

NATURAL RESOURCES DATA MANAGEMENT SYSTEM (NRDMS)

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

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



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

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1. Basic Information of the District

District Name: Hassan District

Division: Mysore Division

District Establishment Year: 1860s

Headquarters: Hassan

Current CPO: Krishnamurthy (Chief planning officer)

Current CEO: Poornima B.R IAS (Chief Executive officer)

2. NRDMS Background of the District

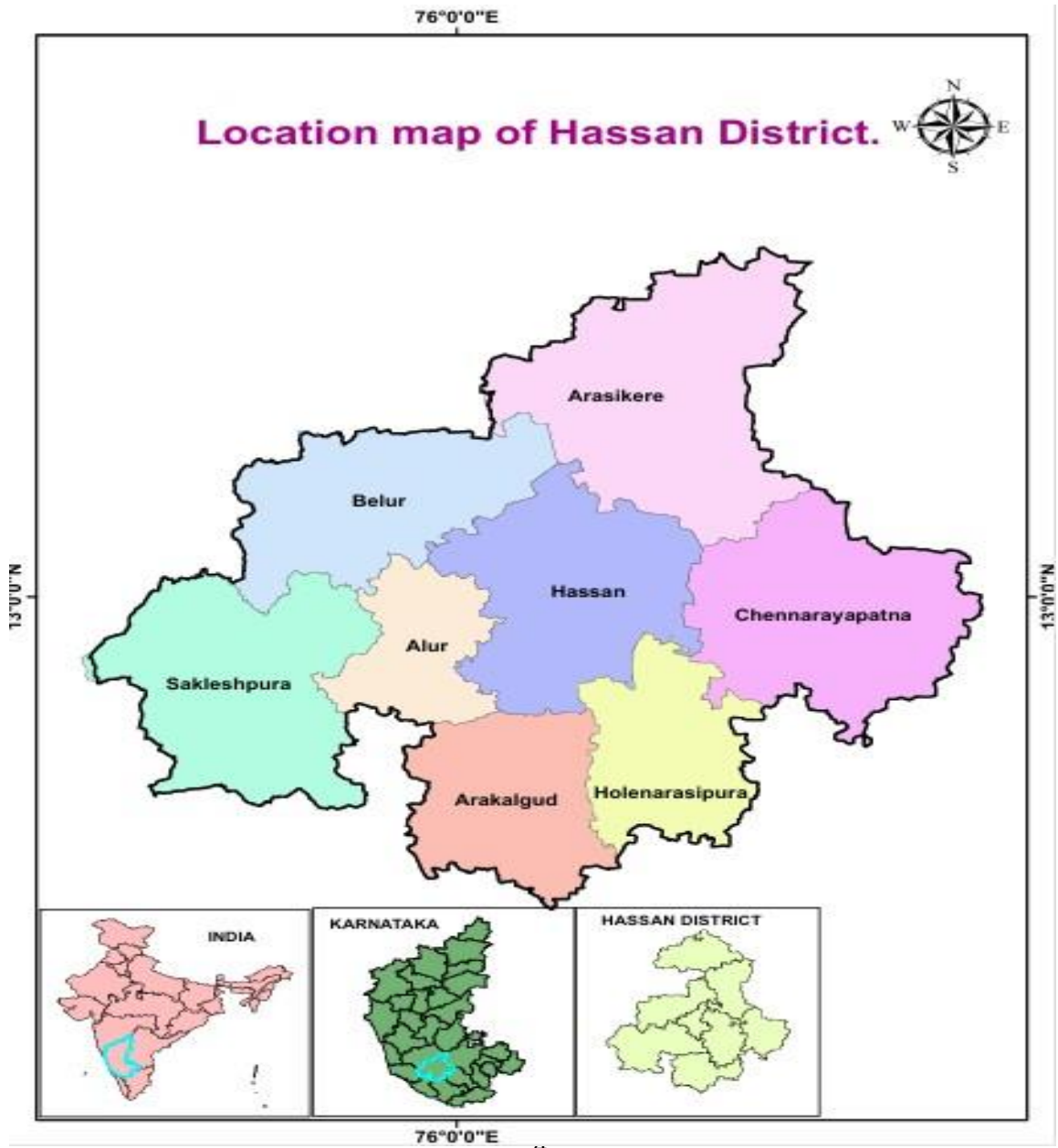
The Karnataka State Council for Science and Technology (KSCST) Indian Institute of Science Bangalore initiated the Karnataka Natural Resources Data Management System (NRDMS) program in 1992 and since then established District NRDMS Centres in the State with active support and funding from Department of Science & Technology Government of India and Government of Karnataka. The Natural Resources Data Management System (NRDMS) center in Hassan district was established in the year 1994-1995, NRDMS program is a multi-disciplinary and multi-institutional program of the Council aimed at developing methodologies for building and promoting the use of spatial data management and analysis technologies in local area planning.

The district NRDMS centers since inception have created an exhaustive database of natural resources, socio-economic parameters, infrastructure etc. The NRDMS centres are providing analyzed/value added information to planners and administrators besides developing applications using geo-spatial technologies suitable for local level planning. The NRDMS centers are providing need-based information to users such as elected bodies, district administration and planners through maps, charts, tables, and reports etc., on spatial and non-spatial data. The overall objective of the NRDMS is to increase the efficiency of utilization of resources through the application of scientific management principles and Geographical Information System [GIS] technology.

3. Geographical Features

3.1 Location & Boundaries: Hassan District, located in southwestern Karnataka, India, has a rich history spanning over two millennia, shaped by its strategic location, cultural heritage, and the rule of several prominent dynasties. The district is surrounded by Chikmagalur District to the north, Tumkur District to the east, Mandya District to the south east, Mysore to the south, Kodagu District to the south west and Dakshina Kannada district to the west. Hassan district has a total area of 6826.15 km²

Hassan District is administratively divided into eight talukas which are Alur, Arkalgud, Arsikere, Belur, Channarayapatna, Hassan, Holenarasipura (H.N. Pura) and Sakleshpur, The District which has 38 hoblies & 2581 Villages.



3.2 Geographical Coordinates

Hassan district lying between 12° 13' and 13° 33' North latitudes and 75° 33' and 76°38' East longitude.

3.3 Topography

The topography of Hassan district is characterized by its varied elevation, with parts of the district in the Malnad (hilly) region of the Western Ghats and other parts on the Southern Maidan (plains) of the east, all at an average elevation of about 940 meters above sea level. This creates a diverse landscape of elevated terrains and flatter plains. By considering the physical aspects, climate, rainfall, etc. the district may be divided into three regions, (1) southern malnad, (2) semi-malnad and (3) southern maidan. western and north-eastern portions of the Belurtaluk, western and central parts of Alurtaluk and the whole of Sakaleshapurataluk constitute the "southern malnad" region, the central parts of the Arkalagudtaluk, the western portion of the Hassan taluk, the eastern portion of the Alurtaluk, the central and eastern parts of the Belurtaluk and the western parts of the Arasikere taluk form the "semi-malnad" region. The southern maidan region includes the whole of the Holenarasipura and Channarayapatnataluks, eastern parts of the Arasikere and Hassan taluks and the south-eastern portions of the Arkalagud taluk. The southern malnad is a forest-clad hilly region with a heavy rainfall.

The Bisle Ghat is a portion of the Western Ghats range in the western part of the district. Main peaks include Jenukallu betta, Sakleshpura (4,558 feet (1,389 m)), the highest peak in the district, Murkangudda (4,265 feet (1,300 m)), and Devarbetta (4,206 feet (1,282 m)). Pushpagiri (1,712 meters), lies immediately southwest in Kodagu and district. Bisle, Kagneri, Kanchankumari reserve forests cover portions the Bisle Ghat, and adjoin Pushpagiri Wildlife Sanctuary in Kodagu.

3.4 Climate

Hassan district has a tropical savanna climate (Aw), characterized by warm temperatures year-round and a distinct dry season. Summers are hot, and the monsoon season brings significant rainfall, while winters are mild.

- **Rainfall:** Average Rainfall: [1,701 millimeters (67.0 in)]
- **Temperature Range:** In Hassan, India, the average yearly temperature ranges from approximately 66°F to 95°F (19°C to 35°C)
- **Climatic Zones:** Tropical savanna climate (Aw) according to the Köppen Climate Classification. It also falls within the Southern Transition Zone (ACZ-7) and partially the Hilly Zone within the agro-climatic zoning of Karnataka.

Seasons:

The climate typically follows a pattern of hot summers, a monsoon season with heavy rains, and mild winters.

