

# **NATURAL RESOURCES DATA MANAGEMENT SYSTEM (NRDMS)**

## **MONTHLY ACTIVITY REPORT August – November 2025**

**Submitted by**  
**District NRDMS Centre**  
**Zilla Panchayat, Chitradurga**



**Submitted to**  
**Karnataka State Council for  
Science and Technology (KSCST)**  
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## II. ABBREVIATIONS

- KSCST - Karnataka State Council for Science and Technology.
- IISc – Indian Institute of Science.
- GIS- Geographical Information System.

## **1. NRDMS Centre Activities (August 2025 — December 2025)**

- Between August and November 2025, the NRDMS Centre in Chitradurga conducted comprehensive technical, analytical, and GIS-based activities to support district-level planning and governance.
- The information collected includes annual rainfall, average water storage, and runoff data for the period from 2021 to 2024 was analyzed and submitted to the State NRDMS Centre, KSCST, Bengaluru, thereby strengthening the hydrological databases for water resource assessment.
- The GIS mapping and spatial analysis used for the City Municipal Corporation radius maps, proposed fire station mapping at Upparigenhalli, Auxiliary Assembly Constituency polling station maps for six taluks, Vedavati River GIS measurements, and Gram Panchayat boundary and headquarters maps.
- The Centre actively contributed to capacity building by participating in Yukthadhara and DDMP training programs, as well as by imparting a two-day GIS Orientation Training to Village Administrative Officers at the Zilla Panchayat, Chitradurga.
- Regular data updates, documentation, and reporting activities enhanced geospatial data availability, interdepartmental coordination, disaster preparedness, and technical capacity, thereby reinforcing evidence-based and sustainable district planning.

## **2. Training Programmers Attended**

- I have attended a One-Day Training Program on Yuktha Dara under the Mahatma Gandhi NREGA Scheme, scheduled at the Administrative Training Institute, Mysore. Held on 09/09/2025.
- I have attended a Five-Day Training program on District Disaster Management Plan Revision and Implementation, Chitradurga and Tumkur, scheduled at the Administrative Training Institute, Mysore. Held from 15/09/2025 to 19/09/2025.

## **3. Training Imparted to Line Departments**

- I have given the two-day "GIS Orientation" Training for Village Administrative Officers (VAO) at the Auditorium, Zilla Panchayath, and Chitradurga. Held on 18<sup>th</sup> and 19<sup>th</sup> December 2025.

## 4. Conclusion

- **Summary of Activities and Key Findings:**
- From August 2025 to November 2025, the NRDMS Centre in Chitradurga conducted several key technical, administrative, and capacity-building activities to support district-level planning and governance through geospatial and data-driven approaches.
- Major activities included the analysis and submission of rainfall, average water storage, and runoff data (2021–2024) to the State NRDMS Centre, KSCST, Bengaluru, which strengthened hydrological datasets for regional water resource assessment and planning.
- The Centre also contributed to inter-departmental coordination by participating in planning meetings with the Chitradurga City Municipal Commissioner and CEPMIZ discussions at the Deputy Commissioner's Office, ensuring effective integration of geospatial inputs into urban and infrastructure development initiatives.
- A significant map was generated based on GIS mapping and spatial analysis during the reporting period, including fire station location maps, City Municipal Corporation radius maps, Auxiliary Assembly Constituency polling station maps, and Vedavati River GIS-based measurements and statistical analysis.
- A brief statistical report submitted to the concerned district authorities. These outputs supported decision-making in areas such as disaster preparedness, election planning, urban management, and river basin planning, enhancing the availability and application of accurate spatial information across departments.
- The Centre also emphasized capacity building and institutional strengthening through a two-day GIS Orientation Training for Village Administrative Officers (VAOs), as well as participation in multiple state and national-level training programs and webinars related to Yukthadhara implementation, geospatial standards, and disaster management planning.

- Regular preparation of monthly progress, attendance, and technical reports, along with efficient handling of administrative responsibilities, ensured systematic documentation and operational continuity.
- Overall, the activities undertaken during this period resulted in improved geospatial data availability, enhanced inter-departmental coordination, strengthened disaster preparedness, and increased technical capacity, reinforcing the role of the NRDMS Centre, Chitradurga, in sustainable and evidence-based district planning.

- **Commitment to Improve NRDMS Activities:**

- In the upcoming period, the NRDMS Centre, Chitradurga, commits to strengthening integrated geospatial decision-support systems by expanding district-level hydro-meteorological databases, including real-time rainfall, runoff, and groundwater monitoring for improved water resource planning.
- The Centre proposes the development of a web-based GIS dashboard for the District Administration, enabling easy access to spatial layers such as polling stations, fire station coverage, Gram Panchayat boundaries, river measurements, and disaster-prone zones, for faster and informed decision-making.
- Further, NRDMS activities will focus on enhancing disaster preparedness and climate resilience by linking DDMP spatial layers with live field data and historical vulnerability maps.
- Capacity-building initiatives will be more scaled up through regular GIS and NRDMS-oriented training programs for line departments, VAOs, and technical staff to improve data usage and ownership.
- The Centre also plans to support e-governance and transparency by developing customised web-based mapping tools for schemes such as MGNREGA and Yukthadhara, as well as addressing the urban planning needs of the City Municipal Corporation.
- These initiatives will collectively improve data accessibility, inter-departmental coordination, and evidence-based planning, thereby enhancing the operational effectiveness of NRDMS in Chitradurga district.

## 5. Annexures

### **District Maps:**

The NRDMS Centre in Chitradurga prepared and compiled a series of administrative, thematic, and project-related GIS maps to support the proposed expansion and upgradation of Chitradurga City Municipal Council into a Mahanagara Palike. The annexures include Chitradurga district boundary maps, Chitradurga City Municipal ward boundary maps, and Hobli, Gram Panchayat, and village boundary maps of Chitradurga Taluk (Figure 1), along with thematic maps depicting the \*spatial spread and surrounding influence areas of Chitradurga City (Figure 2). In addition, GIS-based radius analysis maps (4 km, 8 km, 10 km, and 12 km) were prepared to scientifically assess \*urban growth potential, infrastructure demand, and spatial constraints (Figure 3). These maps identify Hoblies, Gram Panchayats, and villages suitable for urban planning, zoning, and infrastructure development by integrating population growth trends, land use patterns, infrastructure requirements, and environmental sensitivity. Collectively, the maps serve as a strategic geospatial decision-support tool for sustainable urban expansion, balanced development, and informed planning to upgrade Chitradurga City into a City Corporation, while safeguarding its ecological and cultural assets.

