------|----------------------|--------------|-------------|-------------|
| 1. Natural Resources | | | | | |
| <i>Land</i> | | | | | |
| 1. Topography | | | | | |
| Contour | | | | NR | |
| Slope | | | | NR | |
| 2. Geology – A | | | | | |
| Rock Features | MGD | | | NR | |

| | | | | | |
|----------------------|------------|--|--|----|--|
| Structural features | | | | NR | |
| 3. Geology – B | | | | | |
| Rock features | | | | NR | |
| Structural features | | | | NR | |
| 4. Mineral Resources | MGD | | | NR | |
| 5. Geomorphology | | | | NR | |
| 6. Land use | | | | NR | |
| 7. Waste Lands | | | | NR | |
| 8. Soils | NBSS & LUP | | | NR | |
| 9. Forest & Wildlife | | | | | |
| Forest type | | | | NR | |
| Crown Density | | | | NR | |
| Forest Category | | | | NR | |
| Forest admn. | | | | NR | |
| Wild Life | | | | NR | |
| Water | | | | | |
| Ground water | | | | | |
| Hydro Geology | MGD | | | NR | |
| Hydro chemistry | CGWB | | | NR | |
| Ground water budget | MGD | | | NR | |
| Surface water | | | | | |
| Drainage | | | | NR | |

| | | | | | |
|----------------------|-----|--|--|----|--|
| Surface water bodies | | | | NR | |
| Climate | IMD | | | NR | |

| 2. Demography | | | | | File Format |
|---------------------------------|----------|--|--|----|-------------|
| Population | | | | | |
| Tehsil boundary | DLR & SS | | | CC | .Shp |
| District boundary | | | | CC | .Shp |
| Current popln. distbn. | DES | | | CC | xlsx |
| Literacy | | | | | File Format |
| Levels of education | | | | NA | |
| Occupation | | | | | |
| Village boundary | DES | | | NA | |
| Employment | | | | | |
| District scenatio | EO | | | NA | |
| Employment exchange | EO | | | NA | |
| Assets & Expenditure | | | | | |
| Migration | | | | | |
| Destitutes | | | | | |

| 3. Socio Economy | | | | | File Format |
|------------------|-----|--|-------|----|-------------|
| Industry | DIC | | TALUK | NA | . |

| | | | | | |
|-------------------------------|-----|--|--|----|--|
| Developmental activity | DIC | | | NA | |
|-------------------------------|-----|--|--|----|--|

| 4. Agro Economy | | | | | File Format |
|--------------------------------|-----------|--|----------|----|--------------------|
| Land Utilisation | | | | | |
| Private Land | DSO | | VILLAGE | NA | |
| Common property | DSO | | | NA | |
| Land Ownership pattern | | | | | |
| General scenario | DSO | | | NA | |
| Farmer's holdings | Rev. Dept | | | NA | |
| Principal crops | JDA | | Taluk | NA | |
| Irrigation | | | | | |
| <i>Minor irrigation</i> | | | | | |
| Canals | CADA | | | NA | |
| Tube wells | DSO | | | NA | |
| Dug wells | DSO | | | NA | |
| Tanks | MIC/ ZPE | | | NA | |
| Lift irrigation | MID | | | NA | |
| <i>Major irrigation</i> | | | | | |
| Reservoirs | CE (N) | | | NA | |
| Anicuts | CE (N) | | | NA | |
| Agricultural implements | Ag Census | | | NA | |
| Animal husbandry | AHVS | | District | CC | .Shp |
| Pisciculture | Fisheries | | | NA | |

| | | | | | |
|---------------------|----|--|--|----|--|
| Plantation | | | | NA | |
| Horticulture | HD | | | NA | |
| Sericulture | SD | | | NA | |

| Sector / Subsector | Source | Survey / Publn. Year | Area covered | Status Code | File Format |
|-----------------------------------|---------------|-------------------------------------|-------------------------|------------------------|------------------------|
| 5. Infrastructure | | | | | |
| Communications | | | | | |
| Post offices | SSPO/ DES | | | NA | |
| Telecommunica tion | TDM / DES | | | NA | |
| Drinking water | ZPE | | | NA | |
| Educational facilities | DDPI | | | NA | |
| Electricity | CESCOM | | District | NA | shp |
| Financial institutions | LEAD bank | | | NA | |
| Markets | FACS | | | NA | |
| Health | DHO | | District | CC | .Shp |
| NGO's | DRS | | | NA | |
| Tourism | KSTDc | | District | CC | .Shp |
| Transport | | | | | |
| Roads | PWD | | | NA | |
| Rail network | ZPED | | | NA | |
| Air transport/HELIPAD | PWD | | | NA | |
| Vehicle census | RTO | | | NA | |

| | | | | | |
|----------------------------|---------------|-----------------------------|---------------------|--------------------|--------------------|
| Inland & coastal waterways | | | | NA | |
| Veterinary services | | | | | |
| Veterinary facilities | AHVS | | District | CC | .Shp |
| Other veterinary serv. | AHVS | | | | |
| Incidence of diseases | AHVS | | | | |
| Anganwadi | D W&C | | District | CC | .Shp |
| Sector / Subsector | Source | Survey / Publn. Year | Area covered | Status Code | File Format |
| 6. Miscellaneous | | | | | |
| Administration | DC office | | | | |
| Dt. & Subdivsns. | DC office | | | NA | |
| Dt., with tehsils | ZP | | | NA | |
| Dt., with panchayat | DC | | | NA | |
| Tq., with census vil. | DC | | | NA | |
| Prices & wages | | | | NA | |
| Environment | | | | NA | |

CHAPTER 5

5.1) NRDMS Centre Activities (April -July 2025)

5.1.1) Police Department:

Police station jurisdictional map

- Discussed with SP regarding preparation of Police station jurisdictional mapping.
- Prepared police station jurisdictional map for S. R. Patna and Pandavapura stations.
- This map was prepared so as to demarcate the villages/boundary for the police stations.
 - Source- Police Department.