Seasonal Breakdown

- **Summer:** Warm and generally hot with high temperatures.
- **Monsoon Season:** Characterized by significant rainfall, providing much of the district's annual precipitation.
- **Winter:** Mild and pleasant, with cooler temperatures compared to other seasons. December, for example, sees temperatures ranging from approximately 14°C to 25°C.

3.5 Natural Resources

- **Forest**

Hassan circle comprises two territorial divisions, namely, Hassan and Tumkur forest divisions, and two social forestry divisions, namely, Hassan SF division and Tumkur SF division. The circle comprises the revenue districts of Hassan and Tumkur.

Hassan forest division is situated in the south western sector of Karnataka. The limits of Hassan division are the same as those of Hassan district. The total extent of forest land in the division is 88,060 hectares which constitute about 12.92 of the geographical area of the division (6,814 Km²). Hassan division has three sub-divisions, namely, Hassan, Sakaleshpura and Channarayapatna sub-divisions, and consists of nine ranges, namely, Alur, Arkalgud, Arsikere, Belur, Channarayapatna, Hassan, Holenarsipura, Sakaleshpur and Yeslur ranges. Sakaleshpur and Yeslur ranges have primarily evergreen and semi-evergreen forests interspersed with moist deciduous forests. There are some shola forest patches surrounded by grasslands at higher altitudes (above 1,000 m). There are extensive coffee plantations in these two ranges in the semi-evergreen / moist deciduous zone. The remaining forest ranges of the division primarily have dry deciduous and scrub forests. Reserve forests were established in the 19th century, and covered an area of 185 square miles in the district.

- **Minerals:** Hassan district in Karnataka is rich in minerals such are,

Copper and Cobalt: Found in the Kalyadi deposit area, west of Arasikere town.

Chromite: Occurs in the Byrapura area, where it is found in ultramafic rocks altered to serpentinites and schists.

Asbestos: Deposits are located in the Hassan district, among others.

Rare-metal: Pegmatites: Found in the Arehalli area, hosting minerals such as columbitetantalite, tapiolite, lepidolite, pollucite, cleavelandite,

and Amblygonite.

- **SOIL**

The soil in Hassan District, Karnataka, exhibits wide diversity, primarily consisting of red soils, red sandy soils, and black soils, along with mixed soils and silty clay soils. These soils are derived from local geological formations, such as granite gneiss for red soils and schist for black soils. Soil texture ranges from sandy loam to sandy clay loam, with pH levels varying from neutral to mildly acidic. Soil fertility status shows variations, with some areas exhibiting low organic carbon and nutrient levels due to intensive cultivation, while other areas like coffee and forest lands maintain better soil quality.

3.6 Major Rivers/Water Sources

Most of the district lies in the watershed of the Hemavathi River, a tributary of the Kaveri River. The general level of Hassan district slopes with the course of the Hemavathi, from the peaks of the Western Ghats downwards to the southeast. The chief tributary of the Hemavathi is the Yagachi River, which flows southward from Belur taluk to join the Hemavathi near Gorur. In 1981 the Hemavathi Dam was completed near Gorur, downstream from the confluence with the Yagachi, creating a reservoir of 8000 hectares. The river Yagachi enters Hassan district near Siraghatta of Belur taluk and joins Hemavathi River at Gorur. The total length of this river in Hassan district is 41 miles. Hemavathy reservoir at Gorur is the main dam. Yagachi and Vatehole are the other two small reservoirs in the district. The Hemavathi passes through Holenarsipur taluk in a southerly direction and joins with the Kaveri near Hampapura in Mysore district, The Kaveri flows through the southernmost part of the District.

4. NRDMS Spatial and Non-spatial Data available in District NRDMS Centre

DATABASE STATUS FOR THE YEAR 2025

Status Code : Meaning

CC	:	Computerized.
ND	:	Not Digitized
NA	:	Not Procured
NR	:	Not Relevant
NF	:	Not Finalized

4.1 SPATIAL DATABASE

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		District	CC	
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	1:50,000	MGD		District	CC	.shp
Structural features	1:50,000			District	CC	.shp
4. Mineral Resources		MGD			NA	
5. Geomorphology	1:50,000	MGD		District	CC	.shp
6. Land use	1:50,000	KRSAC		District	CC	.shp
7. Waste Lands		KRSAC			NA	
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					NA	
Hydro chemistry					NA	
Ground water budget					NA	
2.Surface water						
Drainage	1:50,000	MGD		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	KRSAC		District	CC	.shp
District boundary	1:50,000	KRSAC		District	CC	.shp
Current popln. distbn.					CC	.Xcel
Literacy						
Levels of education					CC	.Xcel
Occupation						
Village boundary	1:50,000	KRSAC		District	CC	.shp
Employment						
District scenario					NA	

Employment exchange					NA	
Assets & Expenditure					NA	
Migration					NA	
Destitutes					NA	

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						
Minor irrigation						
Canals		DLR & SS			NA	
Tube wells		DLR & SS			NA	
Dug wells		DLR & SS			NA	
Tanks	1:50,000	DLR & SS (KRSRAC)		District	CC	.shp
Lift irrigation		DLR & SS			NA	

<i>Major irrigation</i>						
Reservoirs		DLR & SS			NA	
Anicuts		DLR & SS			NA	
Agricultural implements						
Animal husbandry		AHVS			NA	
Pisciculture					NA	
Plantation					NA	

Sector / Subsector	Scale	Source	Survey / Publn. Year	Area covered	Status Code	File Format
5.Infrastructure						
Communications						
Post offices		DLR & SS			NA	
Telecommunication		DLR & SS			NA	
Drinking water		DLR & SS			NA	
Educational facilities	1:50,000	DDPI		District	CC	.shp
Electricity		Land Records			NA	
Financial institutions		DLR & SS			NA	
Markets		DLR & SS			NA	
Health	1:50,000	DHO		District	CC	.shp
NGO's		DLR & SS			NA	
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 Panchayhs & Zilla Panchayaths, its jurisdiction for all taluks	1:50,000	DC		District	CC	.shp

4.2 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			NR	
District boundary				NR	
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					
Migration				NA	
Destitutes				NA	

3. Socio Economy					File Format
Industry	DIC			CC	.Xls
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	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			NA	
Health	DHO			CC	.Xls
NGO's	DRS			NA	
Tourism	KSTDC			CC	.Xls
Transport					
Roads	PWD			NA	
Rail network	ZPED			NA	
Air	PWD			NA	

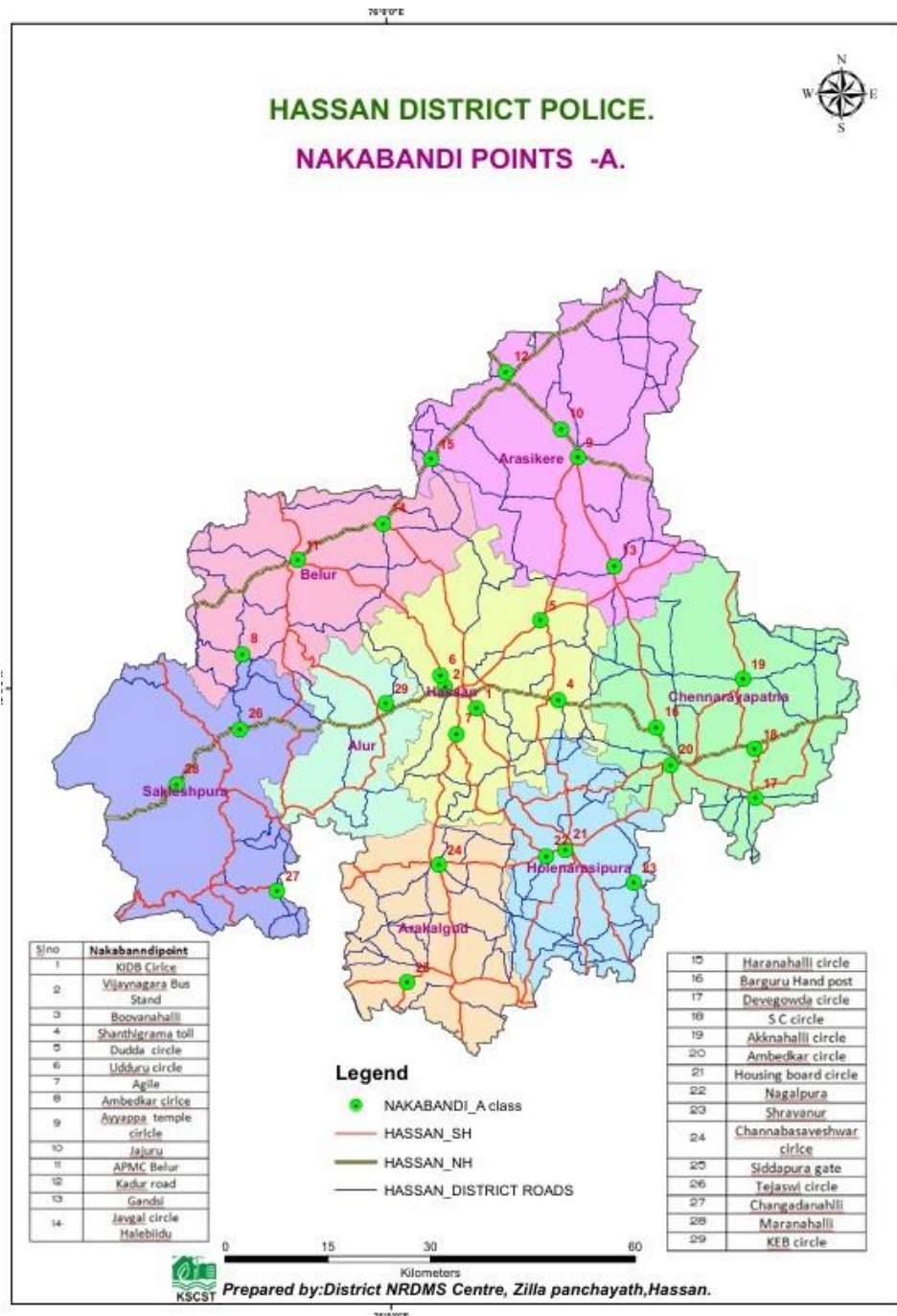
transport/HELIPAD					
Vehicle census	RTO			NA	
Inland & coastal waterways				NA	
Veterinary services					
Veterinary facilities	AHVS			NA	
Other veterinary serv.	AHVS			NA	
Incidence of diseases	AHVS			NA	
Anganwadi	D W&C			CC	.Xls