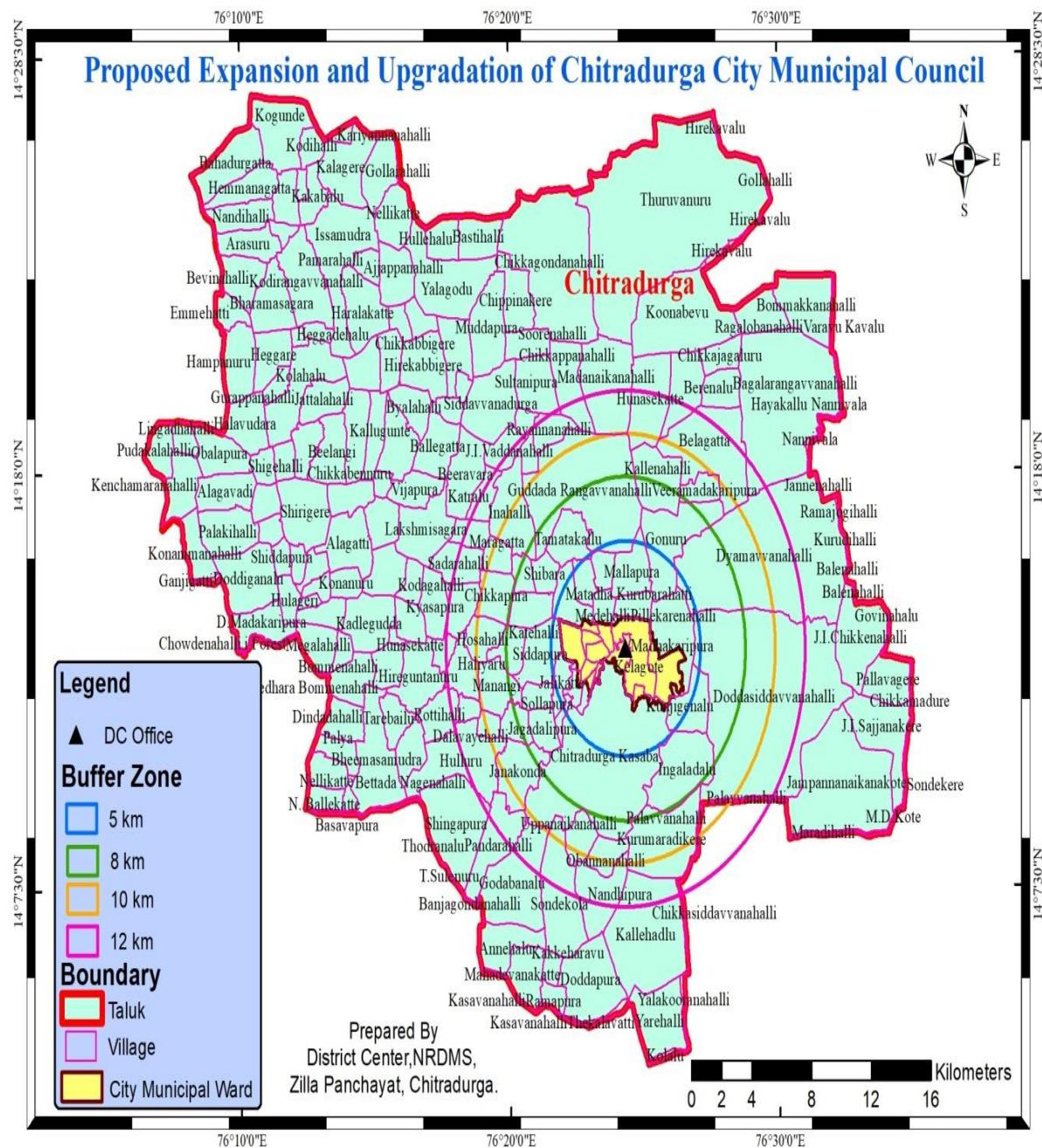
The NRDMS Centre, Chitradurga, prepared a project-related GIS map to support fire safety planning and disaster management initiatives by identifying and demarcating a proposed fire station site at Upparigenhalli in Chitradurga District. The annexure includes the Chitradurga district boundary and Hobli boundaries of Kasaba Chitradurga, Talya, Madadakere, and Aimangala, along with the precise location of Upparigenhalli village, to provide a comprehensive spatial context (Figure 4). The GIS analysis was carried out considering accessibility to major roads and highways, proximity to population centres, coverage of nearby villages and public institutions, and potential hazard zones, ensuring optimal site suitability. The prepared map supports quick emergency response, facilitates coordinated action among fire, police, and health departments, and strengthens emergency response infrastructure in the region. Overall, the proposed fire station at Upparigenhalli has been strategically planned to reduce response time during fire incidents and natural disasters, enhance public safety coverage for rural and industrial

areas, and contribute significantly to disaster preparedness, community resilience, and public safety awareness in Chitradurga district.

The NRDMS Centre, Chitradurga, carried out GIS mapping of the Auxiliary Assembly Constituency Polling Stations for the taluks of Chitradurga, Challakere, Molakalmuru, Hiriyur, Hosadurga, and Holalkere in Chitradurga District, in coordination with the District Election Division, District Collector's Office, Chitradurga. The annexures include GIS-based shapefile maps of polling station locations prepared for each taluk, namely Chitradurga (Figure 5), Challakere (Figure 6), Molakalmuru (Figure 7), Hiriyur (Figure 8), Hosadurga (Figure 9), and Holalkere (Figure 10), providing an accurate and up-to-date spatial database of Auxiliary Assembly Constituency Polling Stations across the district. The GIS analysis enables visualisation of spatial distribution, accessibility, and coverage of polling stations, supporting efficient planning, resource allocation, and logistical management during election processes. These maps help identify coverage gaps and areas requiring additional polling facilities, facilitate faster coordination among election officials and field teams, and support real-time monitoring and spatial analysis during electoral activities. Collectively, the GIS-based polling station maps enhance data accuracy, transparency, and decision-making efficiency, and serve as a baseline geospatial dataset for future election-related GIS updates and planning initiatives in Chitradurga district.

The NRDMS Centre, Chitradurga, prepared GIS-based maps of Gram Panchayat boundaries and headquarters for the taluks of Chitradurga, Challakere, Molakalmuru, Hiriyur, Hosadurga, and Holalkere in Chitradurga District, in coordination with the Lokayukta Police, Chitradurga. The annexures include GIS shapefile maps of taluk and Gram Panchayat boundaries with headquarters locations, prepared for Chitradurga (Figure 11), Challakere (Figure 12), Molakalmuru (Figure 13), Hiriyur (Figure 14), Hosadurga (Figure 15), and Holalkere (Figure 16), providing accurate and geospatially referenced administrative boundary information across the district. These maps ensure clarity in jurisdictional limits, reduce boundary-related disputes, and support administrative planning, investigations, inspections, audits, and the implementation of developmental projects, while enabling improved coordination between district- and taluk-level offices, effective resource allocation, service delivery monitoring, and the identification of infrastructure gaps. Collectively, the maps enhance transparency, accountability, and evidence-

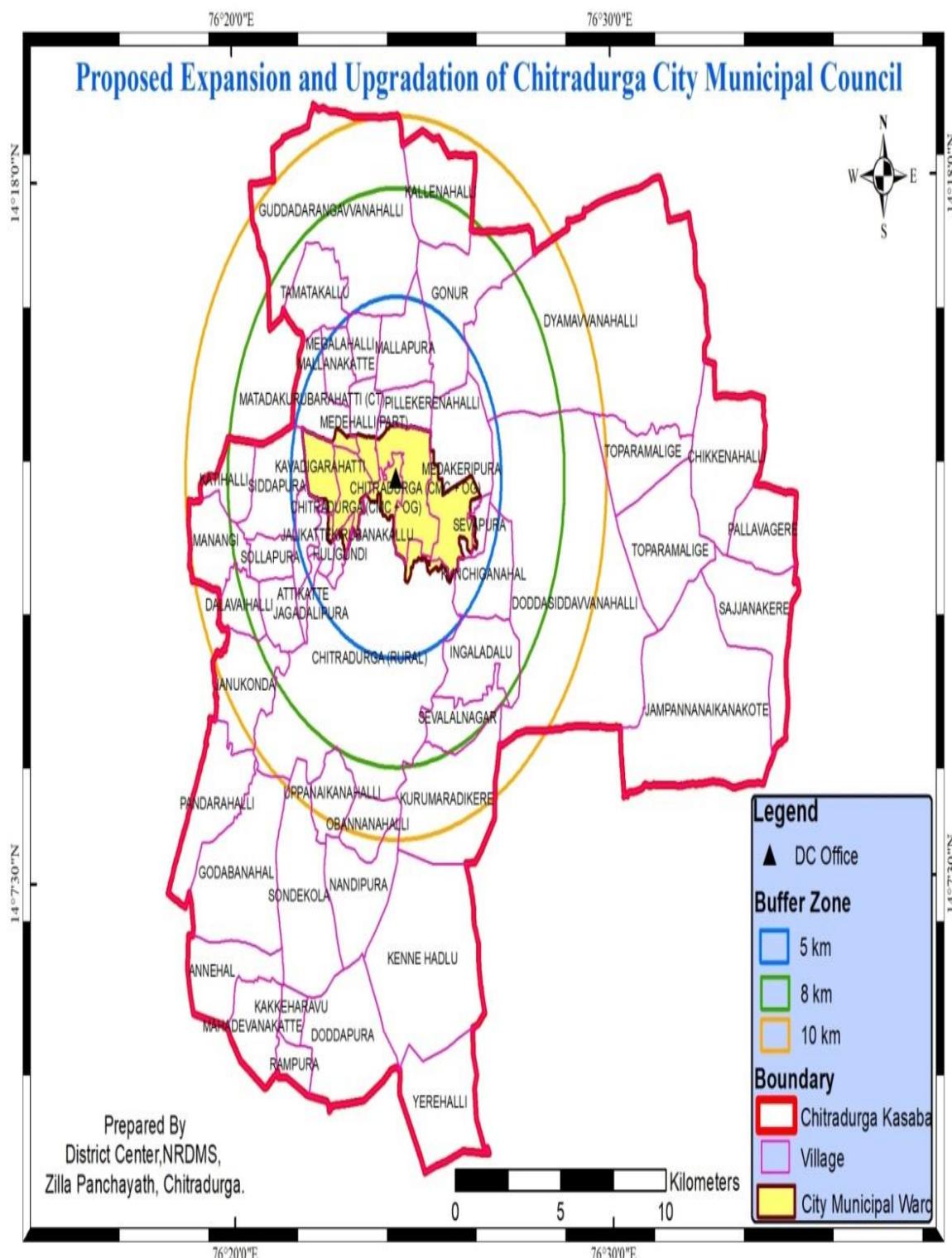
based decision-making, benefiting government departments, local administrations, and the community. Their submission to the Lokayukta Police, Chitradurga District, strengthens administrative processes and contributes to efficient governance and improved public service delivery across the district.



