

NATURAL RESOURCES DATA MANAGEMENT SYSTEM (NRDMS)

***MONTHLY ACTIVITY REPORT
April - July 2025***

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



***Submitted to
Karnataka State Council for
Science and Technology (KSCST)
Indian Institute of Science Campus,
Bengaluru – 560012***

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3. NRDMS Background:

The Karnataka Natural Resources Data Management System (NRDMS) program, initiated in 1992 by the Council with support from DST, Government of India and Government of Karnataka, aims to strengthen decentralized planning through the use of spatial data and geospatial technologies. Recognizing the limitations of macro-level resource assessment, NRDMS introduced micro-level spatial planning supported by digital databases on natural resources, socio-economic and agro-economic parameters. Through a network of District NRDMS Centers, the program integrates multi-sectoral data to provide analyzed, location-specific information and decision-support tools to planners, administrators, and local governance bodies, facilitating informed and integrated development planning.

Background of Kolar District (Elaborated)

Kolar is a prominent district located in the south-eastern part of Karnataka, India. It holds a unique place in Indian history and geography due to its rich natural resources, cultural heritage, and strategic location. The district is famously known as the "Land of Gold" because of the Kolar Gold Fields (KGF), which were once among the deepest, oldest, and most productive gold mines in the world. These mines were operational for more than a century under British colonial rule and later managed by the Indian government before being closed due to declining production and rising operational costs.

The legacy of gold mining has deeply influenced the region's identity, economy, and settlement patterns. KGF also attracted workers and engineers from across India and abroad, creating a unique multi-cultural environment in the area.

Apart from its mining legacy, Kolar has a rich historical and cultural background. It was once part of ancient kingdoms such as the Ganga dynasty, the Cholas, the Hoysalas, and the Vijayanagara Empire, all of which left their imprint in the form of temples, inscriptions, and traditional art. The district is dotted with historical temples, such as the Kolaramma Temple and Someshwara Temple, which reflect its architectural heritage.

Kolar is part of the Bengaluru Division and is situated in a region that is important for its connectivity and proximity to other southern states. The district shares its borders with Andhra Pradesh to the east and Tamil Nadu to the south, making it a tri-junction of cultural exchange, trade, and migration. This strategic location enhances its importance in regional development and cultural diversity.

In the present day, although the gold mines are no longer operational, Kolar continues to thrive through agriculture, silk production, and horticulture. It is particularly known for the cultivation of tomatoes, mangoes, and flowers, making it one of the leading horticultural districts in Karnataka.

Thus, Kolar district represents a blend of historical richness, geographical significance, and cultural diversity, rooted in its golden past and growing through modern development.

Description of Kolar District:

Kolar is a district in the south-eastern part of Karnataka, India. It is known for its historical significance, especially due to the Kolar Gold Fields (KGF), once famous for gold mining. The district is also recognized for its agriculture, silk production, and horticulture, particularly tomatoes and mangoes. Kolar has a mix of rural and semi-urban areas and plays a key role in Karnataka's economy and history.

Location:

- **State:** Karnataka
- **Region:** Southern Karnataka (Bengaluru Division)
- **Geographical Coordinates:** Between **12°46' N to 13°58' N latitude** and **77°21' E to 78°35' E longitude**
- **Elevation:** Around **850–950 meters** above sea level

Neighbouring Districts and States:

Direction	Neighbouring Region
North	:Chikkaballapur District (Karnataka)
West	:Bengaluru Rural District (Karnataka)
East	:Chittoor District (Andhra Pradesh)
South	:Krishnagiri District (Tamil Nadu)
Southeast	:Vellore District (Tamil Nadu)

Topography of Kolar District

Kolar district, located in the southeastern part of Karnataka, has a diverse topography but is primarily characterized by undulating plains, rocky hills, and scattered plateaus. It is not a coastal region and lies in the interior part of South India.

1. Terrain and Landforms

- The district features a mix of gently sloping plains and rugged terrain.
- The elevation ranges between 850 to 950 meters above sea level, giving it a moderate altitude.
- The land is mostly dry and semi-arid, suited for dryland agriculture.
- Rocky outcrops and granite hills are common across the landscape.

2. Hills and Plateaus

- Kolar has several isolated hills and hill ranges, mainly composed of granite and gneiss rocks.
- Notable hill areas include:
 - Antara Gange Hills near Kolar – known for caves, springs, and religious significance.

- Shathashruna Hills – located near Mulbagal.
- These hills are not part of the Western or Eastern Ghats but are local hill formations.
- The terrain transitions into the Deccan Plateau, making Kolar a part of the Southern Plateau region.

3. Rivers and Water Bodies

- Kolar is not a coastal district and does not have access to the sea.
- It has no major perennial rivers, but several small rivers originate here.
- Major rivers:
 - Palar River – originates in Kolar and flows into Tamil Nadu.
 - South Pennar (Dakshina Pinakini) – also flows through the district.
- Due to lack of consistent surface water, the region depends on tanks (lakes) and groundwater.
 - Examples: Bethamangala Lake, Kolaramma Tank, Narsapura Tank.

4. Soil and Agriculture

- Dominated by red sandy loam and red clay soils, which are well-drained but low in fertility.
- The terrain and soil support crops like ragi, groundnut, pulses, and horticultural crops like mangoes, tomatoes, and flowers.

Summary

- **Region:** Interior plateau (not coastal)
- **Terrain:** Undulating plains with rocky hills and plateaus
- **Hills:** Local granite hills (e.g., Antara Gange)
- **Rivers:** Palar, South Pennar (seasonal and rain-fed)
- **Elevation:** 850–950 meters
- **Soil:** Red soils, suitable for dryland farming
- **Climate:** Semi-arid

Climate of Kolar District

Kolar district experiences a **semi-arid to dry tropical climate**, typical of the interior regions of South India. The climate is generally **hot and dry**, with **moderate rainfall** and **distinct seasonal variations**.

1. Temperature

- **Summer (March to May):**
 - Hot and dry
 - Average temperatures: **28°C to 35°C**
 - Occasionally crosses **38°C** during peak summer
- **Monsoon (June to September):**
 - Slight drop in temperature
 - Humid during rainy days
- **Winter (November to February):**
 - Mild and pleasant
 - Average temperatures: **15°C to 28°C**
 - Night temperatures can drop below **12°C** in some areas

2. Rainfall

Kolar receives **moderate rainfall**, mostly from the **Southwest Monsoon**.

- **Average annual rainfall: 750 to 900 mm**
- Rainfall is **uneven and irregular**, often leading to **water scarcity**.
- Some rain also occurs during the **Northeast Monsoon** (October–November).

3. Humidity and Winds

- **Humidity** is generally low except during the monsoon season.
- **Winds** are dry and strong in summer, contributing to evaporation and soil dryness.

4. Climate Challenges

- The district is prone to **droughts** due to irregular rainfall.
- **Groundwater depletion** is a major issue because of overuse and limited recharge.
- Agriculture heavily depends on **rainwater and tank irrigation**.

Season	Months	Temperature Range	Rainfall
Summer	March to May	28°C – 35°C	Very low
Monsoon	June to September	25°C – 30°C	Moderate (SW Monsoon)
Post-Monsoon	October to November	22°C – 28°C	Some (NE Monsoon)
Winter	November to February	15°C – 28°C	Very low

Natural Resources of Kolar District

1. Forests and Their Locations

Kolar has **limited forest cover**, mainly consisting of **dry deciduous** and **scrub-type forests**. These forests are found on hill slopes and in less cultivated areas.

Common Trees: Neem, Honge, Tamarind, Acacia, Eucalyptus

Forest Area	Location	Type
Antara Gange Hills	Near Kolar town	Dry deciduous, rocky forests
Shathashruna Hills	Near Mulbagal	Scrub forests, scattered trees
Devarabetta Forest Range	Near Malur and Bangarpet	Thorny shrubs and small trees
Kaiwara Hills (partly)	Bordering Chikkaballapur	Rocky and dry forest cover

2. Minerals and Their Locations

Kolar is historically rich in **minerals**, especially **gold** and **granite**.

Mineral	Location in Kolar District	Details
Gold	Kolar Gold Fields (KGF) – near Bangarpet	Deepest and oldest gold mine (closed now)
Granite	Mulbagal, Malur, KGF area, and Kolar Taluk	Used in construction, monuments
Quartz	Found near Bangarpet and KGF	Industrial use
Feldspar & Mica	Scattered across Mulbagal & Malur	Limited extraction

3. Water Bodies and Their Locations

Kolar lacks perennial rivers and relies on **seasonal rivers** and **man-made tanks** (lakes) for water storage and irrigation.

Sector / Subsector	Scale	Source	Survey / Publn. Year	Area covered	Status Code	File Format
1. Natural Resources						
Land						
1. Topography						
Contour Map	1:50,000	KRSAC		District	CC	.shp
Slope Map	1:50,000	KRSAC				.shp
2. Geology – A						
Rock features	1:50,000	MGD		District	CC	.shp
Structural features	1:50,000	MGD		District	CC	.shp
3. Geology – B						
Rock features	1:50,000	MGD		District	CC	.shp
Structural features	1:50,000			District	CC	.shp
4. Mineral Resources		MGD		District	NA	
5. Geomorphology	1:50,000	MGD		District	CC	.shp
6. Land use	1:50,000	KRSAC		District	CC	.shp
7. Waste Lands		KRSAC		District		
8. Soils	1:50,000	NBSS & LUP		District	CC	.shp
9. Forest & Wildlife						
Forest type		KFD			NA	
Crown Density					NA	
Forest Category					NA	
Forest admn.		SOI			NA	
Wild Life					NA	
Water						
1. Ground water						
Hydro Geology		MGD			NA	

Hydro chemistry		ZP			NA	
Ground water budget					NA	
2.Surface water						
Drainage	1:50,000	MGD		District	CC	.shp
Surface water bodies	1:50,000	SOI & KRSRAC		District	CC	.shp
3.Climate						

Rivers (mostly seasonal):

River	Origin / Flow Through
Palar River	Originates near Nandi Hills, flows through Kolar Taluk
South Pennar	Flows through southern parts of Malur and Bangarpet
Markandeya River	Near KGF region and joins Palar later

Major Tanks and Lakes:

Water Body	Location
Bethamangala Lake	Near Bangarpet
Kolaramma Tank	Near Kolar Town
Narsapura Tank	Near Malur
Doddur Tank	Near Mulbagal

4. Soil Types and Their Distribution

Soil Type	Location in Kolar District	Features
Red Sandy Loam	Widespread – Mulbagal, Kolar, Malur Taluks	Well-drained, suitable for millets
Red Clay Soil	Valleys and semi-irrigated areas	Moisture-retentive, good for ragi, pulses
Lateritic Soil	Hilly areas – Antara Gange, Bangarpet Hills	Less fertile, needs treatment
Black Soil	Patches near Malur and Mulbagal	Suitable for cotton and oilseeds

Natural Resource	Type / Name	Location
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Forests	Dry deciduous, scrub forests	Antara Gange, Shathashruna Hills, Malur
Gold	Kolar Gold Fields (KGF)	Near Bangarpet
Granite	Granite quarries	Mulbagal, Malur, KGF
Rivers	Palar, South Pennar	Kolar, Bangarpet, Malur
Lakes/Tanks	Bethamangala, Kolaramma Tank	Bangarpet, Kolar
Red Soils	Red sandy and clay loam	Across district, especially Kolar & Malur
Black Soil	Fertile black soil patches	Parts of Mulbagal and Malur

5. Status of database–Spatial and non-spatial

SPATIAL DATABASE

Sector / Subsector	Scale	Source	Survey / Publn. Year	Area covered	Status Code	File Format
2.Demography						
Population						
Tehsil boundary	1:50,000	KSRSAC		District	CC	.shp
District boundary	1:50,000	KSRSAC		District	CC	.shp
Current popln. distbn.				District	CC	.Xcel
Literacy						
Levels of education					CC	.Xcel
Occupation						
Village boundary	1:50,000	KSRSAC		District	CC	.shp
Employment						
District scenario					NA	
Employment exchange					NA	
Assets & Expenditure					NA	
Migration					NA	

Destitutes					NA	
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3.Socio Economy						File Format
Industry	1:50,000	ZP		District	CC	.shp
Developmental activity					NA	
4.Agro Economy						
Land Utilisation						
Private Land					NA	
Common property					NA	
Land Ownership pattern						
General scenario					NA	
Farmer's holdings					NA	
Principal crops					NA	
Irrigation						
<i>Minor irrigation</i>						
Canals		DLR & SS				
Tube wells		DLR & SS				
Dug wells		DLR & SS				
Tanks	1:50,000	DLR & SS (KRSAC)		District	CC	.shp
Lift irrigation		DLR & SS				
<i>Major irrigation</i>						
Reservoirs		DLR & SS				
Anicuts		DLR & SS				
Agricultural implements						
Animal husbandry		AHVS				
Pisciculture						

Plantation						
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Sector / Subsector	Scale	Source	Survey / Publn. Year	Area cover ed	Status Code	File Format
5.Infrastructure						
Communications						
Post offices		DLR & SS				
Telecommunicati on		DLR & SS				
Drinking water		DLR & SS				
Educational facilities	1:50,000	DDPI		District	CC	.shp
Electricity		Land Records				
Financial institutions		DLR & SS				
Markets		DLR & SS				
Health	1:50,000	DHO		District	CC	.shp
NGO's		DLR & SS				
Tourism	1:50,000	KSTDC		District	CC	.shp
Transport	1" = ...miles	PWD		District	CC	.shp
6.Miscellaneous						
District map with taluks	1" =... miles	DLR & SS		District	CC	.shp
District & taluk boundaries	1:50,000	SOI		District	CC	.shp
District map with hoblies	1: =.. miles	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 Panchayths & 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					
Land					
1. Topography					
Contour				NR	
Slope				NR	
2. Geology – A					
Rock Features	MGD			CC	
Structural features					
3. Geology – B					
Rock features					
Structural features					
4. Mineral Resources	MGD				
5. Geomorphology					
6. Land use					
7. Waste Lands					
8. Soils	NBSS & LUP				
9. Forest & Wildlife					
Forest type					
Crown Density					
Forest Category					

Forest admn.					
Wild Life					
Water					
Ground water					
Hydro Geology	MGD				
Hydro chemistry	CGWB				
Ground water budget	MGD				
Surface water					
Drainage					
Surface water bodies					
Climate	IMD				