Sector / Subsector	Source	Survey / Publn. Year	Area covered	Status Code	File Format
6. Miscellaneous					
Administration	DC office			NA	
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	

5. NRDMS Centre Activities (April 2025 - July 2025)

5.1 Department: SP Office

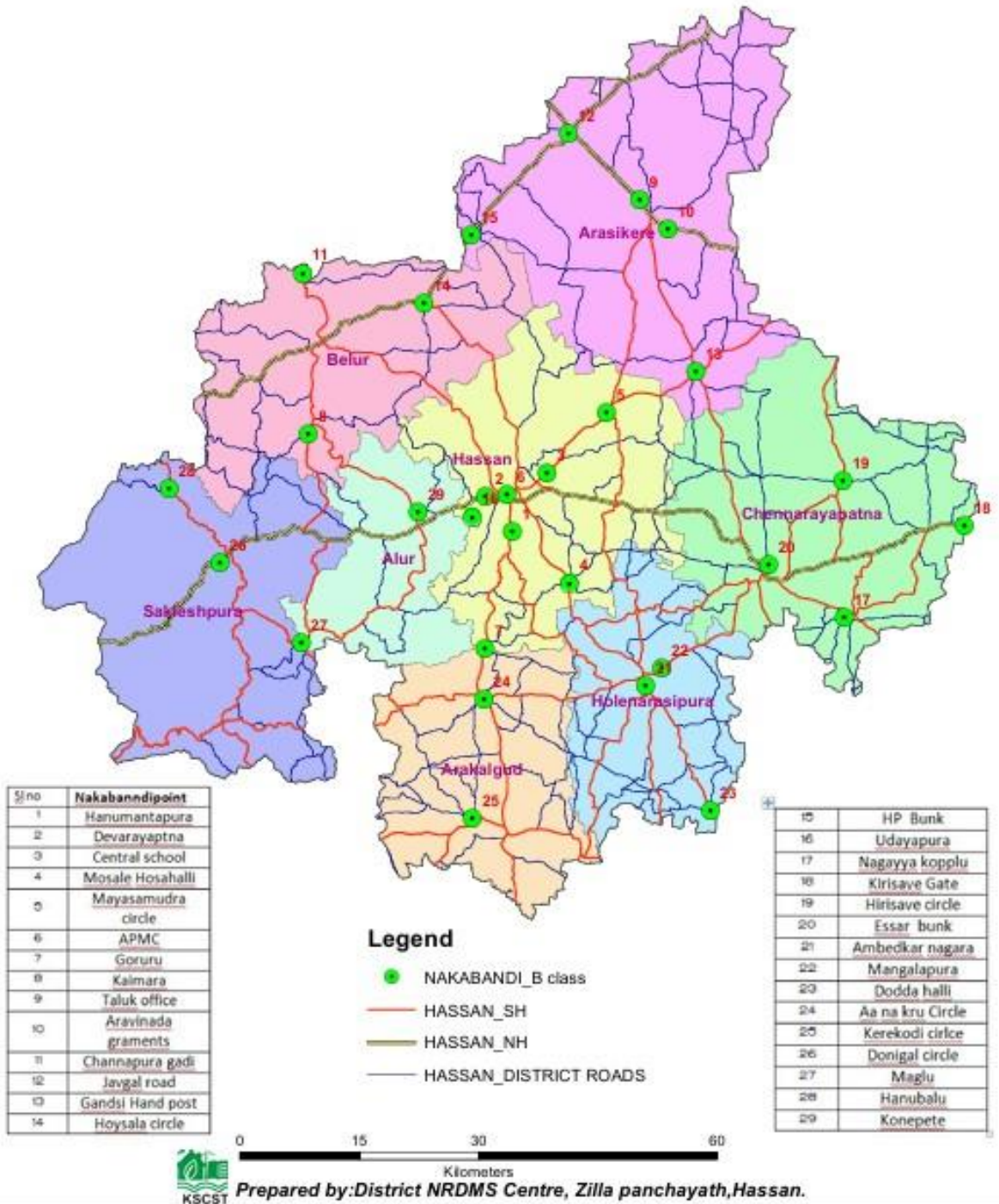
The Superintendent of Police requested this map from the SP Office and it was prepared on their orders. Thematic layers used in this study are Taluk boundary, state highway, national highway, District roads and Nakabandi Data. By using Arc GIS software they will get to know their temporary office locations. The police department can benefit from knowing their temporary office locations and performing their duties accordingly. The map following is divided into 6 types, ABCDEF.





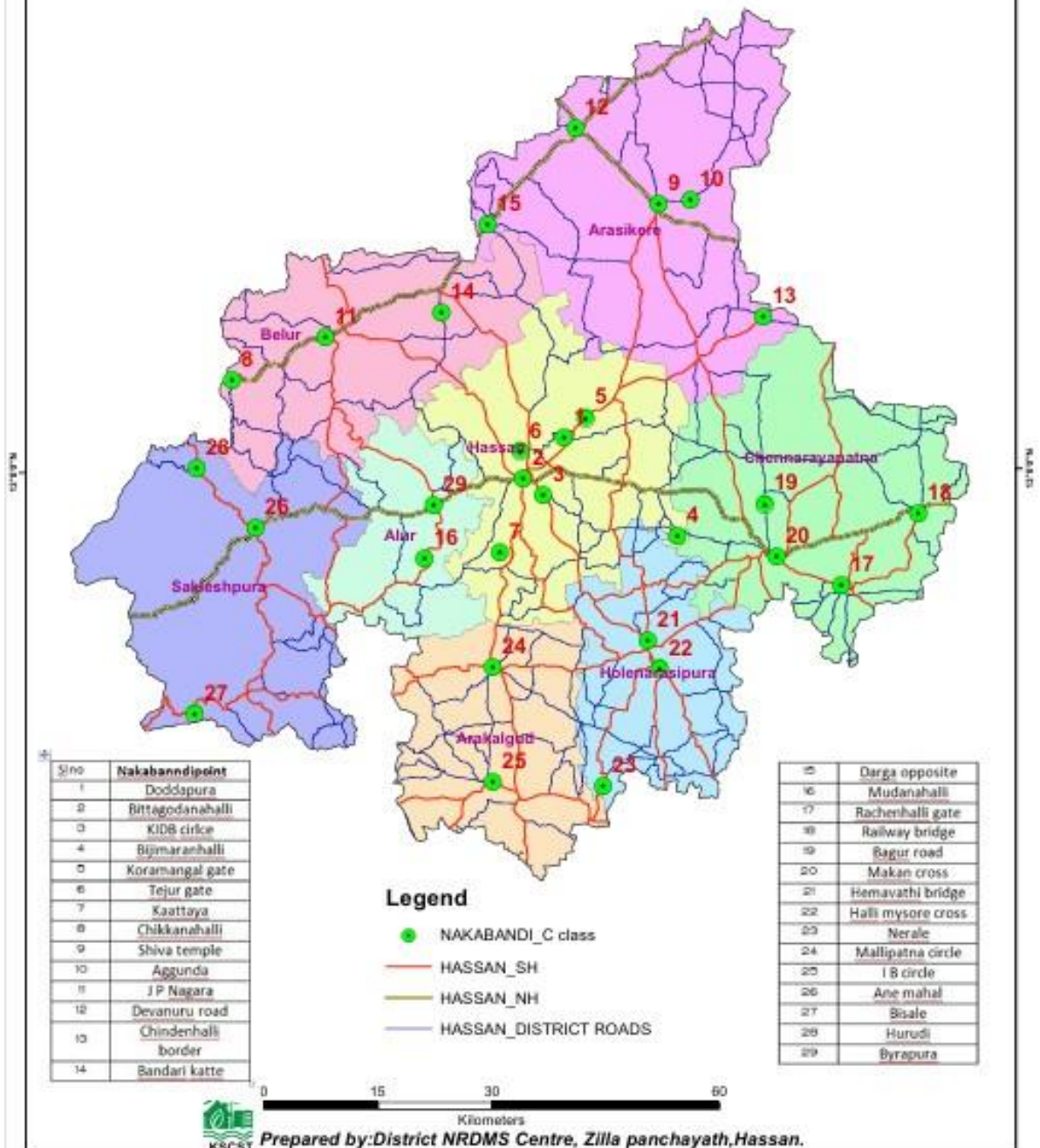
HASSAN DISTRICT POLICE.

