



GOVERNMENT OF KARNATAKA
GROUND WATER DIRECTORATE

KARNATAKA STATE
GROUND WATER QUALITY EVALUATION REPORT - 2017



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Sri.C.MruthyunjayaSwamy
Secretary to Government



**Minor Irrigation & Groundwater
Development Department**
VikasaSoudha, Bengaluru-560001

FOREWORD

Happy to note that the Groundwater Directorate is publishing the “The Karnataka state Ground water Quality Evaluation Report” with base year 2017. The report consists of Hydrometeorological conditions, Drainage system, Geology, Soils, Hydrogeological conditions, Dynamic Ground Water Resources, Ground Water Quality. Mainly the water quality in this report reflects that the drinking water should contain salts in the permissible limits so that it is useful to health. When certain critical parameters exceeds the permissible limits, the same water becomes harmful to the people and causes discomfort and disease. These critical chemical parameters like Nitrate, Flouride, Total Hardness and Total Iron in particular should not exceed the permissible limits. It has been noticed and witnessed the ill-effects of their presence in excess of the limits in different parts of the State. It is a cause of concern to the user agency to take up remedial measures and provide safe drinking water to the public/people.

This report highlights the presence of critical chemical parameters in the State district-wise, taluk-wise departmental Monitoring Stations. I am sure this report will facilitate the user agencies to take up the remedial measures on these parameters. The aim is to create awareness among the general public and user agencies, would be useful for the planners for public drinking water supply.

I especially appreciate the Director, Groundwater Directorate for his enthusiasm and ability to motivate all the officers of the Ground water Directorate has resulted a significance report.



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PREFACE

The Groundwater Directorate is monitoring the ground water levels and ground water quality from the Observation dug wells and bore wells spread over the different parts of the State to evaluate the ground water resources and its quality. The ground water levels are being recorded once in a month in the Observation wells and bore wells and are tabulated to know the rise and fall of the water levels depends upon the rainfall precipitation and ground water extraction. Similarly the ground water samples were collected during the pre-monsoon season (April and May) as BASE samples and were analysed in the Chemical laboratories. TREND Samples were collected during post-monsoon season (October and November) were analysed in the chemical laboratories. The results were categorised with the Drinking water Specifications IS-10500:2012 Standard to know the suitability of ground water for domestic consumption.

The Karnataka State Ground water Quality Evaluation Report-2017 brought by the Ground water Directorate, Government of Karnataka, Bengaluru, shall be a material of reference and applicability to the common man, farmers, Govt Departments and Non Govt Organisations (NGOs) for the preparations of plans and programmes, implement and management of ground water based projects. The present report consist of Hydrometeorological Conditions, Drainage system, Geology, Soils, Hydrogeological conditions, Dynamic Ground Water Resources, Ground Water Quality, Suggestions and Recommendations to improve the ground water resources and its quality by roof water harvesting & Ground water recharge methods. Ground water Awareness Programmes were conducted by the District Ground water offices in the different parts of the respective Districts in the state for creating awareness regarding Groundwater resources, Ground water Quality and roof water harvesting & Ground water recharge methods to the school/college students, Govtservants, NGOs, farmers and public were also incorporated. Ground water has now been a precious natural resource which deserves a call for its judicious usage and recharge.

III. Acknowledgements

It is an honour and privilege to express the deepest gratitude to the Director, Sri.H.R. Ramakrishna, C.E and then Director, Sri.S.B. Shettannavar.I.A.S,Groundwater Directorate, who has extended all the required support to carry out the present study.The deepest sense of gratitude to the Director, Department of Mines and Geology Sri.S.S. Pattanashetti.I.A.S, for the kind permission and arrangements for the analysis of the ground water samples.

The deepest sense of gratitude to Smt. SannaborammaSubramani, then Additional Director(I/c), Ground water Directorate for useful discussions and suggestions during investigation and finalization of this report.

Grateful acknowledge for the persistent support and encouragement from Smt. K.N.Sumathi, Chief Chemist, Directorate office, who was laboratory mentor for the analysis work.

Sri.K.V.R.Choudhari, Senior Geologist is gratefully acknowledged for critical review of the report.

Special thanks to Sri.G.Jayanna, Deputy Director (I/c), Ground water Directorate, Bengaluru for kind arrangements in the preparation of water quality maps. Smt. Jagadhiswari and Sri.H.M.Nagaraju, Geologists, Sri.M.R.Premachandra, Chemist, for the involvement in collection and processing the data from District Ground water Offices are also acknowledged.Sincere thanks to Senior Geologists and Geologists of respective districts for undertaking collection of ground water samples.

Special thanks to Sri.S.G.Bharabhari, Sri. N.R.Thippaiah Reddy, Sri.M.R.Premachandra, Dr.M.B.Deepa, Sri.M.R.Manjunath, Sri.H.R.Naveena, Mrs.Jayasheela.Sri.Shivaraj Gurumath, Mrs.K.Ramya, Chemists for carried out the chemical analysis of water samples.

Special efforts by Sri.I.Suresh and Smt.Sulochana, Project Assistants Karnataka State Remote Sensing Applications Centre, Bengaluru in the preparation of water quality maps are duly acknowledged.

Thanks to Smt. Vidya, Nagarathna.P and Naveen Kumara.K.M Data Entry Operators for neat typing the present report.

IV. ABSTRACT

The utilization of Ground water in the state is increased by many folds, much above the surface water usage as per the estimation of the usage of Ground water in TMCs. This has lead in the depletion of resources as well drop in the water level. The excessive utilization of ground water resulted in quality problems as well.hence lots of recharge avenues were implemented as

massive drive. Ultimately recharged groundwater gets the chemical ingredients dissolved on its way to depth to reach the aquifer. The deeper the exploitation more the Aquifer connectivity and more the dissolved salts. This exercise is an attempt to throw light on the general scenario on the Ground water quality in the state. The same is attempted through the sampling of Ground water in the vicinity of the observation wells distributed in the state, it may not represent as whole but site specific view can be arrived. It is clearly seen there is an increasing trend in the Fluoride, most unlikely Nitrate is spurring up, which is most alarming ingredient as it is not mineralogical but it is an induced chemical by sewage pollutants and excessive use of Fertilizers. It gets added either dissolved or left in the soil where in the entire nitrate is not used by the plant due to scanty moisture or rainfall though ground water runoff. At specific sites, excessive total hardness in the Ground water is found. It is commonly observed in higher ranges wherever the deeper to moderate thickness of black cotton soil is found and also the areas which are encircled by black soils. Most probably this is due to less return recharge and the dissolution and addition of excessive calcium content to the Groundwater.

Ultimately it is the subsurface Geology extent and stages of weathering phenomenon that releases the chemicals to the ground water. The deeper the depth, higher the water yields more the aquifer connectivity enlarges the opportunity of enrichment of chemicals. The excessive drawdown induces faster migration as well as excessive dissolution. Fluoride is one of the chemical which endangers humans. Past studies have thrown much light on this issue. The increase of fluoride is assumed due to presence of micaceous minerals, Feldspars and secondary minerals in which Fluoride occurs as replacement mineral. These facts are the causes to spur the fluoride content within the water. Suggestions are also briefed to combat these quality problems at large.

V. INTRODUCTION:

These geological formations were subjected to natural degradation and weathering since millions of years this has lead to structural and related deformation. Each formation has got its inheritent character like lineation, foliation, schistocity, bedding and granularity in their mineralogy. The denudation, deformation, weathering and tectonic effects has led to the

creation of weaker zones and these weaker zones ultimately the store house for groundwater resource.

The groundwater is dynamic body with its character of finding its way induces chemical leaching, leading to the dissolution of the minerals releasing chemicals getting added to its character. The very presence of these chemicals finally decides the quality of the groundwater.

The rainfall and the return recharge are the continuous nourishing features in adding the groundwater resource, along with they also add the chemicals, pollutants leading to the contamination of the groundwater. It is the Human effort all the way to recharge the groundwater to replenish this natural resume and also to see that the same is made to use for irrigation and for human consumption. The science never sleeps; it is always at the behest of protection of human race along with animals and plants by providing potable resource for the sustained development to generations to come.

VI. HYDROMETEOROLOGICAL CONDITIONS

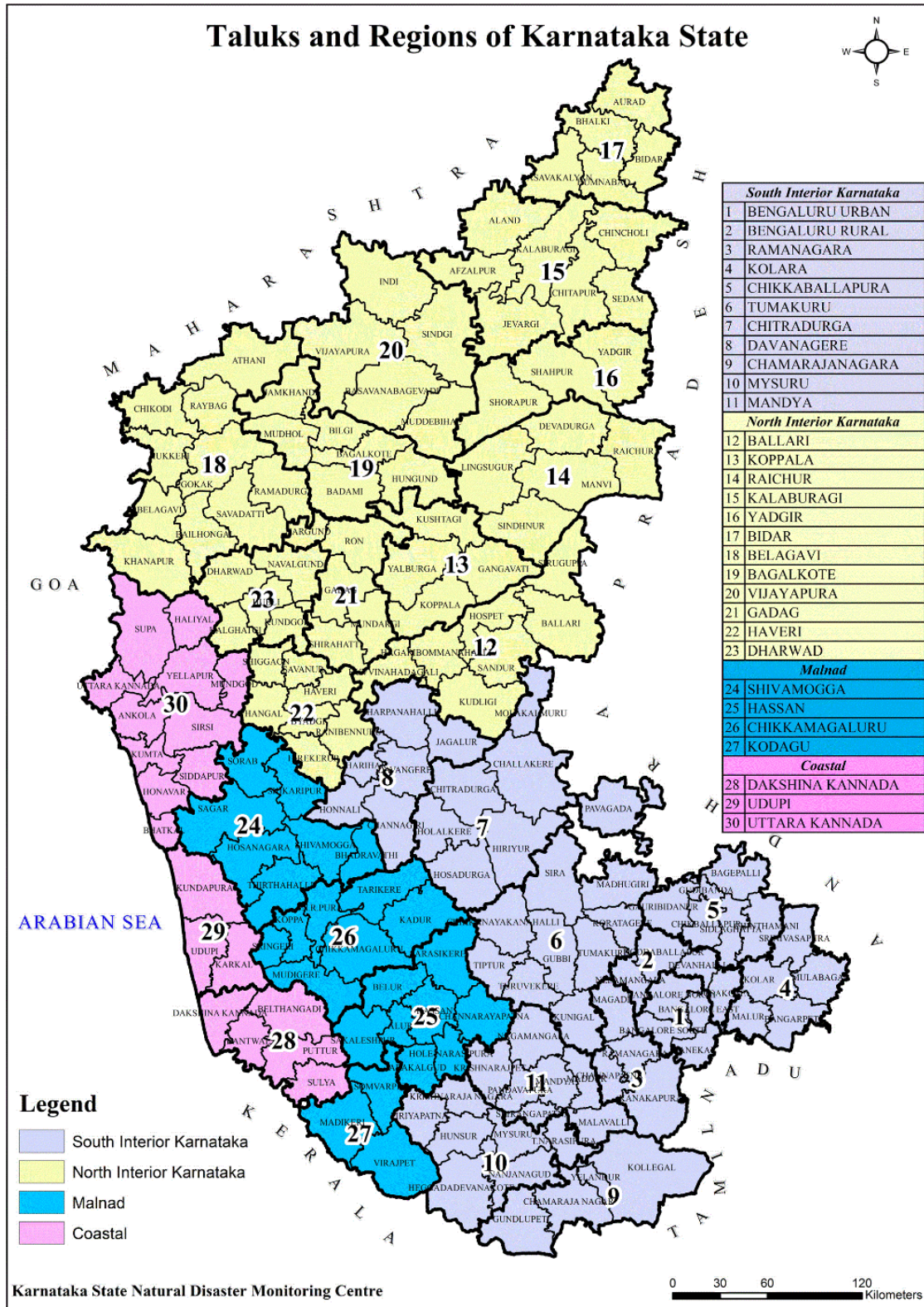
A. Climate and Rainfall: In Karnataka typical monsoon is experienced. Bulk of the annual rainfall is received during the south-west (June to September) and north-east (October-December) monsoons. Pre-monsoon thunderstorms also contribute significantly to considerable rainfall. Humid to semi-arid climatic conditions prevail in the state. In general, rainfall varies from around 400 mm in the eastern fringe of the state to more than 4000 mm in the west. The state can be broadly classified into four distinct climatic zones. These are:

i. Narrow Coastal Zone along the West Coast: The whole of Dakshina Kannada, Udupi and western parts of Uttara Kannada district come under this zone. The rainfall generally increases from the coast towards the mountains on the east and from north to south. Average rainfall is around 4000 mm and bulk of this rainfall occurs during the southwest monsoon period lasting from June to September. July is the wettest month.

ii. The Mountain (Malnad) Zone: Parts of Belagavi, Uttara Kannada, Shivamogga, Chikkamagaluru, Hassan, Kodagu and Mysuru districts fall under this zone. The area is composed of series of mountains and dense tropical forests. Rainfall is over 5000 mm on hilltops and around 2000 mm in the adjoining forest areas. However, Agumbe in Shivamogga district records a rainfall over 7000 mm annually on an average. The southwest monsoon yields the bulk of the rainfall and July is the wettest month. The rainfall decreases from west to east.

iii. The Northern Plains: Eastern part of Belagavi and whole of Bidar, Vijayapura, Bagalkote, Ballari, Kalaburagi, Dharwad, Gadag, Haveri, Raichur and Koppal fall in this zone. Bulk of the rainfall occurs in the winter months. The rainfall decreases from the west to east. On an average about 700 mm rainfall is received annually. September is usually the month of peak rainfall.

Map-1



iv. The Southern Plains: Parts of Shivamogga, Chikkamagaluru, Hassan, Mysuru and whole of Mandya, Tumakuru, Bengaluru and Kolar districts fall in this zone. In these parts, rainfall ranges from 1000 mm to around 400 mm. Considerable rainfall occurs during the pre-monsoon months due to thunderstorms. Both the monsoons are active giving copious amounts of rainfall.

The peak rainfall is found to occur in September/October with a secondary peak occurring in May. The average rainfall in these parts is around 700 mm.

B. AGRO CLIMATIC ZONES

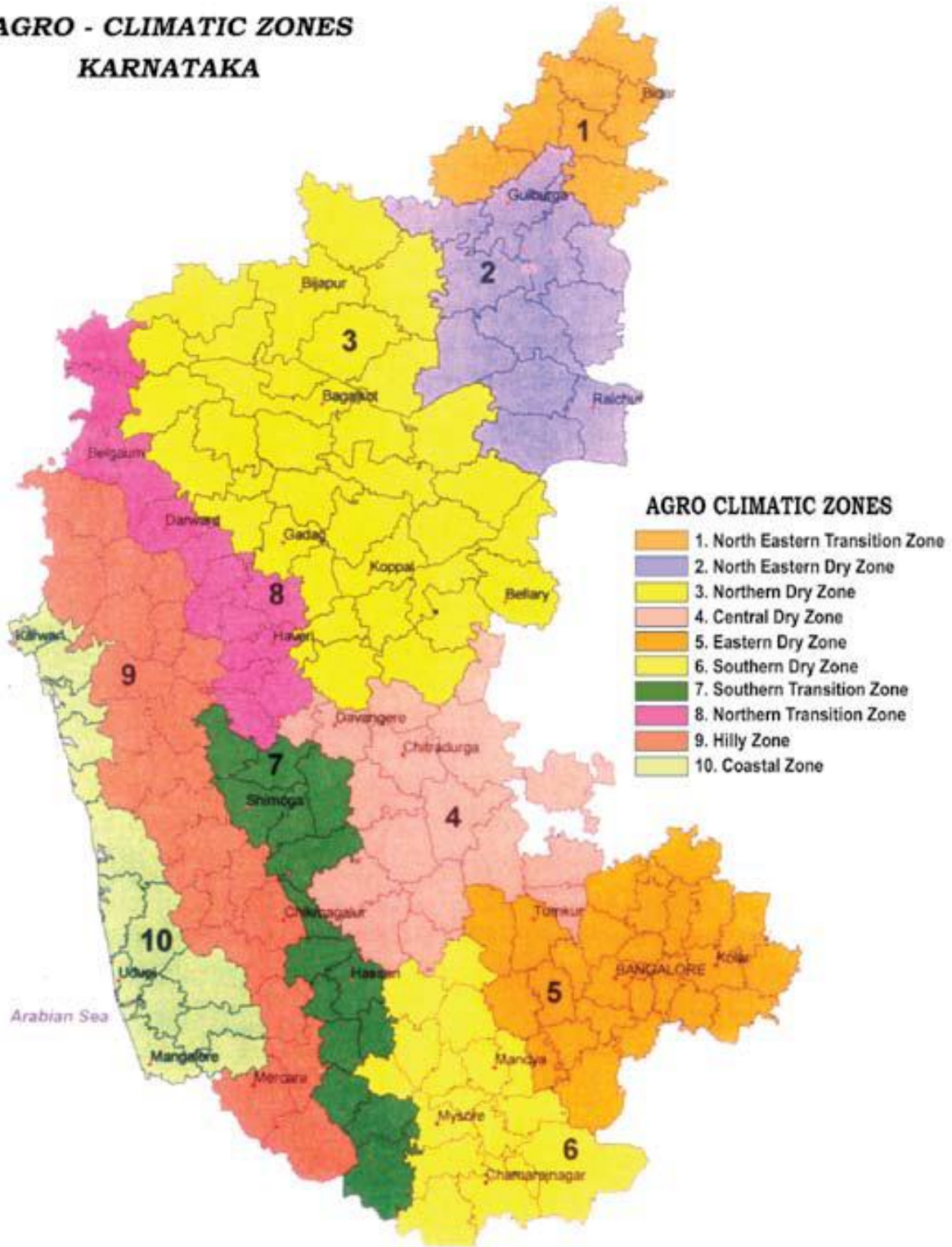
The criteria taken into account in defining the Agro-climatic zones are: (a) Rainfall pattern-quantity and distribution; (b) Soil types, texture, depth, physical and chemical properties; (c) Elevation and topography; and (d) Major crops and vegetation. These zones formed the basis for the identification of problems, formulation of research programmes and recommendations for adoption and implementation of development programmes for all land based activities. Under this concept, the 10 Agro-climatic zones were identified (Table 3.1). There are five dry zones (2, 3, 4, 5 and 6) with relatively low rainfall and more erratic distribution. The characterization of these is based, mainly, on the soils and cropping patterns. Similarly, along the eastern part of the hill zones and to the west of the dry zones, with a relatively high rainfall with a less erratic distribution and a small portion in the northeastern part of the state were also identified as transitional zones (1, 7 and 8). The hill and coastal belts are the two distinct Agro-climatic zones (9 and 10). Thus, the 10 zones are as shown in table-1

Table-1

AGRO CLIMATIC ZONES OF KARNATAKA		
Zone No. & Name	District (No. of Taluks)	Name of Taluks
1. North Eastern Transition Zone	Bidar (5) & Kalburgi (2).	Aland, Bhalki, Basvakalyan, Bidar, Chincholi, Humnabad, Aurad.
2. North Eastern Dry Zone	Kalburgi (5) Yadagiri (3) & Raichur (3)	Afzalpur, Chitapur, Kalburgi, Jewargi, Sedum, Shahapur, Yadgir, Shorapur, Raichur, Deodurga, Manvi.
3. Northern Dry Zone	Koppal (4), Gadag (4), Dharwad (1), Belgavi (5), Vijayapura (5), Bagalkote (6), Ballari (7), Davangere (1), Raichur (2)	Gangavathi, Koppal, Kushtagi, Lingasugur, Sindhanur, Yelburga, Badami, Bagalkote, Bagewadi, Bilgi, Bijapur, Hungund, Indi, Jamkhandi, Mudhol, Muddebihal, Sindhagi, Ballari, Hagaribommanahalli, Harapanahalli, Hadagali, Hosapete, Kudligi, Sandur, Siruguppa, Ron, Navalgund, Naragund, Gadag, Mundargi, Ramdurga, Gokak, Raibag, Soundatti, Athani.
4. Central Dry Zone	Chitradurga (6), Davangere (3), Tumakuru (6), Chickmagalur (1), Hassan (1)	Challakere, Chitradurga, Davanagere, Harihara, Hiriya, Hosadurga, Holalkere, Jagalur, Molkalmuru, Arasikere, Kadur, Madhugiri, Pavagada, Koratagere, C.N.Halli, Sira, Tiptur.
5. Eastern Dry Zone	Bengaluru Rural (4), Ramanagar (4) Bengaluru Urban (3), Kolar (5), Chikkaballpur (6) Tumakuru (2).	Gubbi, Tumkur, Anekal, Bangalore South, Bangalore North, Channapatna, Devanahalli, Doddabalapur, Hosakote, Kankapura, Magadi, Nelmangala, Ramanagar, Bagepalli, Bangarpet, Chikkabalapur, Chintamani, Gudibanda, Gowribidanur, Kolar, Malur, Mulbagal, Sidalaghatta, Srinivasapura.