delivery across the district.

Figure 1. Proposed expansion and Upgradation of Chitradurga City Municipal Council.

Figure 2. Proposed expansion and Upgradation of Chitradurga City Municipal Council –Map showing Chitradurga Taluk.



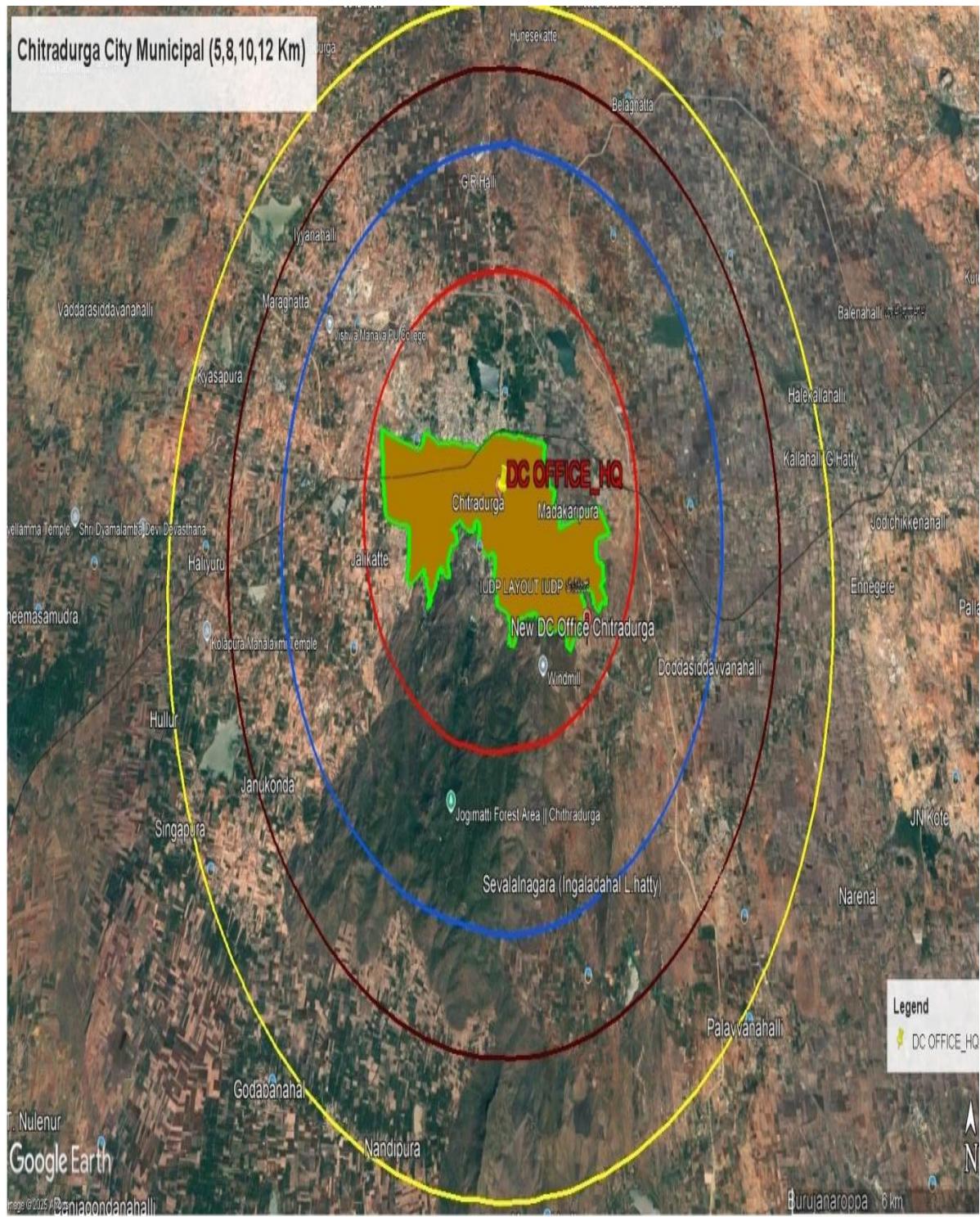
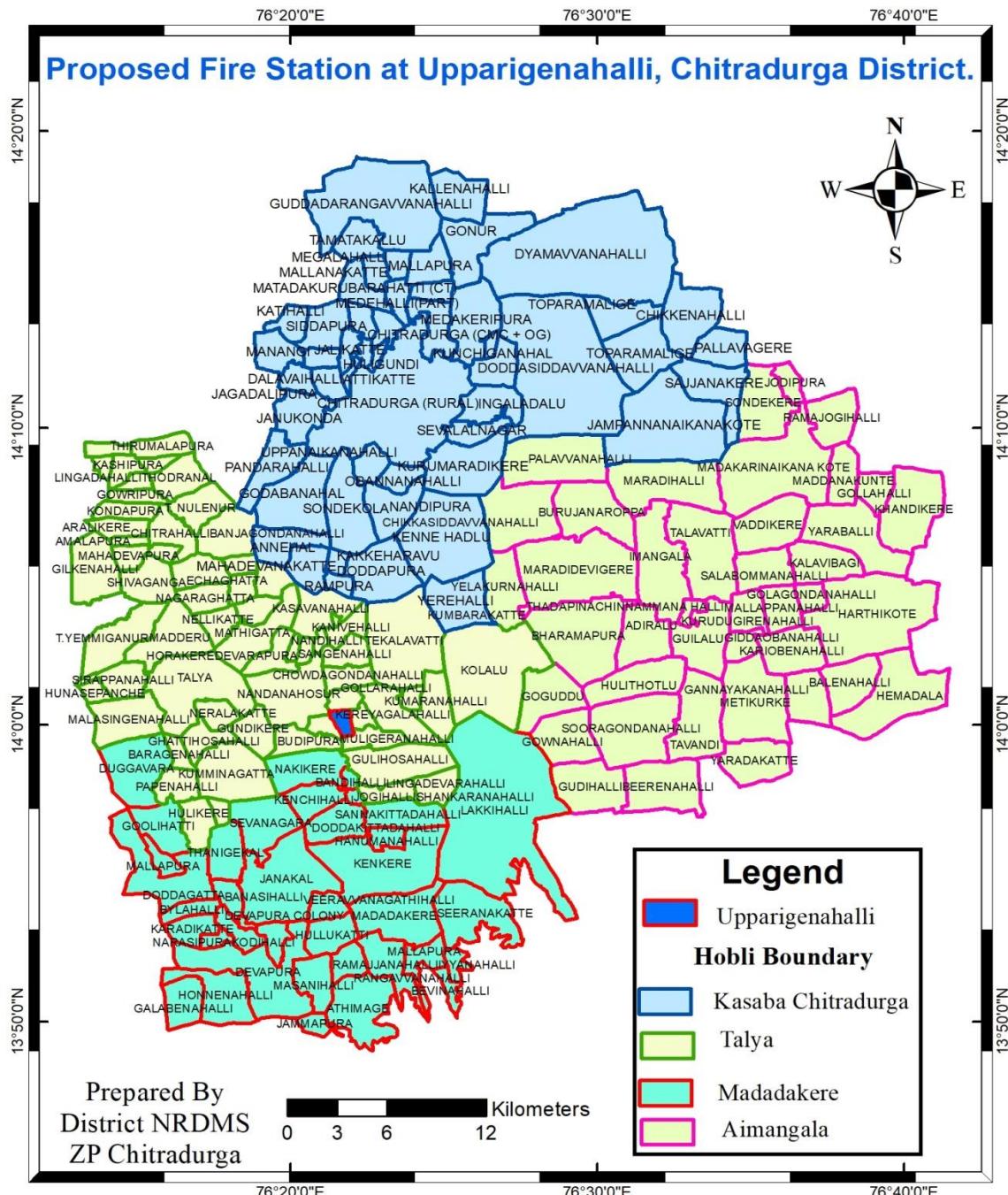


Figure 3. Proposed expansion and Upgradation of Chitradurga City Municipal Council –Map showing Radius Satellite Image.