NAKABANDI POINTS - B.



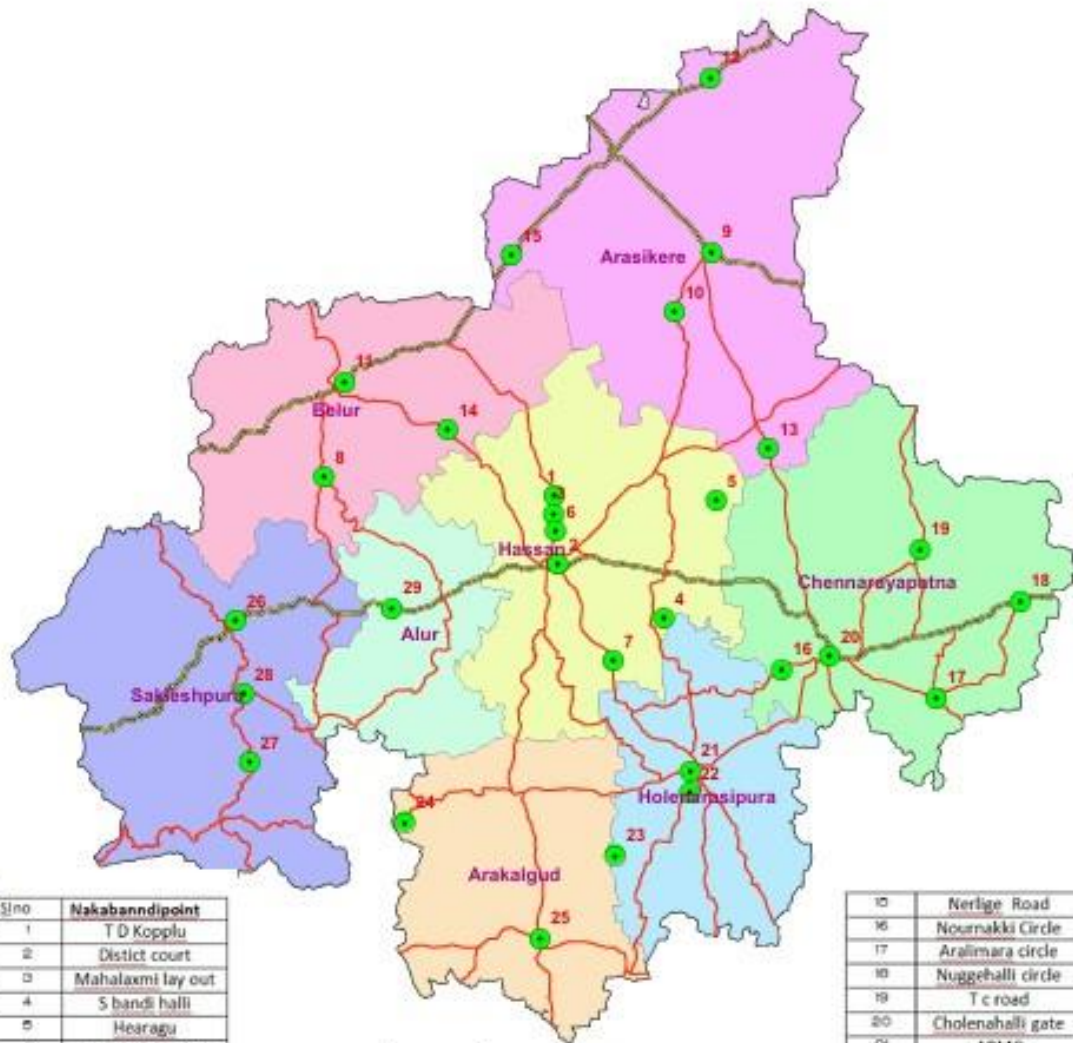
HASSAN DISTRICT POLICE.

NAKABANDI POINTS - C.



HASSAN DISTRICT POLICE.

NAKABANDI POINTS -D.



S/no	Nakabandipoint
1	T D Kopplu
2	Distict court
3	Mahalaxmi lay out
4	S bandi halli
5	Hearagu
6	Subedar circle
7	Mosale hosahalli
8	Madagatta circle
9	Kanthenahlli bridge
10	Harnahalli
11	Banttenhalli
12	Kallusadarahalli
13	Chagachagre
14	Hagare

Legend

- NAKABANDI_D class
- HASSAN_SH
- HASSAN_NH
- HASSAN_DISTRICT ROADS

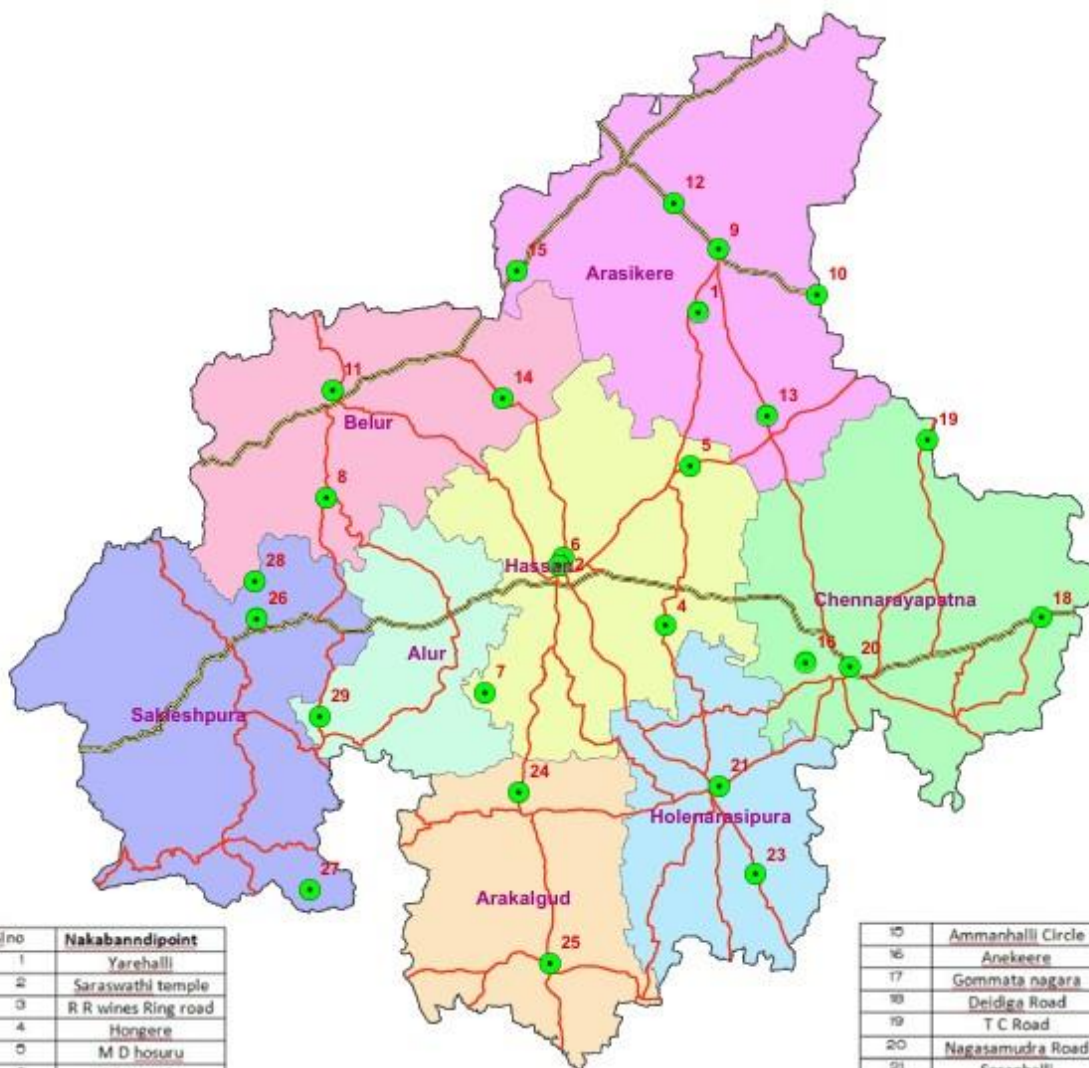
15	Nerlige Road
16	Nournakki Circle
17	Aralimara circle
18	Nuggehalli cirde
19	T c road
20	Cholenahalli gate
21	APMC
22	Laxmipura
23	Jodigubbi
24	Hipli
25	K B Malappa circle
26	Kempegowda circle
27	Hetturu
28	Bykarvalli
29	Palya