6. Southern Dry Zone	Mysuru (4), Chamarajnagar(4), Mandya (7), Tumakuru (2), Hassana (2).	K.R.Nagar, T.Narasipur, Mysore, Kollegal, Nanjangud, Turuvekere, Kunigal, Nagamangala, Srirangapatna, Malavalli, Maddur, Mandya, Pandavapura, K.R.Pet, Channarayapatna, Hassan, Chamarajanagar, Yelandur, Gundlupet.
7.Southern Transition Zone	Hassana(4), Chickmagalur (1), Shivamogga (3), Mysuru (3), Davanagere (2).	H.D.Kote, Hunsur, Periyapatna, H.N.Pura, Alur, Arkalgud, Belur, Tarikere, Bhadravathi, Shivamogga, Honnali, Shikaripura, Channagiri.
8. Northern Transition Zone	Belgavi (4), Dharwad(3), Haveri(6), Gadag (1).	Hukkeri, Chikodi, Bailhongal, Belgaum, Haveri, Shiggaon, Shirahatti, Kundagol, Savanur, Hubli, Dharwad, Byadgi, Hirekerur, Raneebennur.
9. Hilly Zone	U.Kannada(6), Belgavi(1), Dharwad (1), Haveri (1), Shivamogga (4), Chickmangalur (5), Kodagu (3), Hassana (1)	Sirsi, Siddapura, Yellapura, Supa, Haliyal, Mundgod, Khanapur, Soraba, Hosanagar, Sagar, Thirthahalli, Koppa, Sringeri, Mudigere, Narasimharajapur, Chickmagalur, Kalaghatagi, Hangal, Sakleshpur, Virajpet, Somwarpet, Madikere.
10. Coastal Zone	Udupi (3), D. Kannada (5), U.kannada (5)	Karwar, Kumta, Honnavar, Bhatkal, Ankola, Bantwal, Udupi, Belthangadi, Karkala, Kundapura, Mangalore, Puttur, Sulya.

AGRO - CLIMATIC ZONES KARNATAKA



Karnataka State is underlain by rock types ranging in age from Archaean to Recent. Major portion of the State is covered by Peninsular Gneisses, Granites and Dharawad Schists of Archaean age. Substantial area in the northern part of Karnataka is underlain by basalts, which form a continuation of the Deccan Traps occurring in Maharashtra. The sedimentaries comprising Bhima and Kaladgis occupy a small area in the northern districts. The recent alluvium is restricted to a narrow belt in the coastal area and along stream courses. The geological succession in the state is presented below:

Geological Succession in Karnataka State

Age	Series/System	Formation
Recent	Soil & Alluvium	Sand and Clay
Pleistocene		Laterite
Tertiary to Mesozoic Basalts	Deccan Trap Basalt	Laterite Hard massive & vesicular
~~~~~ unconformity ~~~~~		
Lower Palaeozoic to upper Precambrian Conglomerates	Bhima Series	Quartzites, Sandstone, Limestone, Shale and
~~~~~ unconformity ~~~~~		
Upper Precambrian Limestones, Shale and Conglomerates.	Kaladgi Series	Quartzites, Sandstones,
~~~~~ unconformity ~~~~~		
Lower Precambrian	Dharawad system Volcanics, meta sediments, Greenstone	Dharawad Schists meta sediments Greenstone formations
~~~~~ unconformity ~~~~~		
Archaean	Peninsular Gneissic complex	Gneisses, Granites, Charnockites, Khondalite

The Dharawads mainly composed of slates, phyllites and schists form the second major group of rocks occurring in about 40000sq. km of the state. These are subdivided into three main types namely Chitradurga group, Dharawad sub group and Sargur group. They are wide spread in parts of Uttara Kannada, Dharawad, Shivamogga, Chitradurga and Chikkamagaluru districts where as in other districts their occurrence is limited in extent as small strips distributed throughout gneissic terrain. This group consists of volcanic rocks such as rhyolites, felsites etc., limestone, conglomerates, quartzite (ferruginous), meta sediments as amphibolites and schists. The schists and related argillites form the valley portions, but in general, the Dharawads form high grounds. The weathered zone extends down to about 20m in the valleys. The Dharawad rocks have regional strike of NNW-SSE, which tends to N-S in the southern part of Mysuru and even to NE-SW direction near the southern border.

Meta-Sedimentary formations of Bhimas, Kaladgis and Badamis are exposed over an area of 9640 sq km in the state. The major litho units in the group are Sandstone, quartzite, shale, slate, limestone and dolomite. The Kaladgi formations are exposed over a length of 160 km between Krishna and Malaprabha rivers in Belagavi and Vijayapura districts. The formation comprises of conglomerates, quartzite, limestone and shales, which are divided into lower and upper series. The upper most sandstone formations exposed at Badami and further east which are thick bedded and gritty are designated as Badami sandstone. This horizon is considered as younger and equivalent to Bhima/Vindyas. This formation however, occupies higher altitudes occupying ridges and hence is of less importance from ground water point of view. In the central part of the basin the Kaladgis are well developed with the presence of all litho units while towards west only the lower series consisting mainly the arenaceous members are exposed. The Kaladgis are partly overlain by Deccan trap. The formations are folded giving rise to a series of ridges and valleys. The valleys are mainly occupied by limestone and shale. The limestone formation occupies a wide area in between Lokapur and Bagalkote. Generally the limestones are horizontally bedded and have very low permeability. At places it is ed and cavernous. Anarrow band of dolomite overlies the limestone. In the southern andkarsti northern valleys, i.e. South of Bilgi and at Kulgeri respectively, the shales are purple in colour.

Gaddanakeri in the basin cutting Bagalkote valley. A number of minor faults and major fracture zones are identified. The quartzite and the drainage in this area seem to be controlled by structure. The basin in the central part i.e. along Bilgi-Gaddankari-Kulgeri is severely disturbed while towards east and west of zone, the tectonic intensity is not displayed. Exploratory drilling in this area revealed the presence of major fracture/shear zones down to a depth of 200m.

The Bhima basin lies east of the Kaladgis stretching in NE-SW direction. The major part of the basin lies in Kalaburagi district, except for a small strip in the Vijayapura district between Muddebihal and Talikot. The Bhimas are represented by conglomerates, sandstones, shales and limestones, which could be sub divided into three series lower, middle and upper. The lower and middle series consist of the sequence of these three lithological units, while the upper series is represented mainly in purple shales. Among the lower series the limestones are well developed over a wide area and are popularly known as 'Shahabad' stones. The middle series forms a narrow strip and are of little significance from the point of view of ground water. The shales are purple colored and laminated and the limestones are variegated but predominantly grey colored and thick bedded. The formations do not show any metamorphism. They are in general horizontally bedded or dip at less than 5° towards west. However, this trend is not maintained in the distributed zones. The basin is cut at different places.

A number of faults of relatively lesser magnitude are identified. A displaced block is also gently folded on the western side. Thrust faults and the gravity faults are also mentioned at a few places. The formations are highly fractured in these distributed zones. Karst features mark fault zones in the limestones formations. The drainage in the Bhima basin is considered to be of tectonic origin. The curvilinear trend of Bhima river course seems to be controlled by the two axes of the superposed folds and also faults. Similarly, the streams of lower orders are also in fracture system in granitic terrain and folding pattern in the Bhima formations.

Deccan trap forms the northern part of the state. Both massive basalt as well as vesicular basalt is encountered in the area. The maximum thickness of about 600 to 800m trap is reported around Kolhapur in Maharashtra but becomes thinner to about 70m or less towards the fringe as observed in parts of Kalaburagi, Bagalkote and Belagavi districts of Karnataka. The inter-trappean beds are of small extent and appear to have been formed in local depressions only or near to the southwestern edge of the flows of zeolitic trap are observed between 506m and 610m trap area. In Vijayapura district, three contours each with a thickness of about 6m. In the southern part of Kalaburagi district only zeolitic trap is exposed at higher elevation in the southern most part and at the ground surface unit is identified around Kalaburagi. The weathered zone in traps varies from traces about 15m bgl. Traps are considered useful to recognize any structural deformation to be not involved in any tectonic disturbances. It is also identified in Bhima basin. The traps are grained and massive. However some faults identified in them as they are generally considered to be extending into the traps also. At some places in Kaladgis the traps are reported to enclose fragment of quartzite.

Laterite perhaps of different genetic histories such as residual and transported are found overlying different formations in different parts of the state. It occurs along the coast in Dakshina Kannada, Udupi and Uttara Kannada districts overlying schists and granites with a maximum thickness of about 40m. In Kaladgis, laterite also occurs as isolated patches in the valleys capping shales and basalt. The thickness in this part is 2 to 10m. The Laterite capping on Deccan trap is extensive in parts of Bidar and Kalaburagi districts. However laterite as an aquifer is having limited areal extent of about 1300 sq. km. need to the highest ridges and its occurrence is also reported in the Belagavi district. Generally it is con peaks. The Laterite formed in the vesicular traps is deep yellowish brown in color. Localized patches of laterites are encountered in other parts of the state also, overlying the granites and Dharawads.

The alluvium of recent age is limited to only certain river courses in the west coast. Alluvial patches are located along Tungabhadra, Suvarnamukhi and Chitravathi river courses. The thickness of alluvium is variable generally and a maximum thickness of 15m is reported in the Chitravathi basin. The alluvium consists of unconsolidated sediments such as pebbles, gravel, sand, silt and clays. In the coastal area the thickness ranges from negligible to about 30m.

VIII.SOILS

Soils of the state can be grouped into 9 classes. They follow mainly the rock types but vary widely due to the effects of climate and topography.

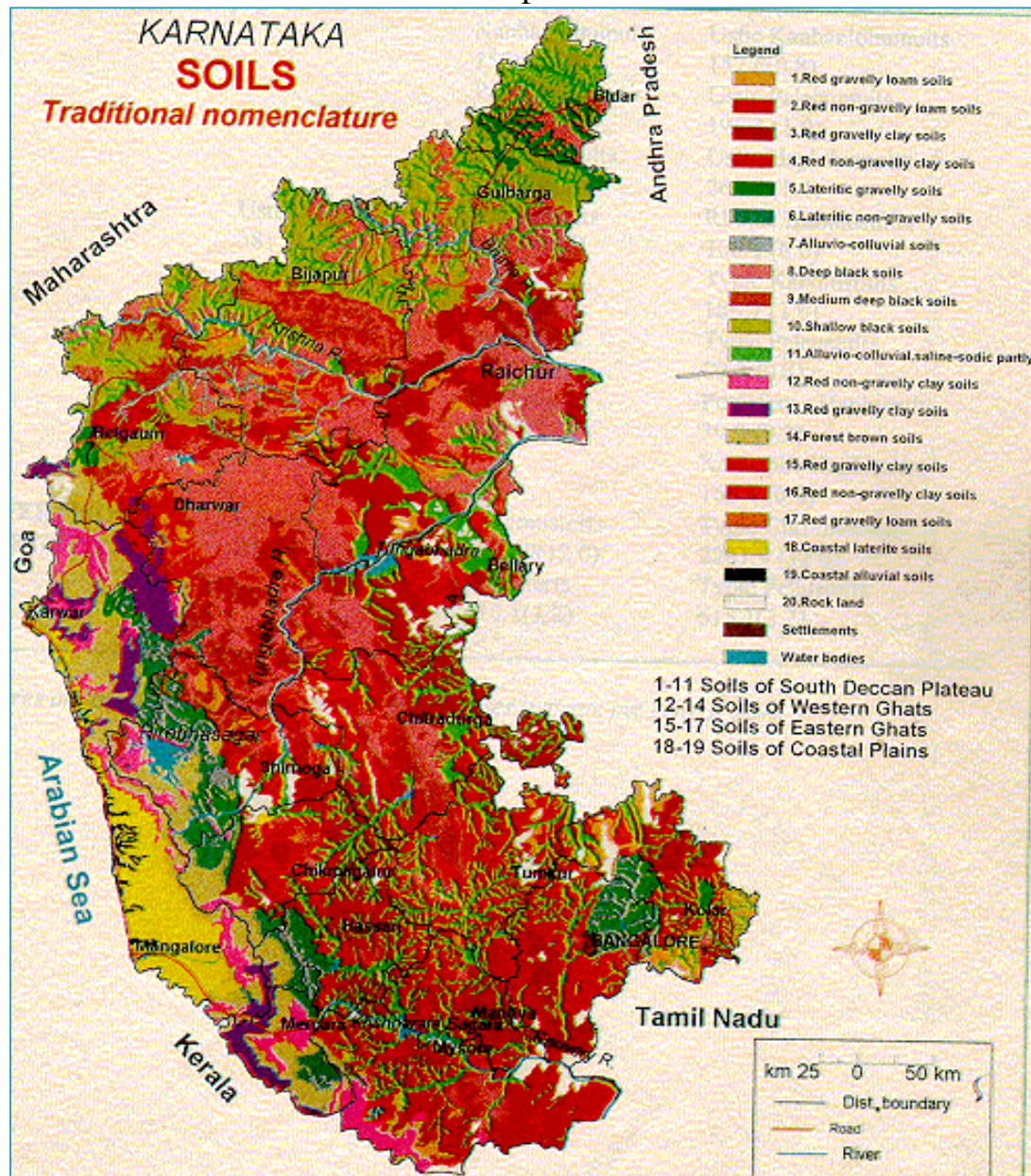
i. Shallow Black Soils: These occur in the trap region and to some extent are also developed in schist, shale and limestone in parts of Belagavi, Vijayapura, Kalaburagi and Bidar districts. These are dark greyish brown, dark brown to dark reddish brown, usually calcareous and are clayey loam to clay in texture. They have ltration characteristics. An area of about 2350 sq. km is covered under shallow moderate to poor in black soil in the state.

ii. Medium Black Soils: They are derived from Deccan traps and occupy large tracts of Belagavi, Vijayapura, Kalaburagi and Bidar districts. They are comparatively light in colour on high lands than in valleys. Their texture ltration rate of 2.5ltration characteristics are poor to moderate. Invaries from loam to clay. Their in cm/hr has been recorded in Kalaburagi district. An area of about 36150 sq. km is covered under medium black soil in the state.

iii. Deep Black Soils: They occupy large tracts in Raichur district and in parts of Belagavi, Vijayapura, Chitradurga, Ballari and Kalaburagi districts. They are dark black in colour and have high clay content. They are derived from a variety of parent rocks like traps, schists, gneisses and sedimentary rocks. They are mostly transported, occurring in the basins of major river valleys and depressions. In texture, they are generally clay loam to clay. Accumulations of lime, gypsum and soluble salts at varying depths in the ltration rates of 0.5 to

sandy loams or loams and have good in rate of 17 cm/hr is recorded in Kodagu district and 28 cm/hr in Chikkamagaluru district. In coastal alluvium, rates of 90 to 114 cm/hr are recorded in sand. An area of about 800 sq. km is covered under alluvial soil in the state.

Map-5



IX. HYDROGEOLOGICAL CONDITIONS.

A. Hydro geological provinces: Karnataka State can be considered as having three major hydro geological provinces. They are the Hard Rock province, Deccan Trap province and Metamorphosed sedimentary province as described below. Ground water occurs in these provinces under unconfined to semi confined conditions and under confined conditions in depth. The rock units of provinces do not have the primary porosity, under con therefore the occurrence and movement of ground water is through secondary porosity developed through weathering,

fracturing and tectonic deformation undergone by the rocks. The main source of recharge to the aquifers is by precipitation and also by applied irrigation. In addition to these along the coast a thin band of alluvium is encountered.

i. The Archaean Crystalline Hard Rock Province: Archaean crystalline hard rocks are represented by the gneisses, schists, granites and khondalites, which occupy up to 79% of the area of the state below. The availability of groundwater in the phreatic zones in the state as can be seen from the formations is controlled by the degree of weathering and lithological unit of the area. The schists and khondalites are more susceptible to weathering and hence are having better yield in the phreatic zones compared to Granites. Generally the depth of weathering goes down to 30m in these formations and they sustain dug wells. In contrast, the yield of bore wells is controlled by the tectonic history of the area and the lithology encountered. Thus equigranular rocks when subjected to differential stress tend to develop open (tensile) joints in the direction of stress and shear joints at about 30° to the direction of stress, whereas rocks having linear minerals tend to absorb the stress and the linear minerals reorient along the stress direction. Thus Granites, Pegmatites and Charnockites yield better compared to Schists, Phyllites and Gneisses.