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

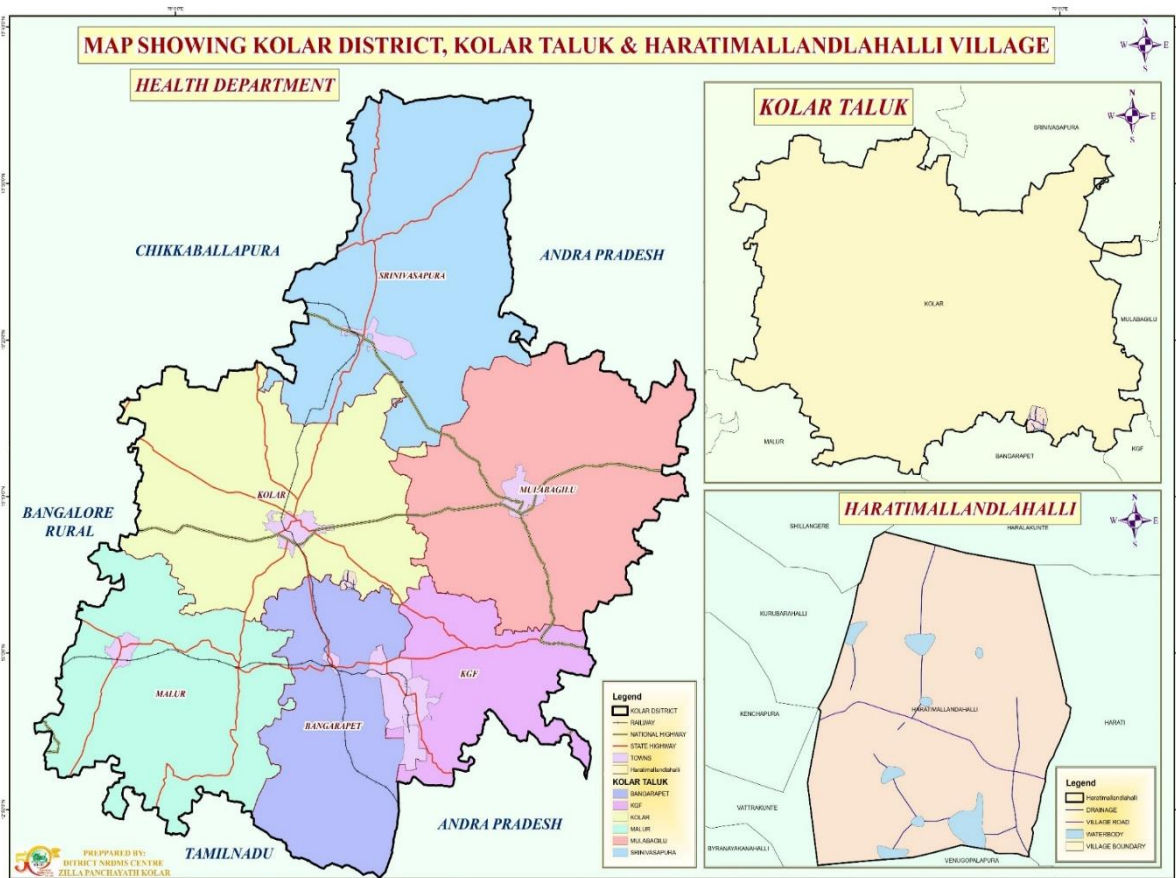
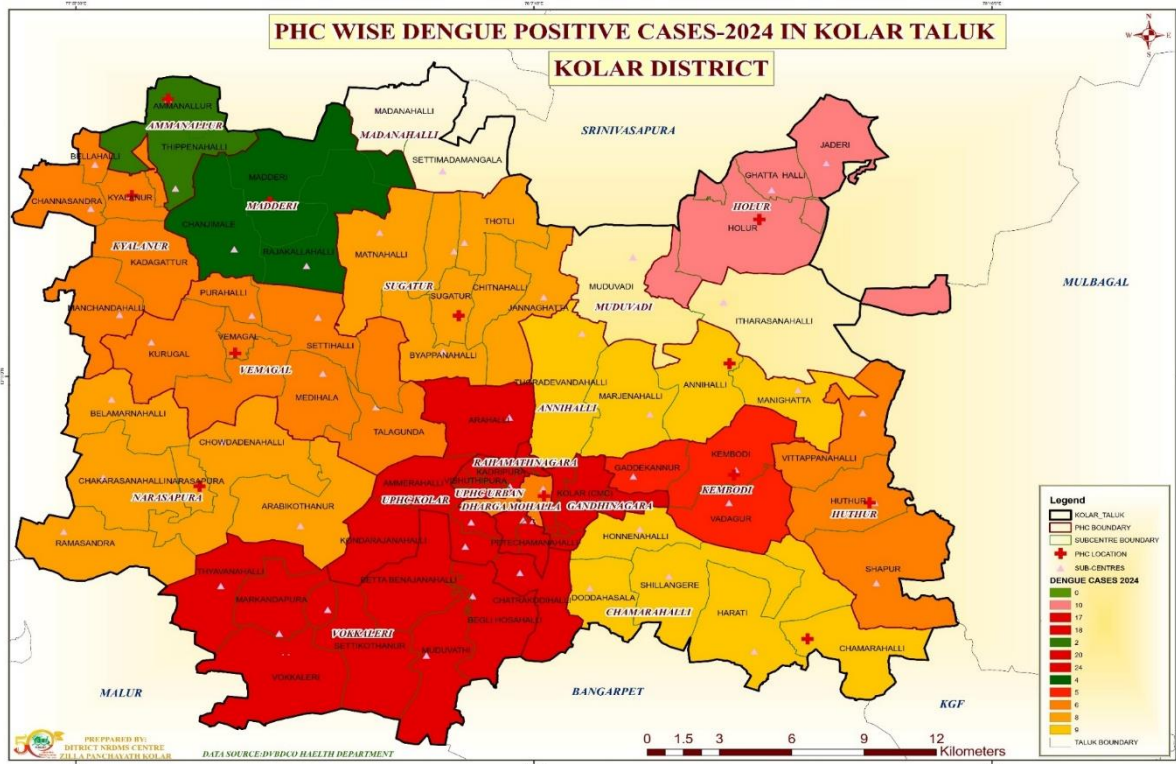
3. Socio Economy					File Format
Industry	DIC			CC	.Xls
Developmental activity	DIC				

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	AH&VS			NA	
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		Village	NA	
Telecommunication	TDM / DES			NA	
Drinking water	ZPE			CC	.Xls
Educational facilities	DDPI			CC	.Xls
Electricity	Census			NA	
Financial institutions	LEAD bank			NA	
Markets	FACS			CC	.Xls
Health	DHO			CC	.Xls
NGO's	DRS			NA	
Tourism	KSTDC			CC	.Xls
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			NA	

Other veterinary serv.	AHVS			NA	
Incidence of diseases	AHVS			NA	
Sector / Subsector	D W&C			CC	.Xls
6. Miscellaneous					
Administration					
Dt. & Subdivsns.					
Dt., with tehsils					
Dt., with panchayat					
Tq., with census vil.					
Prices & wages					
Environment					
Anganwadi					

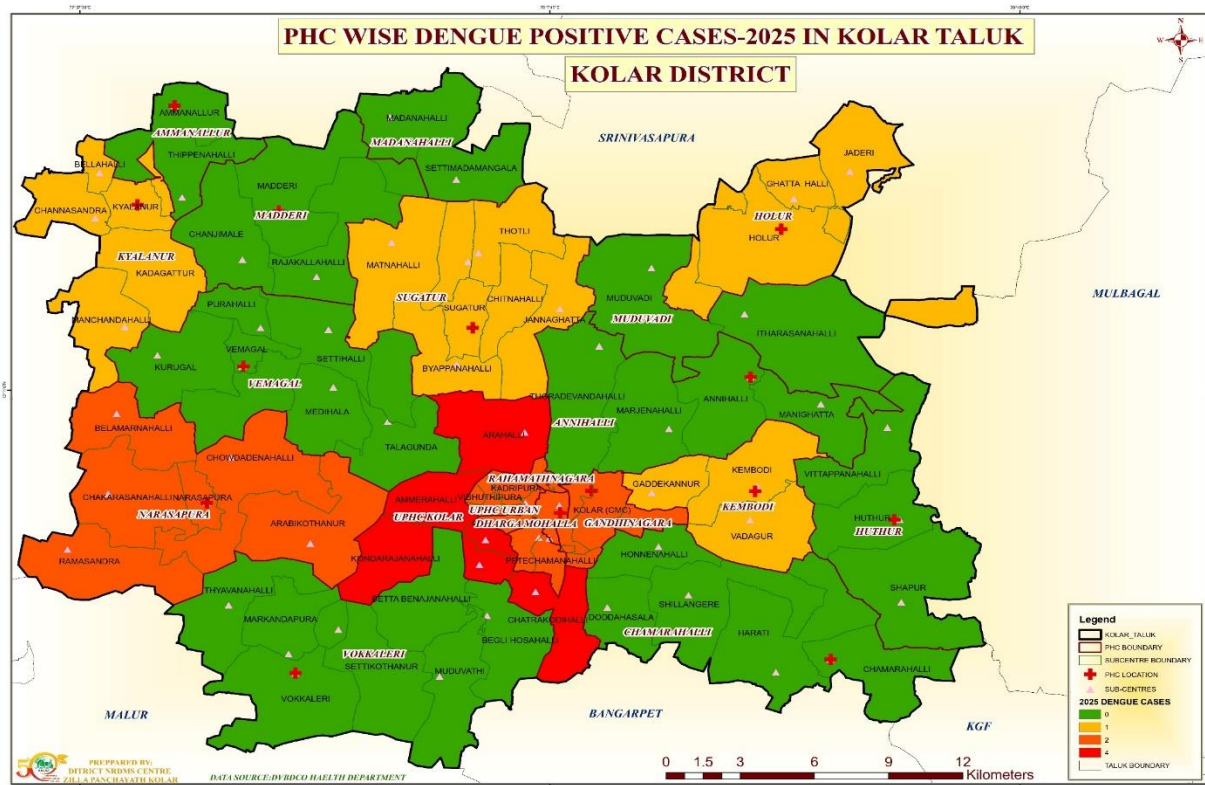


In 2024, Kolar Taluk of Kolar District reported a total of **158 dengue positive cases**, with higher case concentrations in **urban areas** like **Rahamath Nagar (24)** and **Gandhinagar (20)**, and rural hotspots like **Vokkaleri (17)**.

PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Ammanalluru	2	Low mosquito breeding; good sanitation	Minimal spread	Maintain current sanitation, community awareness
Annihalli	9	Stagnant water, poor drainage	School absences, mild outbreak	Source reduction, fogging, awareness campaigns
Chamarahalli	9	Uncovered water containers	Family-level infections	Household inspections, larvicide application
Holuru	10	Monsoon water collection, lack of nets	Moderate health burden	Distribution of nets, source control
Huthuru	6	Improper waste disposal	Localized health issues	Waste management, health education
Kembodi	5	Occasional waterlogging	Low spread	Regular drain cleaning, anti-larval activities
Kyalanuru	6	Urbanizing village, poor drainage	Risk of increased cases	Improve drainage, community monitoring
Madderi	4	Isolated cases, minor breeding sites	Controlled situation	Maintain surveillance
Narasapura	8	Industrial area, water storage practices	Worker absenteeism, productivity loss	Factory inspections, mosquito control in industries
Sugatur	8	Rainwater accumulation, low awareness	Small outbreak	Public education, door-to-door campaigns
Vemgal	6	Developing area, intermittent cleaning	Mild outbreak	Improve waste disposal, community clean-up drives
Vokkaleri	17	Poor drainage, open water tanks	Cluster outbreaks, pressure on PHC	Mass fogging, health camps, community engagement
UPHC (Urban)	18	High density, poor waste disposal	Urban outbreak, OPD overload	Urban health drives, municipal coordination

Dargha Mohalla	6	Slum area, poor sanitation	Family clusters	Improve housing conditions, regular health checks
Rahamath Nagar	24	Densely populated, stagnant drains	High transmission, school absenteeism	Intensive fogging, PHC support, water tank cleaning
Gandhinagar	20	High human activity, open drains	Spread to nearby wards	Ward-wise action plan, municipal waste control





PHC/Area	Cases	Possible Reasons	Impacts	Prevention Measures
Holuru	1	Intermittent rainfall, isolated breeding sites	Low risk, contained	Regular surveillance, source elimination
Kembodi	1	Uncovered storage tanks in households	Mild case, no spread	Community education on water storage
Kyalanuru	1	Minor stagnant water due to poor drainage	Isolated case	Drain cleaning, anti-larval work
Narasapura	2	Industrial waste water and temporary settlements	Risk to workers	Industrial inspections, hygiene campaigns
Sugatur	1	Post-monsoon water pooling	Single case, no escalation	Seasonal fogging, school awareness
UPHC (Urban)	4	Dense population, waste accumulation	Urban outbreak cluster	Intensive fogging, public health awareness
Dargha Mohalla	2	Poor drainage in residential lanes	Family-level transmission	Clean-up drives, targeted health education
Rahamath Nagar	2	Previously affected, persistent breeding sites	Recurrent cases, concern for outbreak	Regular monitoring, public involvement

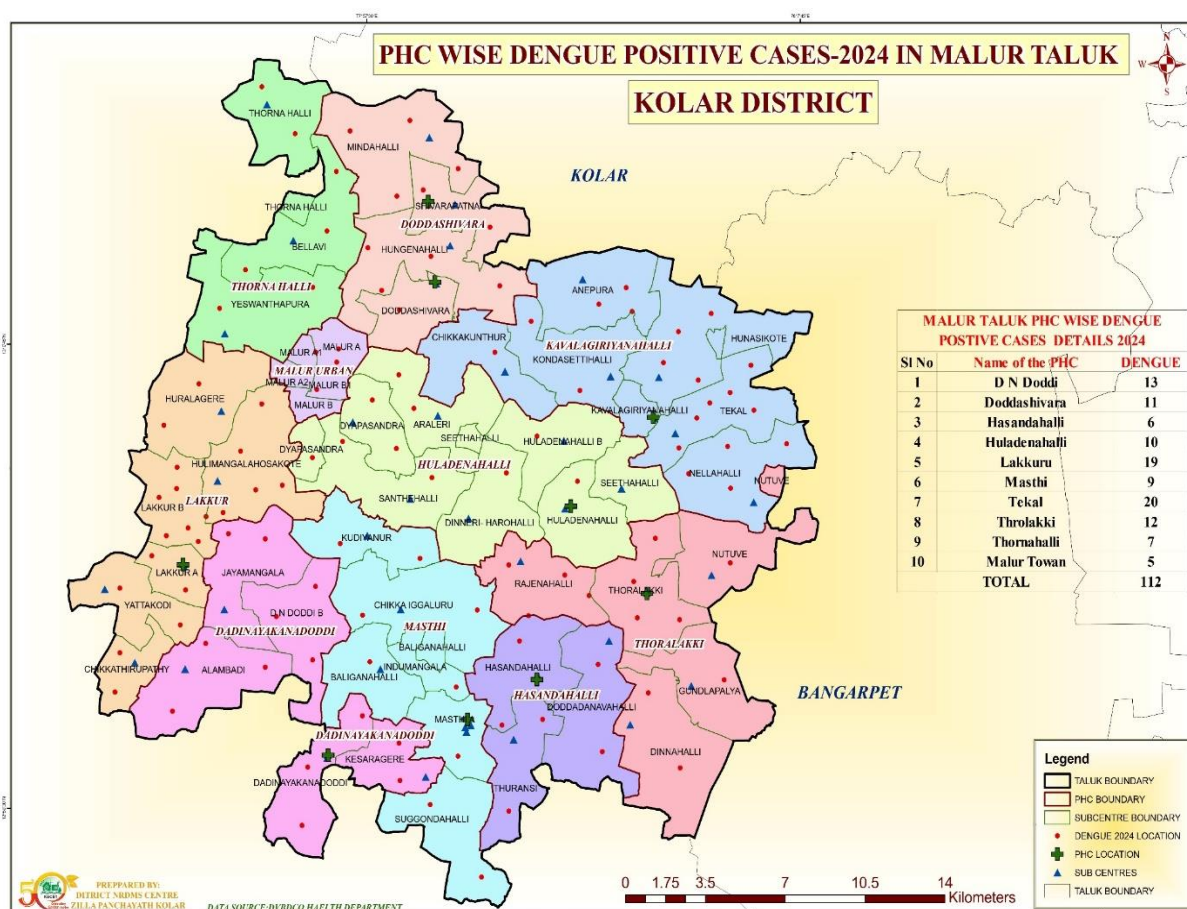
Gandhinagar	2	High foot traffic, stagnant drains	Possible spread to nearby streets	Street cleaning, collaboration with municipal bodies
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Key Observations (2025):

- **Overall reduction in cases (from 158 to 16)** due to likely improved **vector control** and **community participation**.
- **Urban clusters** (UPHC, Rahamath Nagar, Gandhinagar) remain **vulnerable** due to **population density** and **drainage issues**.
- **No major outbreaks** in rural areas—shows success of **localized interventions**.