0 15 30 km
Kilometers

Prepared by: District NRDMS Centre, Zilla panchayath, Hassan.

HASSAN DISTRICT POLICE.

NAKABANDI POINTS -E.



S/no	Nakabandipoint
1	Yarehalli
2	Saraswathi temple
3	R R wines Ring road
4	Hongere
5	M D hosuru
6	Edga circle
7	Shettihalli
8	Alur circle bikkodu
9	K T circle
10	Mylanahalli
11	Yagachi dam
12	Bende kere
13	Mahadevarahalli Circle
14	Adaguru

Legend

- NAKABANDI_E class
- HASSAN_SH
- HASSAN_NH
- HASSAN_DISTRICT ROADS

15	Ammanahalli Circle
16	Anekeere
17	Gommata nagara
18	Deidiga Road
19	T C Road
20	Nagasamudra Road
21	Soranahalli
22	Molekalenahalli
23	Doddakadanur
24	Ankanayakanahalli
25	Baseshwara Circle Ramanatapura
26	S S circle
27	Hosuru
28	Sundakere
29	Magge



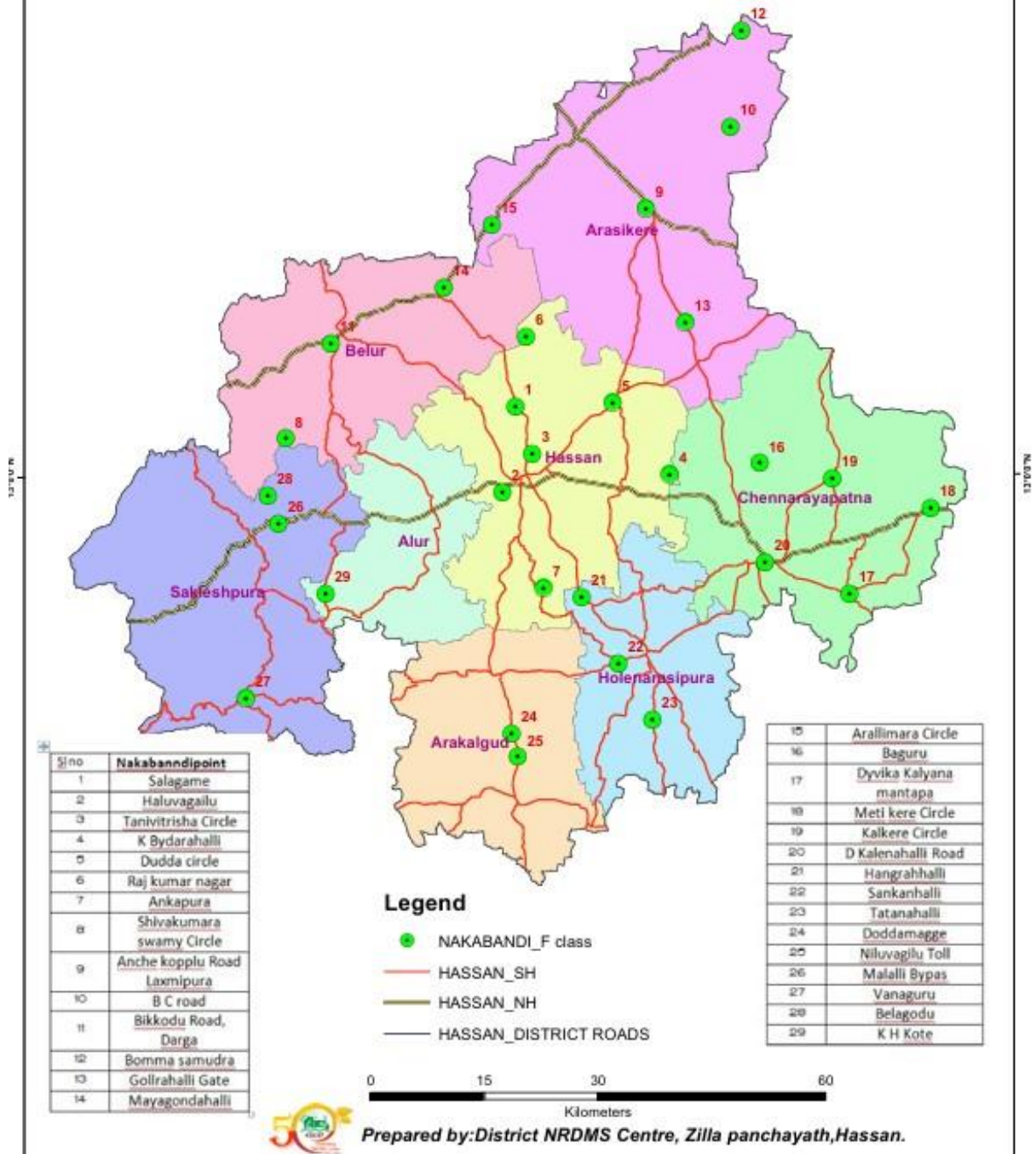
0 15 30 Kilometers

Prepared by: District NRDMS Centre, Zilla panchayath, Hassan.



HASSAN DISTRICT POLICE.

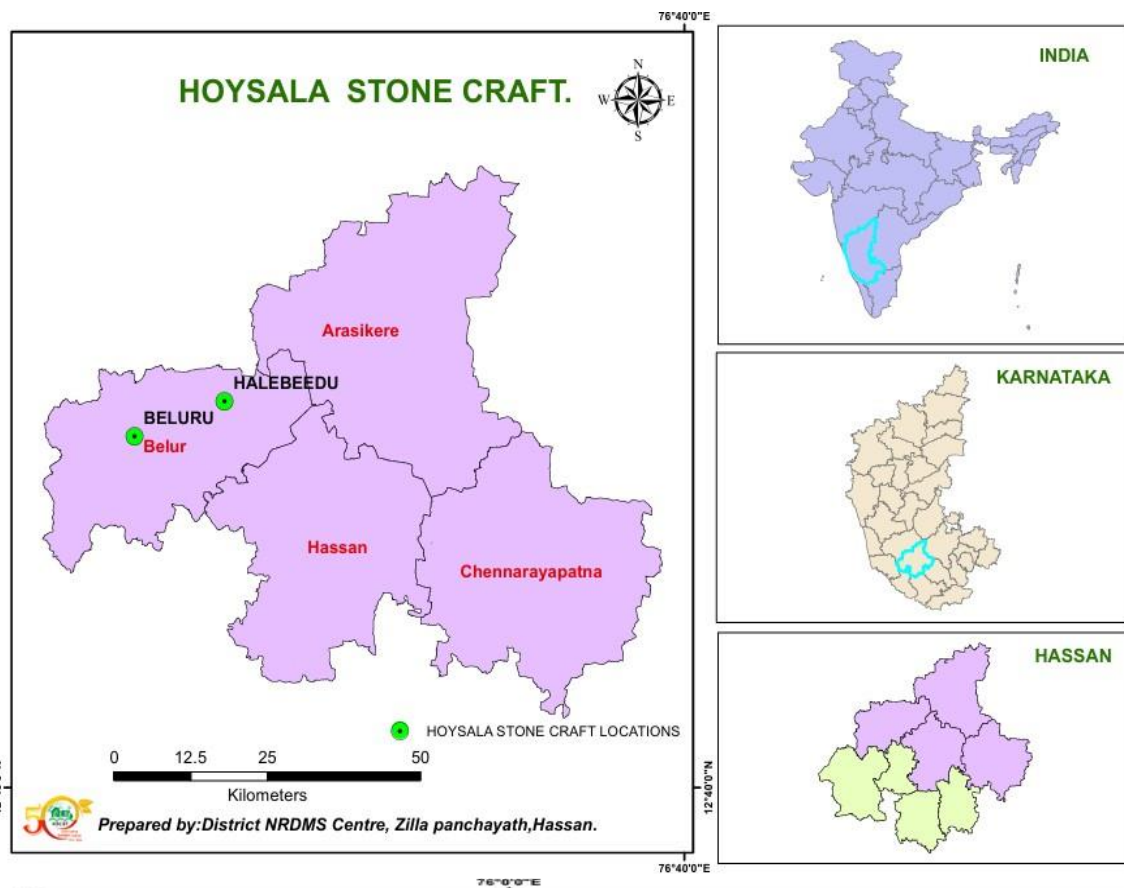
NAKABANDI POINTS -F.