Figure 6: Proposed Fire Station Upparigebhalli, Chitradurga District.



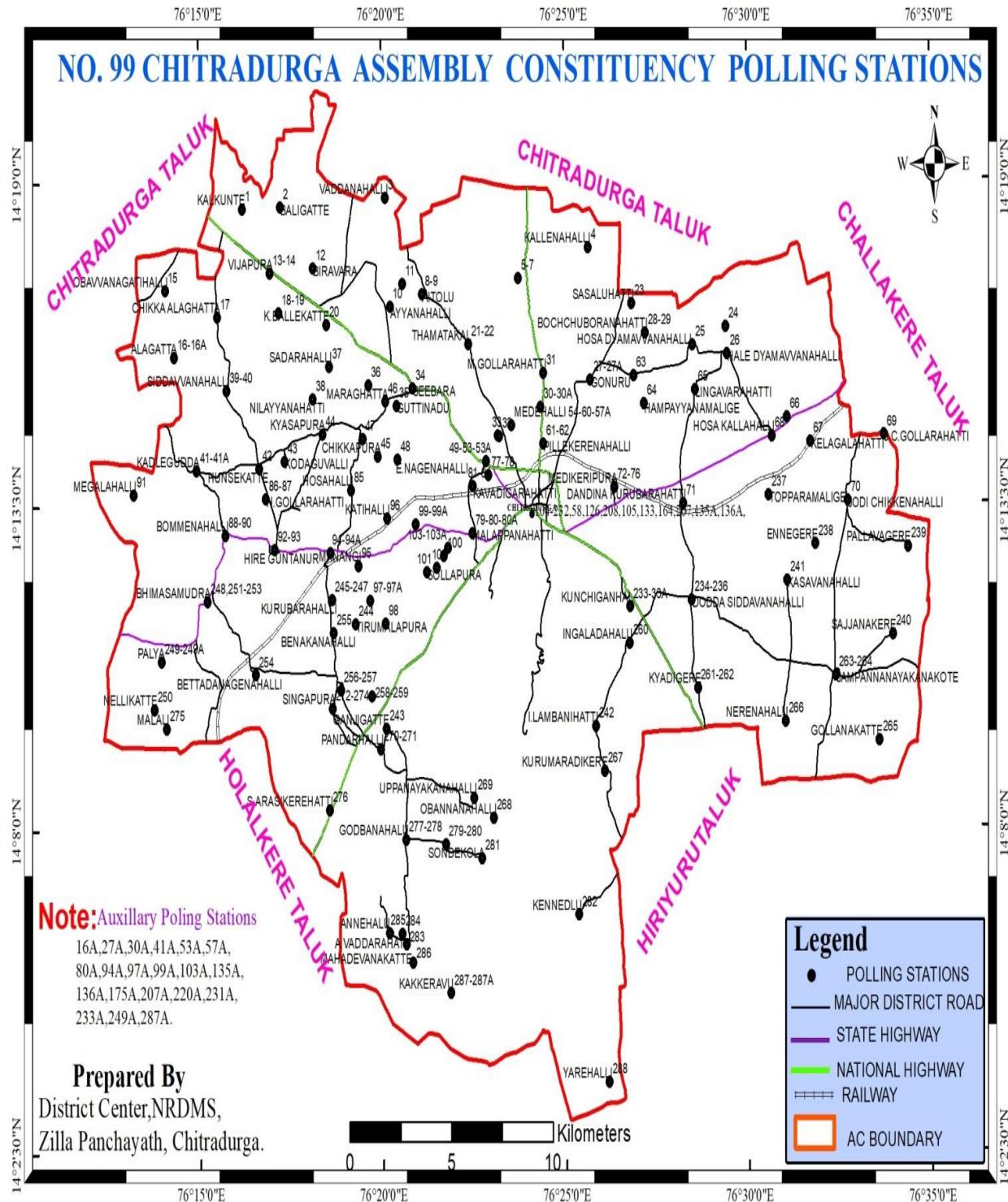


Figure 6. Chitradurga Assembly Constituency Polling Stations.

Figure 7. Challakere Assembly Constituency Polling Stations.

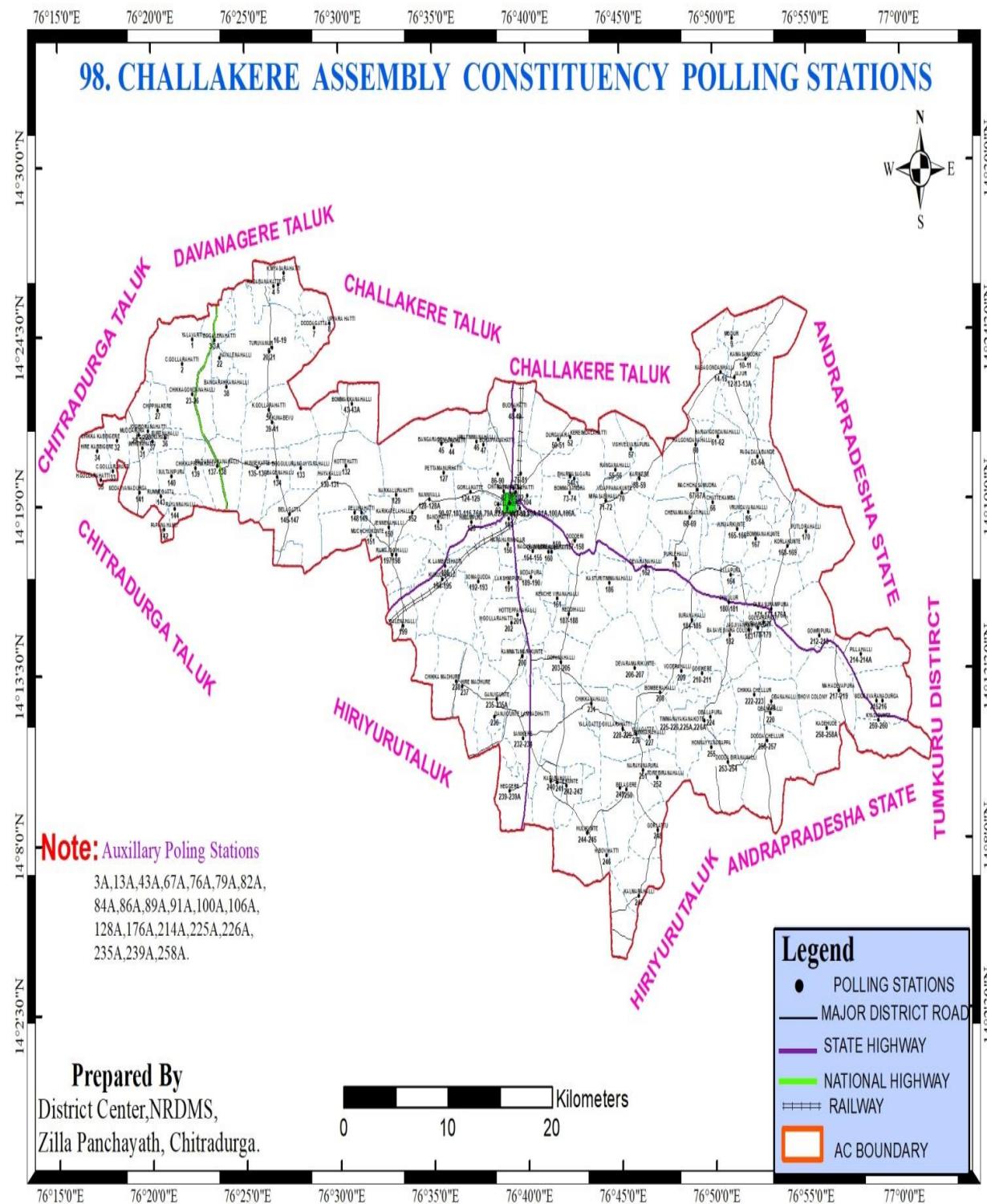


Figure 8. Molakalmuru Assembly Constituency Polling Stations.