Recommended Continued Measures:

1. **Sustain fogging and larvicide programs**, especially in urban slums.
2. **Strengthen PHC-level surveillance and reporting**.
3. **Conduct door-to-door awareness** on water storage and mosquito breeding.
4. **Enhance coordination with municipal authorities** for garbage and drainage maintenance.
5. **Community engagement** — local volunteers and school programs.



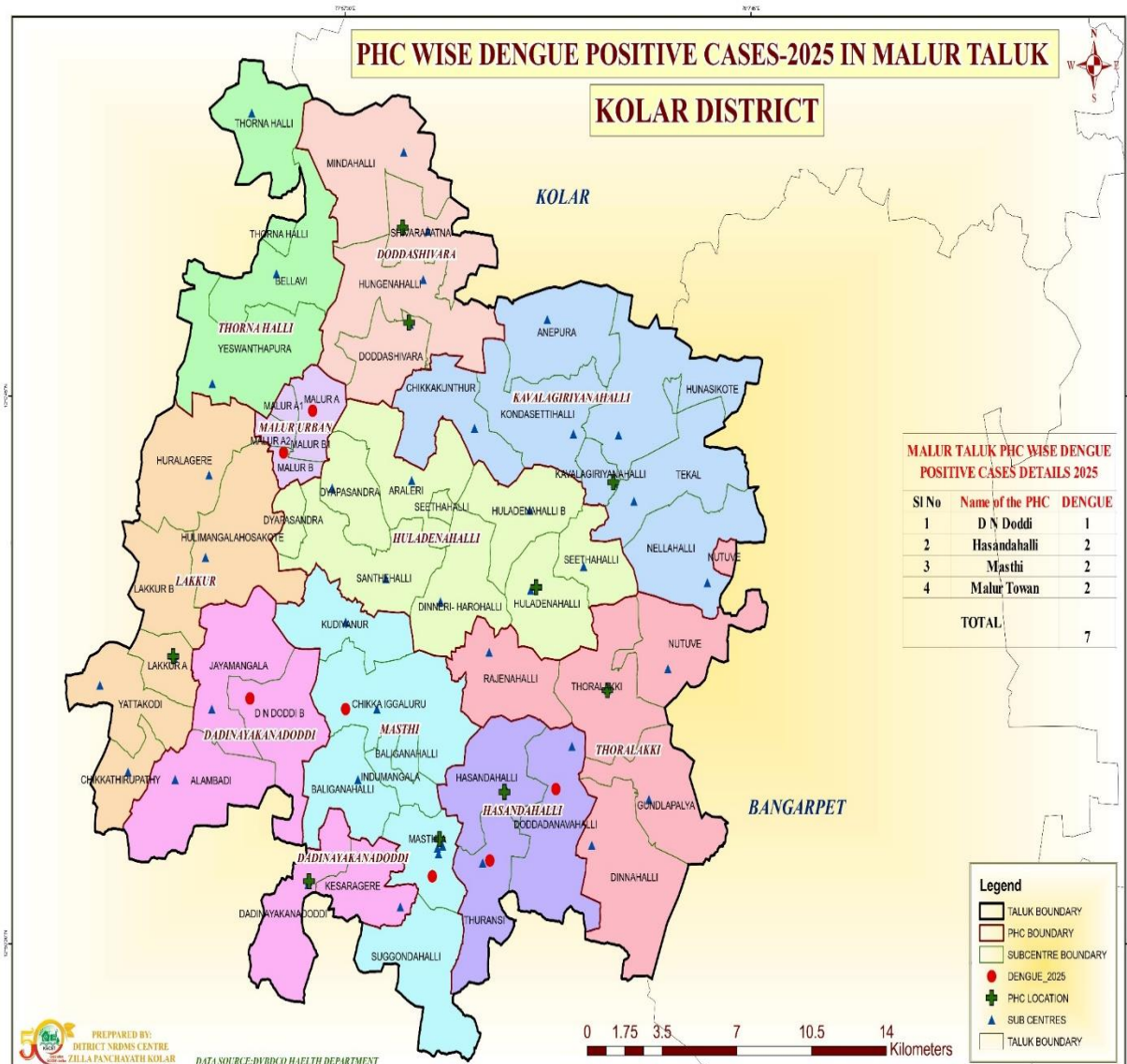
PHC/Area	Cases	Possible Reasons	Impacts	Prevention Measures
DN Doddi	13	Stagnant water near homes, lack of regular fogging	Moderate outbreak; families affected	Source reduction, door-to-door inspections, fogging
Dodda Shivara	11	Uncovered water storage, improper waste disposal	Health burden on children and elderly	Health education, distribution of mosquito nets
Huladenahalli	6	Seasonal water pooling, minor awareness issues	Limited spread	Community sessions, periodic spraying
Lakkuru	10	Agriculture-related water storage, animal troughs	Spread among farming families	Treat water tanks, community clean-up drives
Masti	9	Mixed urban-rural environment, construction sites	Risk to laborers and children	Monitor construction sites, larvicide use
Tekal	20	Dense semi-urban population, poor drainage and sanitation	Cluster outbreak; pressure on PHC resources	Intensive fogging, PHC support, ward-level awareness programs
Thorlakki	12	Low-lying areas, blocked drains	School absenteeism, family clusters	School-based awareness, drain clearing, anti-larval measures
Thornahalli	7	Temporary breeding after rains	Localized impact	Monitoring during rainy season, improve garbage disposal
Malur Town	5	Urban waste accumulation, sporadic breeding	Controlled cases, no spread	Continue sanitation efforts, maintain health checks

Key Observations:

- Tekal, DN Doddi, and Thorlakki are the major hotspots – need targeted interventions.
- Many cases are linked to improper water storage, blocked drainage, and poor awareness.
- Urban areas like Malur Town reported fewer cases – likely due to better infrastructure and response.

Recommended Prevention Strategy:

1. **Source Reduction:** Eliminate stagnant water from homes, fields, and construction sites.
2. **Health Education:** Conduct awareness programs via schools, PHCs, and local leaders.
3. **Vector Control:** Regular fogging and anti-larval spraying, especially in high-risk areas.
4. **Waste & Drain Management:** Coordinate with panchayats/municipal bodies for clean-up drives.
5. **Surveillance & Early Detection:** Strengthen PHC reporting systems and community health worker follow-ups.



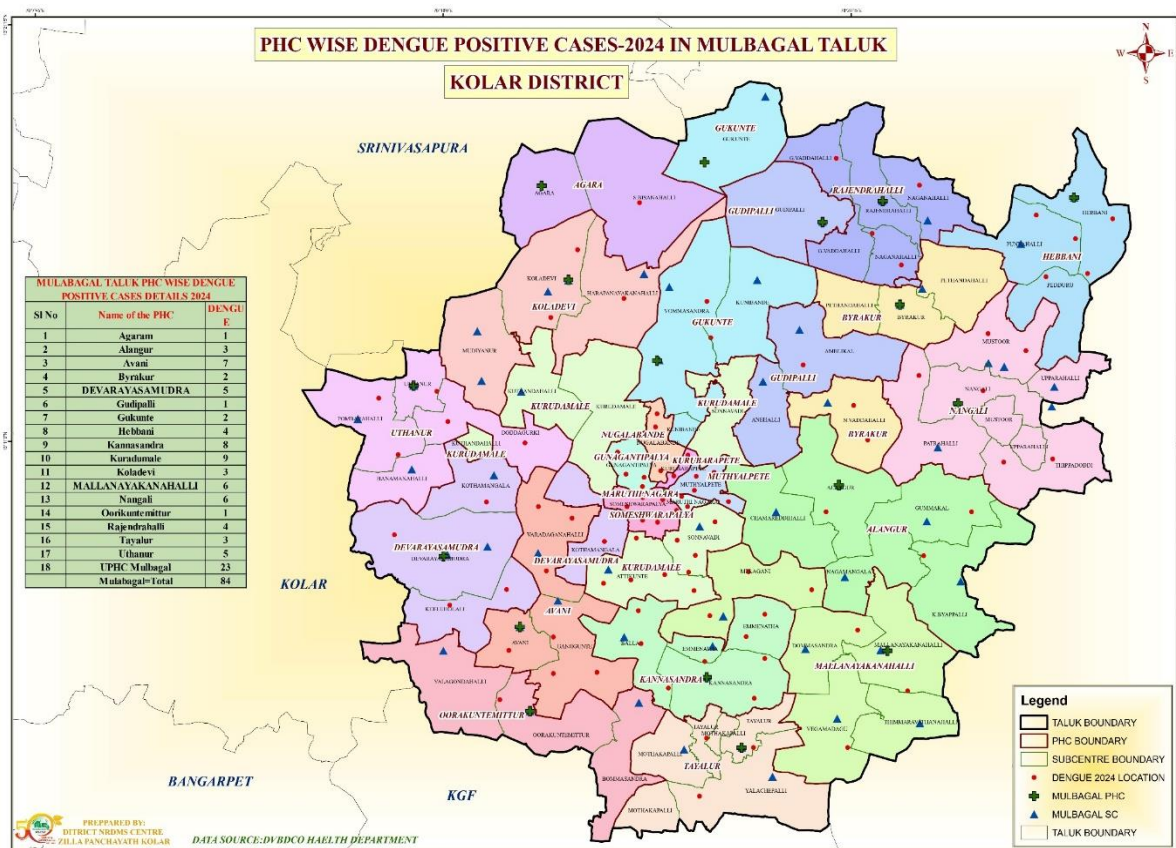
PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
DN Doddi	1	Isolated breeding site, post-rainwater stagnation	Minor, localized case	Maintain surveillance, eliminate mosquito breeding spots
Hasandahalli	2	Improper drainage near residential areas, uncovered water tanks	Small cluster, potential risk if unchecked	Community clean-up, fogging, household-level awareness
Masthi	2	Construction sites with stagnant water, poor waste disposal	Risk to workers, possible spread to nearby areas	Monitoring construction sites, larvicide use, regular inspections
Malur Town	2	Urban waste buildup, population density	Urban risk; managed early	Door-to-door awareness, fogging, garbage clearance by local bodies

Key Observations (2025):

- **No major outbreaks** – a clear **improvement from 2024**.
- **Cases are isolated**, suggesting effective surveillance and early containment.
- **Hasandahalli and Masthi** need close monitoring to prevent small clusters from becoming larger outbreaks.

Recommendations / Preventive Measures:

1. **Continue Community Engagement:** Schools, panchayats, and local leaders should stay involved in awareness campaigns.
2. **Regular Vector Control Activities:** Fogging, anti-larval measures, and inspections after rainfall.
3. **Strengthen PHC Surveillance:** Ensure timely reporting and field visits for early detection.
4. **Waste and Water Management:** Ensure proper drainage and discourage water stagnation around homes and work sites.



PHC/Area	Cases	Possible Reasons	Impacts	Prevention Measures
Agaram	1	Seasonal waterlogging	Isolated case	Regular monitoring, quick response to suspected cases
Alanguru	3	Poor drainage near households	Localized discomfort	Community clean-up, awareness campaigns
Avani	7	Water accumulation around temples, tourist footfall	Small outbreak	Larval source reduction, temple-area fogging
Byrakur	2	Overflowing drains, uncovered tanks	Mild health impact	Drainage maintenance, larvicide use
Devarayasadudra	5	Sloped terrain holding stagnant water after rains	Household-level clusters	Fogging, PHC surveillance
Gudipalli	1	Temporary mosquito breeding post-monsoon	No wider impact	Preventive fogging post-monsoon

Gukunte	2	Domestic water storage without lids	Potential for household transmission	Health education on container hygiene
Hebbani	4	Low awareness, seasonal breeding	Children affected	School-based awareness drives
Kannasandra	8	Agricultural water tanks, lack of sanitation	Local clusters	Targeted spraying, farmer education on water management
Kurudamale	9	Religious gatherings, high footfall, stagnant water	Increased spread during events	Pre-event fogging, mass awareness campaigns
Koladevi	3	Improper solid waste disposal	Minor outbreak	Waste management, community involvement
Mallanayakanahalli	6	Contaminated and pooled water in low-lying areas	Moderate impact	Drain cleaning, improved water flow
Nangali	6	Proximity to highway – high movement, blocked roadside drains	Spread to passers-by and locals	Highway-side drain management, fogging in bus stops, tea stalls
Urukunte Mittur	1	Isolated case, stagnant backyard water	No spread	Household inspection, follow-up
Rajendrahalli	4	Water stagnation in closed community layouts	Cluster risk	Source control, community health volunteers
Taylur	3	Improper sewage system	Localized health issues	Coordination with panchayat for sewage repairs
Uthanuru	5	Paddy fields, poor drainage	Risk to farmers and school children	Agriculture water monitoring, awareness in schools
UPHC Mulbagal (Urban)	23	High population density, poor waste disposal, uncovered tanks	Major urban cluster; pressure on UPHC	Intensive fogging, PHC strengthening, solid waste management

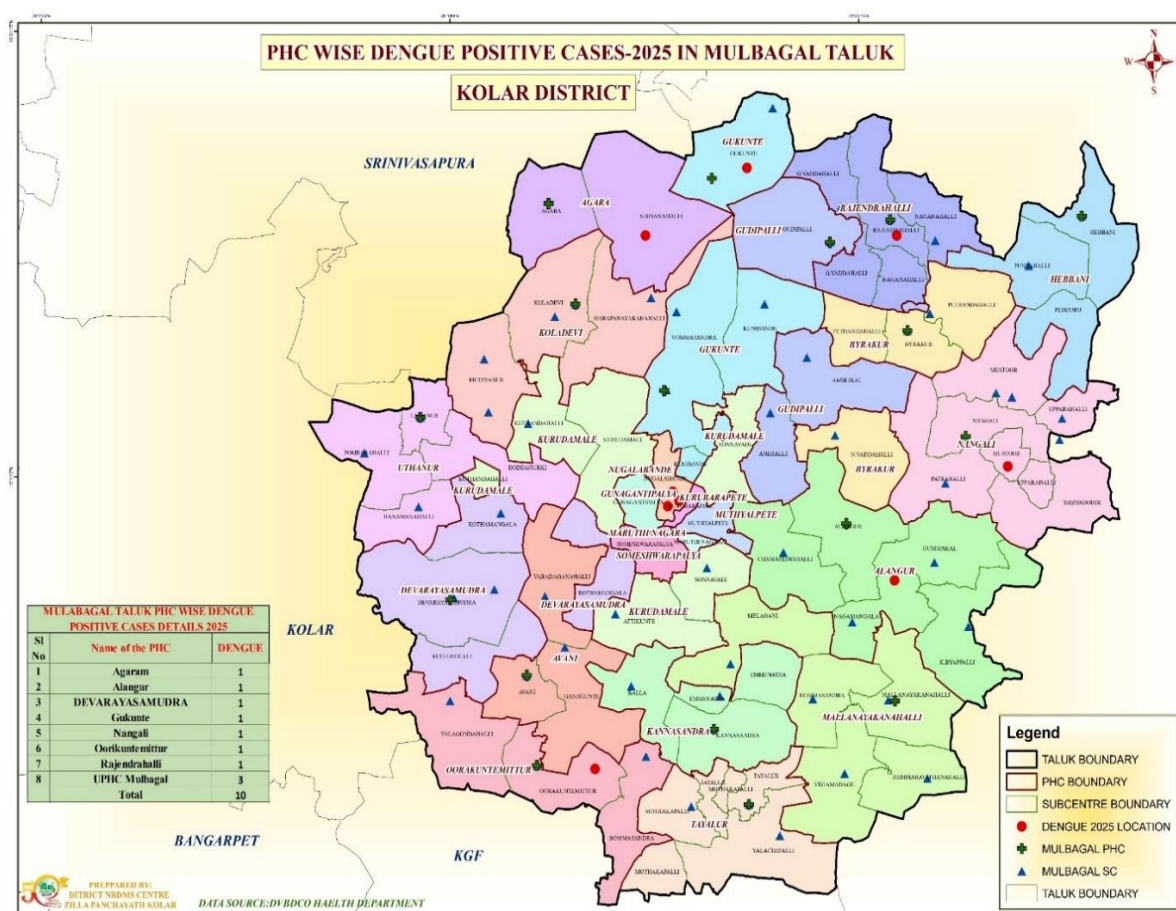
Key Observations:

- **Urban hotspot: Mulbagal Town (UPHC)** needs **urgent and sustained vector control**.
- **Religious/tourist areas** like **Avani** and **Kurudamale** contribute to seasonal clustering.