5.2 Hoysala Stone craft map

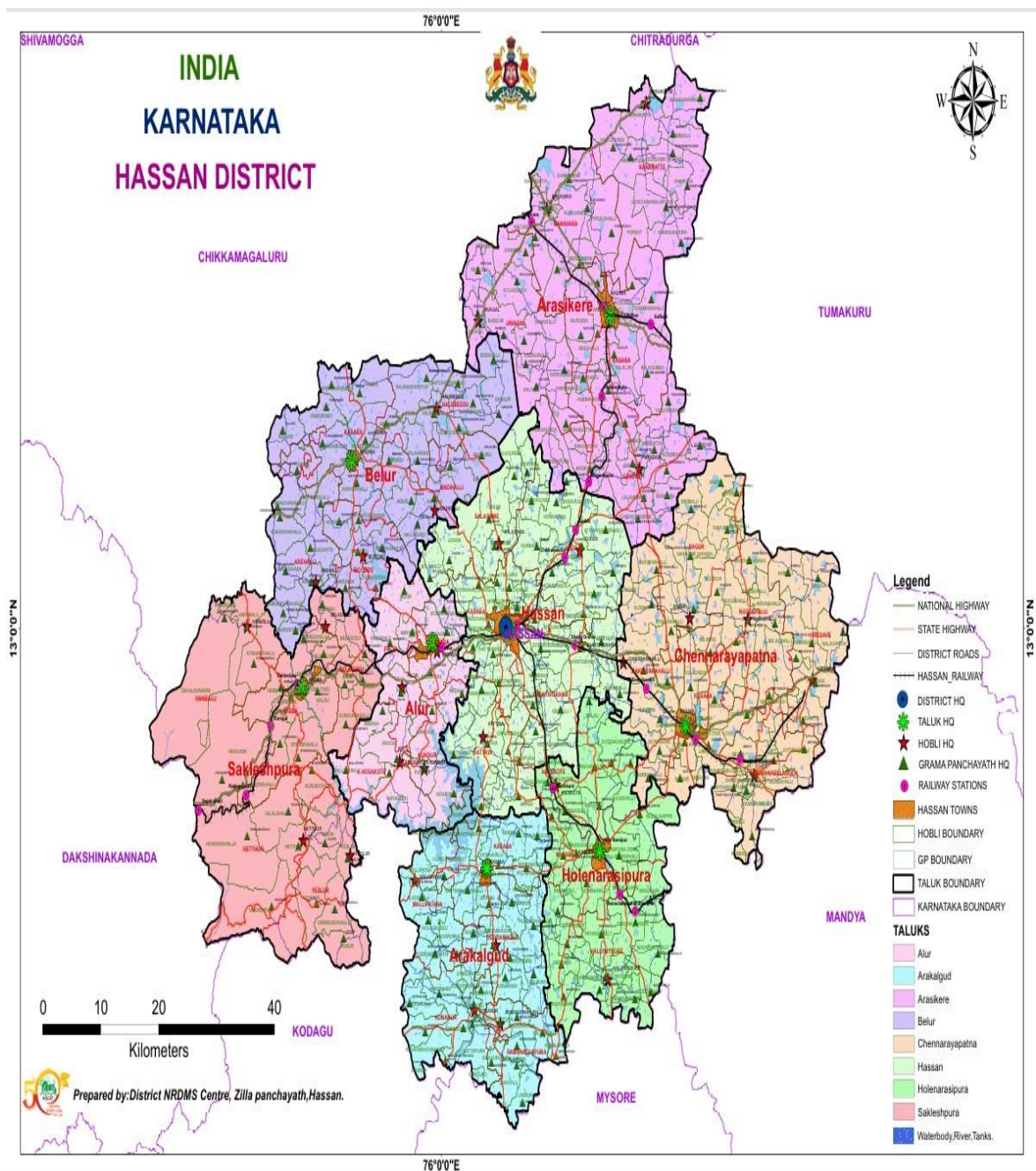
The GI team asked for this map because they wanted to know which places in Hassan district had information about Hoysala sculptures through maps. and it was prepared on their request. Thematic layers used in this Map are District boundary, Taluk boundary, state highway, national highway, District roads, Railways and Hoysala stone craft data. This map helped them to know where the Hoysala style stone carving craftsmen were located, it is helpful in collecting information about Hoysala stone craft and it helps in promoting the GI.

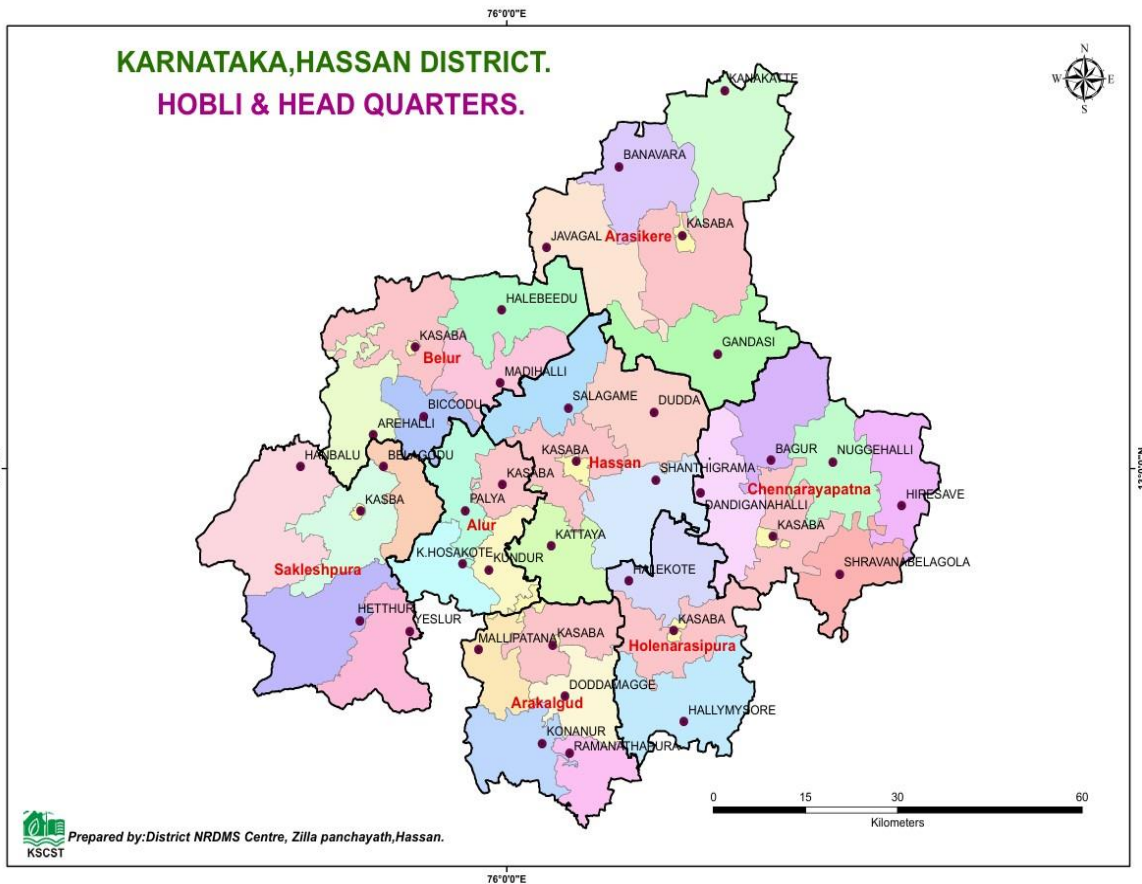
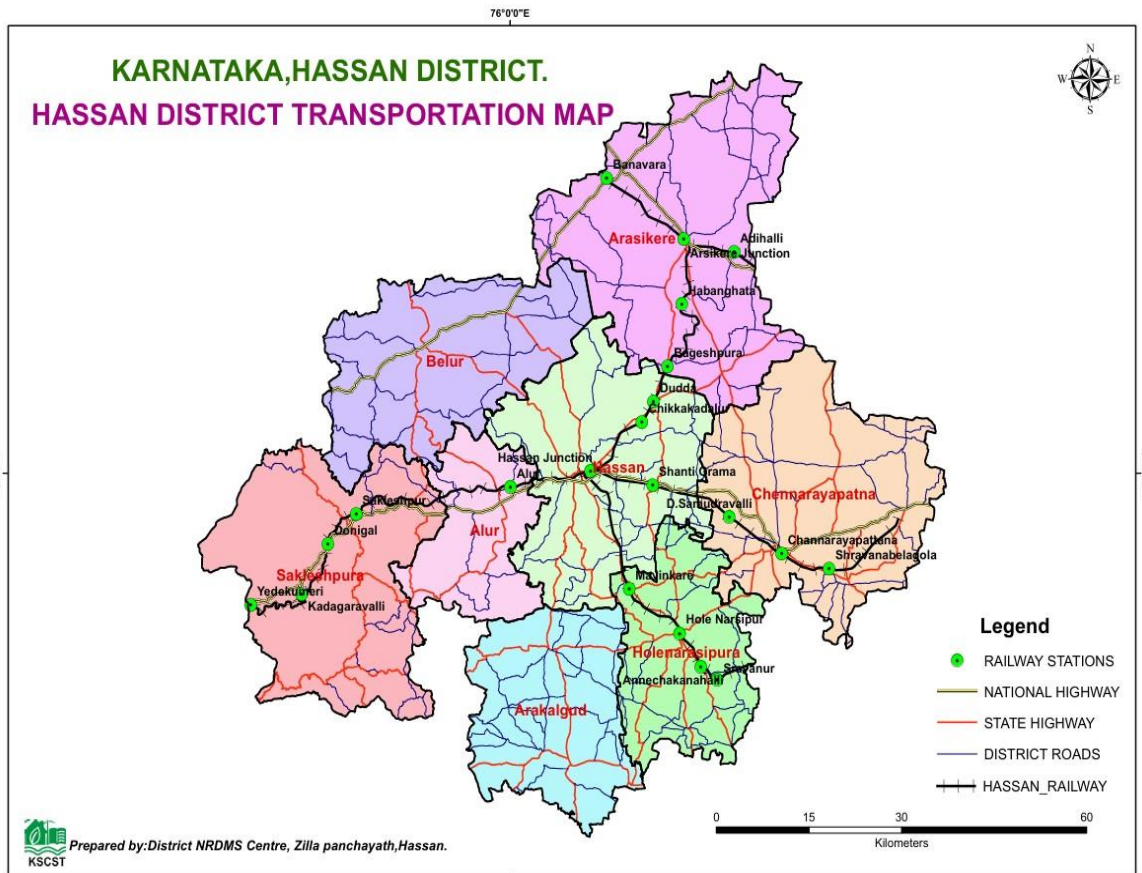