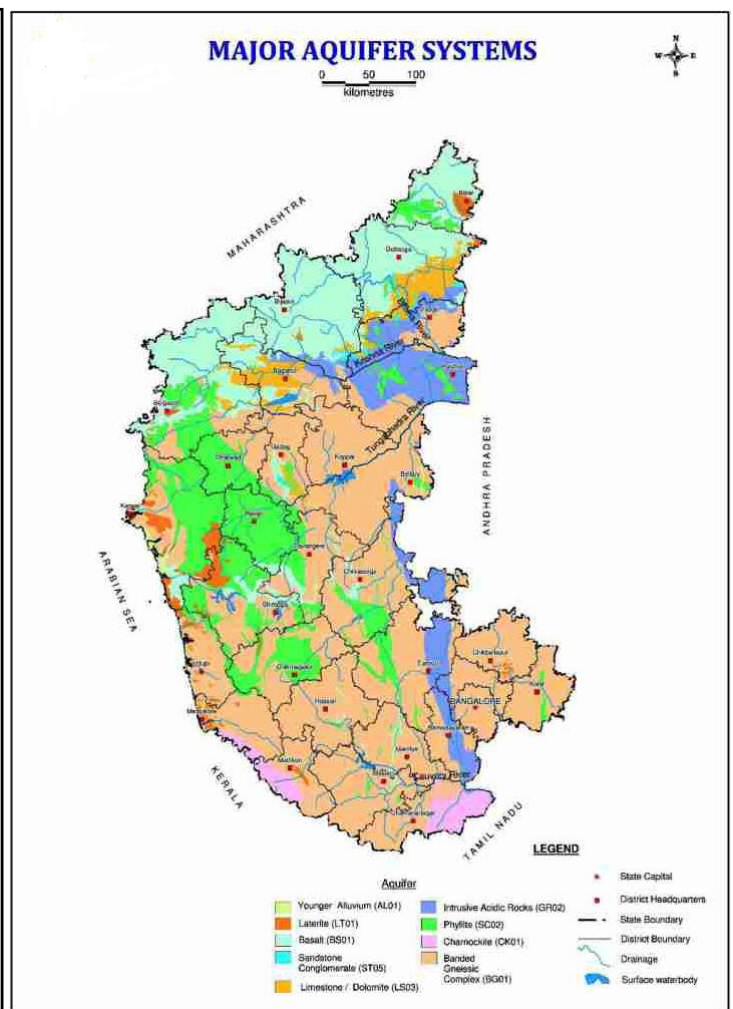
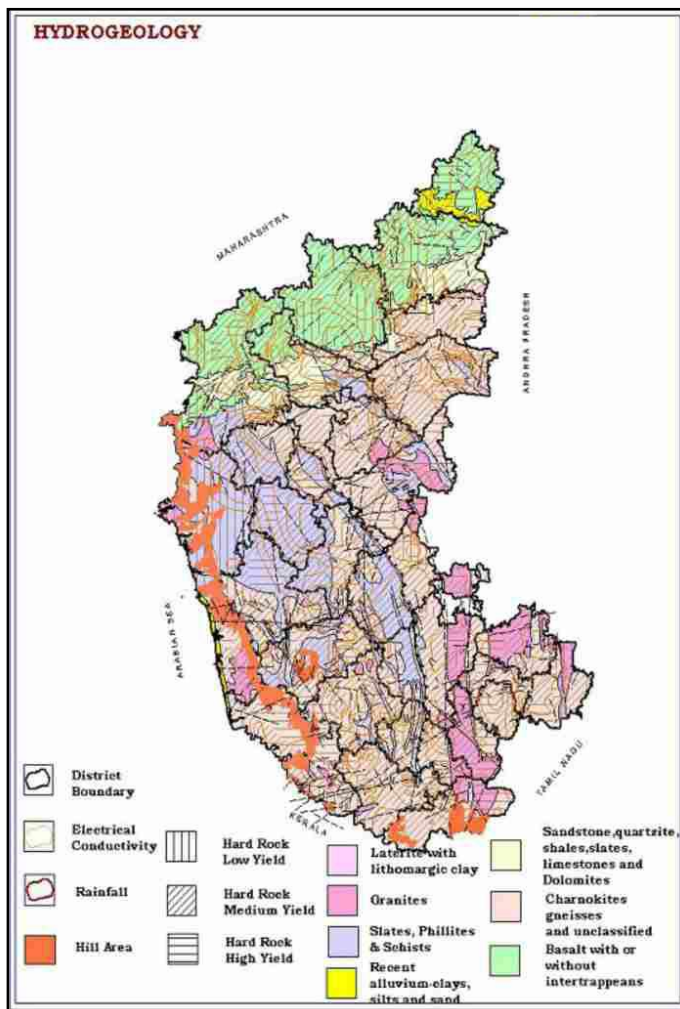
Further, the analysis of the results of groundwater exploration in the state indicated that the tectonic history has an important bearing on the yield of bore wells. Thus all the lineaments are not equally potential. The NE-SW lineaments are the most potential followed by E-W, NNW-SSE and NW-SE in the order of preference even though the NW-SE lineament is the most commonly occurring one. The yield of bore well in the province is as high as 30 lps with a transmissivity of upto 2000 m²/day in ideal conditions tapping tensile joints in granites/pegmatites and other equigranular rocks.

ii. Deccan Traps: The Deccan trap constitutes about 15% area of the state occupying Bidar, Vijayapura, major parts of Kalaburagi, Belagavi and northern parts of Bagalkote districts. The vesicles and amygdalites are the porous media for the traps. Generally these porous media are secondary materials like Quartz, Zeolites, Bauxites and Clays. The Deccan traps also act like a crystalline formation. Zeolitic traps and Amygdalites and vesicular properties of the trap facilitate occurrence and movement of ground water in traps. Further at the trap crystalline fringe area in some cases. The Karnataka part, the traps have minor dip, which carry the water through contact zone of the intra trappean red bole beds act as an aquiclude. The weathered zone occurs up to a depth of 20 m but under conditions occur below 20 to 40 m in the Deccan trap. The jointed and fractured and semi consolidated Deccan traps carry the ground water to deeper depths. Depth of bore wells drilled in traps ranges from capacity of 40 to 175 m. The general yield of wells in traps is low and drawdowns are high. The specific yield of the wells in Deccan traps ranges from 0.05 to 34 l/min/m draw down. The yield of bore wells ranges from 4 to 1440 m³/day. The transmissivity of the traps ranges from 1 to 369 m²/day.

iii. The Sedimentary Provinces: The sedimentary rocks province is represented by the Kaladgis, Bhimas and Badamis, also known as consolidated sedimentaries and it constitutes about 5% of the area of the state spread over parts of Kalaburagi, Bagalkote, Belagavi and Vijayapura districts. The primary porosity that usually exists in these formations has been lost due to the process of consolidation and compaction. Amongst these formations, limestones form very poor aquifers as they are mostly horizontally bedded and devoid of solution activity except along the contact zones. Except in Ramdurg, Soundatti, Badami and Hungund areas the sandstones do not form aquifers because it occupies the higher altitudes as ridges. The shales are very rarely seen as aquifers but act as collector ponds than as c yield of 0.03. The limestone of an aquifer. Wherever sandstone occurs as an aquifer it has a specific yield of 0.005 to 0.04. Discharge of the bore wells drilled in limestone the Bhima series has specific ranges from 100 to 300 m³/day. Depth of the bore wells drilled varies from 94 to 120 m. Fine to coarse alluvial materials like.

iv. Alluvium: Alluvial deposits occur as an aquifer comprised of sand, gravels and pebbles. It constitutes little over 1% area of the state. The river banks show the presence of alluvial deposits to a depth of 2 m to 20 m and the coastal tract accounts up to 40 m. The river that records alluvial/colluvial deposits are the Pennar, Kumudavati, the Tungabhadra, Suvarnavati, Chitravati and lower Hagari river. The yield of these river alluvial deposits ranges from 10 to 500 m³/hour. The coastal alluvial deposits yield from 2400 to 4800 m³/day. The transmissivity ranges from 2 to 4,348 m²/d.

v. Laterites: Laterites are seen as a capping, scattered over the country rock in all the three cultures as it forms potential groundwater provinces. The demarcation of the area under Laterite is difficult aquifer only if it is having considerable thickness. In other places especially on the eastern parts of the state, it is absent or occurs as a thin capping over the country rock. However these are more predominant in the western parts of the state, where it forms potential phreatic aquifer. These are highly porous and permeable; as a result gets fully recharged after monsoon. The aquifer drains out due to subsurface outflow in the post monsoon period. The dug wells tapping these aquifers located in sloping ground gets dried up during summer months, even if the groundwater utilization in the area is on a low key.



B. GROUND WATER LEVELS.

The Ground water levels were recorded in the observation dug wells and borewells once in a month periodically. The deepest or maximum ground water levels were recorded during the pre-monsoon season and the shallow or minimum ground water levels were recorded during monsoon or post-monsoon season and the average 12 months groundwater levels were computed. Table no-2 shows pre-monsoon, post-monsoon and average groundwater levels in 30 Districts is given below.

Table-2

Ground water levels during the year 2017(mts bgl)				
Sl.No.	District	Max	Min	Avg
1	Bagalkot	54.5	1.9	18.02
2	Bengaluru Rural	101.5	-0.65	25.31
3	Bengaluru Urban	58.9	3.7	26.07
4	Belgavi	99.75	-0.5	13.12
5	Ballari	57	0	13.15
6	Bidar	73.95	2.85	16.61
7	Vijayapura	66	1.05	16.74
8	Chamarajanagar	48.2	1.3	19.81
9	Chikkaballapura	150.14	2.5	48.88
10	Chikkamangaluru	55.8	0.1	16.8
11	Chitradurga	65.5	0.55	21.9
12	Mangalore	53.4	0.1	10.63
13	Davanagere	52.6	0	14.77
14	Dahwarda	86.7	-1.15	16.92
15	Gadag	45.65	1.99	16.08
16	Kalburgi	36	1.75	7.64
17	Hassan	55.7	-1000	-5.49
18	Haveri	63.25	0	20.95
19	Kodagu	28.56	-0.7	11.56
20	Kolar	128.4	16.2	70.19
21	Koppal	35.7	0	8.47
22	Mandya	70.7	0	11.72
23	Mysuru	39.92	-0.6	13.02
24	Rachur	27	-1.4	5.71
25	Ramanagar	84.6	1.35	25.87
26	Shivamogga	40.9	0.33	9.91
27	Tumakuru	111.49	0	27.62
28	Udupi	17.96	0.07	6.5
29	Karwar	43.5	0.05	7.58
30	Yadgiri	21.4	0.15	5.54

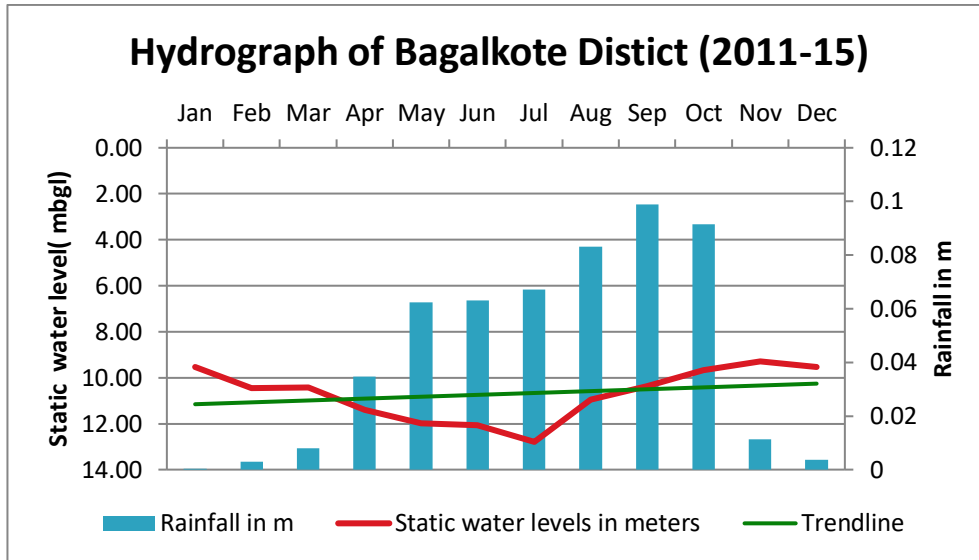
Table no-3 shows pre-monsoon, post-monsoon and average groundwater levels in 43 Over Exploited Taluks given below.

Table-3

Ground Water levels in Over Exploited Taluks during the year 2018(mts bgl)					
Sl.No.	District	Taluk	Max	Min	Avg
1	Bagalkot	Badami	52.8	1.9	25.84
2	Bagalkot	Bagalakote	36.1	6.8	23.88
3	Bengaluru Rural	Devanahalli	51.52	0.15	32.02
4	Bengaluru Rural	Doddaballapur	57.48	0.65	27.76
5	BengaluruRural	Hosakote	101.04	94.52	67.32
6	Bangalore Rural	Nelamangala	61.75	15.95	28.6
7	Bengaluru Urban	Anekal	58.9	5.5	37.71
8	Bengaluru Urban	Bangalore East	40.25	20.1	22.87
9	Bengaluru Urban	Bangalore North	57.6	3.7	29.04
10	Bengaluru Urban	Bangalore South	26.95	14	21.06
11	Belagavi	Ramadurga	51.95	2.65	16.02
12	Belagavi	Athani	43.35	1.95	9.15
13	Belagavi	Saundatti	75.1	1.25	24.83
14	Bellary	H.B.Halli	36.1	13.3	25.89
15	Chamarajanagar	Gundlupet	42.97	1.3	95.94
16	Chikkaballapura	Chikkaballpura	111.25	16.44	66.7
17	Chikkaballapura	Chintamani	146	2.8	42.38
18	Chikkaballapura	Gauribidanur	150.14	2.05	45.85
19	Chikkaballapura	Gudibande	27.58	7.09	18.14
20	Chikkaballapura	Shidlaghatta	121.83	3.08	47.7
21	Chikamagaluru	Kadur	55.8	3.2	21.7
22	Chitradurga	Chitradurga	53.85	0.99	30.77
23	Chitradurga	Holalkere	61.2	2.2	17.74
24	Chitradurga	Challakere	38.75	0.55	22.04
25	Chitradurga	Hiriyur	65.5	1.5	21.08
26	Davanagere	Channagiri	36	3.6	9.73
27	Davanagere	Harpanahalli	57	1.8	19.25
28	Davanagere	Jagalur	44.5	10.4	27.41
29	Gadaga	Gadag	30.05	7.4	15.18
30	Gadaga	Ron	45.65	9.5	21.49
31	Hassana	Arsikere	77.1	8.15	32.68
32	Kolara	Bangarpet	115.7	39	71.83
33	Kolara	Kolar	120.8	31.8	77.71
34	Kolara	Malur	128.4	37.53	78.72
35	Kolara	Mulbagal	113.6	32.3	59.88
36	Kolara	Srinivaspura	111.6	23.55	69.6
37	Ramanagara	Kanakapura	64.55	1.8	22.05
38	Ramanagara	Ramanagar	74.38	1.5	32.91
39	Tumakuru	Chikkanayakanahalli	51.8	0.45	23.79
40	Tumakuru	Koratagere	95.44	3.6	34.6
41	Tumakuru	Madhugiri	35.72	4.29	15.25
42	Tumakuru	Tiptur	101.92	11.85	43.16
43	Tumakuru	Tumakuru	94.97	8.91	32.34

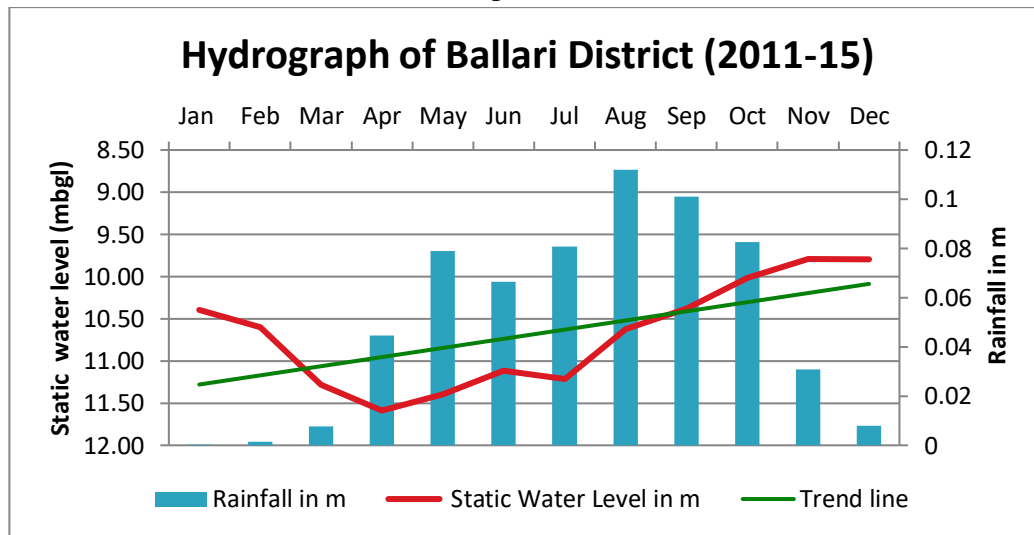
C. HYDROGRAPHS

Graph-1



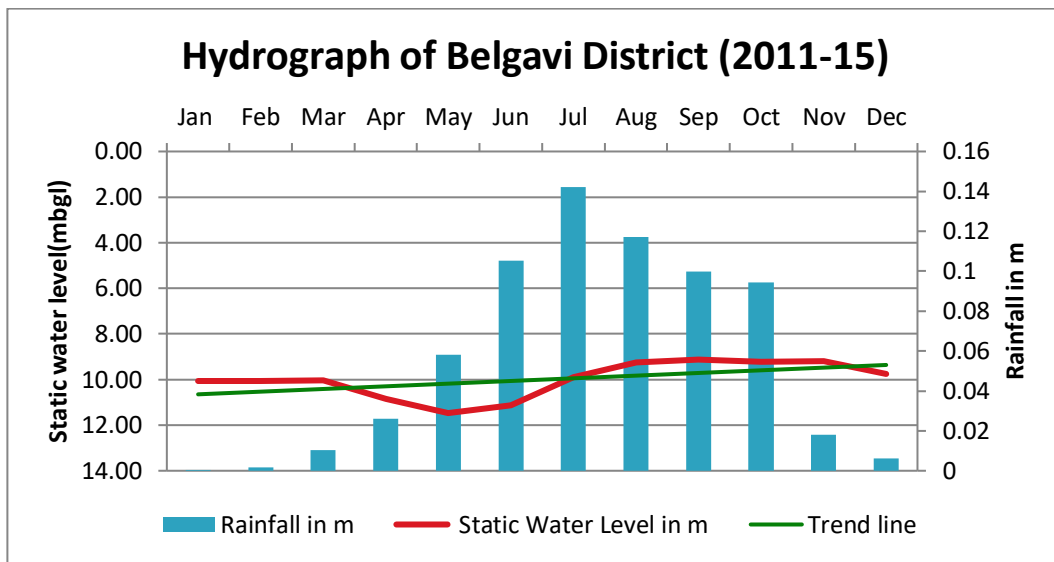
The hydrograph of Bagalkote District is generated and reveals that the rainfall predominantly occurs from the month of April to October. The groundwater levels are depleted from the of month December to July and the gradually rise from the month of August to November. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-2



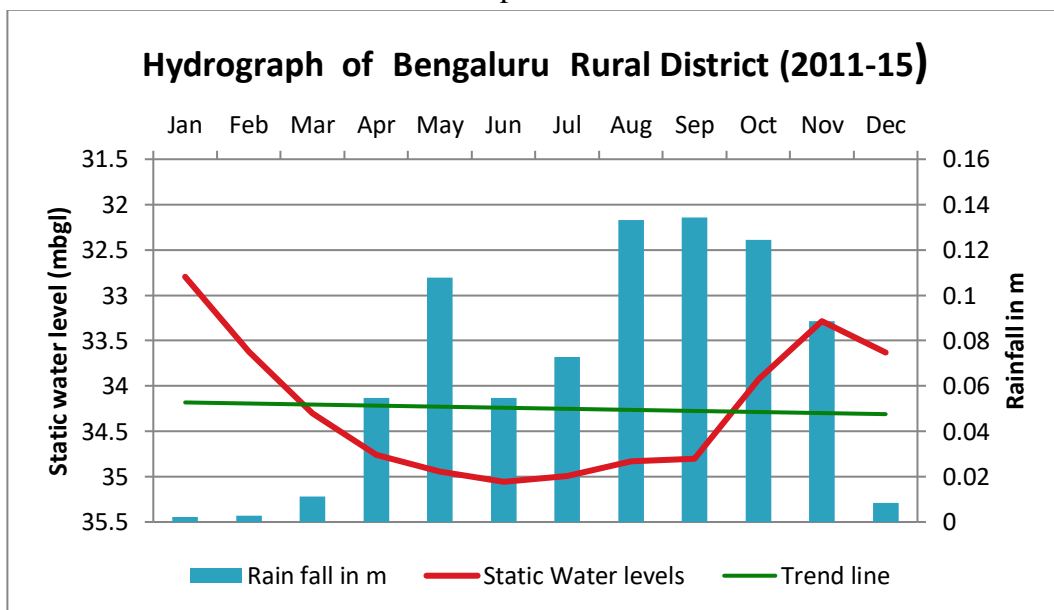
The hydrograph of Ballari District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of January to April and the gradually rise from the month of May to December. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-3