- Rural areas like **Kannasandra, Uthanuru, and Mallanayakanahalli** show recurring issues linked to **agricultural and water practices**.

Recommended Prevention Strategy:

- Vector Source Control:**
 - Eliminate standing water in homes, fields, and public areas.
 - Regular fogging and spraying in hotspots.
- Community & School Awareness:**
 - Use local volunteers, ASHAs, and school teachers to promote mosquito control.
- Waste & Drainage Management:**
 - Coordinate with **panchayats and town municipalities** to improve sanitation and drainage.
- Health System Readiness:**
 - Ensure PHCs and UPHCs are equipped for early detection, treatment, and referral.
- Event-Based Planning:**
 - Pre-festival and pre-tourist-season fogging in places like Avani and Kurudamale.



PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Agaram	1	Localized water stagnation post-rain	Isolated case	Periodic fogging, monitor water containers in households
Alanguru	1	Poor drainage near homes	No further transmission	Improve drainage, awareness on water hygiene
Devarayasamudra	1	Open drains, irregular garbage collection	Mild household impact	PHC visits, source elimination, community education
Gukunte	1	Improper water storage in backyards	Single case	Cover water containers, household inspection
Nangali	1	Stagnant water near road drains (highway-side)	Low spread, risk to travelers and vendors	Clean highway-side drains, fogging at public places
Urukunte Mittur	1	Open wells and neglected tanks	Controlled due to early detection	Community tank treatment, larvicide application
Rajendrahalli	1	Garbage accumulation, clogged drains	Mild health burden	Improve solid waste management, public awareness
UPHC Mulbagal	3	Urban slum areas, high human density, poor sanitation	Small cluster in urban poor communities	Targeted fogging, strengthen UPHC response, door-to-door awareness

Key Observations (2025):

- Massive reduction in cases (from 84 in 2024 to 10 in 2025) across rural and urban areas.

- All areas reported only isolated or small cluster cases, showing effective early detection and containment.
- Urban PHC Mulbagal still shows vulnerability due to overcrowding and sanitation issues.

Recommended Prevention Strategy Moving Forward:

1. Sustain Surveillance & Early Detection:

- Continue regular field visits and monitoring by health workers.
- Use **Mobile Medical Units (MMUs)** in rural areas for early diagnosis.

2. Intensify Vector Control:

- Weekly fogging in vulnerable areas.
- Eliminate open containers and treat community water bodies.

3. Strengthen Public Awareness:

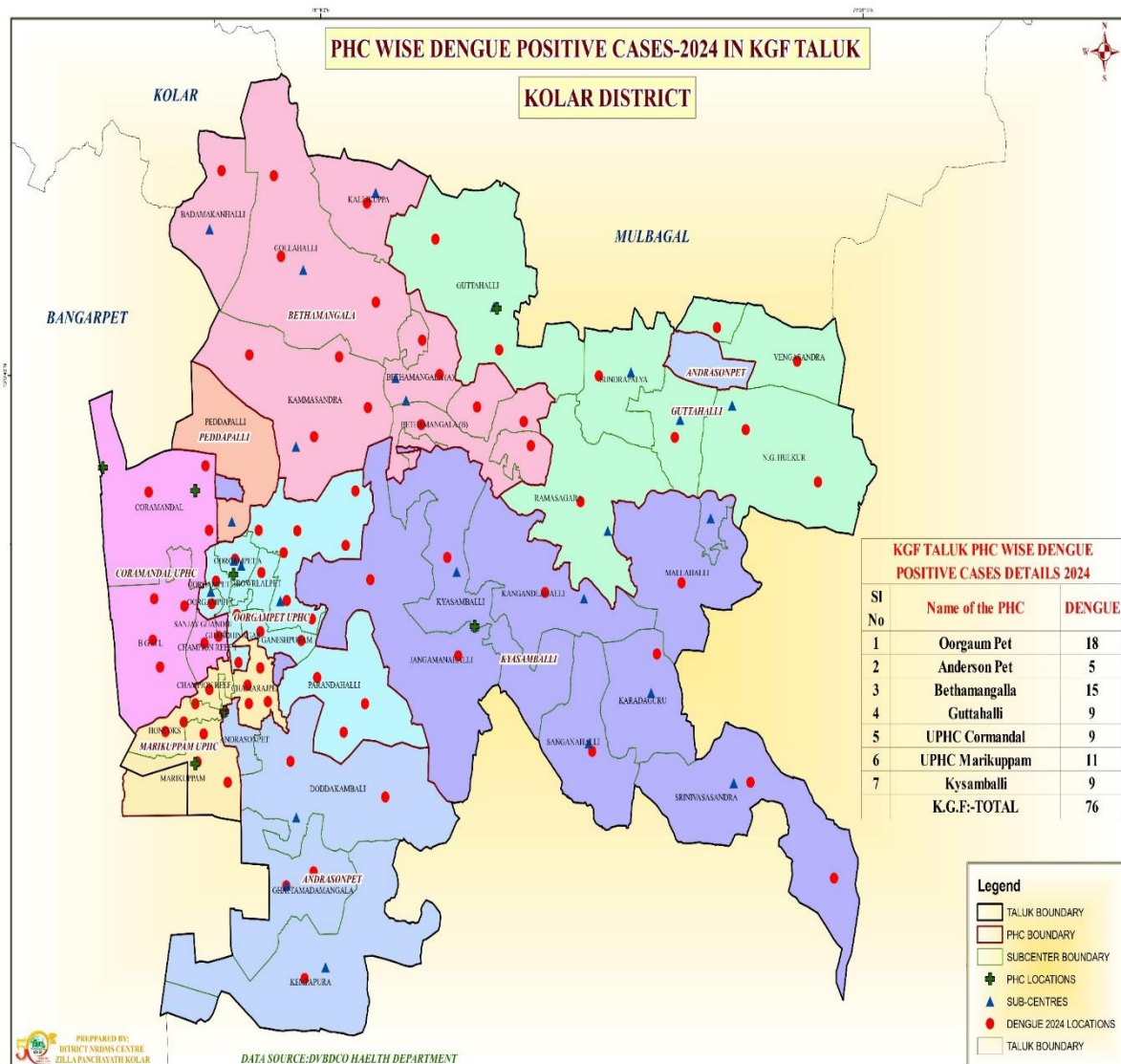
- Run IEC (Information, Education, and Communication) campaigns in schools, bus stands, and markets.
- Promote use of mosquito nets, repellents, and personal protection.

4. Improve Urban Waste & Water Management:

- Collaborate with **urban local bodies** for timely garbage clearance and drain maintenance in Mulbagal town.

5. Community Participation:

- Engage ASHAs, ANMs, school teachers, and local leaders to drive anti-dengue campaigns.



PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Urugampet	18	High-density housing, poor waste management, uncovered water tanks	Major outbreak zone, risk of community spread	Mass fogging, community awareness drives, door-to-door inspections
Andersonpet	5	Urban slum pockets, stagnant water in drains	Small cluster, risk in low-income groups	Sanitation drive, health education, drain cleaning

Bethamangala	15	Water storage in agricultural fields, uncovered tanks	Spread among farming families	Cover water tanks, larvicide application, awareness for farmers
Guttahalli	9	Poor drainage, temporary waterlogging	Moderate impact on school-going children	Drainage repair, school-based awareness sessions
UPHC Coromandel	9	Slum-like urban zones, high mobility population	Clustered urban transmission	Intensive fogging, strengthening UPHC response
UPHC Marikuppam	11	Mine-affected area, poor sanitation, waterlogging in mining pits	Spread among miners and families	Water pit treatment, PHC camps, community clean-up near mining areas
Kyasamballi	9	Stagnant water in abandoned areas, old mining quarters	Persistent localized infections	Reclaim abandoned spaces, community fogging and waste disposal drives

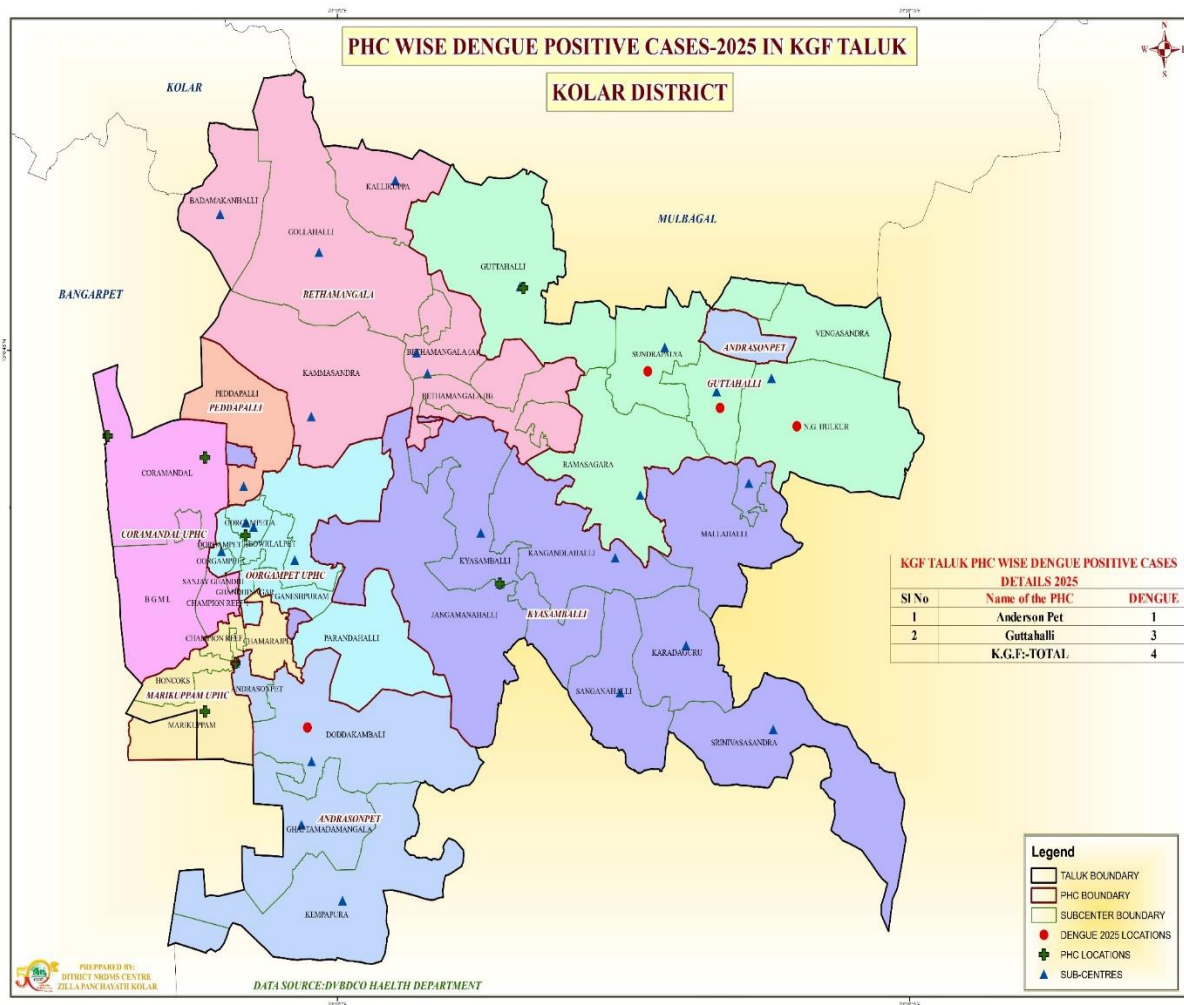
Key Observations:

- **Urban hotspots** like **Urugampet, Marikuppam, and Coromandel** account for the **majority of cases** due to:
 - Poor sanitation
 - High population density
 - Unregulated water storage
- **Bethamangala and Guttahalli** reflect **rural vulnerabilities**—linked to **agriculture** and **limited access to sanitation infrastructure**.
- Former **mining areas** (e.g., **Marikuppam, Kyasamballi**) pose ongoing challenges due to **abandoned pits** and **settlement clusters**.

Recommended Prevention Measures (KGF Taluk, 2024):

1. **Urban Dengue Control:**
 - Routine fogging in slums and congested neighborhoods.
 - Rapid response teams for early detection and treatment.
 - Solid waste management collaboration with urban bodies.
2. **Rural Vector Control:**
 - Educate farmers on safe water storage practices.
 - Treat water bodies and agricultural tanks with larvicides.
3. **Mining-Affected Areas:**
 - Fill or chemically treat abandoned water-filled pits.

- Health outreach for miners and their families.
4. **Health System Strengthening:**
- Equip PHCs and UPHCs for testing, referral, and outbreak response.
 - Ensure ASHA workers conduct weekly vector surveillance in high-risk areas.
5. **Community Engagement:**
- Leverage schools, local leaders, and health volunteers.
 - Monthly awareness programs with IEC materials in Kannada and local dialects.



PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Andersonpet	1	Stagnant water near households, poor sanitation in certain lanes	Isolated case; low transmission risk	Local fogging, awareness drives, door-to-door inspection

Guttahalli	3	Overflowing drains, blocked culverts during rains	Small cluster; school and household cases	Drain cleaning, school-based awareness, weekly PHC vector surveillance
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Key Observations:

- **Guttahalli** saw a **small cluster (3 cases)**, likely due to **waterlogging** and **blockage of local drains**.
- **Andersonpet** had **only 1 case**, suggesting good containment but a need to maintain vigilance.
- No major outbreaks — reflects effective public health action and **reduced mosquito breeding grounds**.