5.3 Department: DC office

The new District Collector was appointed to Hassan district in June and asked for maps to review matters related to the district. These maps were prepared on their Order. Thematic layers used in this Map are District boundary, Taluk boundary, state highway, national highway, District roads, Railways, GP boundary, village boundary, Hobli boundary, waterbodies, District HQ, Taluk HQ, Hobli HQ, GP HQ, It is helpful for the District Collector to know about the district.



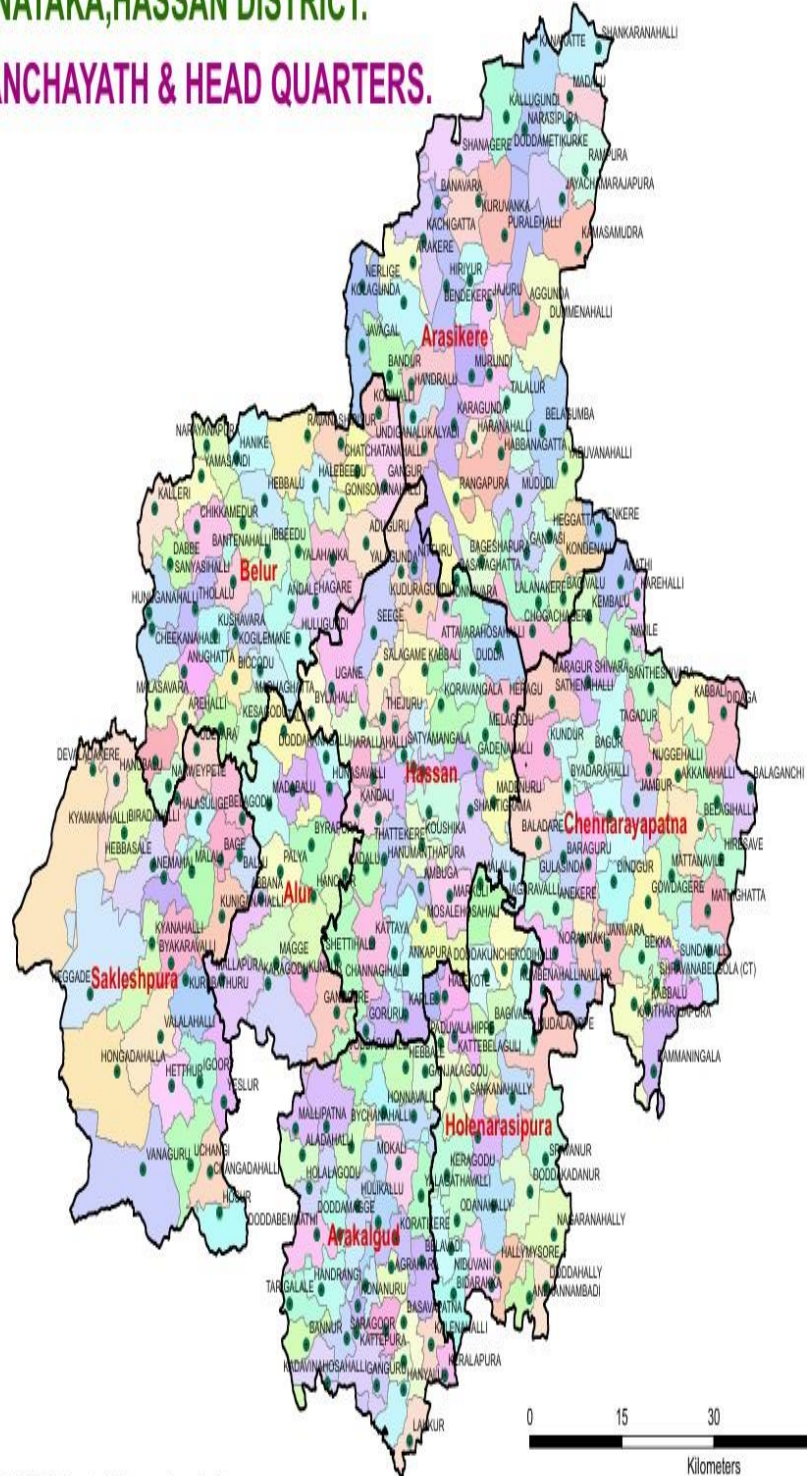


76°00'E

KARNATAKA, HASSAN DISTRICT. GRAMA PANCHAYATH & HEAD QUARTERS.