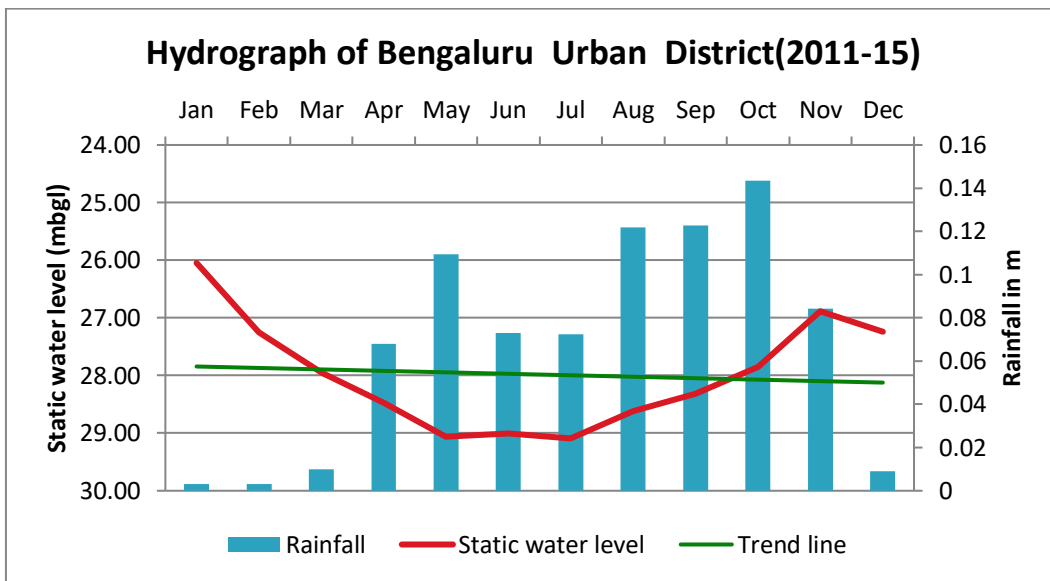
The hydrograph of Belgavi District is generated and reveals that the rainfall predominantly occurs from the month of May to October. The groundwater levels are depleted from the month December to May and the gradually rise from the month of June to November. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-4



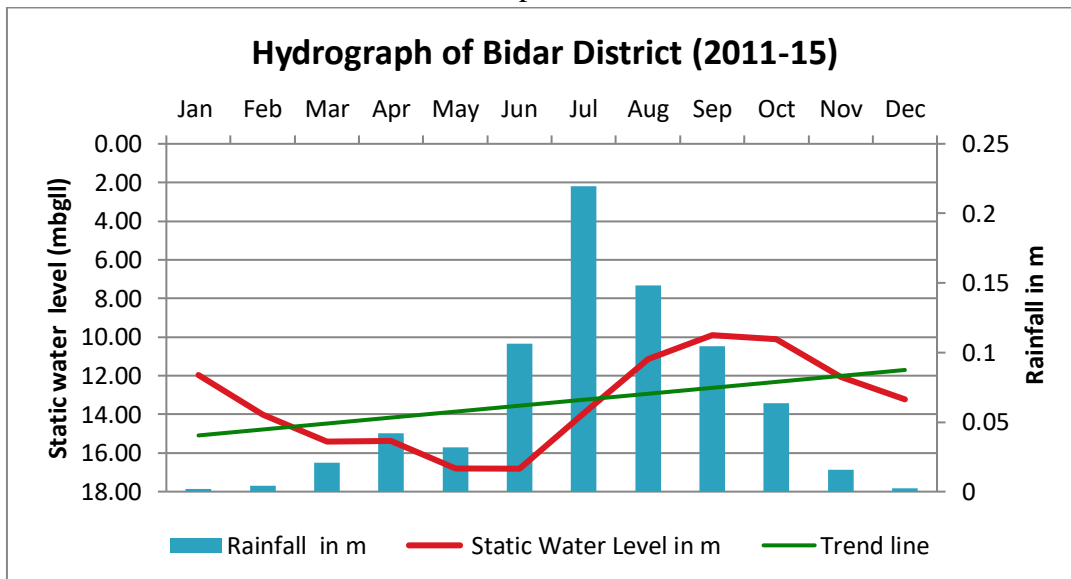
The hydrograph of Bengaluru Rural District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of December to June and the gradually rise from the month of July to November. The trend of the ground water levels show depletion from the year 2011-2015. This may be due to the over exploitation of ground water during rabi and summer seasons through deep bore wells.

Graph-5



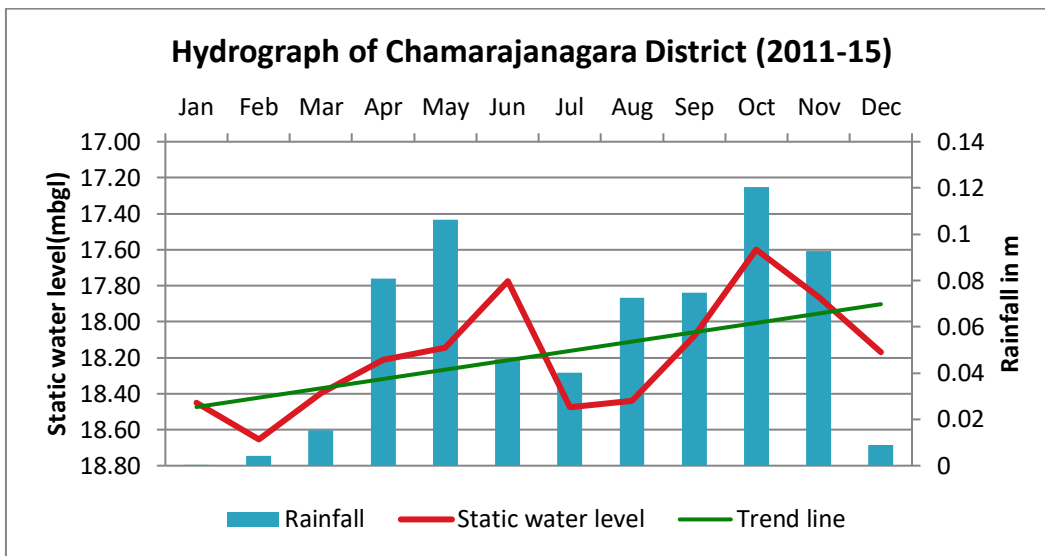
The hydrograph of Bangalore Urban District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of December to July and the gradually rise from the month of August to November. The trend of the ground water levels show depletion from the year 2011-2015. This may be due to the over exploitation of ground water through deep bore wells.

Graph-6



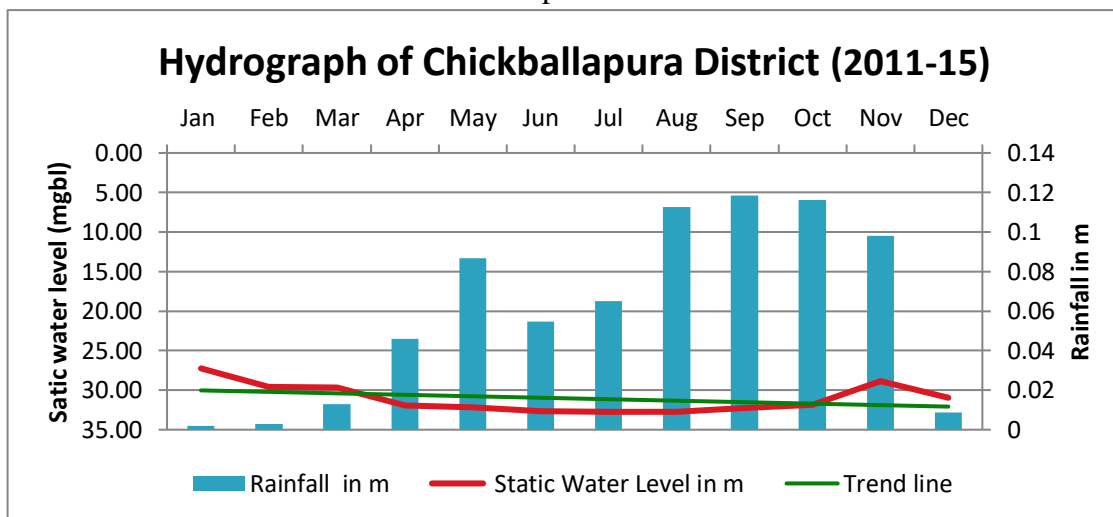
The hydrograph of Bidar District is generated and reveals that the rainfall predominantly occurs from the month of June to October. The groundwater levels are depleted from the month of November to June and the gradually rise from the month of July to October. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-7



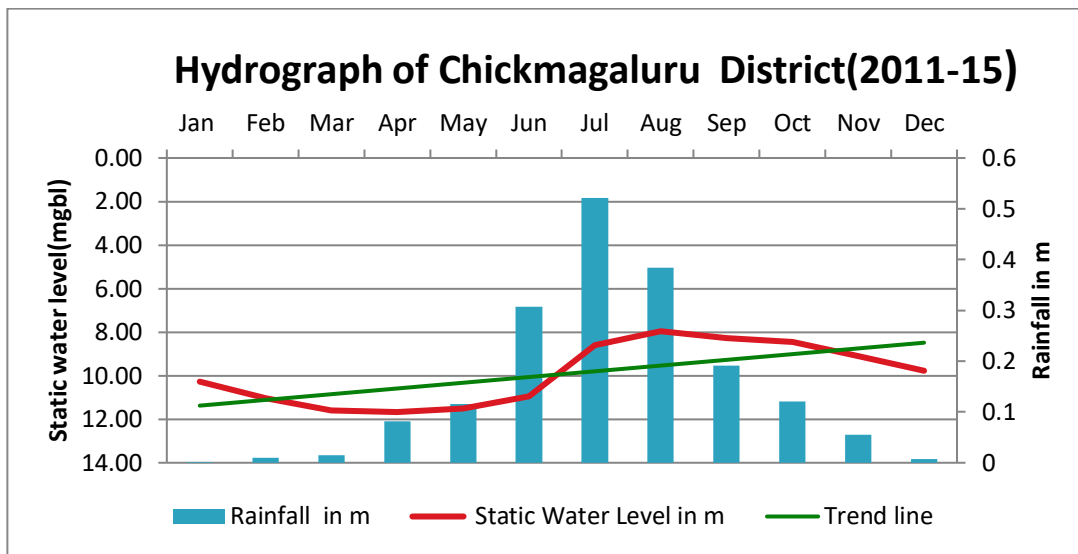
The hydrograph of Chamarajanagara District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of November to February and July to August. The ground water levels gradually rise from the month of March to June and September to October. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-8



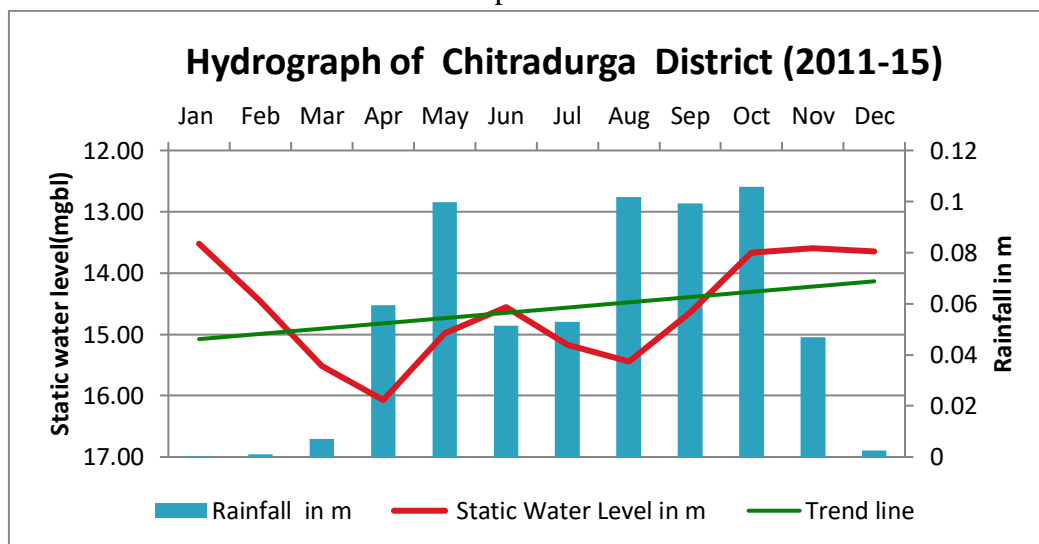
The hydrograph of Chickballapura District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of December to August and the gradually rise from the month of September to November. The trend of the ground water levels show depletion from the year 2011-2015. This may be due to the over exploitation of ground water during rabi and summer seasons through deep bore wells.

Graph-9



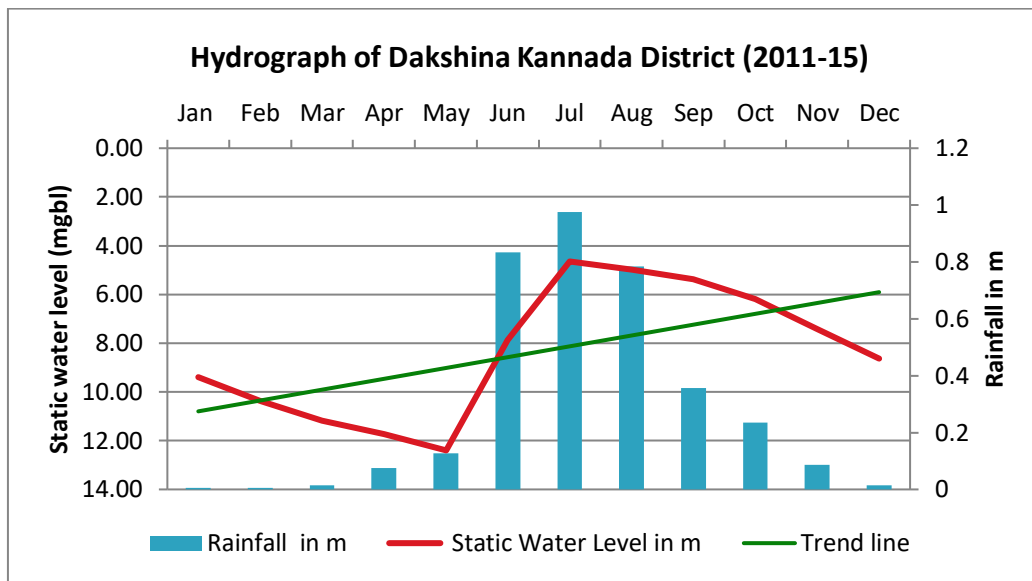
The hydrograph of Chikmangaluru District is generated and reveals that the rainfall predominantly occurs from the month of April to October. The groundwater levels are depleted from the month of October to April and the gradually rise from the month of May to September. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-10



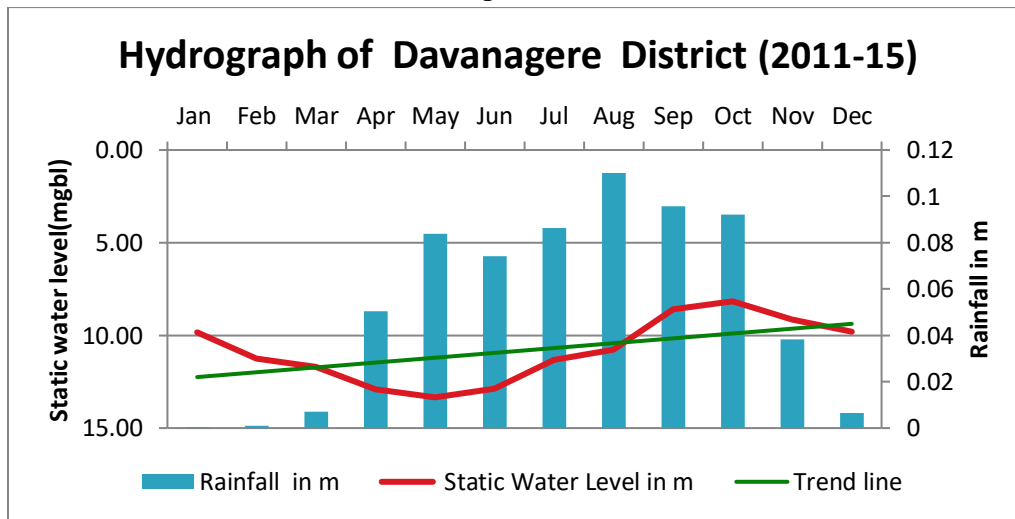
The hydrograph of Chitradurga District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of January to April and July to August. The groundwater levels gradually rise from the month of May to June and September to December. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-11



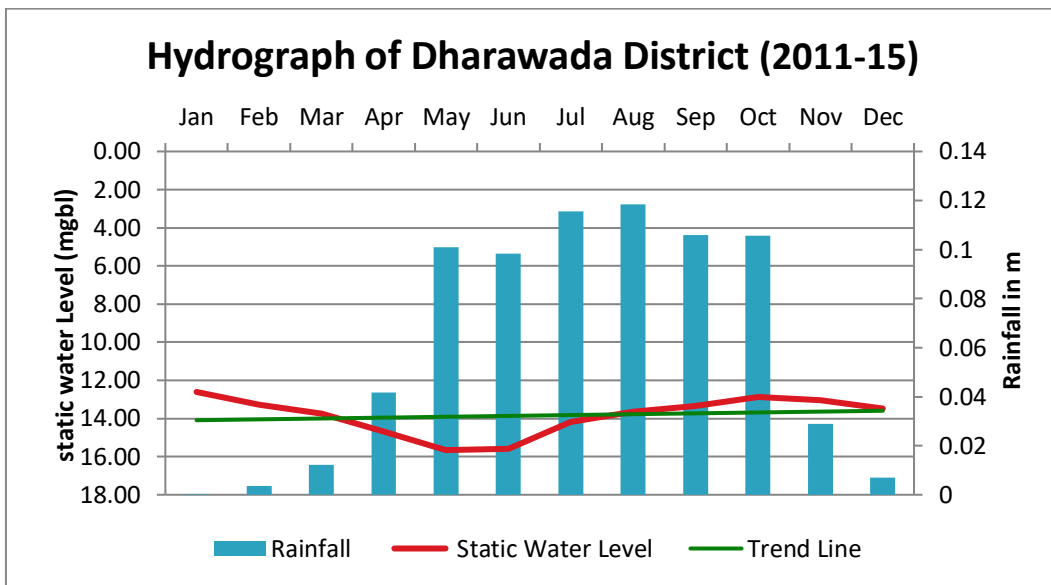
The hydrograph of Dakshina Kannada District is generated and reveals that the rainfall predominantly occurs from the month of May to October. The groundwater levels are depleted from the month August to May and the gradually rise from the month of June to July. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the heavy rainfall precipitation. The groundwater exploitation is through the dug wells and shallow to moderate depth of bore wells during non- monsoon period.

Graph-12



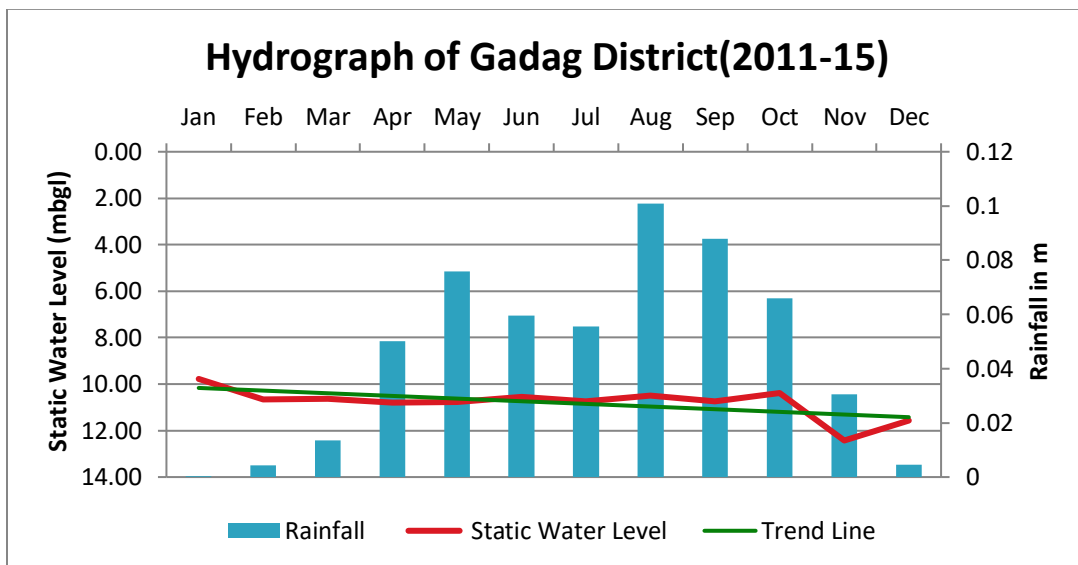
The hydrograph of Davanagere District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month November to May and the gradually rise from the month of June to October. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the ground water recharge during monsoon season or due to the application of surface water to the agriculture fields in the command areas.