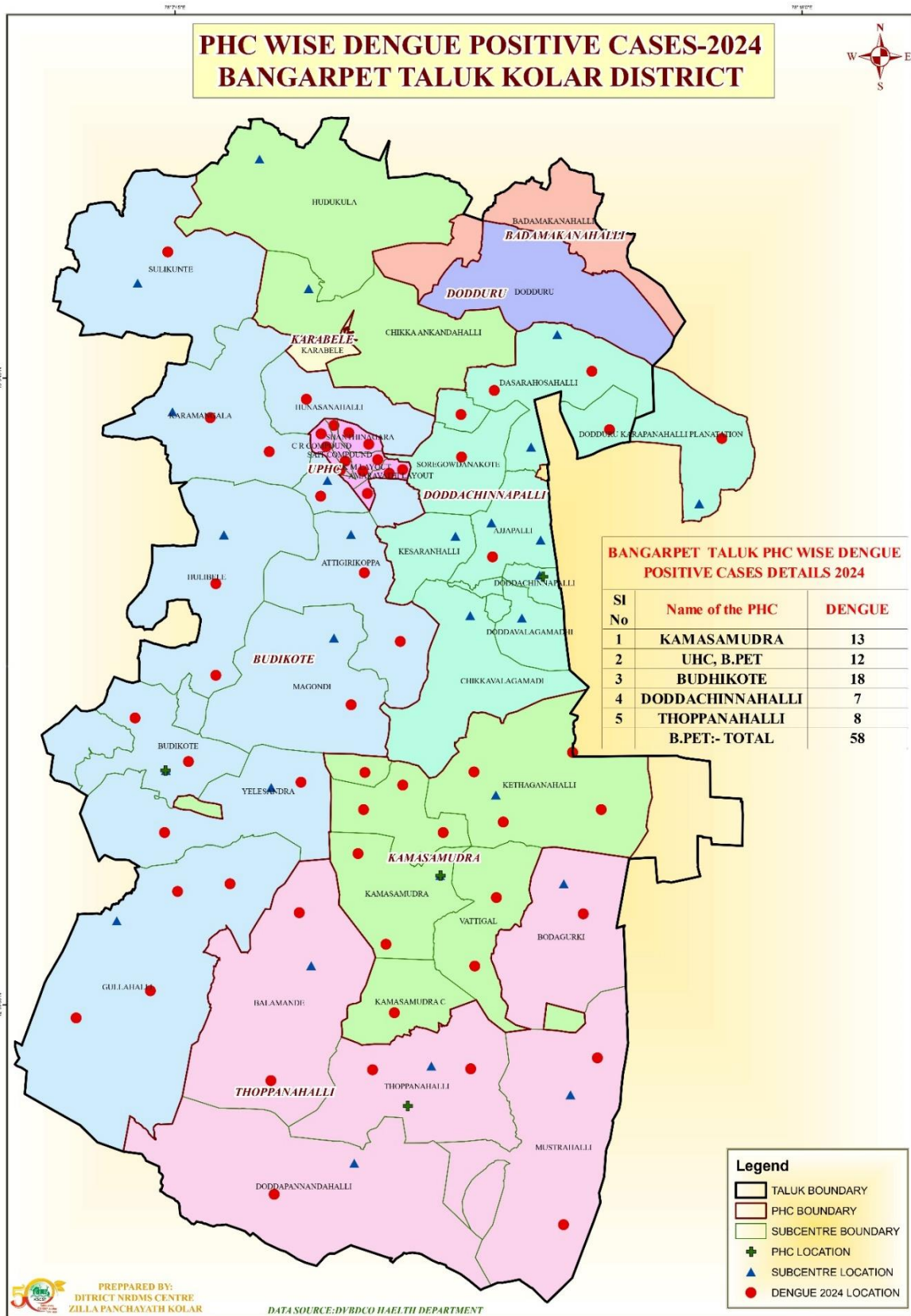
Recommended Ongoing Preventive Measures:

1. **Sustain Vector Control:**
 - Weekly fogging and larvicide application in vulnerable localities.
 - Immediate action after rainfall to prevent water stagnation.
2. **Improve Drainage and Waste Disposal:**
 - Regular drain cleaning in low-lying and slum areas.
 - Community-led clean-up campaigns.
3. **Community & School Awareness:**
 - Engage schools in dengue awareness, especially in Guttahalli.
 - Encourage households to cover water containers and eliminate stagnant water.
4. **Health System Vigilance:**
 - PHCs and UPHCs to maintain routine fever surveillance.
 - Rapid diagnostic kits and field workers for door-to-door case identification.

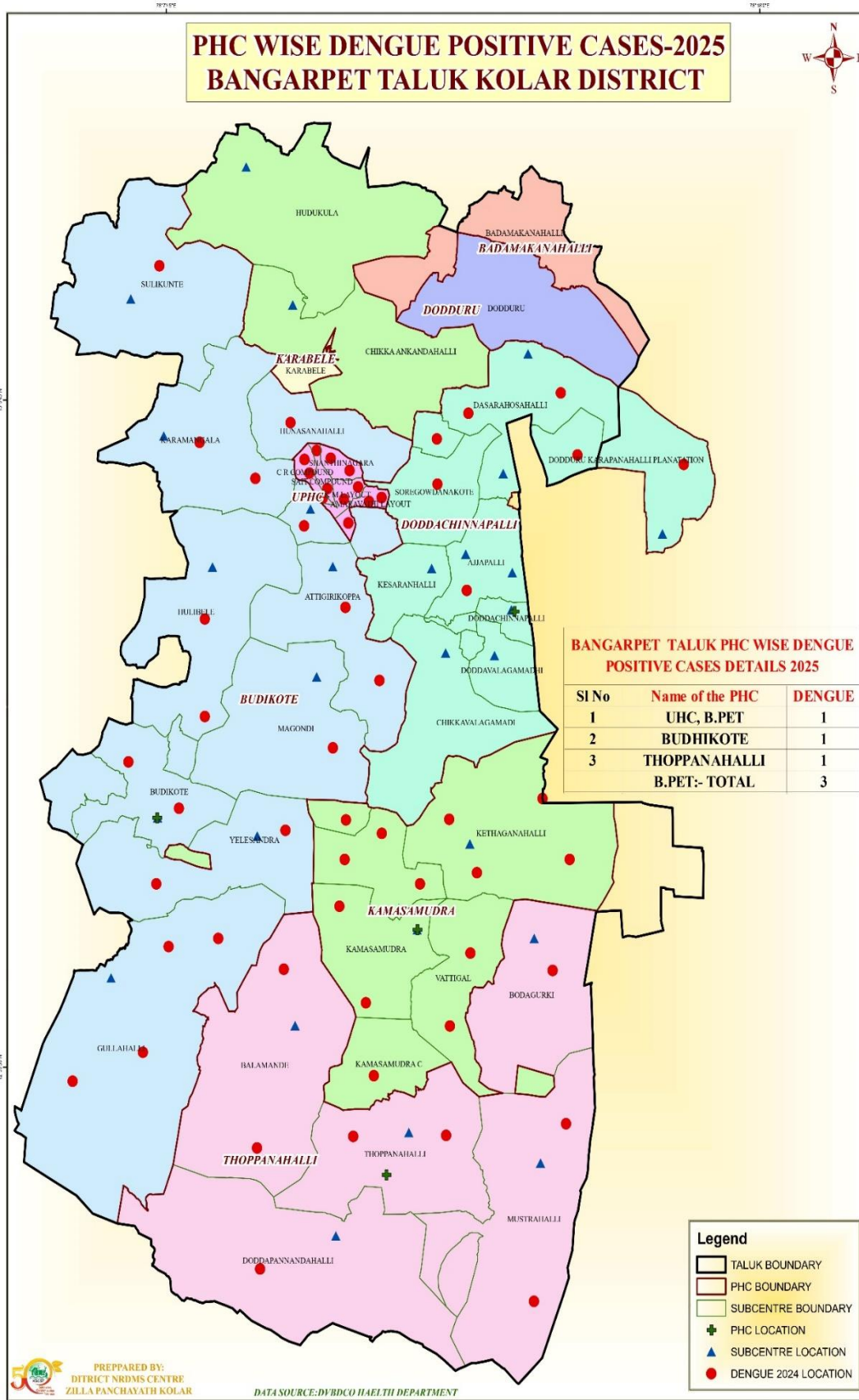
Positive Trend:

The **drastic decline** from **76 cases in 2024 to just 4 in 2025** indicates:

- **Effective public health planning**
- **Better community participation**
- **Sustained efforts in vector control**



PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Kammasandra	13	Uncovered water storage, poor drainage near homes	Localized outbreak in residential clusters	Household awareness, water container checks, regular fogging
UHC Bangarpet	12	High population density, poor waste management, stagnant drains	Urban cluster; pressure on UPHC services	Urban sanitation drive, door-to-door health education, fogging
Budikote	18	Agricultural water stagnation, open tanks, poor village waste disposal	Largest cluster; risk to rural population	Community tank treatment, school programs, larvicide in water bodies
Dodda Chinnahalli	7	Sloped terrain with pooled rainwater, low community awareness	Limited spread	Community meetings, PHC-level rapid response
Thoppanahalli	8	Poor drainage systems, uncovered storage tanks, school water containers	Spread among school children and nearby houses	School health programs, container cleaning, awareness drives
PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Kammasandra	13	Uncovered water storage, poor drainage near homes	Localized outbreak in residential clusters	Household awareness, water container checks, regular fogging
UHC Bangarpet	12	High population density, poor waste management, stagnant drains	Urban cluster; pressure on UPHC services	Urban sanitation drive, door-to-door health education, fogging
Budikote	18	Agricultural water stagnation, open tanks, poor village waste disposal	Largest cluster; risk to rural population	Community tank treatment, school programs, larvicide in water bodies
Dodda Chinnahalli	7	Sloped terrain with pooled rainwater, low community awareness	Limited spread	Community meetings, PHC-level rapid response
Thoppanahalli	8	Poor drainage systems, uncovered storage tanks, school water containers	Spread among school children and nearby houses	School health programs, container cleaning, awareness drives



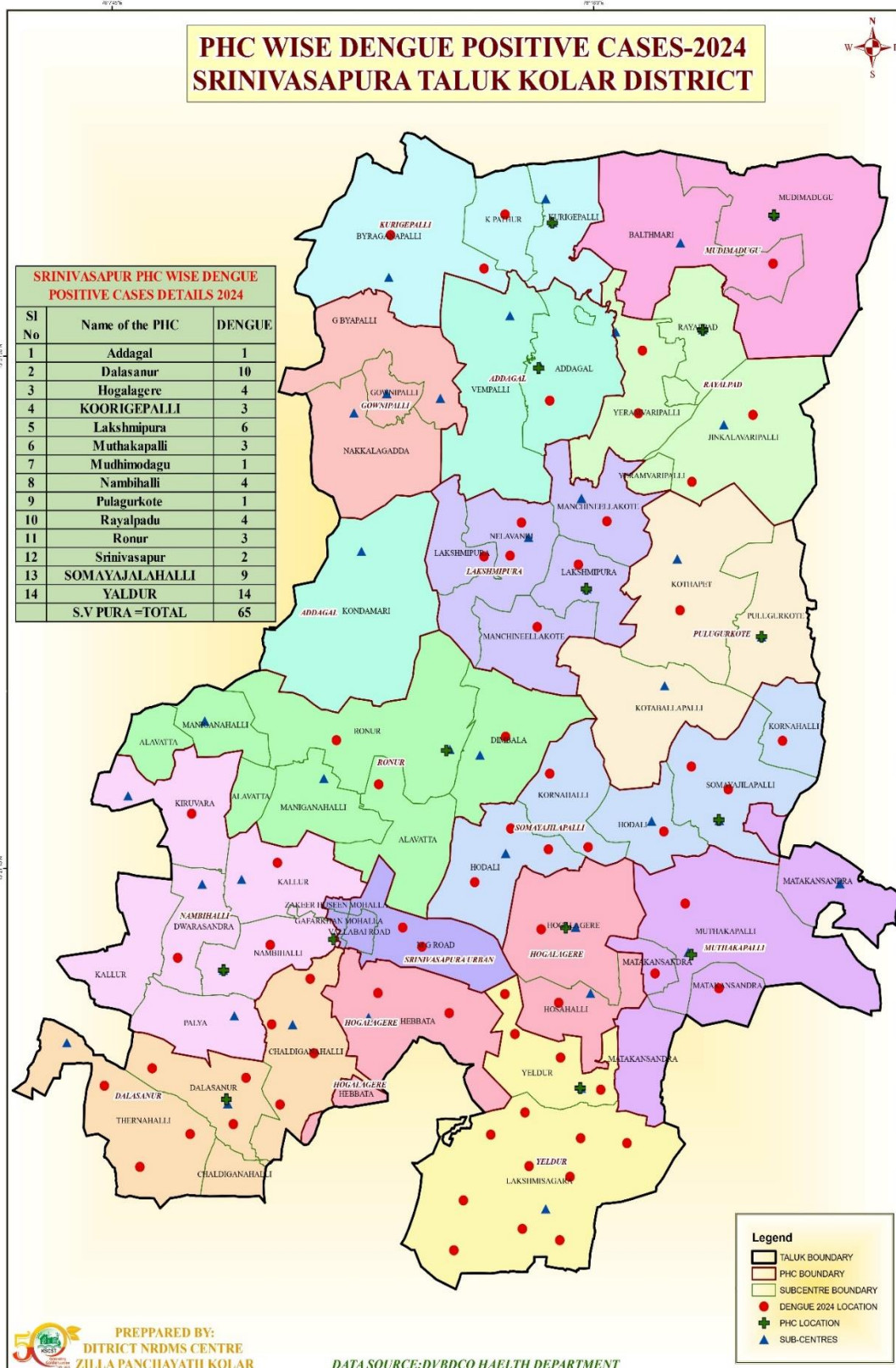
PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
UHC Bangarpet	1	Isolated breeding in an urban household or public drain	Minimal; case contained	Continue fogging, door-to-door IEC, check urban drains
Budikote	1	Uncovered water tank in a rural household	No spread; early detection helped containment	Water container checks, community-level larvicide application
Thoppanahalli	1	Stagnant water near school or public space after rains	No cluster; potential if neglected	Clear blocked drains, student awareness drives, regular PHC surveillance

Key Observations (2025):

- Each case is **isolated**, with **no evidence of cluster outbreaks**.
- Reflects:
 - Timely action by **health workers**
 - **Improved sanitation**
 - **Early detection and case reporting**