13°0'0"N



13°0'0"N

0 15 30 60
Kilometers

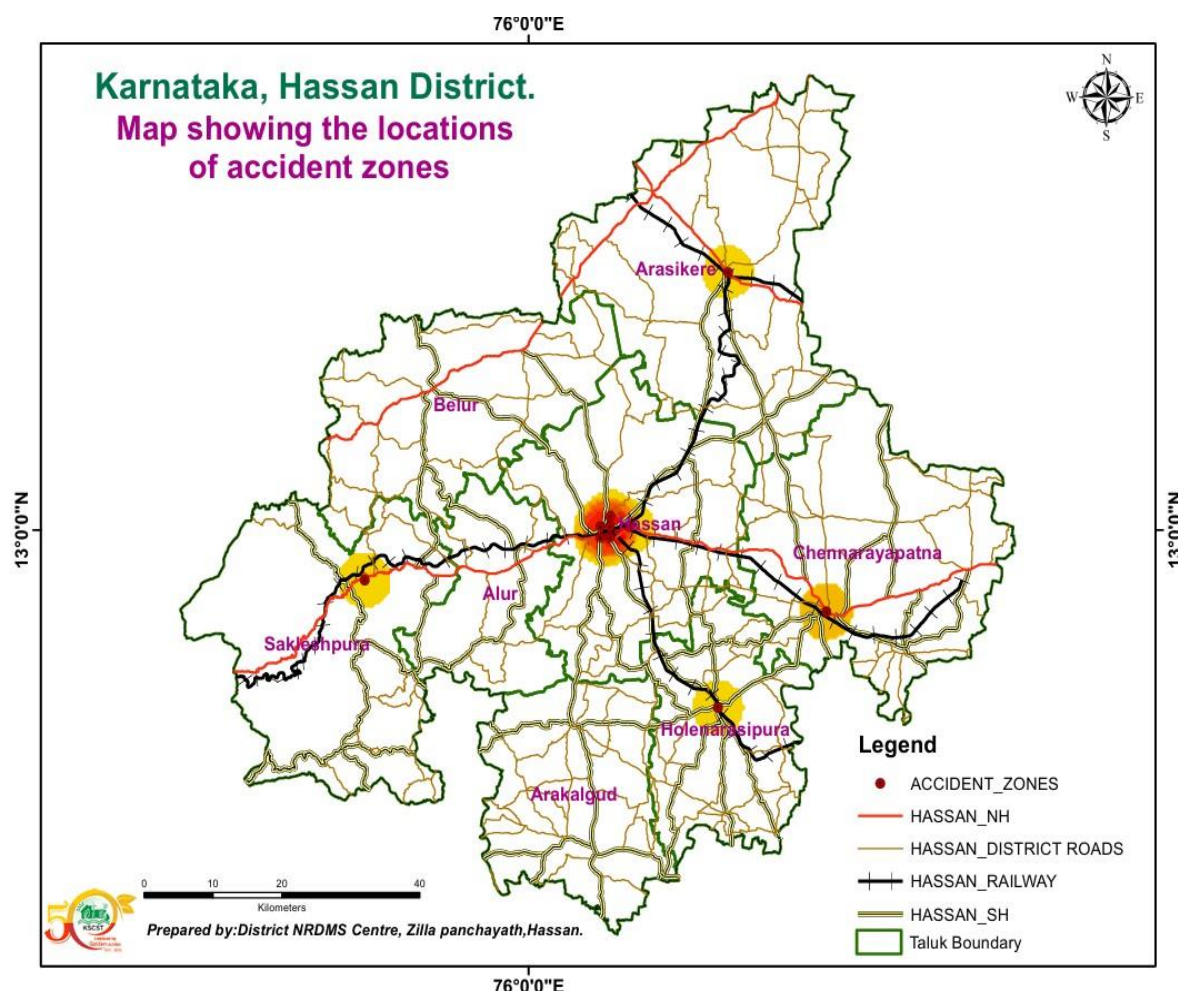


Prepared by: District NRDMS Centre, Zilla panchayath, Hassan.

76°00'E

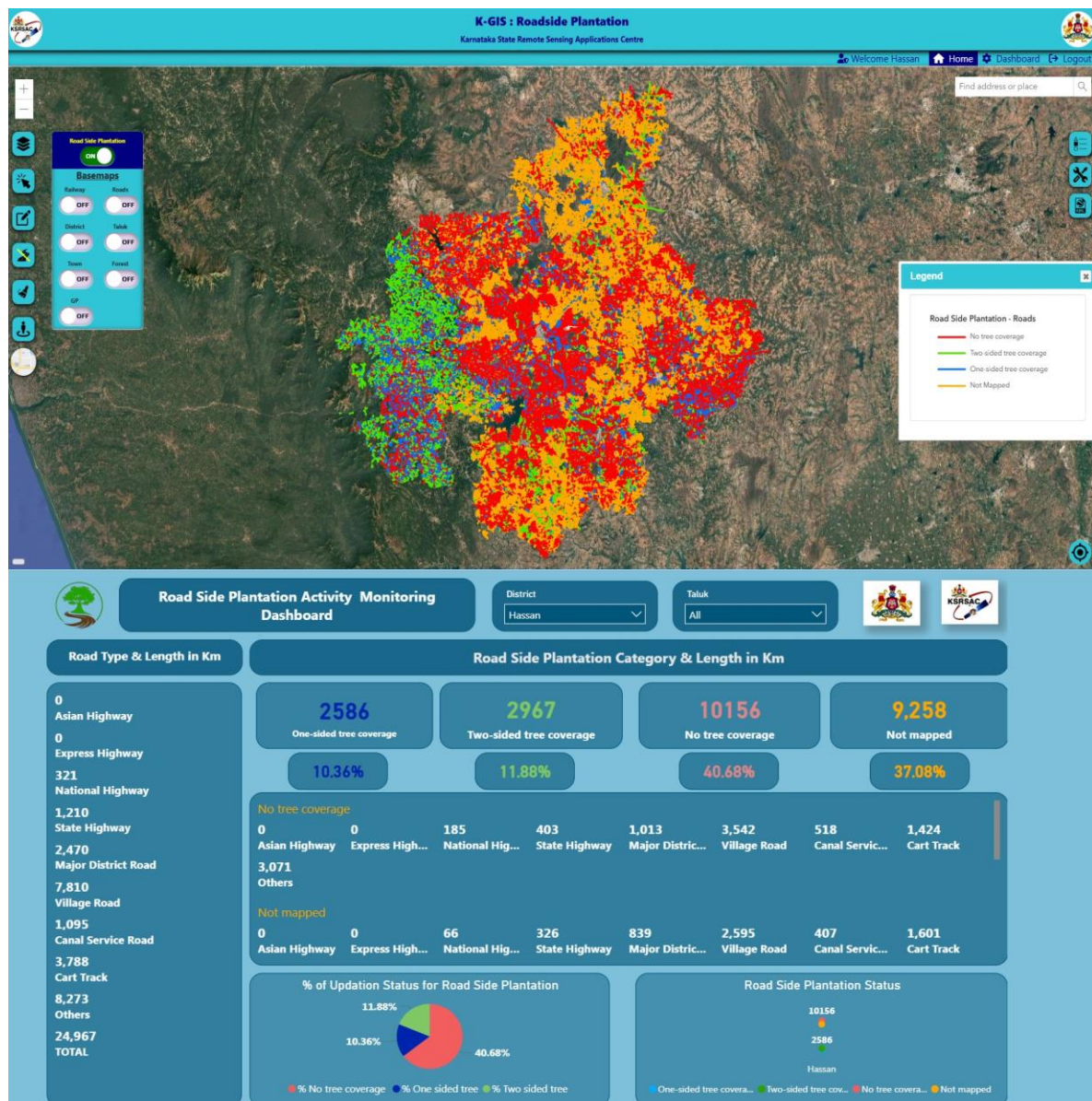
5.4 Department: Police

The police department asked for a map that shows the locations where accidents happen the most in Hassan district, which was prepared accordingly. Thematic layers used in this Map are District boundary, Taluk boundary, state highway, national highway, District roads, Railways, and Accident zones data, this map helps to identify the most accident-prone areas and take preventive measures to avoid accidents.



5.5 KGIS Road side Plantation work

The Roadside plantation visual interpretation work commissioned by KSRSAC, is also being done and a 15,709 km out of a total of 24,967 km has been completed.



6. Training Programmes Attended

Sl.no	DATE	ORGANIZED BODY	SUBJECT	PLACE
1	01-04-2025	ZP	Yuktdhara training provide to TCs	Hassan(NRDMS Centre)
2	28-04-2025	KSCST	One-Day State-Level Workshop on "Geospatial Applications for District-Level Planning.	Bangalore
3	09-05-2025	KRSAC	KGIS Roadside plantation	Bangalore
4	14-05-2025	EMPRI	Climate change	Hassan ZP

7. Training Imparted to Line Departments

Sl.no	DATE	ORGANIZED BODY	SUBJECT	PLACE
1	21-05-2005	NRDMS(ZP Hassan)	KGIS Roadside plantation	Hassan Forest Office

8. Conclusion

The NRDMS Centre has been assisting the District administration, Zilla Panchayath, line departments, NGO's and Academic institutions by providing analyzed information in the form of maps, graphs, charts and technical reports which are self-explanatory, NRDMS Centres plays very important role in GIS technology to provide need-based, spatial and non-spatial data to users like elected bodies, district administrations, and planners, aiding in resource management and decision-making.

9. Annexures

sl.no	Department	Maps
1	SP Office	Nakabandi maps A,B,C,D,E,F.
2	GI TEAM	Hoysala stone craft Locations map
3	DC office	Transportation map
		Hobli and Headquarters map
		Grama panchayath and Headquarters map
4	Police Department	Accident zones map
5	KSRsac	KGIS road side plantation Visual interpretation map