Graph-13



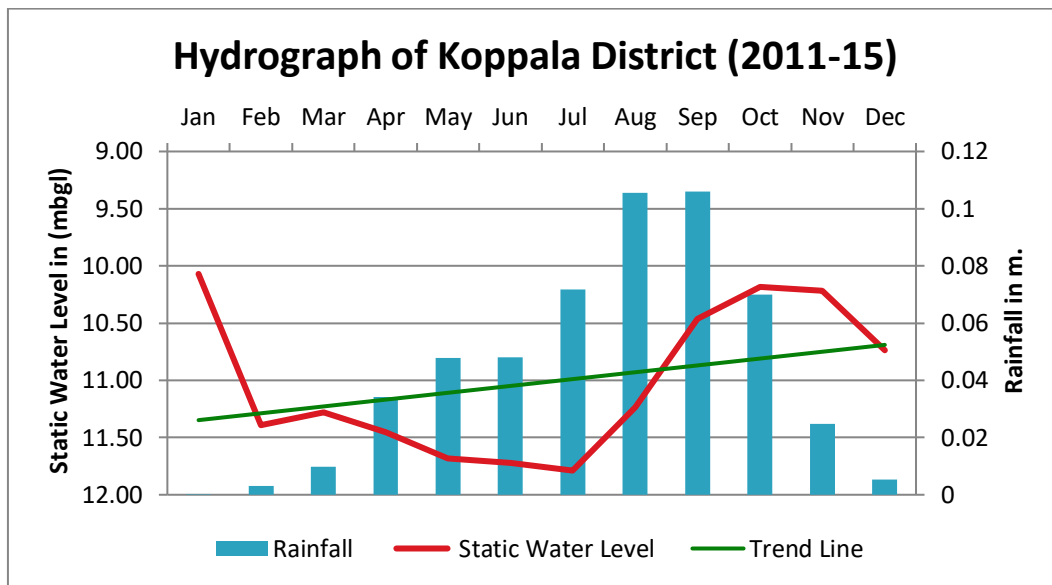
The hydrograph of Dharawada District is generated and reveals that the rainfall predominantly occurs from the month of May to October. The groundwater levels are depleted from the month November to May and the gradually rise from the month of June to October. The trend of the ground water levels show slightly rise from the year 2011-2015. This may be due to the ground water recharge during monsoon season.

Graph-14



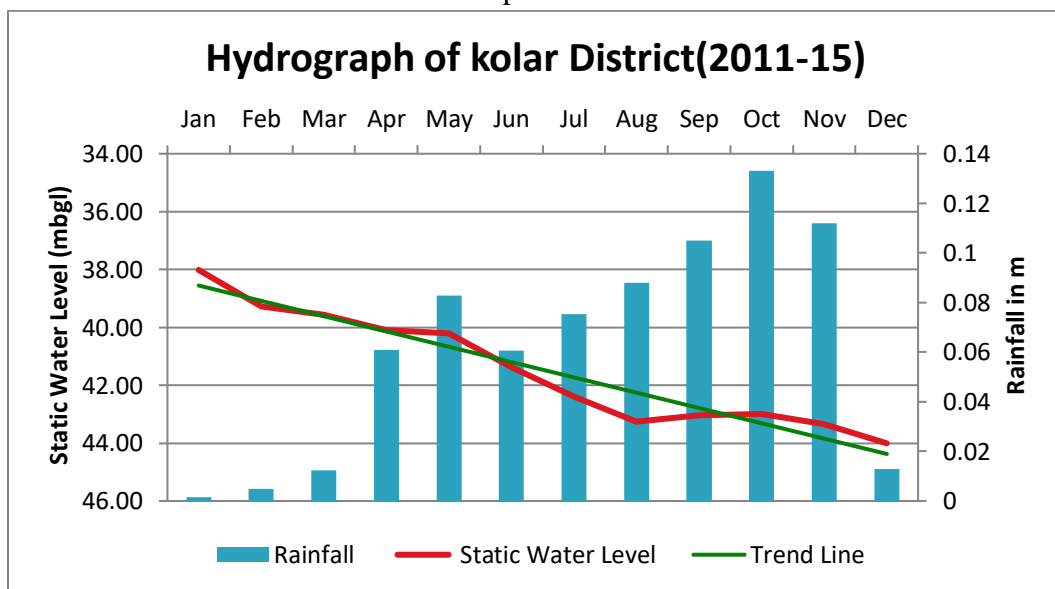
The hydrograph of Gadag District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of November to April and the gradually rise from the month of May to October. The trend line of the ground water levels show depletion from the year 2011-2015. This may be due to the exploitation of ground water during rabi and summer seasons.

Graph-15



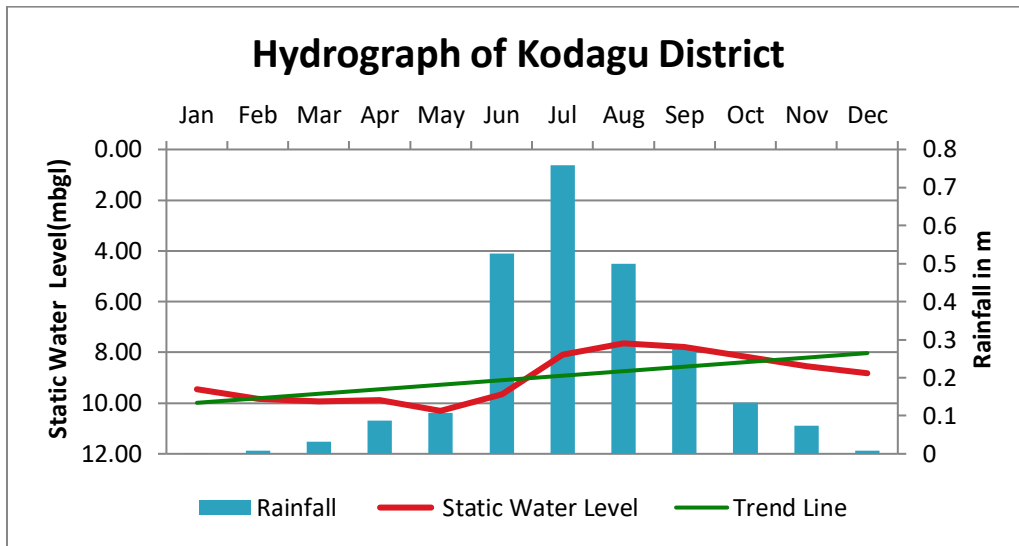
The hydrograph of Koppala District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month December to July and the gradually rise from the month of August to November. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-16



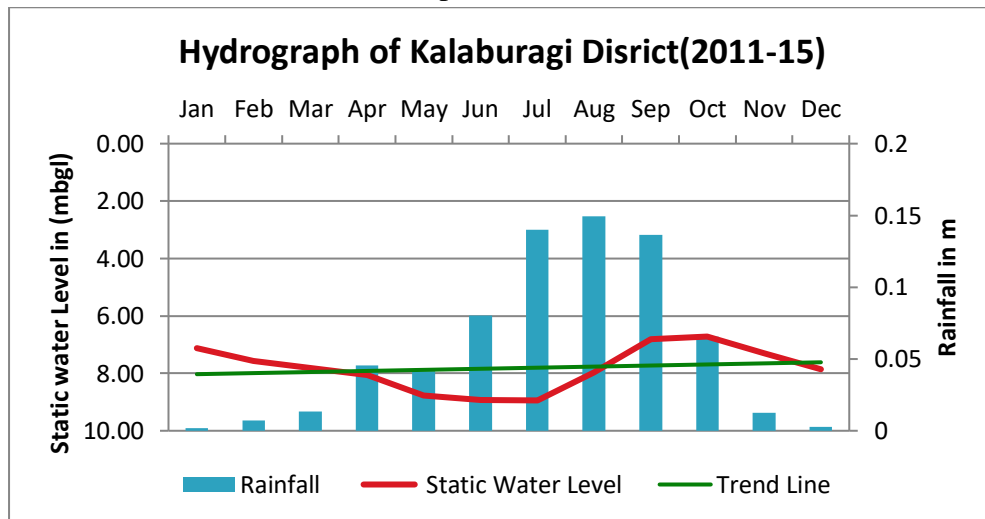
The hydrograph of Kolar District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of November to August and the gradually rise from the month of September to October. The trend line of the ground water levels show depletion from the year 2011-2015. This may be due to the over exploitation of ground water during rabi and summer seasons through the deep bore wells.

Graph-17



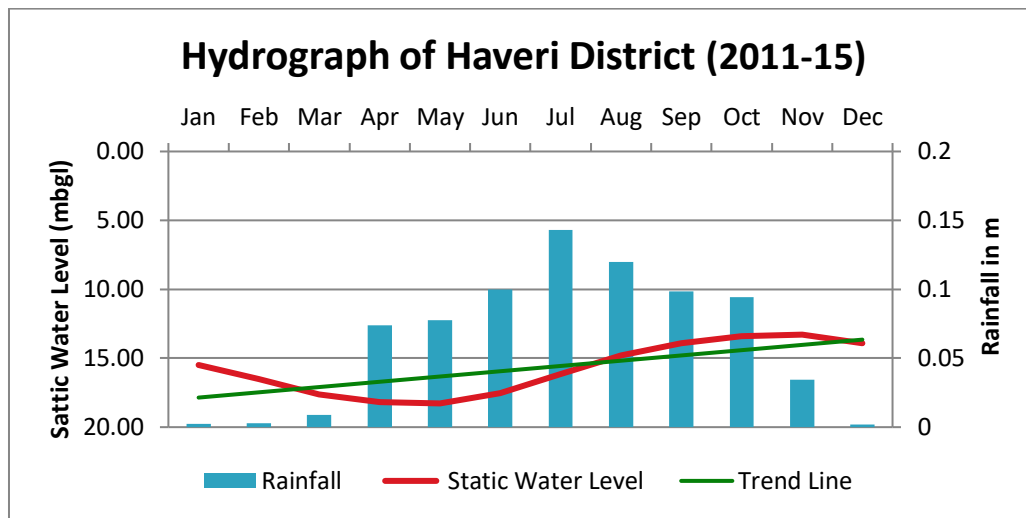
The hydrograph of Kodagu District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month October to May and the gradually rise from the month of June to September. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the heavy rainfall precipitation. The groundwater exploitation is through the dug wells and shallow to moderate depth of bore wells during non- monsoon period.

Graph-18



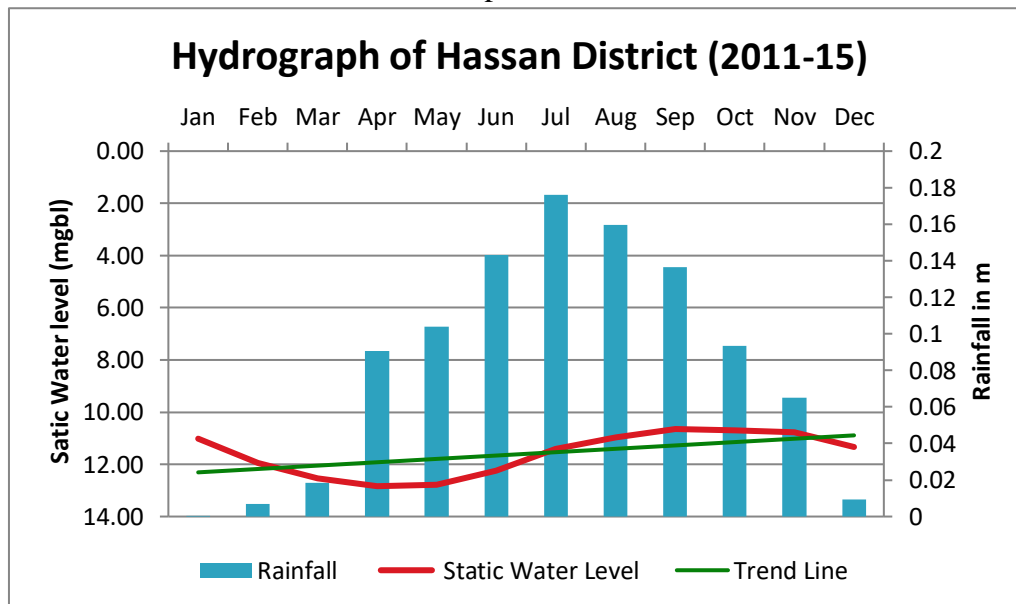
The hydrograph of Kalaburagi District is generated and reveals that the rainfall predominantly occurs from the month of April to October. The groundwater levels are depleted from the month November to July and the gradually rise from the month of August to October. The trend of the ground water levels show slightly rises from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-19



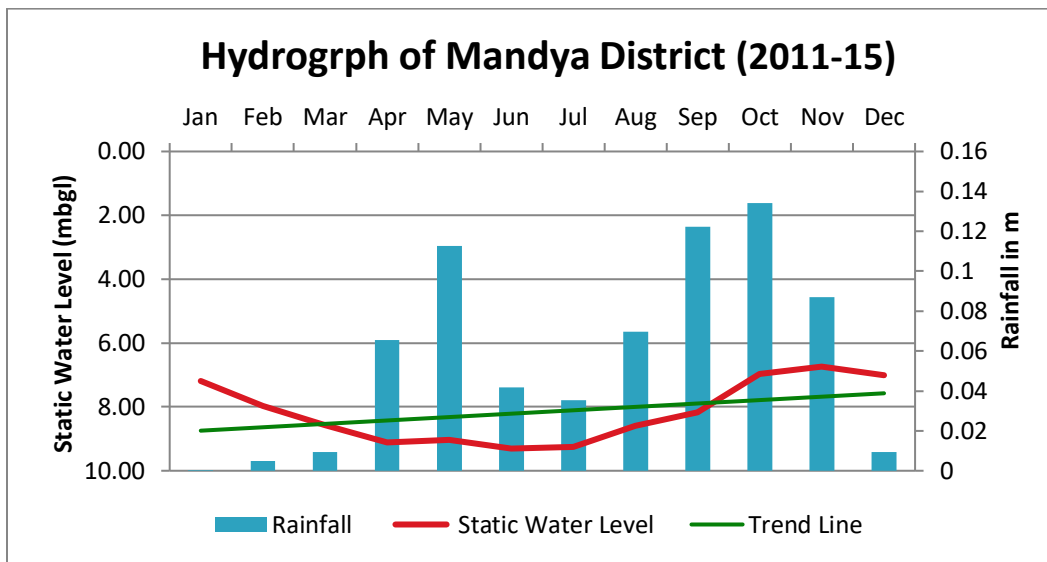
The hydrograph of Haveri District is generated and reveals that the rainfall predominantly occurs from the month of April to October. The groundwater levels are depleted from the month December to May and the gradually rise from the month of June to November are noticed. The trend line of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-20



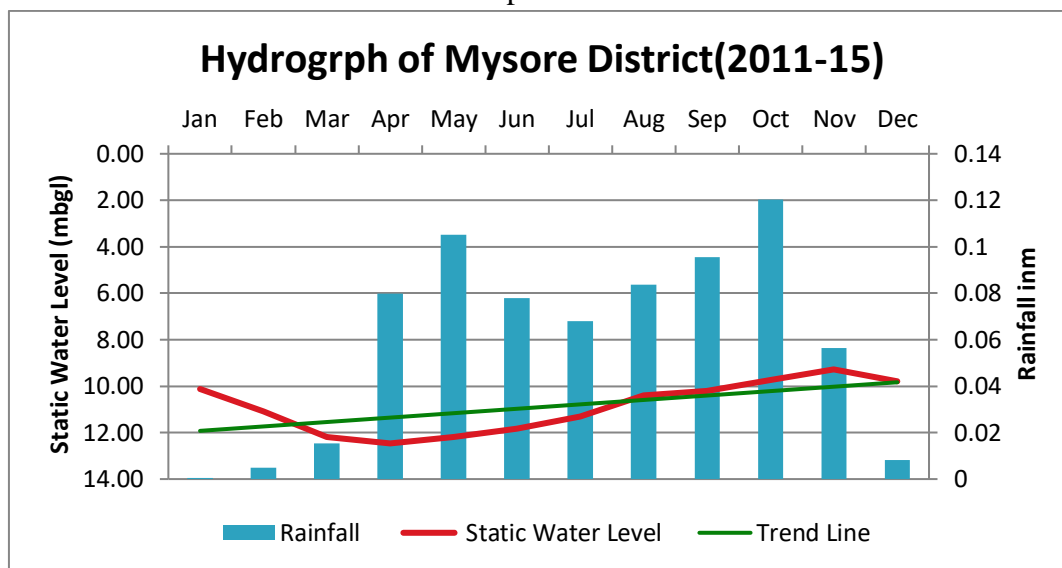
The hydrograph of Hassan District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month December to April and the gradually rise from the month of May to November are noticed. The trend line of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-21



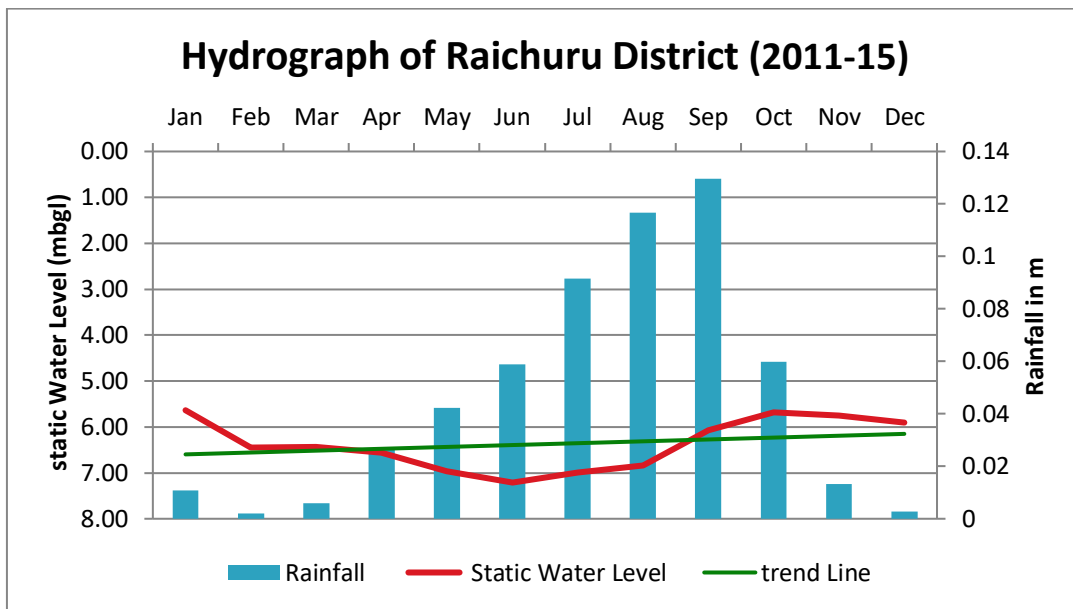
The hydrograph of Mandya District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month December to June and the gradually rise from the month of July to November are noticed. The trend line of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-22