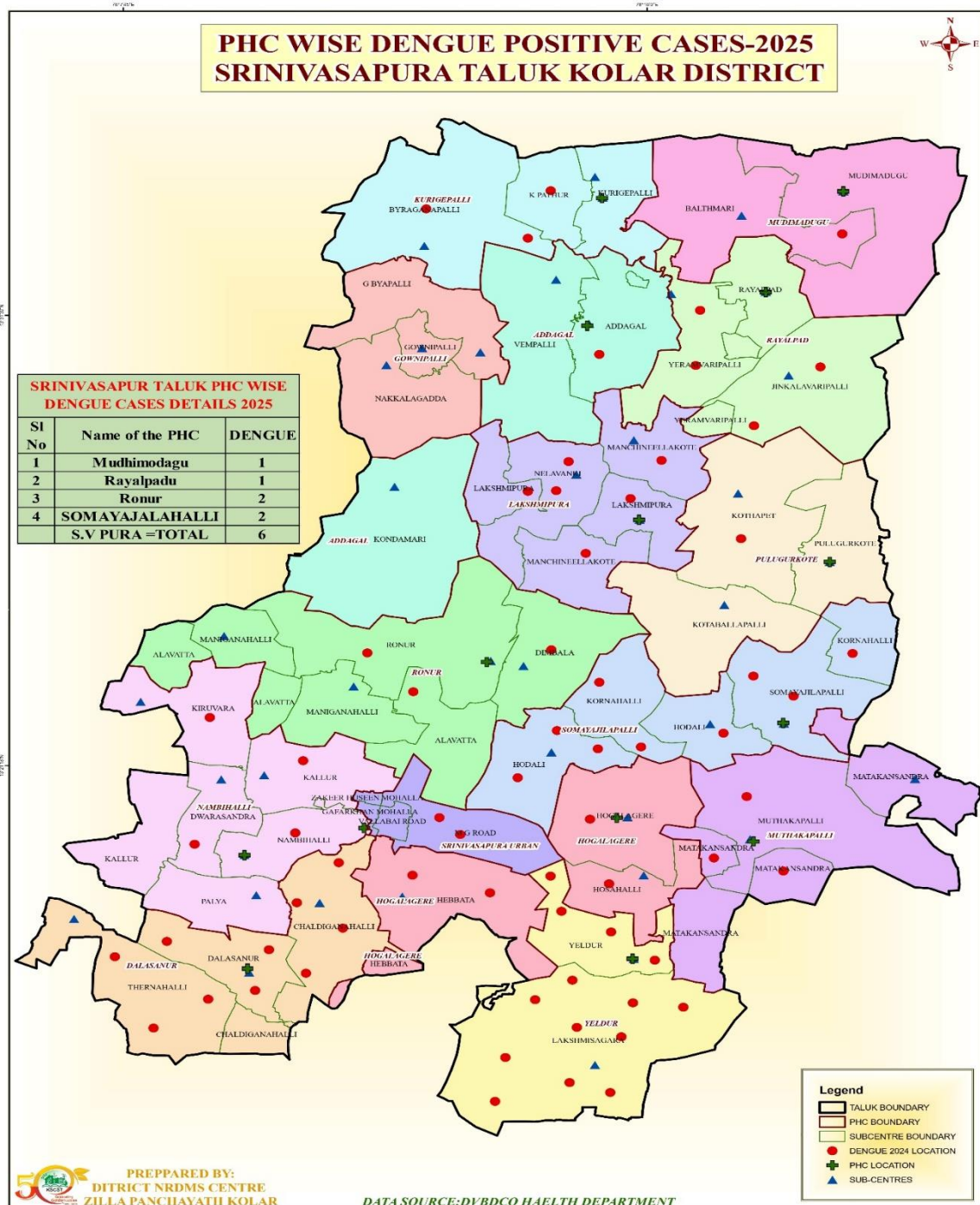
Recommended Continued Measures:

- Maintain Vector Surveillance:**
 - Weekly checks for mosquito breeding sites.
 - PHC staff to continue rapid field response for fever cases.
- Sustain Awareness Campaigns:**
 - Keep schools, households, and community leaders involved.
 - Promote mosquito-proofing practices (nets, repellents, covered storage).
- Strengthen Urban & Rural Sanitation:**
 - Collaborate with local bodies to ensure proper waste and water management.
 - Special focus post-monsoon to prevent stagnation.
- PHC Readiness:**
 - Ensure availability of test kits and timely referrals.
 - Continue real-time reporting and follow-up surveillance



PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Addagal	1	Isolated breeding site near household	Minimal, no spread	Spot treatment, door-to-door awareness
Dalasanur	10	Open drains, water storage tanks, low awareness	Moderate outbreak in village clusters	Fogging, community clean-up, larvicide application
Hogalagere	4	Poor drainage near farmland	Cluster in nearby households	Drain cleaning, larval control in nearby fields
Koorgepalli	3	Uncovered pots and drums in households	Small spread	IEC campaigns on water storage hygiene
Lakshmipura	6	Seasonal rainwater stagnation, blocked culverts	Clustered cases in low-lying areas	Drainage repairs, fogging after rainfall
Muthakapalli	3	Improper garbage disposal, household containers	Household-level impact	Waste management, container checks
Mudimadugu	1	Temporary breeding after rainfall	Controlled early	Routine PHC inspection post-monsoon
Nambihalli	4	Water storage in animal sheds, uncovered drums	Spread among farming families	Farmer-targeted education, source elimination
Pulugurkote	1	Stagnant water in school/backyard	No spread, caught early	School-based awareness, tank treatment
Rayalpadu	4	Poor housing sanitation, sloped terrain pooling water	Mild community-level transmission	Infrastructure improvement, awareness drives
Ronur	3	Clogged roadside drains, low mosquito net usage	Children and elderly affected	Fogging, distribution of mosquito nets
Srinivasapura town	2	Stagnant water in construction sites or town drains	Urban risk contained	Construction monitoring, urban fogging
Somayajalapalli	9	Shared water sources (public	High risk of wider village spread	Community tank cleaning, water

		tanks), poor tank maintenance		chlorination, IEC drives
Yeldur	14	Agricultural fields with water logging, uncovered storage containers in homes	Major outbreak; potential for rapid spread	Intensive vector control, farmer meetings, household surveys



PHC/Area	Cases	Possible Reasons	Impacts	Preventive Measures
Mudimadugu	1	Temporary water stagnation after rains	Isolated case, no further transmission	Spot fogging, source elimination, local awareness
Rayalpadu	1	Poor sanitation near animal shelters and water drums	Mild, household-level impact	Household visits, drum covering, ASHA-led awareness
Ronur	2	Blocked roadside drains, water accumulation in low-lying areas	Small cluster, possible child infections	Drain cleaning, health education, distribution of mosquito nets
Somayajalapalli	2	Shared public water tanks, minor leakages near homes	Contained cases, early reporting helped	Public tank chlorination, larvicide, school-based dengue awareness sessions

Key Observations:

- All cases were isolated or in small clusters.
- **Ronur and Somayajalapalli**, which had multiple cases in 2024, saw reduced transmission due to:
 - **Early detection**
 - **Improved response by health workers**
 - **Community participation**
- **Mudimadugu and Rayalpadu** maintained low incidence with good containment.

Recommended Preventive Measures (2025 & beyond):

1. Sustain Vector Control:

- Continue **weekly fogging** in vulnerable zones.
- Apply **larvicides** in public tanks, animal troughs, and drains.

2. Community Engagement:

- Involve **ASHAs and ANMs** for **door-to-door awareness**.
- Conduct **monthly cleanliness drives** with local youth and school students.

3. Strengthen Surveillance:

- Regular **fever surveillance and reporting** by PHC staff.
- Use **mobile health units** for follow-ups in remote villages.

4. Water Management:

- Encourage use of **covered storage**, cleaning water drums every 5–7 days.
- Improve **drainage systems** in low-lying areas like Ronur.

5. IEC Activities (Information, Education & Communication):

- Posters, street plays, and school competitions in local languages.
- Promote **personal protection**: repellents, nets, full-sleeved clothing.

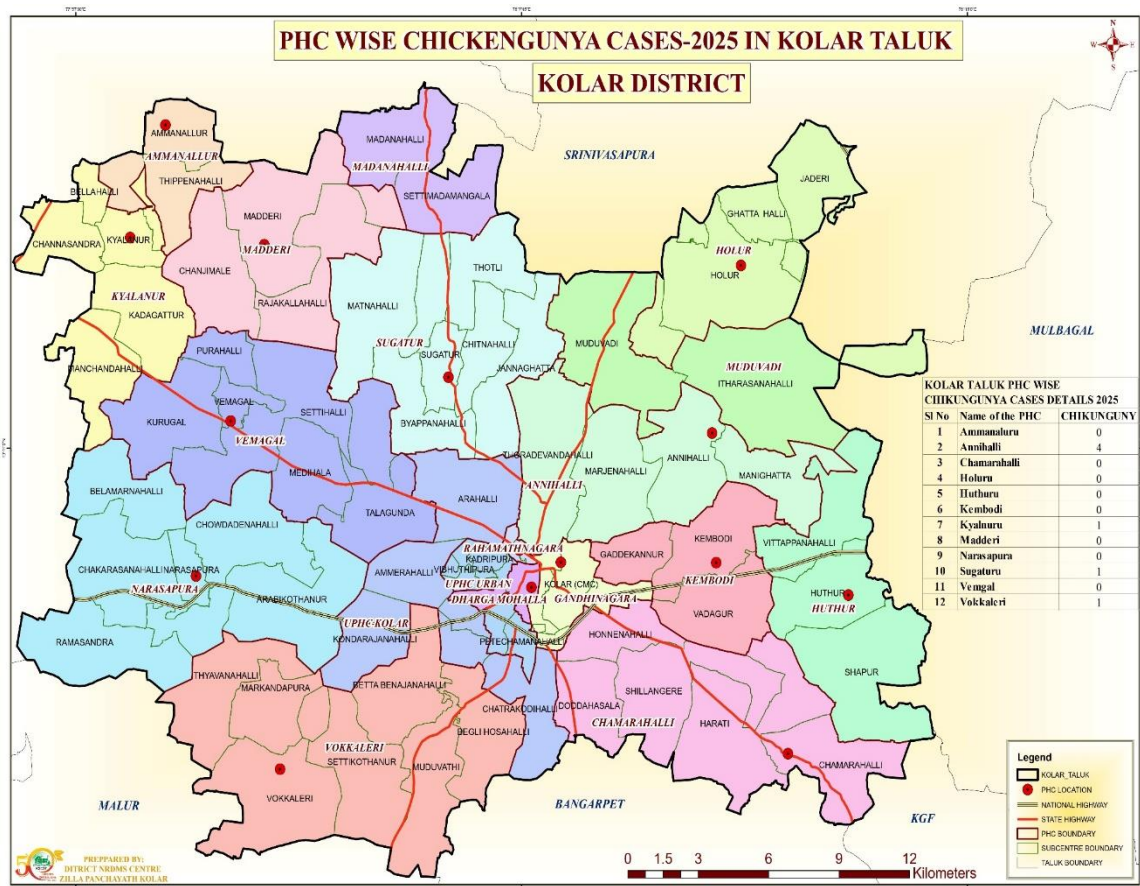
Positive Trend:

The drop from **65 cases in 2024** to just **6 in 2025** reflects:

- Effective intersectoral coordination
- Responsive PHCs
- Improved public awareness and behaviour change







PHC / Location	Cases (2025)	Implications / Notes
Annihalli	4	Highest among these; needs focused intervention, maybe surveillance, awareness, treatment resources.
Kyalanur	1	Low number, but risk of spread; early containment possible.
Suguturu	1	Same as above.
Vokkaleri	1	Same as above.

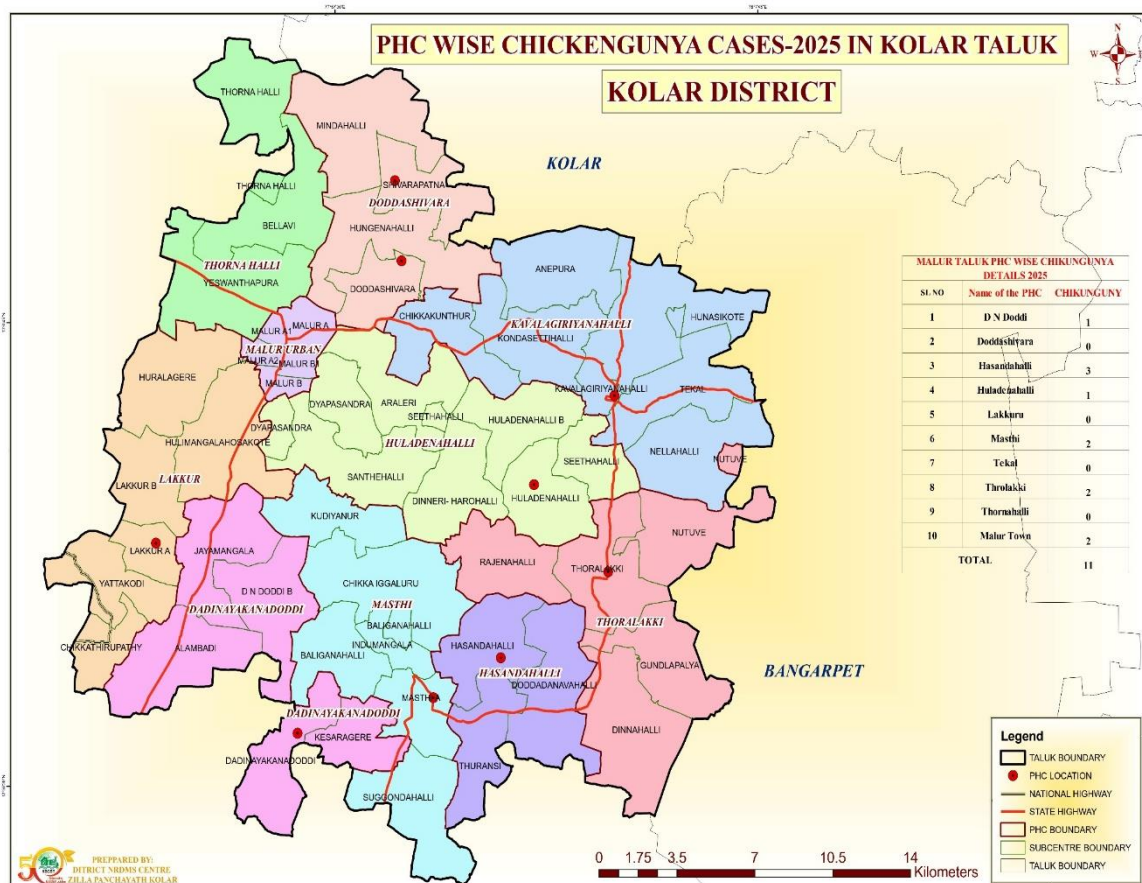
- Importance:**

- Poultry farming is a source of income, nutrition, and livelihood for many in rural districts like Kolar. Disruptions to poultry health can affect food supply, income and employment.
- It also matters for public health if diseases in poultry are zoonotic (can transfer to humans), or if they lead to food safety issues.

- Also important for animal-husbandry / veterinary services, government planning (vaccination, biosecurity etc.).
- **Impacts of Outbreaks / Positive Cases:**
 - Mortality in poultry, loss of birds, losses in revenue for farmers.
 - Increased costs: treatment, veterinary care, disinfecting, culling if severe.
 - Disruption of supply chain (feeds, sale of chickens/eggs).
 - Possible spread to neighbouring villages, risk of disease amplification.
 - If zoonotic, risk to human health. Even when not, fear causes market disruptions.
 - Social and economic stress: small poultry farmers can be disproportionately affected.
- **Reasons / Causes:**
 - Lack of biosecurity (poor hygiene, mixing of birds, contact with wild birds).
 - Inadequate veterinary services (delayed detection, inadequate vaccination).
 - Poor feed quality, nutritional stress, malnutrition in birds weaken immunity.
 - Environmental factors (humidity, temperature extremes).
 - Movement of birds (trade, transport) or movement of people / equipment without disinfection.
 - Lack of awareness among farmers about prevention, early signs etc.