5.1.2) Nagamangal Taluk Panchayath:

Ground water Prospect Map

- Discussed with EO, Nagamangala regarding ground water prospect mapping.
- Prepared ground water prospect map for GP as a pilot project for Nagamangala Taluk.
- This helps in identifying ground water potential zone.
 - Source- KRSAC.

5.1.3) CESCO:

Accounting Unit Map

- As discussed with the CESCO officials accounting units data were collected.
- Prepared accounting units jurisdictional map for CESCO Mandya Division.
- This map analysis the locations of accounting units.
 - Source- CESCO.

5.1.4) KRS GP Assets Map to MLA:

Assets Map

- Assets map of KRS Gram Panchayath was given to PA to MLA.
- Primary data of respective gram panchayath were collected.
- GPS coordinates of each individual assets of respective grampanchayat were taken such as Anganawadi, Schools, Colleges, Hostels, Library, PHC, Cooperative Societies, Veterinary Hospitals, Borewells etc.
- By this map analysis can be made such as distance from each Assets, Assets to be implemented/Constructed etc.,
 - Source- Field Work Data collection.

5.1.5) Panchayath Raj Engineering Division:

LPCD (Litre Per Capita Per Day) Map

- As per the instructions of CEO madam LPCD map was prepared and given, copy of the same was given to the CPO Sir.
- Visited and collected the information regarding LPCD from EE, RWS, Mandya. Prepared LPCD map which comprised of District boundary, taluk boundary, water bodies & LPCD details.
- This analysis map Provides the information pertaining to prioritization of villages providing percapita drinking water supply of Mandya District where LPCD priority is from 0 to 50 and above.
 - Source- PRED

5.1.6) S B M Section:

Solid Waste Management Route Map

- As per the instructions of DS2 and request from SBM section collected the data pertaining to solid waste management route map along with their locations.
- Solid waste management route map of Pandavapura, Nagamangala, K R Pete and SR Patna taluk has been prepared and given to DS2 Madam and SBM section which comprises Solid waste unit and its routes from individual GP'S over taluk and village boundary.
 - Source- SBM Section.

5.1.7) Panchayath Raj Engineering Division:

Multi Village Scheme Map

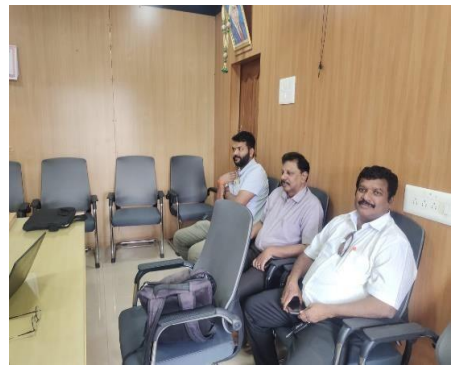
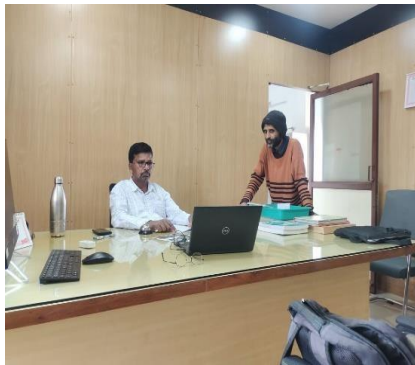
- Multi Village scheme map of Malavalli Taluk was prepared and given to CEO as per Madams Instructions.
- Source- Malavalli, PRED.

CHAPTER 6

6.1) Training Programme Attended

- Participated in the Yukthadara portal meeting through zoom on 01.04.2025.
- Participated in the District level officers training programme on RS and GIS technology at Bangalore on 28.04.2025.
- Participated in the K-GIS portal training through online along with DS2 on 03.05.2025.

- Participated in the K-GIS portal training at Bangalore for road side plantation by forest department on 09.05.2025.
- Participated in the webinar on "Empowering a sustainable tomorrow through innovation" on 14.05.2025.
- EMPRI programme was successfully conducted to department level officers through the guidance and support of CPO Sir, DS 1 Sir and DS 2 madam through their active participation on 10.06.2025.
- Meeting was held at Planning section with CPO along with IISC Scientists regarding implementation of water supply to Vittalapura GP a Pilot Project from IISC on 16.07.2025.



CHAPTER 7

7.1) Training Imparted to Line Departments

□ Training was given the forest officials on K-GIS portal at Aranya Bhavan, Mandya.



CHAPTER 8

8.1) Conclusion

8.1.1) Summary of Activities and Key Findings:

Assessment mapping plays an important role in planning where it could help in identifying properties its location and distance which could help in action plans. Whereas Multivillage scheme map helps in drinking water supply implemented to villages.

LPCD map helps identifying prioritization of drinking water.

GIS technique is found efficient to minimize the time, labor and money and thereby enables quick decision-making.

8.1.2) Commitment to improve NRDMS Activities:

- To complete the projects taken up at the earliest.
- Convince, encourage and Motivate line departments, NGOs, Companies to start up new projects.

CHAPTER 9

□ 9.1) Annexures:

Maps