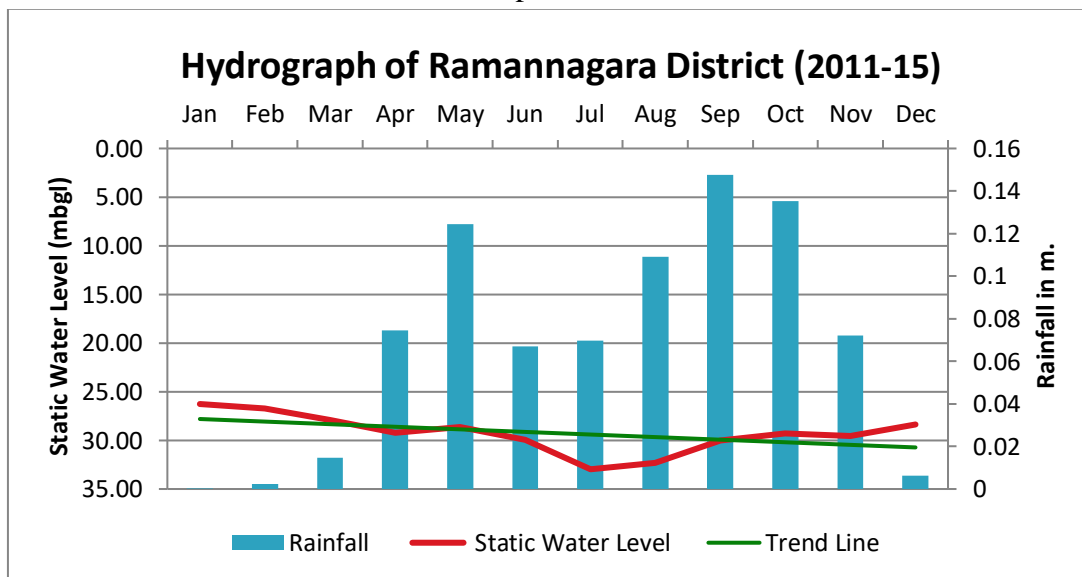
The hydrograph of Mysore District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month December to April and the gradually rise from the month of May to November. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-23



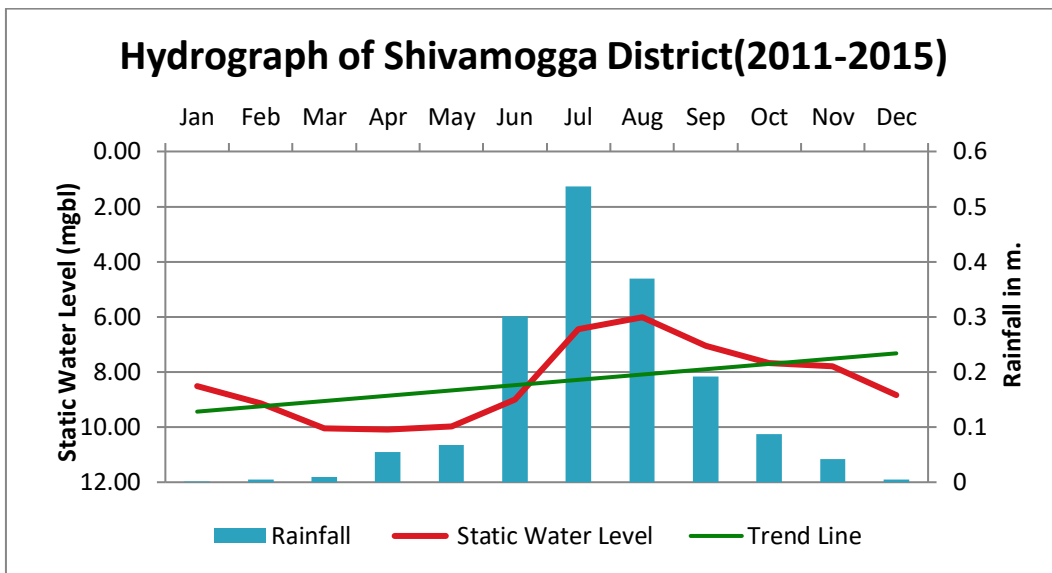
The hydrograph of Raichuru District is generated and reveals that the rainfall predominantly occurs from the month of April to October. The groundwater levels are depleted from the month December to June and the gradually rise from the month of July to November. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-24



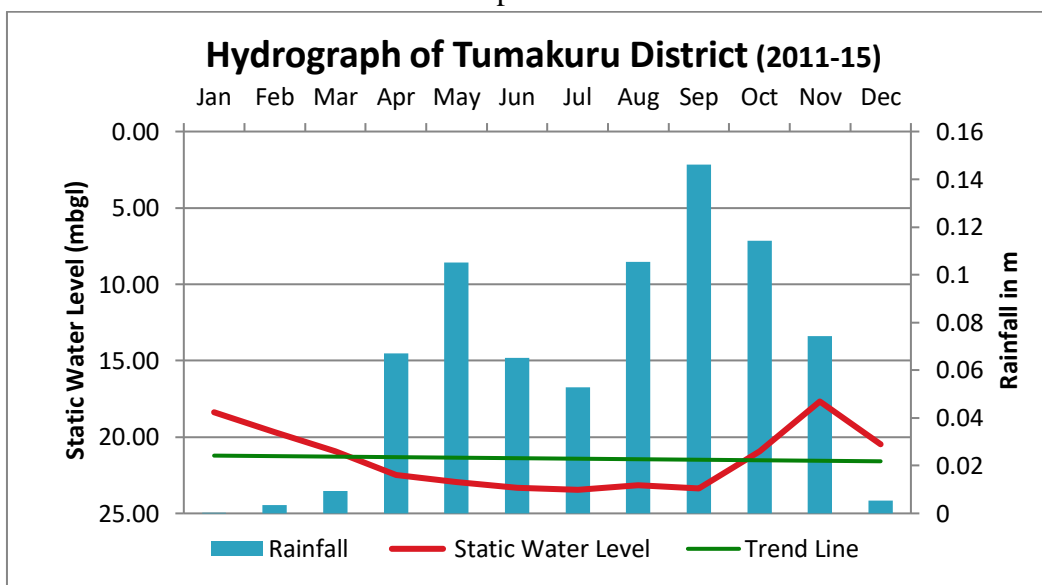
The hydrograph of Ramanagara District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of January to July and the gradually rise from the month of August to December. The trend of the ground water levels show depletion from the year 2011-2015. This may be due to the over exploitation of ground water through the deep bore wells.

Graph-25



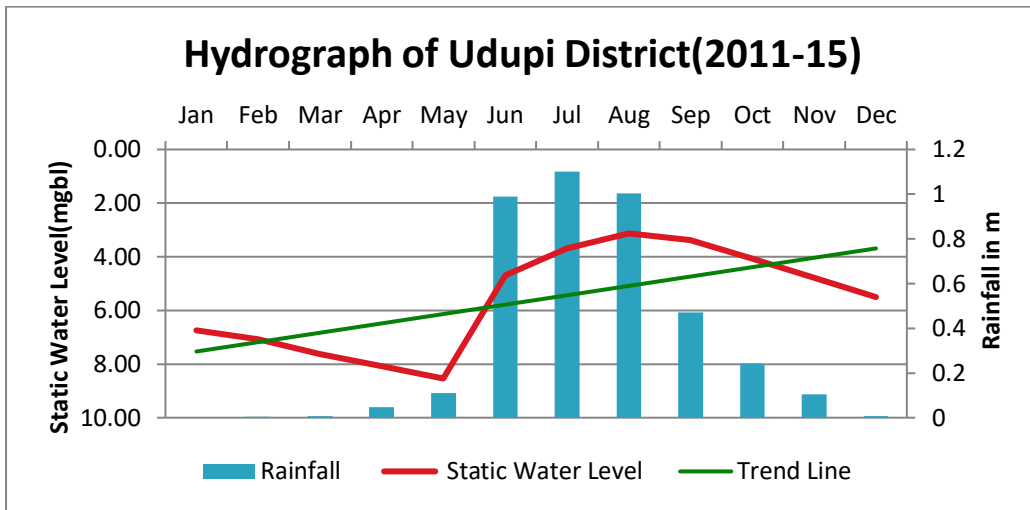
The hydrograph of Shivamogga District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month September to May and gradually rise from the month of June to August. The trend of the ground water levels shows rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-26



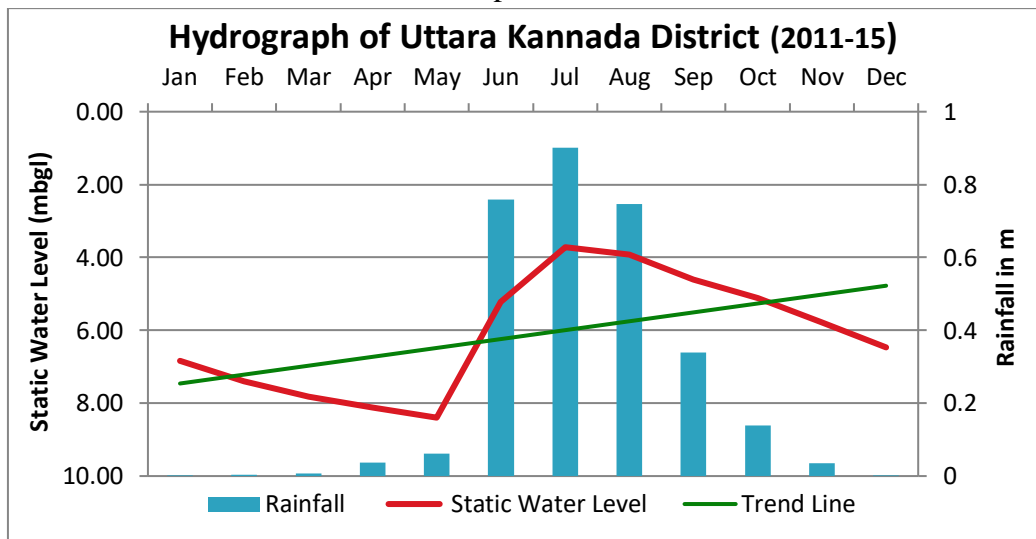
The hydrograph of Tumkuru District is generated and reveals that the rainfall predominantly occurs from the month of April to November. The groundwater levels are depleted from the month of December to September and the gradually rise from the month of October to November. The trends of the ground water levels show slight depletion from the year 2011-2015. This may be due to the over exploitation of ground water through the deep bore wells.

Graph-27



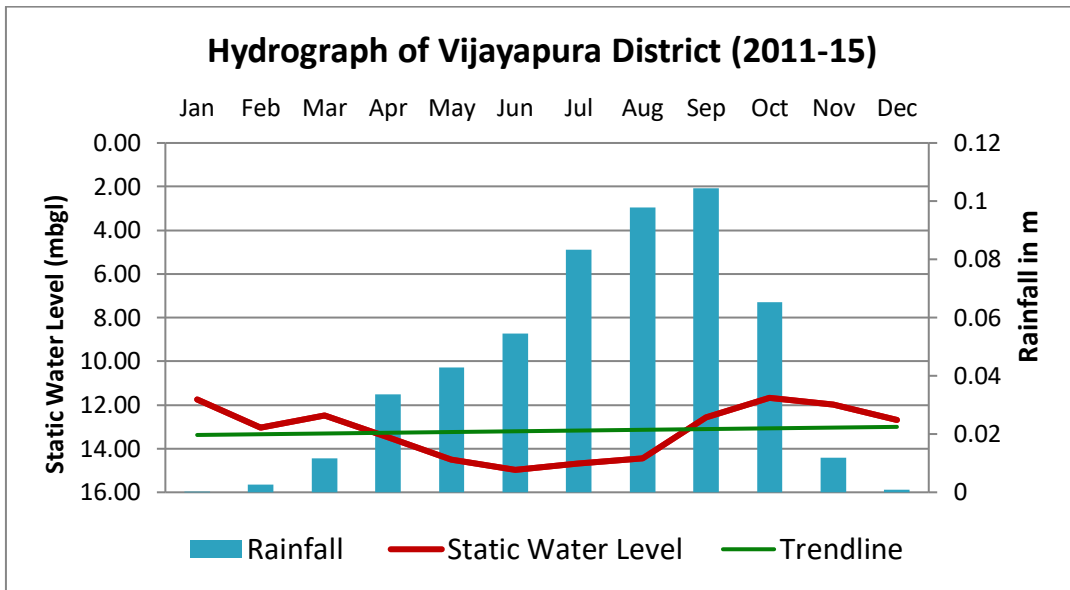
The hydrograph of Udupi District is generated and reveals that the rainfall predominantly occurs from the month of June to September. The groundwater levels are depleted from the month September to May and the gradually rise from the month of June to August. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the heavy rainfall precipitation. The groundwater exploitation is through the dug wells and shallow to moderate depth of bore wells during non- monsoon period.

Graph-28



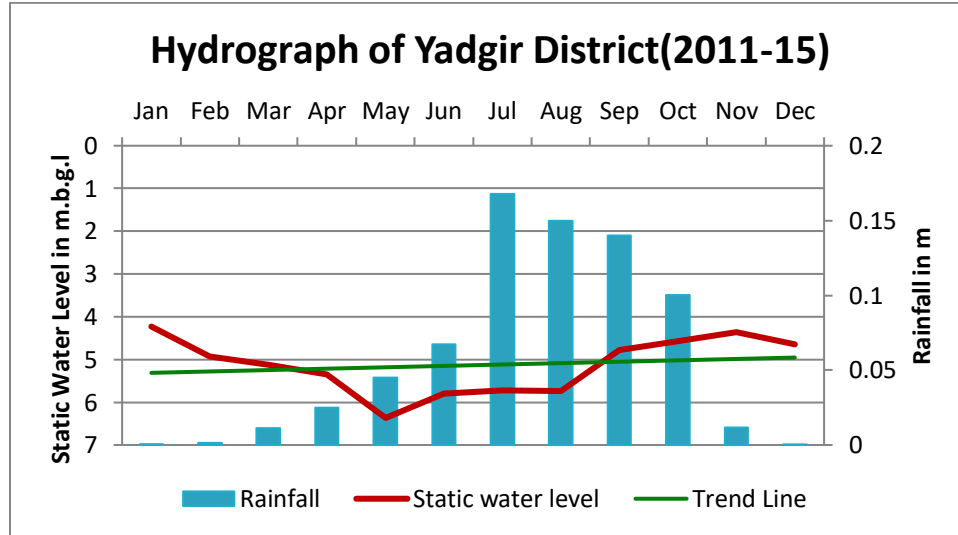
The hydrograph of Uttara Kannada (Karwar) District is generated and reveals that the rainfall predominantly occurs from the month of June to September. The groundwater levels are depleted from the month August to May and the gradually rise from the month of June to July. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the heavy rainfall precipitation. The groundwater exploitation is through the dug wells and shallow to moderate depth of bore wells during non- monsoon period.

Graph-29



The hydrograph of Vijayapura District is generated and reveals that the rainfall predominantly occurs from the month of April to October. The groundwater levels are depleted from the month November to June and the gradually rise from the month of July to October. The trend of the ground water levels show rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

Graph-30



The hydrograph of Yadagiri district is generated and reveals that the rainfall predominantly occurs from the month of June to October. The groundwater levels are depleted from the month December to May and the gradually rise from the month of June to November. The trend of the ground water levels show slight rise from the year 2011-2015. This may be due to the groundwater recharge either from the rainfall precipitation or due to the application of surface water to the agriculture fields in the command areas.

IX. DYNAMIC GROUND WATER RESOURCES AS ON MARCH-2017

The Ground water resources of the state of Karnataka was assessed based on Groundwater Estimation Methodology (GEM) 1997 as on March 2017. The present assessment was done on a watershed basis using the database as on 2017. The resources so assessed were apportioned and presented on a taluk basis to facilitate planning of developmental activities. The methodology envisages that the groundwater assessments may be made once in three years, however later on it was decided to have the re-estimation once in two years. As part of that the groundwater resources was re-estimated for the state of Karnataka as on March 2017 using the Minor irrigation data on well census and the data collected by the district level officers of Ground Water Directorate, Government of Karnataka as the base data on an watershed basis. There are 234 watersheds, in the state. Further the assessed data was apportioned and presented on taluk as a administrative unit. There are 176 taluks in the 30 Districts of the State. The details of the Ground water Resource Estimations as on March 2013 & 2017 are given below.

Table-4

i. GROUND WATER RESOURCES OF KARNATAKA AS ON 2013& 2017

Particulars	As on 2013	As on 2017
Net Annual Groundwater Availability (HAM)	1483300	1479318
Existing Groundwaterdraft for Irrigation(HAM)	876343	938674
Existing Groundwaterdraft for domestic and Industrial water supply (HAM)	99215	94978
Existing Groundwaterdraft for all uses(HAM)	975558	1033652
Provision for domestic and industrial requirement supply for 2025	149124	113738
Net annual Groundwateravailability for future irrigation development (HAM)	608605	590260
Stage of Groundwaterdevelopment (%)	66	70

Table-5

ii. CATEGORISATION OF ASSESSMENT UNIT AS ON MARCH 2013& 2017

Taluk wise Category	Taluks as on 2013	Taluks as on 2017
Over Exploited Taluks	43	45
Critical Taluks	14	8
Semi critical Taluks	21	26
Safe Taluks	98	97
Total	176	176

Table-6

iii. OVER EXPLOITED TALUKS OF KARNATAKA AS PER GROUND WATER ASSESSMENT MARCH-2013& 2017

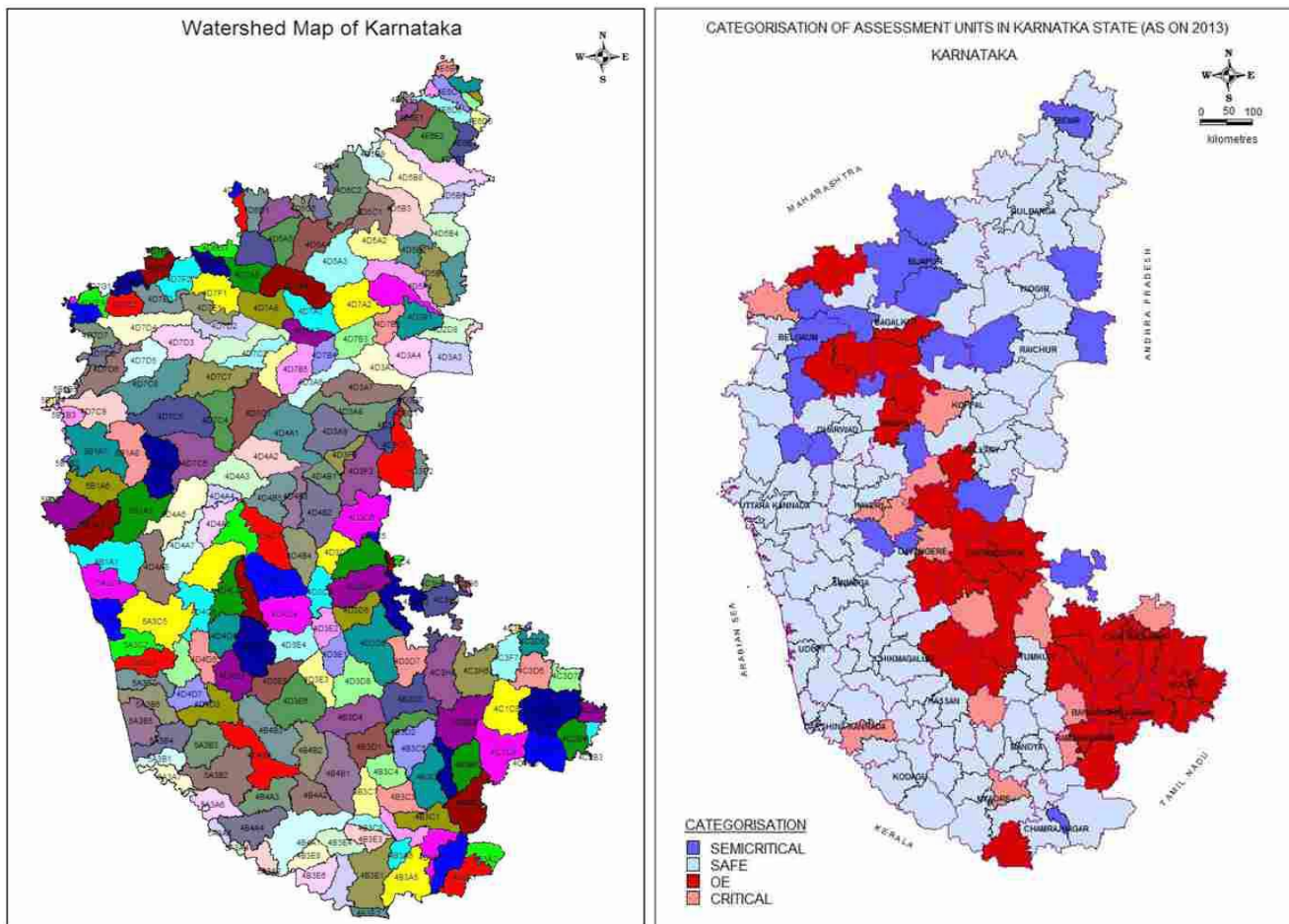
Sl.No.	Districts	Over Exploited	% of GW Extraction As on 2013	% of GW Extraction As on 2017
1	Bagalakote	Badami	160	151
		Bagalkote	158	145
2	Bangalore Rural	Devenhalli	130	110
		Dodaballapur	137	138
		Hoskote	138	136
		Nelamangala	126	110
3	Bangalore Urban	Anekal	134	149
		Bangalore East	134	155
		Bangalore North	131	134
		Bangalore South	188	140
4	Belgaum	Athani	116	109
		Ramdurg	139	125
		Saundatti	108	117
5	Bellary	H.B.Halli	103	110
6	Chamarajanagara	Gundlupet	140	127
7	Chikballapur	Bagepalli	95	110
		Chikballapur	146	146
		Chintamani	170	200
		Gauribidalur	176	213
		Gudibanda	161	199
		Sidlaghata	146	153
8	Chikmagalur	Kadur	104	115
9	Chitradurga	Chalkere	101	111
		Chitradurga	124	128
		Hirihuru	109	124
		Holalkere	137	161
		Hosadurga	98	118
10	Davangere	Channagiri	115	118
		Harpanahalli	114	115
		Jagalur	109	106
11	Gadag	Gadag	111	101
		Ron	118	121
12	Hassan	Arasikere	103	118
13	Kolar	Bangarpet	210	212
		Kolar	180	214
		Malur	189	198

		Mulbagal	210	207
		Srinivaspur	183	215
14	Ramanagar	Kanakapura	118	102
		Ranmanagara	143	105
15	Tumkur	Chikkanayakanahalli	153	114
		Koratagere	151	151
		Madhugiri	122	107
		Tipturu	125	125
		Tumkuru	119	115
Total		45	43(OE)+2(C)	45

The percentage of groundwater exploitation in the 43 over exploited taluks of the state is shown in the above table. The map depicts the over all scenario of the state. The depleting resource and over exploitation as adversely affected the groundwater quality. Taking these inferences into account an attempt to understand the quality behavior of the groundwater is programmed.