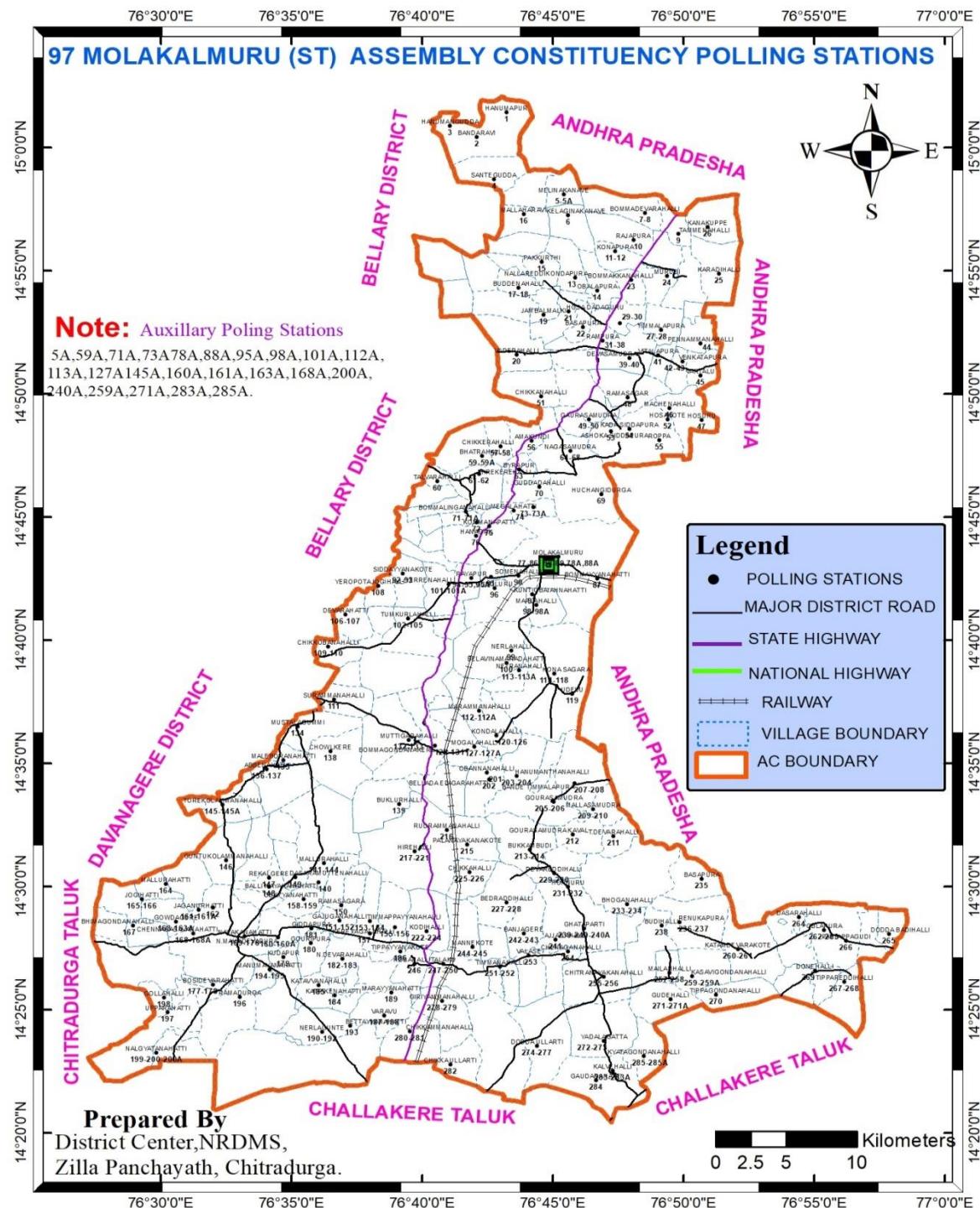


Figure 9. Hosadurga Assembly Constituency Polling Stations.

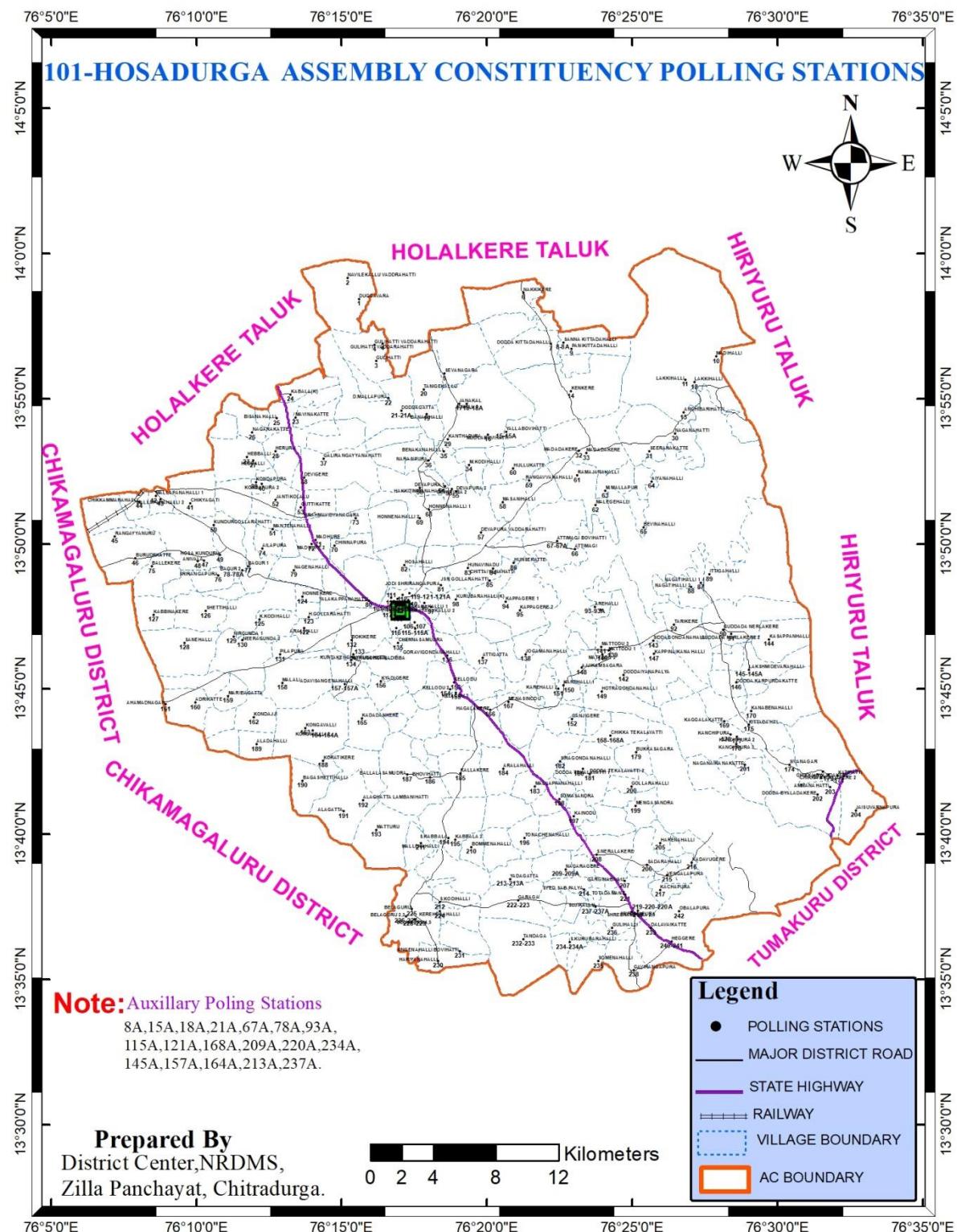


Figure 10. Holalkere Assembly Constituency Polling Stations.