Impacts & Importance for Kolar Taluk from These Cases

- Even small numbers are important because poultry disease often spreads quickly.
- These are spread across villages; distribution suggests risk is somewhat scattered.
- PHC level response (primary health / veterinary health centre) must be ready: diagnostics, awareness, possibly vaccination or prophylactic measures.
- Economic loss to individual farmers might be small per village but collectively could mount.



Importance:

- Poultry is often a vital livelihood source for small farmers in Malur and similarly agrarian areas. A disease affecting chickens threatens income, food security, nutrition (eggs, meat), and employment.
- Animal disease control is essential to prevent spread to other birds, or potentially to humans (if zoonotic).
- Preventing disease helps maintain market confidence (buyers, suppliers, poultry product trade), and lowers losses.

Impacts:

- Mortality or illness in chickens → direct loss of birds, reduced productivity (eggs, growth).
- Costs of treatment, veterinary services, possibly culling, disinfection.
- Disruption to local markets; price rises or demand drop.
- Ripple effects: feed suppliers, laborers, transport, etc., get affected.
- If left unchecked, could lead to outbreaks in neighbouring villages → larger economic damage.

Reasons / Contributing Factors:

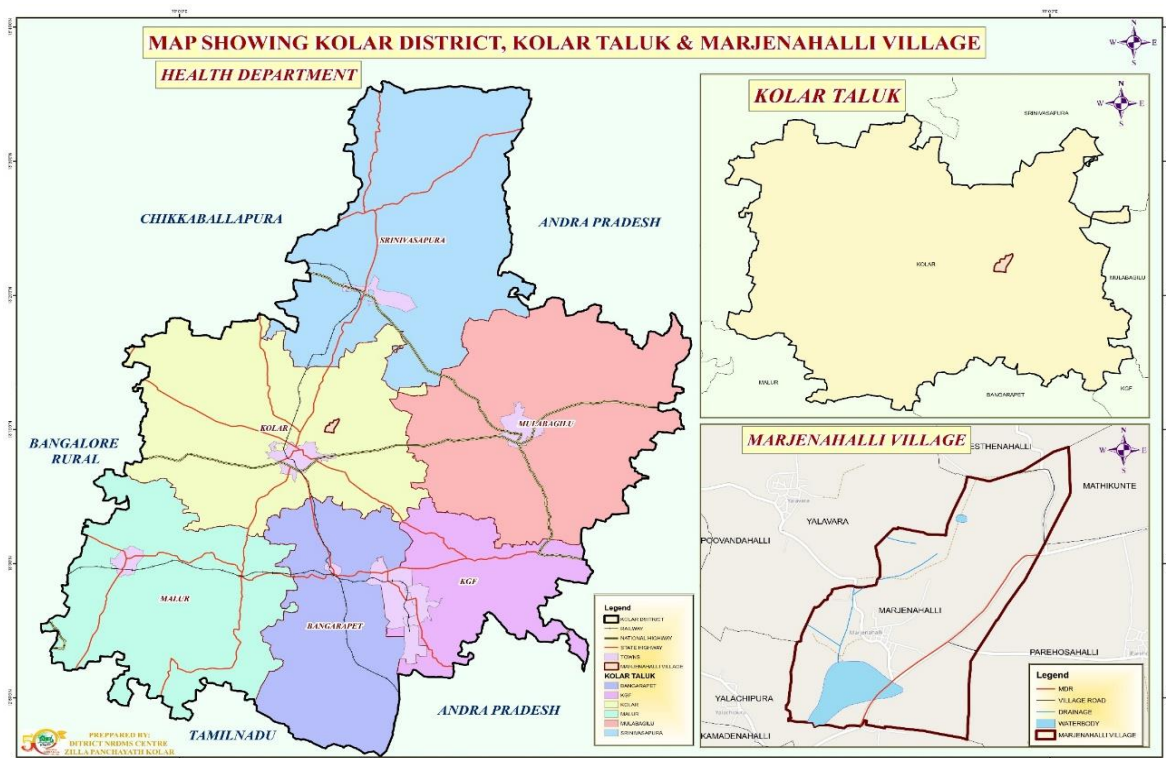
- Low biosecurity: inadequate sanitation, contact with wild birds or other flocks.
- Poor vaccination, delayed veterinary intervention.
- Weak awareness among farmers about early symptoms, prevention.
- Movement of birds / trade without proper checks.
- Environmental or seasonal stress affecting immunity (heat, cold, dampness).
- Overcrowding, poor nutrition, lack of clean water, or inadequate housing.

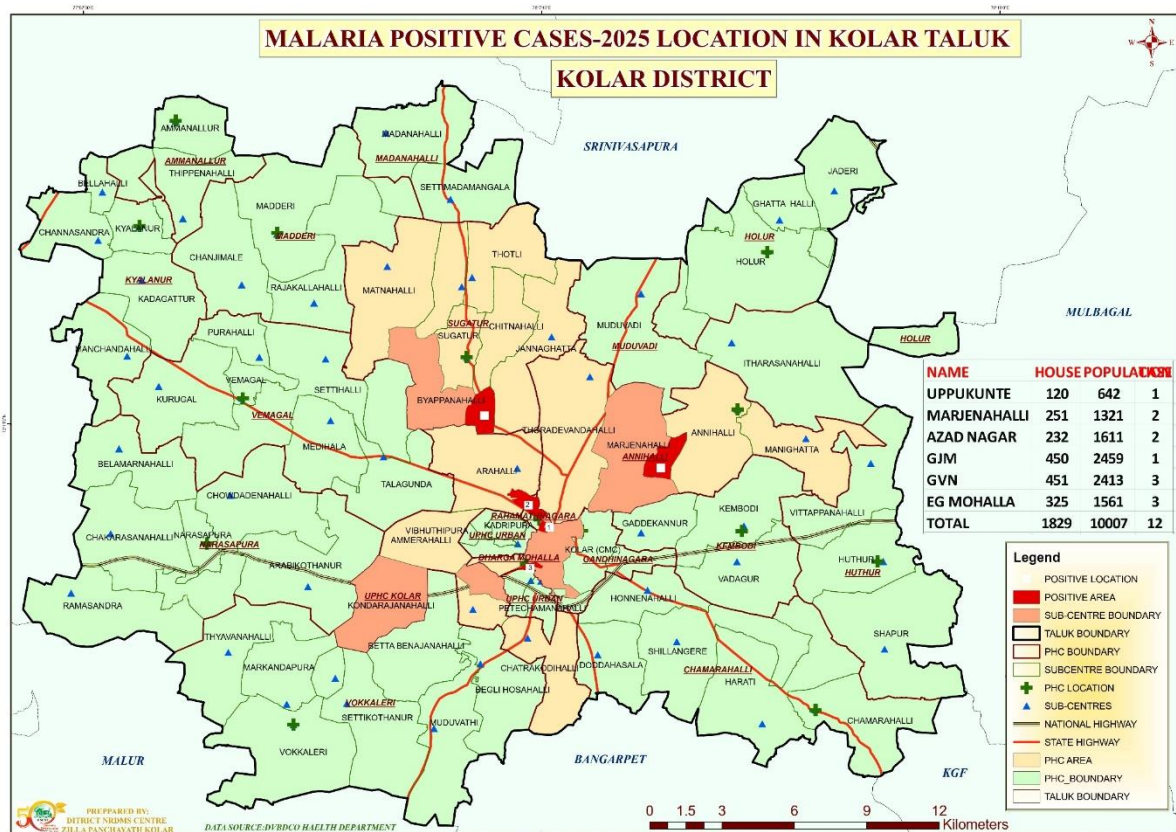
Implications and Importance for Malur Taluk Based on These Data

- Hasandalli shows 3 cases — this suggests a localized hotspot; veterinary response and awareness efforts may be needed there first.
- Urban area (Malur Town) having cases is concerning because spread and impact may escalate more rapidly due to higher density and trade/movement.
- Villages with 1-2 cases are still important — early action can prevent spread.
- Cases spread across multiple villages suggest multiple foci rather than a single source; this means control measures need to be somewhat diffuse (or multiple PHCs).

Suggested Actions / Control Measures

- Active surveillance in villages with known cases and neighbouring villages.
- Rapid veterinary intervention: diagnostics, possibly vaccination or treatment.
- Farmer education: how to spot early symptoms; biosecurity practices.
- Quarantine or limiting movement of birds from affected villages.
- Disinfection of coops, equipment; ensure clean water and feed.
- Mapping and monitoring: record GPS or map data to visualize spread.





Importance:

- Malaria remains one of the major vector-borne diseases in many parts of India, including Karnataka.
- It causes morbidity (illness), sometimes mortality, especially in vulnerable groups (young children, pregnant women).
- Affects economic productivity: people missing work or school, cost of treatment, burden on healthcare facilities.
- Returns on public health investments (e.g. nets, spraying, awareness) are high: preventing cases saves costs and suffering.
- Also important for long-term control / elimination goals; knowing hotspots helps target resources.

Impacts of Malaria Outbreaks:

- Health burden: fever, anemia, complications, sometimes death.
- Overburdened health services during peaks.
- Economic loss for affected families (medical costs, lost work) and the community.
- Social consequences: school absenteeism, reduced productivity.
- Potential for recurring infections, development of drug resistance, or worse outcomes if treatment is delayed.

Reasons / Risk Factors:

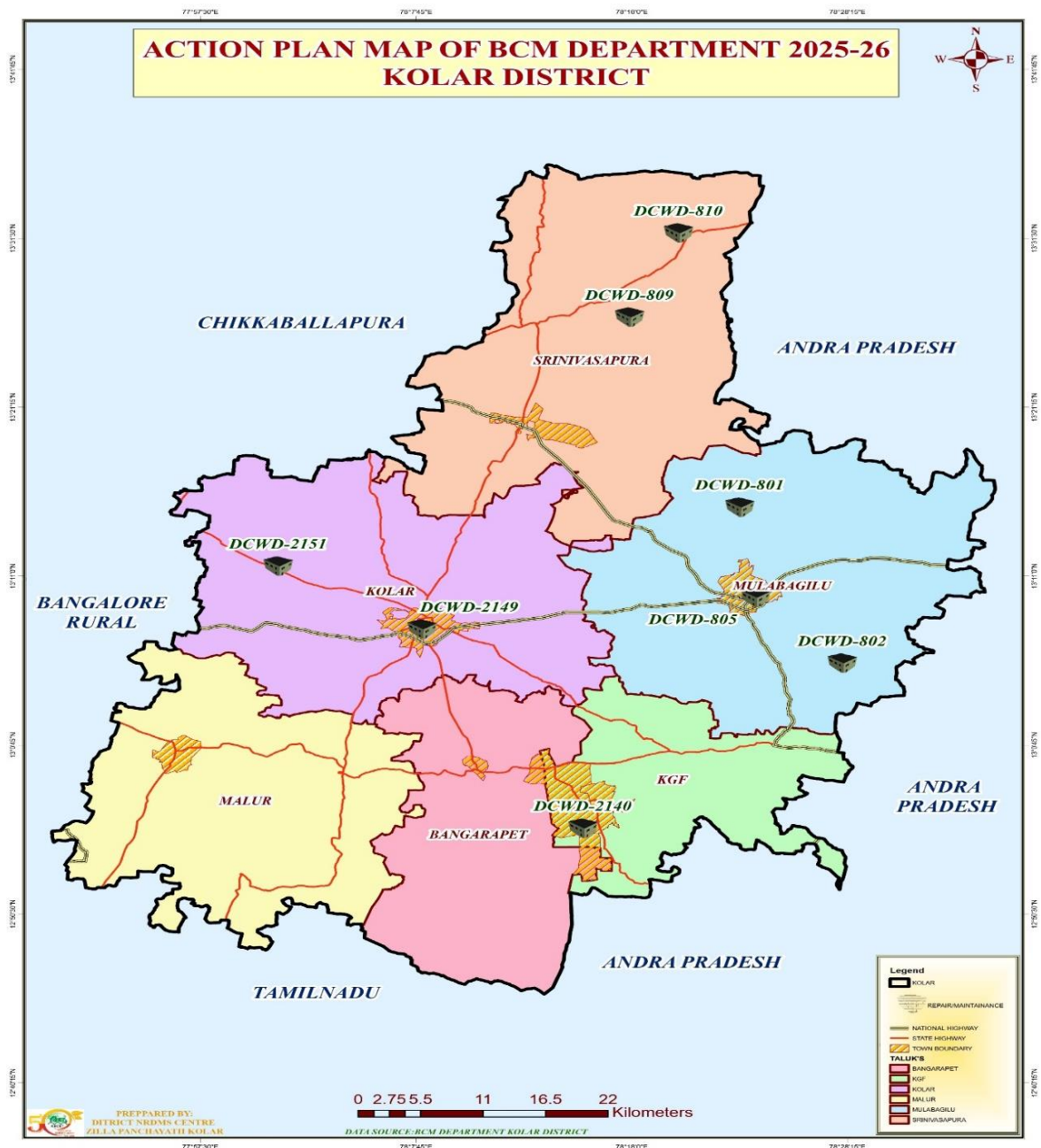
- Vector presence: mosquitoes (Anopheles, etc.), breeding in stagnant water.
- Climatic conditions: rainfall, temperature, humidity favour mosquito breeding and parasite lifecycle.
- Poor mosquito control: lack of indoor residual spraying, untreated nets, or environmental control.
- Low awareness or late diagnosis/treatment.
- Housing and living conditions: open drainage, water logging, inadequate protection (nets, screens).
- Movement of people: migration can introduce or re-introduce malaria parasites.
- Seasonal variation: malaria tends to spike after rains, when breeding sites increase.

Implications & Priority Based on the Data

- **Hotspots:** GVM and Eghdha Mohalla have the highest number of cases among these; these should be priority for control measures.