Map-8

Map-9



XI. GROUND WATER QUALITY:

In recent years an increasing threat to Groundwater Pollution due to human activity has become of great importance. The adverse effects on groundwater quality are the result of mans activity at ground surface, unintentionally by agriculture, domestic and industrial effluents, unexpectedly by sub surface or surface disposal of sewage and industrial wastes. A Major problem in urbanised areas is the collection and disposal of domestic waste water. Because a large volume of sewage is generated in small area, the waste cannot be adequately disposed off by conventional septic tanks and cess pools. Therefore special disposal sites may be required to collect and dispose such wastes in densely populated areas.

The quality of ground water is the resultant of all the processes and reaction that have acted on the water from the moment it condensed in the atmosphere to the time it is discharged by a well. Therefore, the quality of ground water varies from place to place, with the depth of water table, and from season to season and is primarily governed by the extent and composition of dissolved solids present in it. The wide range of contamination sources in one of the many factors contributing to the complexity of

groundwater assessment. It is important to know the geochemistry of the chemical-soil-ground water interactions in order to assess the fate and impact of pollutant discharged on to the ground. Pollutants move through several different hydrologic zones as they migrate through the soil to the water table. The serious implication of this problem necessitates an integrated approach in explicit terms to undertake groundwater pollution monitoring and abatement programs.

The supply of ground water is not unlimited nor it is always available in good quality. In many cases, the abstraction of excessive quantities of ground water has resulted in the drying up of wells, salt water intrusion and drying up of rivers that receive their flows in dry seasons from groundwater. Ground water quality is being increasingly threatened by agricultural, urban and industrial wastes, which leach or are injected into underlying aquifers. Once the pollution has entered the sub-surface environment, it may remain concealed for many years, becoming dispersed over wide areas and rendering ground water supplies unsuitable for human uses.

Ground water in several areas, where sewage is being discharged without proper treatment has been adversely affected by contaminants associated with sewage. Due to indiscriminate use of fertilizers, very high concentration of potassium and nitrate has been found in ground water at several places. Excessive constituents of nitrate in ground water which may originate from fertilizer or sewage or both, have been reported to the extent of several hundreds mg/L in various places. Groundwater pollution from some of industrial sources has reached alarming levels.

The problem of Ground water pollution in several part of the country has become so acute that unless urgent steps for detailed identification and abatement are taken, extensive groundwater resources may be damaged. Essentially all activities carried out on land have the potential to contaminate the ground water, whether associated with urban, industrial or agricultural activities. Large scale, concentrated source of pollution such as industrial discharges, land fills and sub-surface injection of chemicals and hazardous wastes are an obvious source of groundwater pollution. These concentrated sources can be easily detected and regulated but more difficult problem is associated with diffuse sources of pollution like leaching of agro-chemicals and animal wastes, sub-surface discharges from latrines and septic tanks and infiltration of polluted urban run off. Diffuse sources can affect entire aquifers which are difficult to control and treat. The only solution to diffuse source of pollution is to integrate land use with water management.

Quality of any water is most important when it comes to its suitability for domestic use. Once in a year baseline samples are being collected during pre-monsoon season

from monitoring stations and analyzed for fifteen parameters namely; Calcium (Ca), Magnesium (Mg) Sodium (Na), Potassium (K), Total Iron (Fe), Bicarbonate (HCO₃), Carbonate (CO₃), Chloride(Cl), Fluoride (F), Nitrate (NO₃), Sulphate (SO₄), Total Dissolved Solids (TDS), Specific Conductance (EC) µmhos/cm, Total Hardness (TH) and pH.

The laboratory has adopted the Standard Methods for the examination of water and waste water prepared and published by American Public Health Association, American Water Works Association and Water Environment Federation.

i. ABOUT PRESENT STUDY&METHODOLOGY:

Ground water Chemical quality has become one of the important parameter due to spur in the Groundwater exploitation. Taking into total irrigation potential into account Ground water makes a major contribution. Special account of ground water quality is very essential and today much of the drinking water source also rests on ground water.

The Ground water Directorate is monitoring 475 observation wells and 1257 observation bore wells in the state to monitor the ground water levels once in a month periodically by the Senior Geologist and Geologists working in the District Ground water offices established at the different district head quarters. They also collect the ground water samples from the drinking water bore wells located adjacent to the observation wells/Bore wells.It is designed to collect first as base sample during pre-monsoon season. After its analysis the same is reviewed on its quality with reference to the permissible standards as trend sample during post-monsoon season. Further once again repetitive sampling is done for the borewells where anomalies in the limits are found to confirm and ascertain the same. During the year 2017 totally 1257 ground water samples were collected and analysed by the Chemists in the chemical laboratories established by the Department of Mines and Geology at Bengaluru, Mysuru, Belagavi, Bellary,Dharwada, Chitradurga & Kalaburagi.

The important constituents namely Fluoride, Nitrate, Total Iron and Total Hardness were discussed as per the Drinking water specification-IS10500 : 2012 to know the suitability for drinking water and domestic purposes

Table-7

Sl.	Chemical	Acceptable Limit	Permissible Limit
------------	-----------------	-------------------------	--------------------------

No.	parameters	mg/L	mg/L
1.	Nitrate	45	No Relaxation
2.	Fluoride	1.0	1.5
3.	Total Hardness	200	600
4.	Total Iron	0.30	No Relaxation

These results are tabulated and are put to review with the site specific conditions i.e., over exploited, within the command area, in non-command area. The different chemical ingredients are further studied based on the excessive parameter and the potable cause for escalations with probable solutions and suggestions. The Districts Water Quality Data and Water Quality Maps of monitoring stations are shown in the Table No. 10 to 34.

ii. RESULTS & DISCUSSIONS

Table-8 shows how ground water resources are getting contaminated. Out of 1257 samples analyzed, 108 monitoring stations had Fluoride beyond Permissible limit, 121 stations had Total Hardness beyond the Permissible limit, 278 stations had Nitrate beyond Acceptable limit and 108 stations had Total Iron beyond Acceptable limit of Indian Drinking Water Specifications. Location of water samples collected for chemical analysis from monitoring stations across the state during the year 2017-18 are shown in Map-10.

SAMPLES COLLECTED FROM MONITORING STATIONS DURING 2017-18

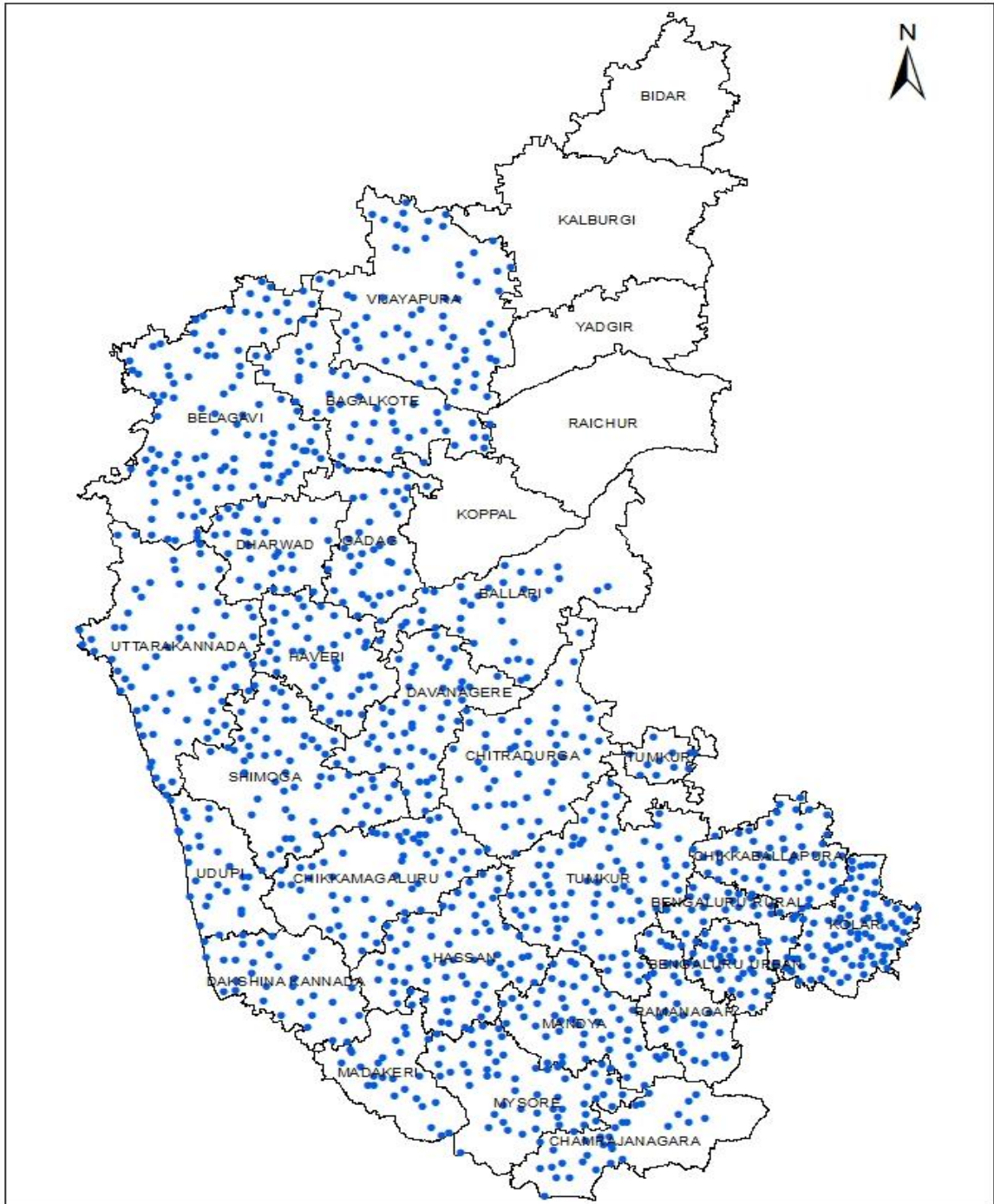


Table - 8

**STATEMENT SHOWING WATER SAMPLES CONTAINING CRITICAL
PARAMETERS BEYOND THE PERMISSIBLE LIMITS OF INDIAN DRINKING
WATER SPECIFICATIONS 10500: 2012 FOR THE YEAR 2017-18**

Sl. No.	District	Monitoring Stations	F >1.5 mg/L	NO ₃ >45 mg/L	Fe >0.3 mg/L	TH (as CaCO ₃) mg/L
1	Ballari	36	05	20	36	01
2	Bangalore(Rural)	26	-	06	-	04
3	Bangalore(Urb)	34	-	14	01	08
4	Belagavi	104	05	23	-	14
5	Bagalkote	49	08	06	-	10
6	Chitradurga	48	-	24	23	11
7	Chamarajanagara	31	-	09	-	12
8	Chikballapura	51	15	23	01	09
9	Chickmagalur	53	-	13	01	08
10	Dakshinakannada	32	-	-	02	-
11	Davanagere	48	02	16	13	07
12	Dharwad	30	01	05	-	06
13	Gadag	39	19	09	02	12
14	Haveri	41	01	02	-	12
15	Hassan	65	05	08	03	02
16	Kolar	89	12	25	01	10
17	Kodagu	30	-	-	-	-
18	Mandya	52	08	15	03	11
19	Mysore	55	-	20	03	19
20	Ramanagara	33	05	05	01	03
21	Shimoga	61	-	05	08	02
22	Tumkur	93	17	12	04	09
23	Uttarakannada	68	-	-	14	01
24	Udupi	27	-	-	05	-
25	Vijayapura	62	05	18	-	15
Total		1257	108	278	121	186

Table - 9

**STATEMENT SHOWING NUMBER OF MONITORING STATIONS
(DISTRICTWISE) AS BEYOND AND WITH IN THE PERMISSIBLE LIMITS OF
INDIAN DRINKING WATER SPECIFICATIONS 10500: 2012**

Sl. No.	District	Monitoring Stations	Stations beyond Permissible Limits	Stations with in the permissible limits
1	Ballari	36	36	-
2	Bangalore(Rural)	26	08	18
3	Bangalore(Urb)	34	19	15
4	Belagavi	104	28	76
5	Bagalkote	49	18	31
6	Chitradurga	48	40	08
7	Chamarajanagara	31	13	18
8	Chikkballapura	51	34	17
9	Chickmagalur	53	14	30
10	Dakshinakannada	32	02	30
11	Davanagere	48	31	17
12	Dharwad	30	07	23
13	Gadag	39	28	11
14	Haveri	41	13	28
15	Hassan	65	16	49
16	Kolar	89	38	51
17	Kodagu	30	Nil	30
18	Mandya	52	25	27
19	Mysore	55	31	24
20	Ramanagara	33	12	21
21	Shimoga	61	13	48
22	Tumkur	93	29	64
23	Uttarakannada	68	14	54
24	Udupi	27	05	22
25	Vijayapura	62	30	42
Total		1257	504	753

Graph-1

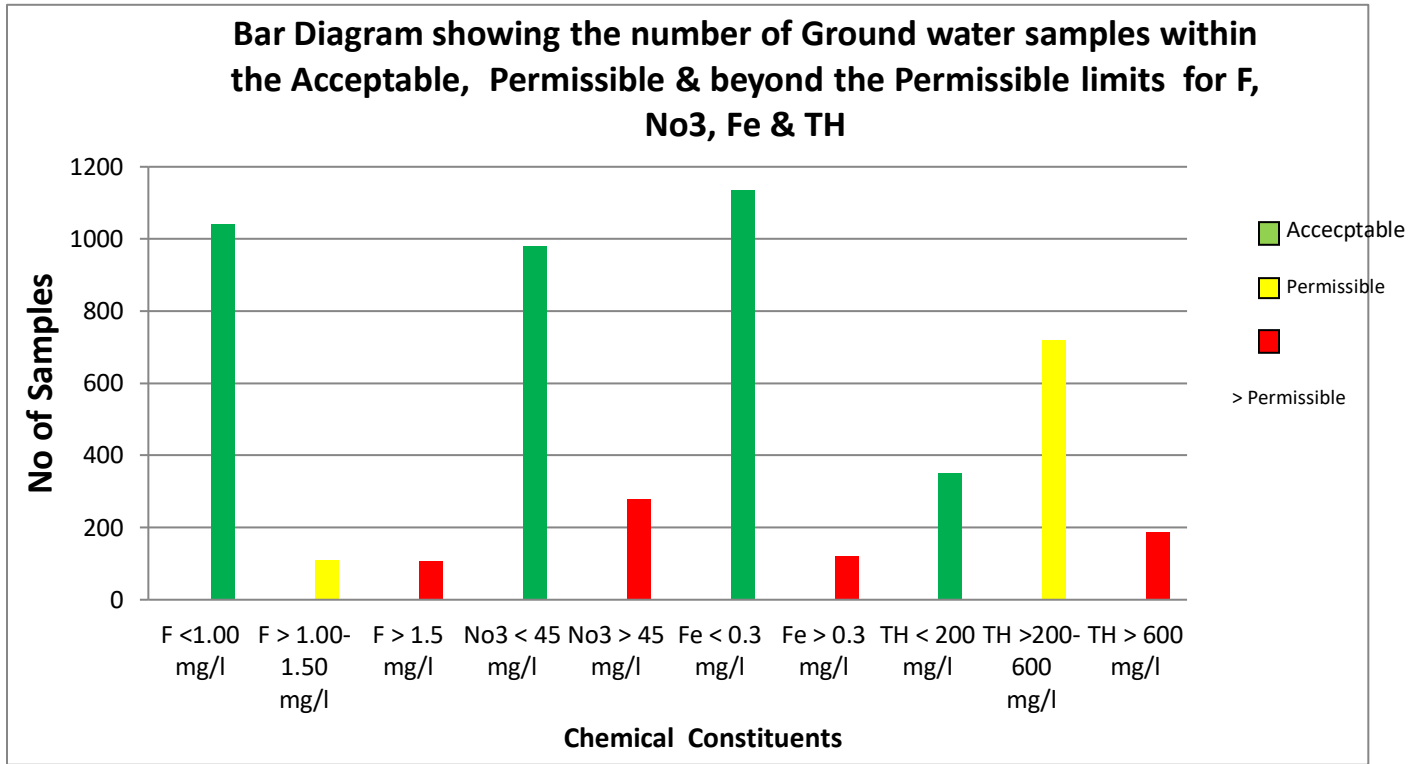


Table-8

Table-3 showing the number of Ground water samples within the Acceptable, Permissible & beyond the Permissible limits for F, No3, Fe & TH

SL. No	No of Samples	F < 1.00 mg/l	F > 1.00-1.50 mg/l	F > 1.5 mg/l	No3 < 45 mg/l	No3 > 45 mg/l	Fe < 0.3 mg/l	Fe > 0.3 mg/l	TH < 200 mg/l	TH > 200-600 mg/l	TH > 600 mg/l
1	1257	1040	109	108	979	278	1136	121	351	720	186
2	as %	83	9	8	78	22	90	10	28	57	15

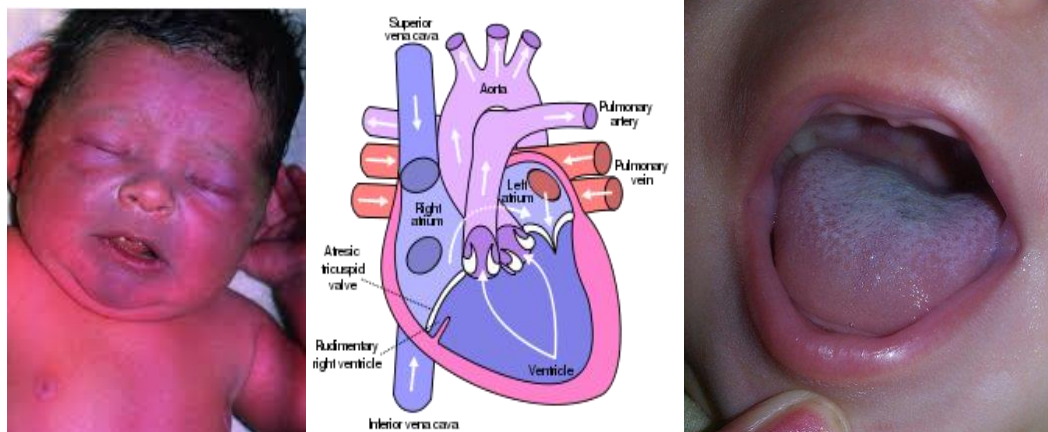
1. Nitrate:

Nitrate is the most highly oxidized form of nitrogen compounds commonly present in natural waters. Significant sources of nitrate are chemical fertilizers, decayed vegetable, animal matter, domestic effluents, sewage sludge disposal to land, industrial discharge, leachate from refuse dumps and atmospheric washout. The Analysis of Nitrate is being carried out by using UV-Spectrophotometer. According to "Indian Standard Drinking Water Specification IS 10500:2012 the Acceptable limit of nitrate is 45 mg/L. As per the analysis results the highest nitrate content 327 mg/L found in Hosakere station of Madhugiri Taluk, Tumakuru District.