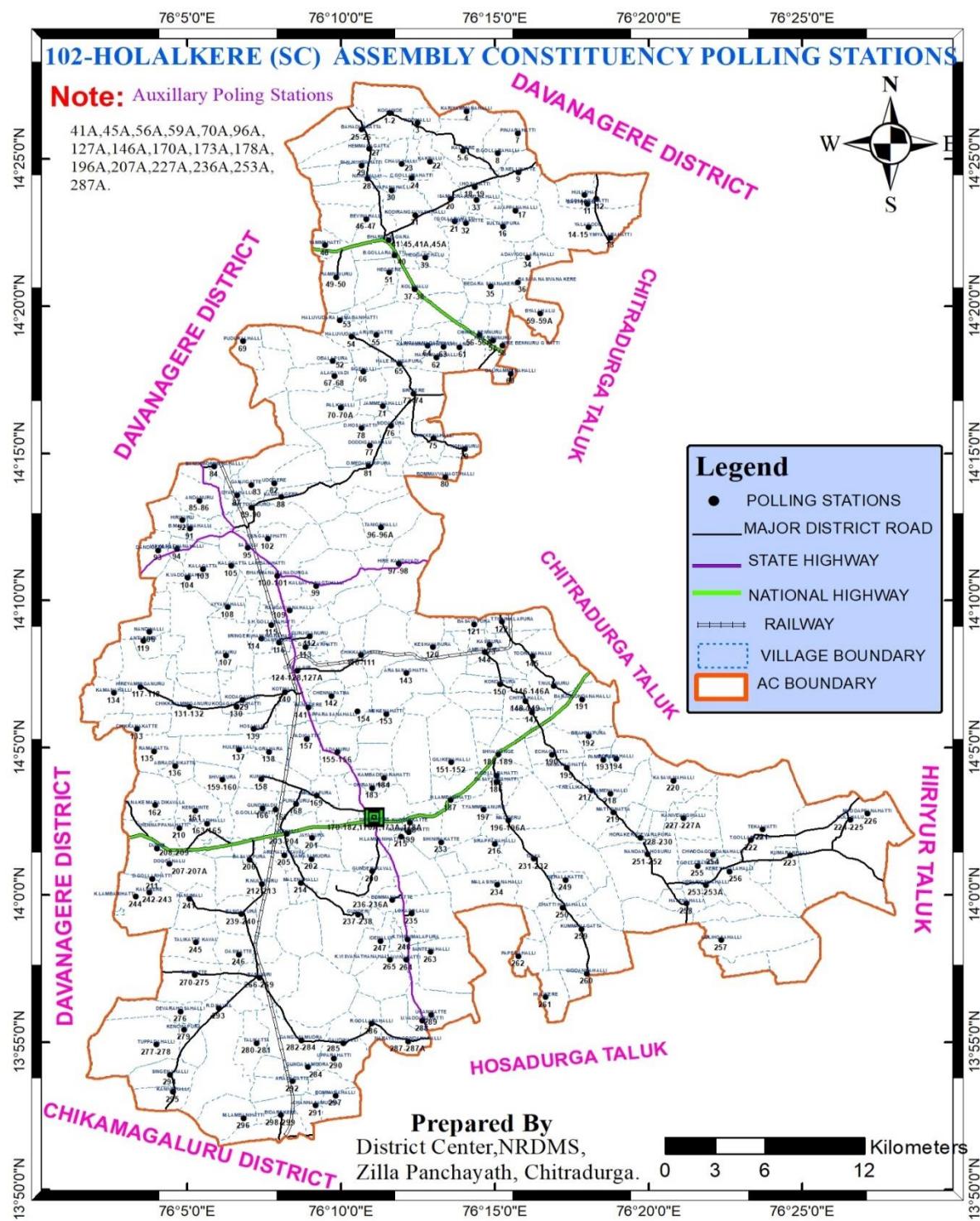


Figure 11. Gram Panchayats of Challakere Taluk.

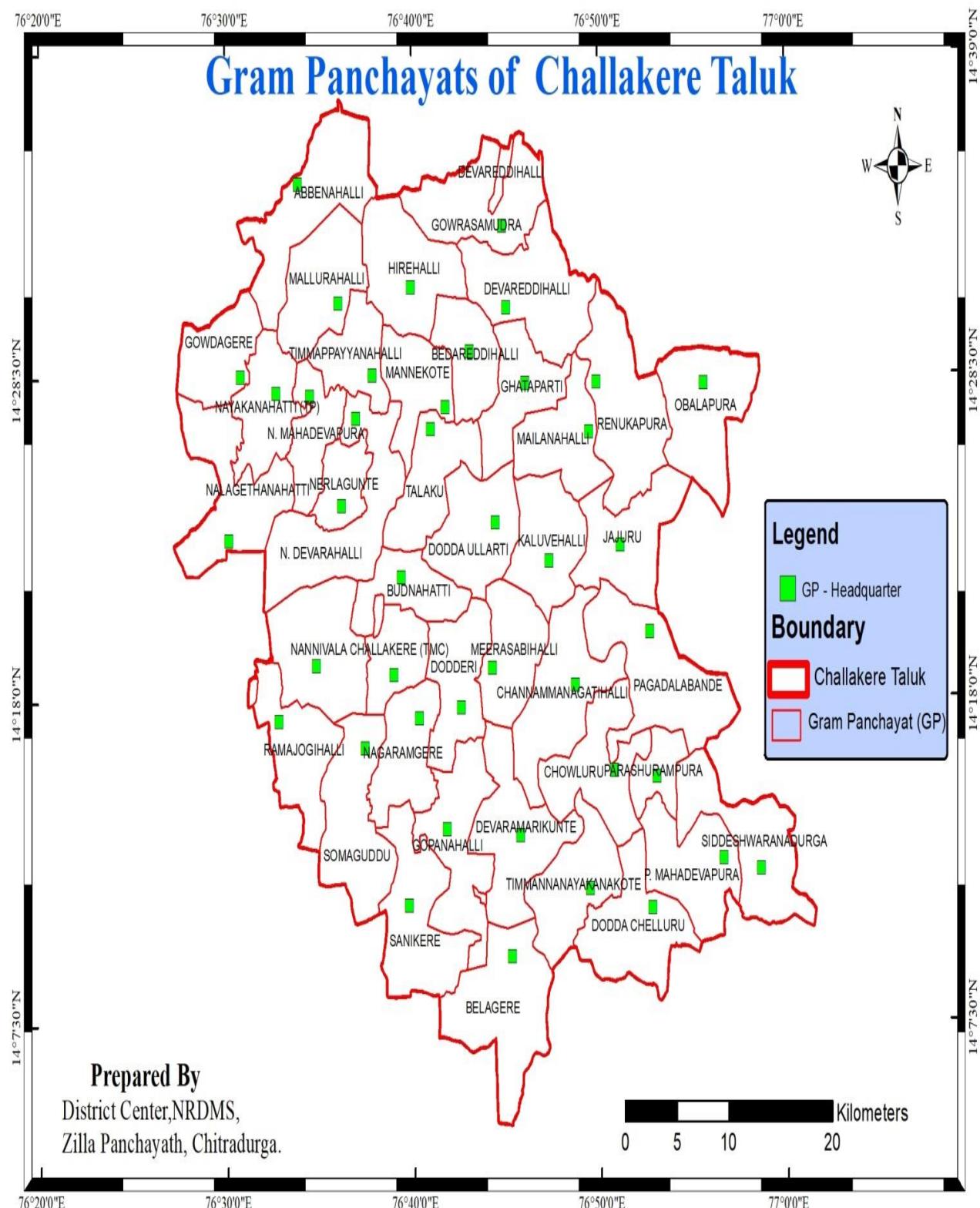


Figure 12. Gram Panchayats of Molakalmuru Taluk.