- **Urban/semi-urban risk:** Areas like Azad Nagar, “Mohalla”s are likely higher population density; risk of rapid spread, because of closer proximity, more breeding sites (drains, water accumulation).
- **Surveillance:** For areas with single cases, need good monitoring, active case detection, ensure prompt treatment so the disease doesn’t flare up.
- **Health infrastructure:** Need to ensure health workers know of these cases, are able to trace, treat, and educate communities.
- **Vector control:** For all areas, but especially for ones with multiple cases, control of mosquito breeding (drains, stagnant water), use of insecticide-treated nets, indoor residual spraying et





Objective of the Action Plan (2025–26)

The **BCM Department (Backward Classes and Minorities)** of Karnataka has implemented an **annual maintenance action plan** for hostels and related buildings across the **Kolar District**. The goal is to ensure:

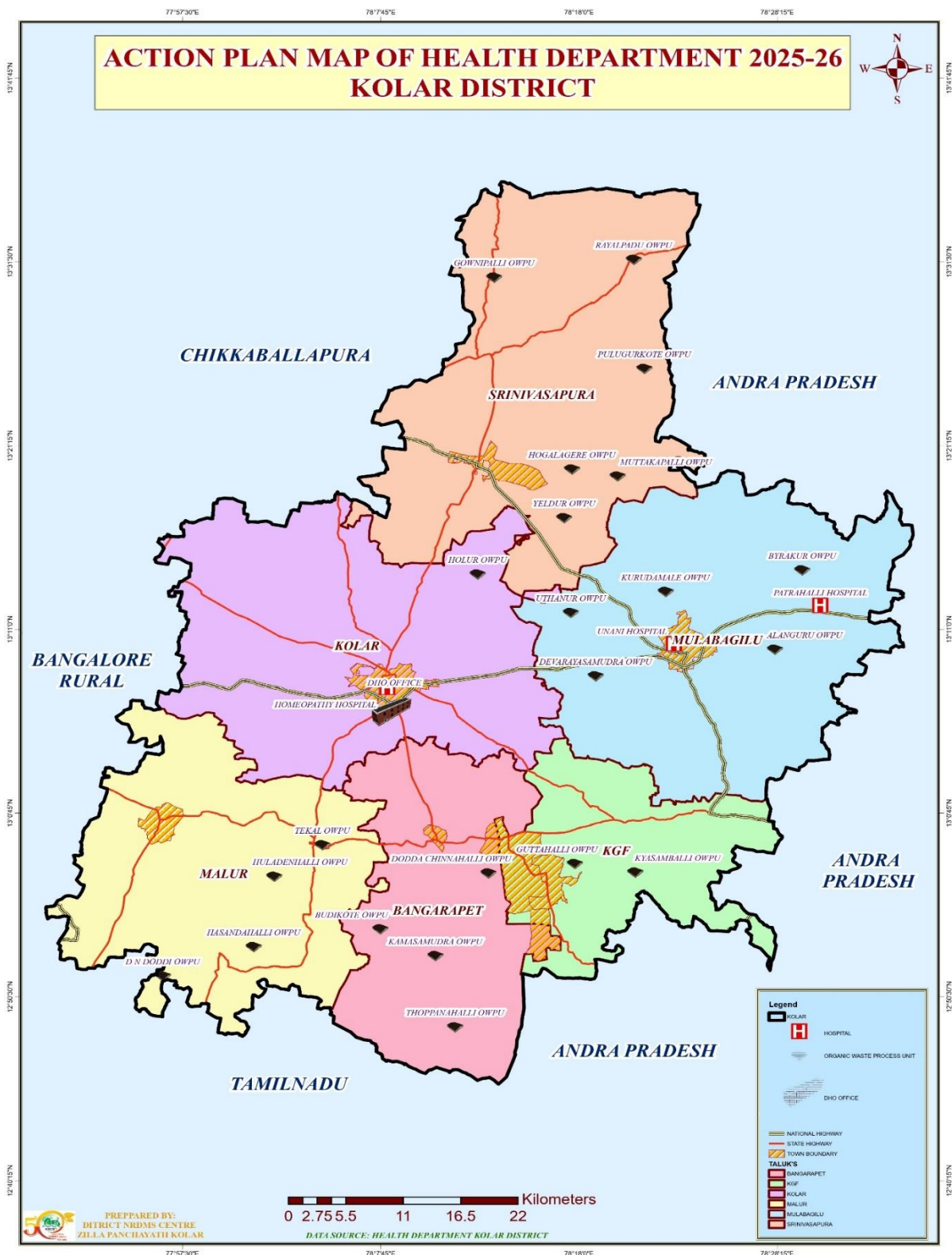
- **Safe, livable infrastructure** for students and residents.
- Timely **repair and renovation** of hostels under BCM control.
- Promote **educational empowerment** for backward communities through quality housing.
- Fulfill standards of **sanitation, safety, and utility** (water, electricity, flooring, roofs, etc.).

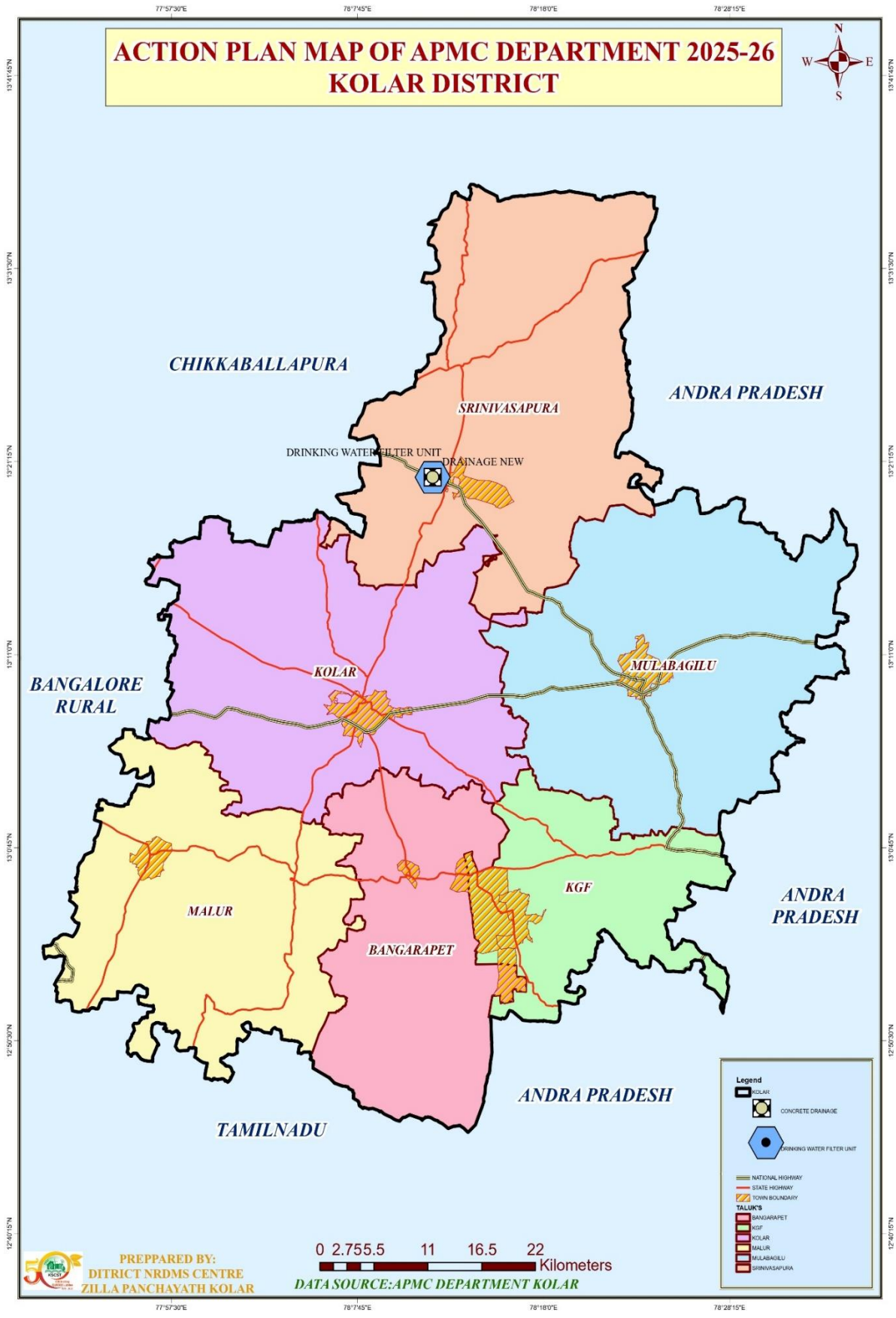
Annual Procedure Followed

Every year, the department follows a systematic process:

1. **Survey of BCM Hostels:** Identify buildings needing repair via inspection.
2. **Proposal Submission:** District BCM officer submits estimates and priority ranking.
3. **Approval of Locations:** Locations approved based on need, student strength, and condition.
4. **Budget Sanctioning:** Allocation based on work estimates.
5. **Tendering & Execution:** Work assigned to contractors under supervision of engineers.
6. **Monitoring & Reporting:** Work completion tracked and audited.
7. **Update to GIS Map:** Coordinates and status marked for transparency and tracking.

SL.NO	WORK NAME	hostel place code	LATITUDE	LONGITUDE
1	KOLAR TOWN	DCWD-2149	13.132086	78.133481
2	VEMGAL	DCWD-2151	13.195767	78.019494
3	CHAMPIAN REEF	DCWD-2140	12.930726	78.260882
4	H GOLLAHALLI	DCWD-801	13.255375	78.38509
5	MALLANAYAKANAHALLI	DCWD-802	13.097705	78.466401
6	UTTANURU	DCWD-805	13.164043	78.397731
7	LAKSHMIPURA	DCWD-809	13.447572	78.29772
8	RAYALPAD	DCWD-810	13.53269	78.336553





SL NO	Name	WORK DETAILS	LATITUDE	LONGITUDE
1	Srinivasapura APMC	DRINKING WATER FILTER UNIT	13.340246	78.197981
2	Srinivasapura APMC	DRAINAGE NEW	13.340215	78.19818



Purpose: Anganwadi centres are early childhood development / preschool facilities under the Integrated Child Development Services (ICDS). Their infrastructure (building, sanitation, roof, walls, windows, flooring) is essential for a safe, healthy, and conducive environment for young children, pregnant women, and nursing mothers.

Importance:

- Structural safety: prevent collapse, leaks, etc.
- Sanitation and hygiene: clean toilets, drainage, potable water.
- Child safety: safe windows/doors, child-friendly interiors.
- Learning environment: good lighting, ventilation, shelter from weather.
- Encouraging enrollment and regular attendance—parents more likely to send children if facility is decent.

Reasons for repair / maintenance:

- Wear and tear over time: rain damage, roof leaks, paint peeling, termite damage.
- Aging buildings not maintained regularly.
- Inadequate original construction or materials.
- Increased usage or overcapacity causing stress.
- Lack of prior funding or delays in maintenance.

Annual procedure (typical):

1. Surveying / inspection of all anganwadi centres in the taluk / district for needed repairs.
2. Prioritization based on safety risk, user population, severity of damage.
3. Estimation of repair cost for each centre.
4. Approval of action plan at district / state level, allocation of budget.
5. Tendering and contracting qualified builders / maintenance teams.
6. Execution of repairs / maintenance works.
7. Quality inspection post-repair.
8. Follow-up maintenance and schedule for next year.

What the Official Action Plan Should Include (and Likely Does)

- **Full list of centres** with names & identifiers (village, GP, block/taluk).
- GPS / Lat-Long of each centre to map them spatially.
- Detailed condition report for each (what needs repair: roof, floor, doors, windows, paint, sanitation etc.).
- Cost estimates per centre.
- Prioritization (urgent, high, medium, low).
- Budget allocated per centre or group.
- Timeline / Phasing: which centres in which quarter.
- Responsible authority (village / GP, local body, state ICDS engineering wing etc.).
- Monitoring & evaluation (quality checks, completion certificates).

Training Programmes Attended

1. Attended a one-day **State Level Workshop** on “*Geospatial Applications for District-Level Planning*”.
2. Participated in **EMPRI Training** conducted in **Kolar District**.
3. Completed a **Roadside Plantation Training** program at **KRSAC** (Karnataka State Remote Sensing Applications Centre).
4. Conducted training on the ‘**Roadside Plantation Mapping**’ web application, specifically designed for **Range Forest Officers (RFOs)**.
5. Attended **Disaster Management Training** held at the **Kolar District Training Centre**.

Training imparted to line departments

1. Conducted training on the ‘**Roadside Plantation Mapping**’ web application, specifically designed for **Range Forest Officers (RFOs)**.

Conducted on 14th June 2025

District NRDMS Centre, Kolar

Summary of Activities (April – July 2025)

1. Health Department Mapping Activities

During the reporting period, the NRDMS Centre supported the **Health Department** with spatial data and map preparation to assist in disease surveillance and control measures. Key activities included:

- Preparation of **location maps** showing **positive cases of Chikungunya, Malaria, and Dengue fever** in affected villages.
- Creation of **village-level and taluk-wise health maps** covering **Kolar, Malur, Mulbagal, Srinivaspura, KGF, and Bangarpet** taluks.
- Development of an updated **district-level disease incidence map** for planning and intervention purposes.

2. Preparation of Action Plan Maps for Line Departments

The NRDMS Centre provided geospatial support for the preparation of **action plan maps** for the following line departments:

- **Health Department**
- **Women and Child Welfare Department**
- **APMC Department**
- **Agriculture Department**

- **Horticulture Department**
- **Fisheries Department**
- **Social Forestry Department**
- **Panchayat Raj Engineering Department**

These maps were used to support infrastructure planning, maintenance, resource allocation, and program implementation.

3. Trainings Attended (April – July 2025)

The NRDMS team participated in various trainings aimed at capacity building and the application of geospatial tools:

1. **One-day State Level Workshop** on “*Geospatial Applications for District-Level Planning*”.
2. **EMPRI Training** conducted in **Kolar District**.
3. **Roadside Plantation Training** at **KRSAC** (Karnataka State Remote Sensing Applications Centre).
4. Conducted training on the ‘**Roadside Plantation Mapping**’ **web application**, developed for use by **Range Forest Officers (RFOs)**.
5. Participated in **Disaster Management Training** held at the **Kolar District Training Centre**.

Improvements in NRDMS Activities – Kolar District

The NRDMS (Natural Resources Data Management System) Centre in Kolar has significantly enhanced its role in district-level planning and governance through the expanded application of **geospatial technologies**.

1. Strengthening Geospatial Integration in Line Departments

- Geospatial tools are now being actively used by **line departments** such as Health, Agriculture, Horticulture, Social Forestry, and Panchayat Raj Engineering.
- This has improved **decision-making, infrastructure planning, and resource management**.

2. Support for Disaster Management

- Geospatial mapping and analysis are being utilized for **risk assessment, emergency planning, and response coordination** during disasters such as floods, disease outbreaks, and droughts.
- Mapping of **vulnerable areas** and **critical infrastructure** is aiding in better preparedness and response.

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3. New Applications in Road Safety and Elections

- NRDMS supported the use of GIS in **road safety mapping**, identifying accident-prone areas and helping plan for better signage and infrastructure.
- Geospatial applications were also used during **KOMUL constituency elections** for **booth location mapping**, logistics planning, and route optimization.

4. Expansion into Key Scientific Fields

- In **Agriculture and Horticulture**, GIS is being used for crop monitoring, land use mapping, and soil suitability analysis.
- In **Geology and Hydrology**, spatial data helps in **groundwater mapping, observation well monitoring, and water quality analysis**, supporting sustainable water resource management.

Impact

These improvements have enhanced the **efficiency, accuracy, and transparency** of planning and operations across the district. The use of **geospatial science** is now embedded in **multi-sectoral governance**, making Kolar a model for integrated and data-driven development planning.

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List of Maps Prepared

1. **Taluk-wise Dengue Fever Location Maps** for all taluks in Kolar district.
2. **District-level Dengue Fever Location Map.**
3. **Taluk-wise Chikungunya Location Maps** for all taluks.
4. **District-level Chikungunya Location Map.**
5. **Village Maps** for **Marjenahalli** and **Huladenahalli**.
6. **Action Plan Maps** prepared for the following departments:
 - Agriculture
 - Horticulture
 - APMC
 - Women and Child Welfare Department
 - Social Welfare Department
 - Health Department
7. **Kolar District Base Map.**