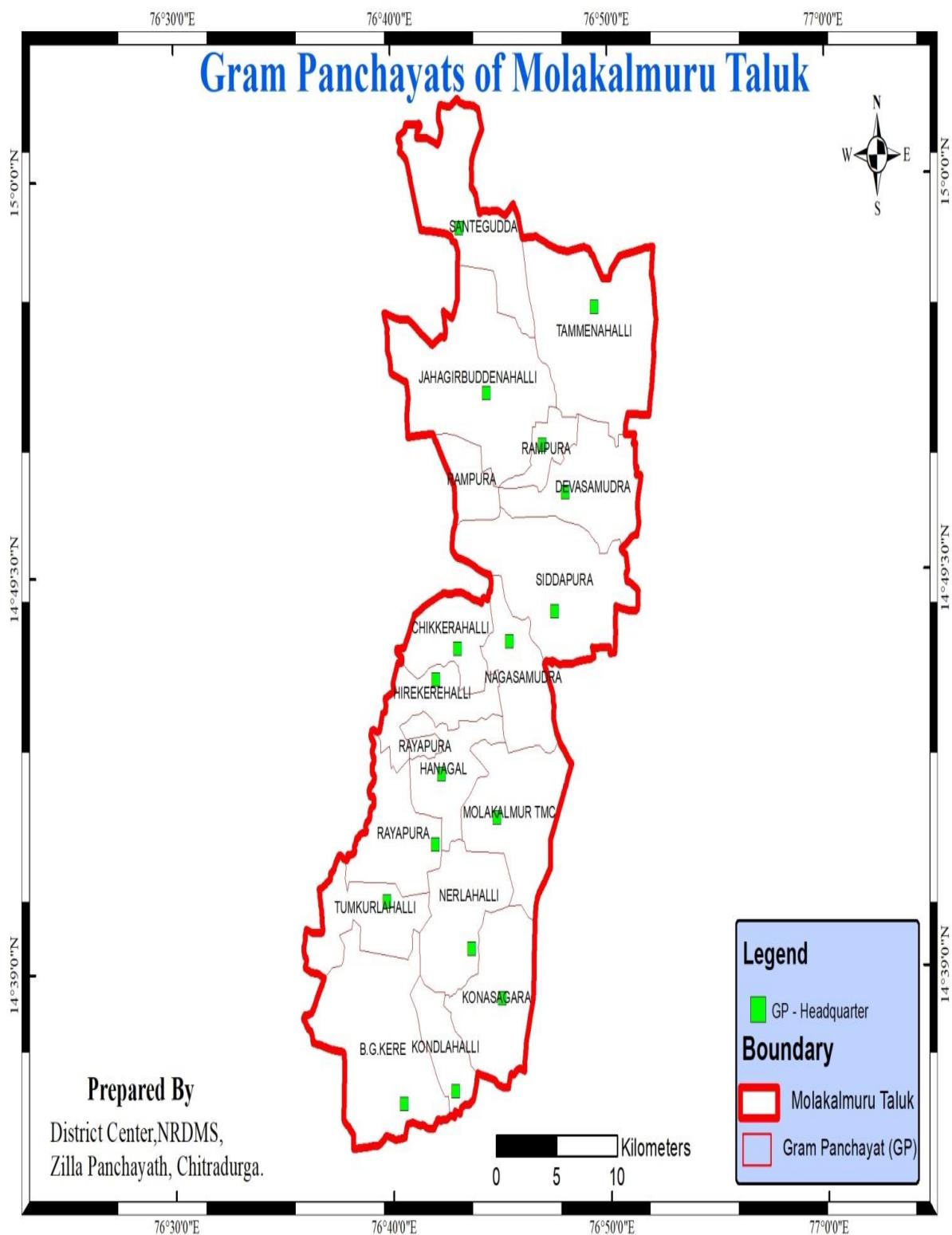


Figure 13. Gram Panchayats of Hiriyur Taluk.

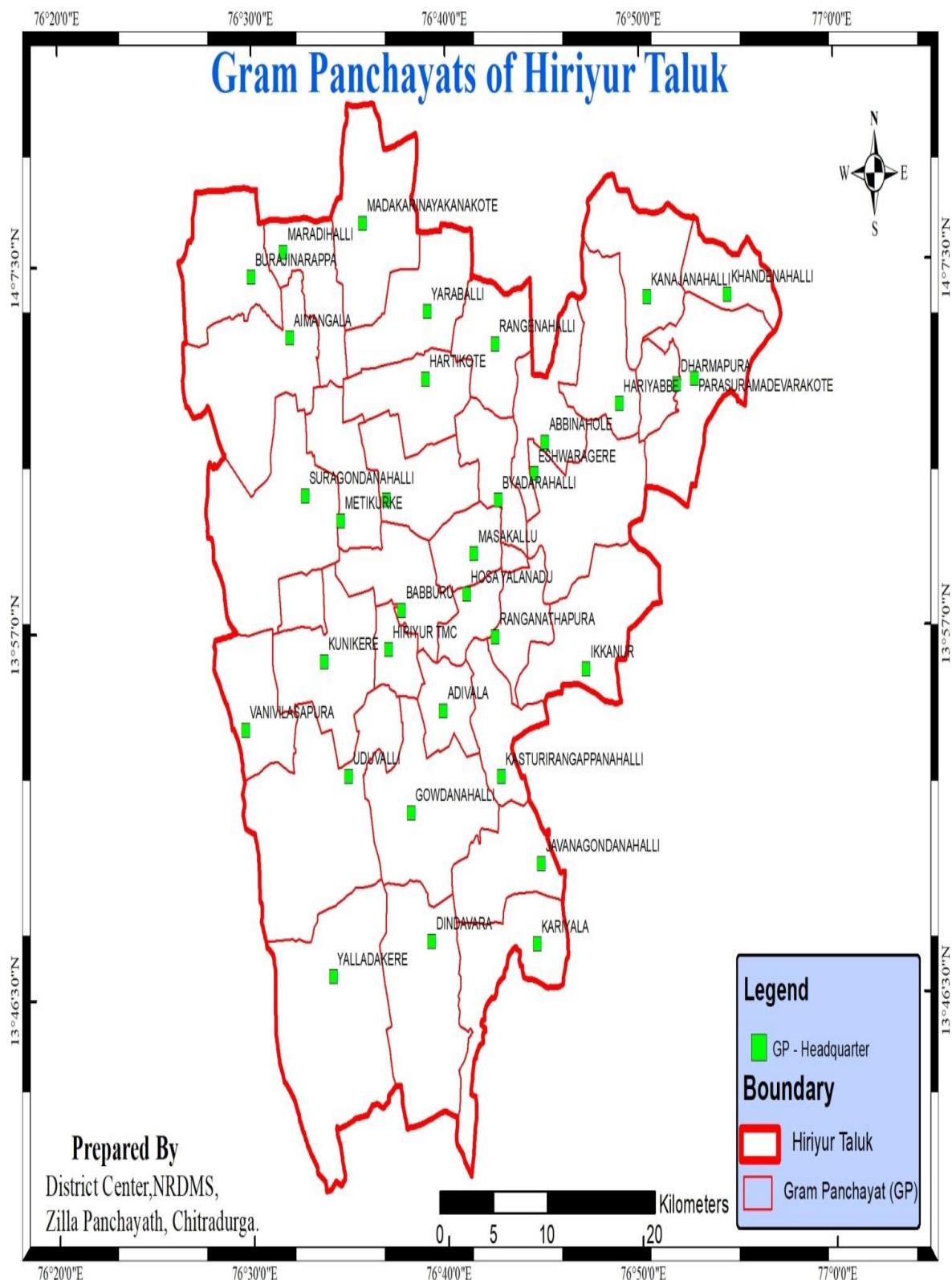


Figure 14. Gram Panchayats of Hosadurga Taluk.

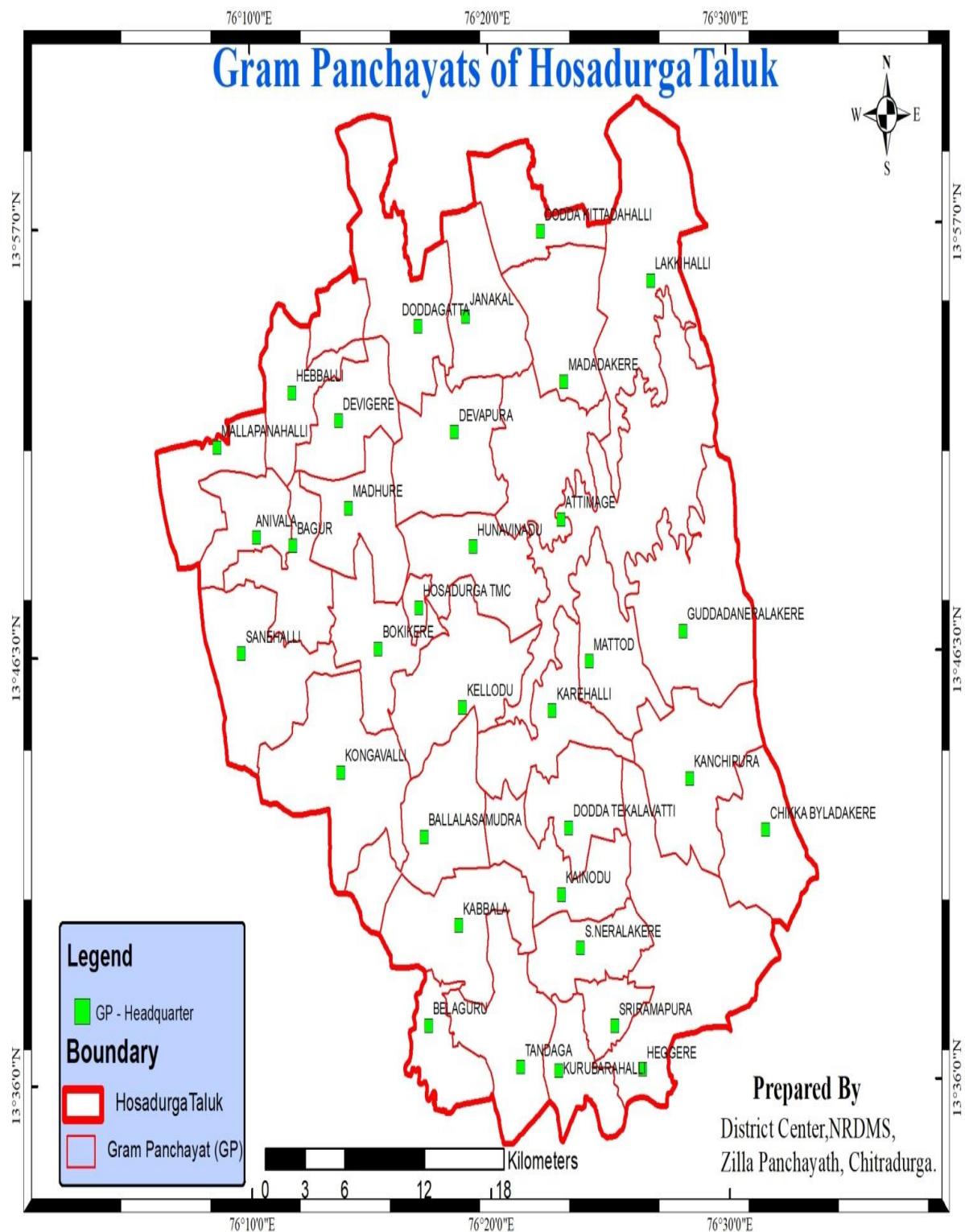
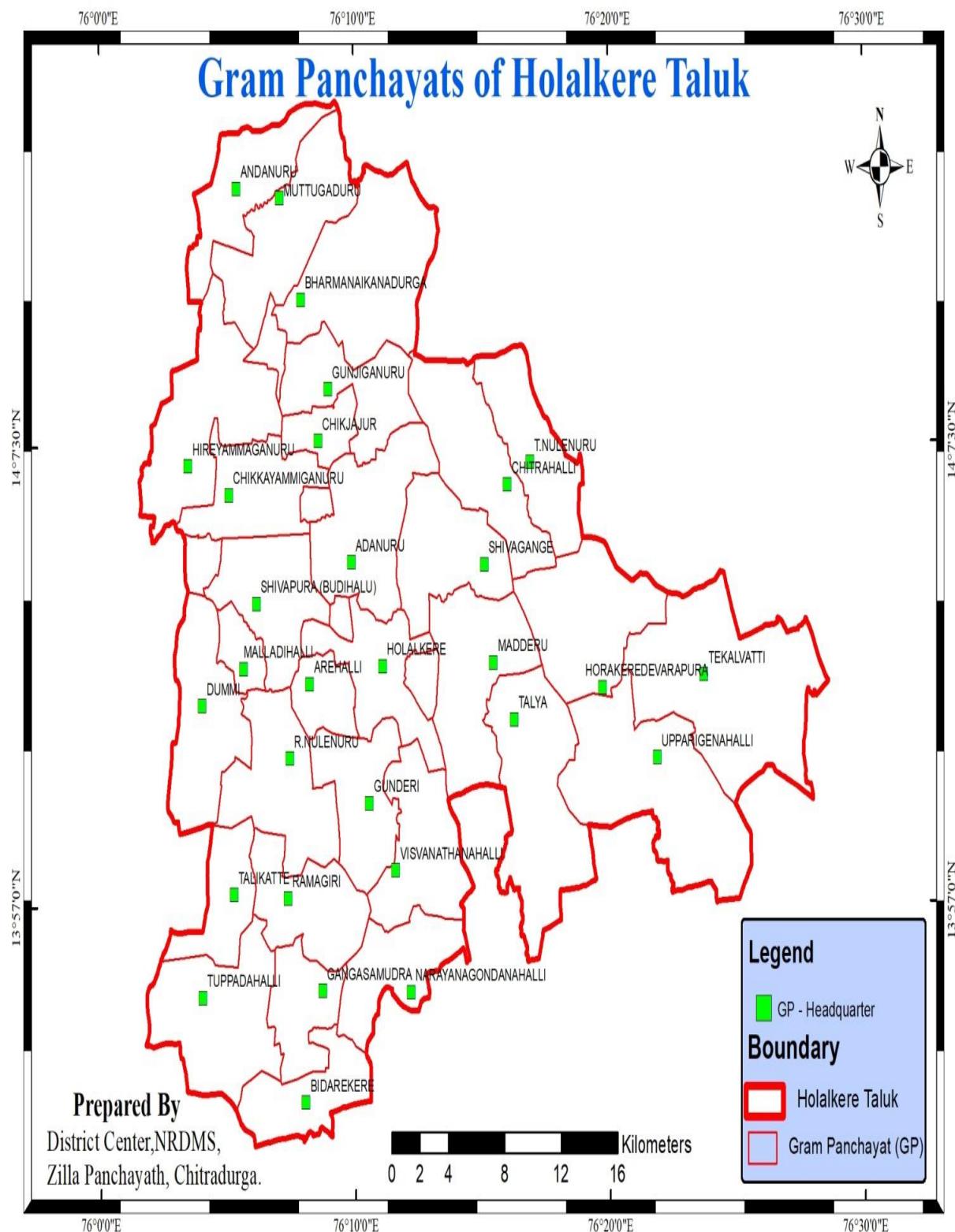


Figure 15. Gram Panchayats of Holalkere Taluk.



## Photographs of Events



Figure 17. The two-day "GIS Orientation" Training for Village Administrative Officers (VAO) was held on August 18th and 19th, 2025, at the Auditorium, Zilla Panchayath, Chitradurga.



Figure 18. One-Day Training Program on Yuktha Dara under the Mahatma Gandhi NREGA Scheme, scheduled at the Administrative Training Institute, Mysore. Held on 09/09/2025.



Figure 19. Five-Day Training program on District Disaster Management Plan Revision and Implementation, Chitradurga and Tumkur, scheduled at the Administrative Training Institute, Mysore. Held from 15/09/2025 to 19/09/2025.