Out of 1257 samples collected from the drinking water bore wells, the concentration of NO₃ is present in 979 samples are within the Acceptable limit (78%), and the remaining 278 samples are beyond the Acceptable limit (22%). Nitrate constituent is present in the ground water due to anthropogenic activities and sewage & industrial effluents. The concentration of

NO_3 is more during post-monsoon season as compared to the pre-monsoon season. This is mainly due to the application of manures/ fertilizers applied to the agricultural fields. It is also observed that the concentration of NO_3 is more during pre-monsoon season as compared to the post-monsoon season in the towns, cities, and industrial areas due to sewage and industrial effluents. Both surface and ground water if the concentration of NO_3 is beyond acceptable limits ($>45 \text{ mg/l}$) may cause Methaemoglobinaemia in children. It is also called as blue baby syndrome.

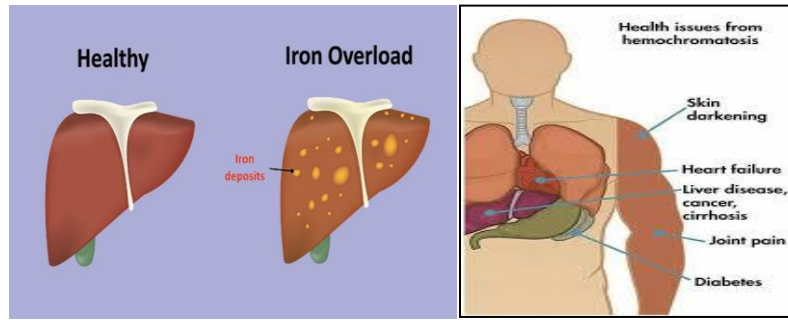
Methaemoglobinemia in children



2. Iron:

Iron usually exists in natural water both in ferric and ferrous forms. The Analysis of Total Iron is being carried out through 1,10-Phenanthroline method by using Spectrophotometer. According to “Indian Standard Drinking Water Specification IS 10500:2012 the Acceptable limit of Total Iron is 0.3 mg/L . As per the analysis result the highest total iron of 4.05 mg/L found in Sakaleshapura station of Sakaleshapura taluk, Hassan district.

The concentration of Fe is present in 1136 samples are within the Acceptable limit (90%), and the remaining 121 samples are beyond the Acceptable limit (10%). The concentration iron in ground water may be due to the leaching of Fe bearing minerals present in the rock formations due to weathering and oxidation process. Laterite, Iron formations and associated ores in the mining areas where huge dumps of iron ore were placed in catchment areas may contain iron in both surface and ground water. During monsoon season the ground water levels rises to the shallow depth may contact with casing pipes, pump parts and pipe lines. Saline ground water may react with the casing pipes, pump parts and pipe lines and has tendency to acquire iron in turn which promotes iron bacteria. Iron in water causes staining of plumbing fixtures, staining of clothes during laundering, encrustation of well screens and plugging of pipes. Oxidation and leaching enriches the dissolved iron in groundwater. Iron bearing water promotes the growth of iron bacteria such as crenothrix, causes rusting and its consumption for long duration may leads to haemochromatosis.



3. Fluoride

Fluoride is present in natural waters in varied concentrations. According to “Indian Standard Drinking Water Specification IS 10500:2012 the acceptable limit of Fluoride 1.00 mg/L and permissible limit is 1.50 mg/L. The Analysis of Fluoride is being carried out through Ion Selective Electrode Method. As per the analysis result the highest Fluoride of 4.99 mg/L found in Nellukudure station, of H.B Taluk, Ballari District.

The concentration of F is present in 1040 samples are within the Acceptable limit (83%), 109 number of samples are within the permissible limits (9%) and the remaining 108 samples are beyond the permissible limit (8%). The concentration of fluoride in ground water may be due to geogenic and Anthropogenic activities. The fluoride in ground water may be acquired from the leaching of fluoride minerals viz. Fluorite, Fluor-Apatite and Fluorospar which are commonly present in the Pegmatite veins intruded the Granites and Granitic gneissic rocks of Archaean age. It is also observed that the industrial effluents may also contain fluoride which pollutes ground water aquifers. Exceeding the permissible limit (>1.5 mg/l) in ground water may cause Fluorosis in human beings and exceeding 2 mg/l may cause Fluorosis in animals.

Dental Fluorosis



Skeletal Fluorosis





Fluorosis in animals



4. Total Hardness

Hardness in water is due to natural accumulation of salts from contact with soil and geological formations or it may enter from direct pollution by industrial effluents. Calcium and Magnesium are the principal cations causing hardness. Both the calcium and magnesium ions and the corresponding bicarbonate sulfate, chloride and nitrate ions from these dissolved compounds will be found in the solution. Hardness can be temporary (carbonate) or permanent (non carbonate). Temporary hardness is due to the presence of carbonates and bicarbonates of calcium and magnesium and can be removed by boiling the water. Permanent hardness is due to the presence of sulphates, chlorides and nitrates of calcium and magnesium. According to “Indian Standard Drinking Water Specification IS 10500:2012 the acceptable limit of total hardness 200 mg/L and permissible limit is 600 mg/L. The Analysis of Hardness is being carried out through EDTA-Titrimetric method: As per the analysis results the highest total hardness of 3848 mg/L found in Navalagunda station of Navalagunda taluk, Dharwad district.

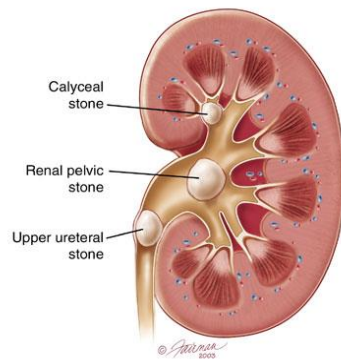
The total hardness in ground water is present in 351 samples are within the Acceptable limit (28%), 720 number of samples are within the permissible limits (57%) and the remaining 186 samples are beyond the permissible limit (15%). The hardness in ground water is due to the geogenic and Anthropogenic activities. The ground water has contact with different Geological formations and allied soils. Sewage & industrial effluents may also contain more hardness. The

hardness of water is mainly due to the concentration of calcium and carbonate. If the hardness is beyond permissible limit (>600 mg/l), there is possibility of encrustation of salts in the water supply pipes and ultimately damages the water supply system. Higher concentration of bicarbonate and Sulphate as the possible tendency of saturating more CaCO_3 . It is also reported that the kidney stones and cardio vascular diseases are due to the higher concentration of hardness in ground water.

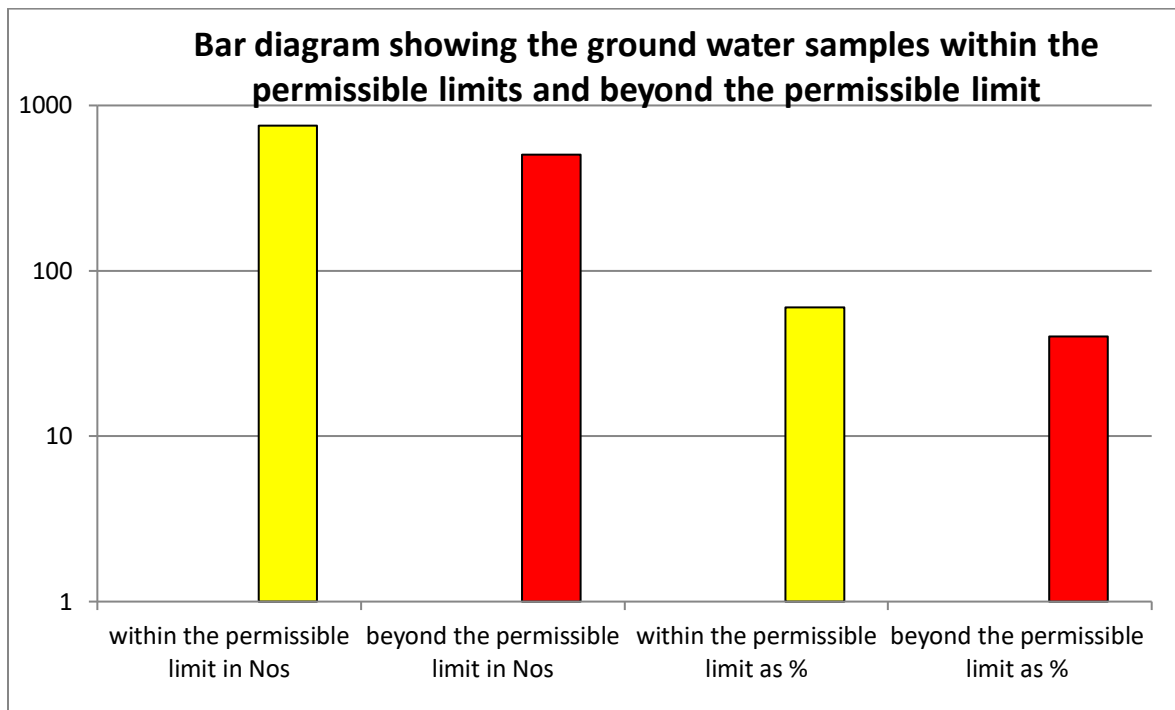
Encrustation of salts



Kidney Stones



Graph-2



The above bar diagram shows that 753 samples are within the permissible limits (60%) and the remaining 504 samples are beyond the permissible limits (40%).

XII. SUGGESTIONS AND RECOMMENDATIONS

Though the Ground water quality report as on 2017 is made on the basis of analysing the ground water samples collected from the drinking water bore wells located adjacent to the observation wells only. It is also suggested that the ground water samples are to be collected and analysed for each and every drinking water bore well.

The Government departments involved in providing public drinking water supply shall collect the ground water and surface water samples and subjected for chemical and biological analysis. Both ground water and surface water may be conjunctively used in order to dilute the concentration of chemical constituents which leads to the potability. As per the Indian Drinking Water Specification IS10500 : 2012, the quality of water has to be classified and only potable water is to be supplied. The reverse osmosis plants are to be established for providing safe drinking water in quality affected areas.



Roof top rain water harvesting and ground water recharge methods are to be adopted for individual houses, apartments, commercial complexes, Govt buildings and schools. This is not only improves the ground water resource but also improves the ground water quality which leads to the portability of ground water.

As per the Dynamic Ground Water Resources of Karnataka as on March-2013, 43 Taluks were categorized as OVER EXPLOITED, 14 Taluks were categorized as CRITICAL, 21 Taluks were categorized as SEMI-CRITICAL and 98 Taluks were categorized as SAFE based on the percentage of ground water extraction. There is need of ground water recharge for the improvement of ground water resources and its quality in the 43 over exploited Taluks, 14 critical Taluks and 21 semi-critical Taluks on priority. The rain fed area in the safe taluks is also to be considered for ground water recharge where the ground water levels are 8mts. below ground level. Different types of Rain water harvesting and ground water recharge structures are shown on below.

Recharge shafts constructed by Ground water Directorate in Ramanagar District.



Roof top Rainwater Harvesting & Ground Water Recharge structures in ATI, Mysuru.



Roof top Rainwater Harvesting & Ground Water Recharge structures in Cities and Towns.



Roof top Rainwater Harvesting & Ground Water Recharge structures in Rural areas.



Ground Water Recharge structures in Stream course-Multi Arch Check Dams.



Rainwater Harvesting & Ground Water Recharge structures in Agriculture Fields.



Farm pond

Contour trenches

Nala bunds

Tips to Protect and Conserve Groundwater

- 1. Go Native:** Use native plants in your landscape. They look great, and don't need much water or fertilizer. Also choose grass varieties for your lawn that are adapted for your region's climate, reducing the need for extensive watering or chemical applications.
- 2. Reduce Chemical Use:** Use fewer chemicals around your home and yard, and make sure to dispose of them properly - don't dump them on the ground!
- 3. Manage Waste:** Properly dispose of potentially toxic substances like unused chemicals, pharmaceuticals, paint, motor oil, and other substances. Many communities hold household hazardous waste collections or sites - contact your local health department to find one near you.
- 4. Don't Let It Run:** Shut off the water when you brush your teeth or shaving, and don't let it run while waiting for it to get cold. Keep a pitcher of cold water in the fridge instead.
- 5. Fix the Drip:** Check all the faucets, fixtures, toilets, and taps in your home for leaks and fix them right away, or install water conserving models.
- 6. Wash Smarter:** Limit yourself to just a five minute shower, and challenge your family members to do the same! Also, make sure to only run full loads in the dish and clothes washer.
- 7. Water Wisely:** Water the lawn and plants during the coolest parts of the day and only when they truly need it. Make sure you, your family, and your neighbours obey any watering restrictions during dry periods.
- 8. Reduce, Reuse, and Recycle:** Reduce the amount of "stuff" you use and reuse what you can. Recycle paper, plastic, cardboard, glass, aluminium and other materials.
- 9. Natural Alternatives:** Use all natural/nontoxic household cleaners whenever possible. Materials such as lemon juice, baking Soda, and vinegar make great cleaning products, are inexpensive, and environmentally-friendly.

XIII. GROUND WATER AWARENESS PROGRAMMES

The Ground water Directorate is conducting ground water awareness programmes for school & college students, Govt Servants, Public and Farmers at District and Taluk levels. The ground water awareness programmes were inaugurated by the DC, CEO and the local elected representatives. Drawing & essay competitions were conducted and prizes and certificates were distributed to the students. Hand books and pamphlets containing ground water information were distributed to the participants. Subject Experts from different departments were invited and lecture courses were conducted. Ground water quality, Conservation, Rainwater harvesting and Ground water recharge, Karnataka Ground water Acts 1999, 2011 and Regulations 2012 were explained by the subject Experts with Power Point Presentation.

Ground Water Awareness Workshop at ANS SIRD, Mysuru during the year-2017-18



Ground Water Awareness Camp at Jawahar Navodaya Vidhyalaya, DMG Halli, Mysuru dt during the year-2017-18



Ground Water Awareness Camp at Govt School & PU Collage, Hommaragalli, Mysuru dt during the year-2017-18



Ground Water Awareness Programmes in Kodagu dt during the year-2017-18



XIV. CONCLUSION:

Quality of any kind of water is most important for human & animal's consumption, agriculture purpose and industrial needs. The ground water samples collected from the 1257

observation wells/borewells were analysed and discussed in the report to know the suitability for human consumptions as per Indian Drinking water specification IS 10500 : 2012. Out of 1257 samples, 753 samples are within the acceptable and permissible limits are potable (60%) and 504 samples are beyond permissible limits (40%). The quality also depends upon the genesis of various chemical constituents from different Geological formations, soils, manures and fertilizers, sewage and industrial effluents. During the recent years there is a demand for ground water due to various developments in both agriculture and industrial sector leads to the over exploitation of ground water may had adverse effect on the quality. Conjunctive use of both surface and ground water is recommended for drinking water supply in urban and rural areas. It is also suggested to install Reverse Osmosis plants in the quality affected areas where ground water is the only source for drinking water consumption. Rainwater harvesting and ground water recharge methods are to be adopted in Urban and Rural areas for the improvement of ground water source and quality. Other ground water recharge structure is recommended to construct in the stream courses, tanks and agriculture fields for the management of aquifers.

XV.District Water Quality Data and Quality Maps

Table - 10

WATER QUALITY DATA OF BALLARI DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Ballari	Ballari	Bellari	57	1.25	0.53	244	15 7 50	76 52 43	30120	BL1
2	Ballari	Ballari	Kuduthini	210	1.19	0.51	952	15 09 0	76 56 0	30103	BL2
3	Ballari	H.B.Halli	Albur	13	1.5	0.57	304	14.9000	76.1500	30507	HB1
4	Ballari	H.B.Halli	Nellukudre	45.5	4.99	0.4	244	14.9722	76.1486	30503	HB2
5	Ballari	H.B.Halli	Varadapura	4.5	0.74	0.56	152	15.1443	76.2999	30506	HB3
6	Ballari	H.B.Halli	Tambarahalli	126	1.1	0.59	468	15.1500	76.1444	30505	HB4
7	Ballari	H.B.Halli	Byasigederi	137	1.37	0.47	388	15.0667	76.1611	30508	HB5
8	Ballari	H.B.Halli	P.Hegdal	14.5	0.76	0.43	248	15.1014	76.2444	30504	HB6
9	Ballari	H.B.Halli	H.B.Halli	17	0.62	0.48	356	15.0417	76.2014		HB7
10	Ballari	Hadagali	A.M.Kere	83	0.31	0.57	184	14.9153	76.0111	30201	HA1
11	Ballari	Hadagali	N.Banapura	15	1.12	0.39	304	14.9458	75.9361	30210	HA2
12	Ballari	Hadagali	Hadagali	29	4.41	0.53	212	15.0167	75.9417	30204	HA3
13	Ballari	Hadagali	M.tanda	62	1.26	0.43	200	15.1297	75.9600	30209	HA4
14	Ballari	Hadagali	Kalvi	3	1.23	0.45	508	15.1222	76.0056	30202	HA5
15	Ballari	Hadagali	Hagarnur	24	1.47	0.67	420	14.9450	75.8564	30211	HA6
16	Ballari	Hadagali	Hire Hadagali	168	0.49	0.59	596	14.9250	75.8319	30206	HA7
17	Ballari	Hadagali	Holalu	19	1.10	0.65	540	14.8411	75.7133	30207	HA8
18	Ballari	Hadagali	Giriyapur	7	0.53	0.34	440	14 5647	755132	30203	HA9
19	Ballari	Hospet	Potahala Katte	62	1.98	0.58	280	15.0431	76.3597	30409	HO1
20	Ballari	Hospet	Dhanapura	17	0.72	0.40	472	15.1750	76.3722	30402	HO2
21	Ballari	Hospet	Hospet	51	0.68	0.54	268	15.2750	76.3819	30405	HO3
22	Ballari	Hospet	Dharmasagara	57	2.12	0.52	496	15.2333	76.5625	30404	HO4
23	Ballari	Hospet	Vaddrahalli	46	1.00	0.62	324	15.2389	76.4667	30411	HO5
24	Ballari	Kudligi	Shivapura	30	1.46	0.35	276	14.9556	76.3653	30616	KU1
25	Ballari	Kudligi	Kyasanakere	69	1.50	0.79	192	14.8278	76.4306	30607	KU2
26	Ballari	Kudligi	M.B.Ayyanahalli	76	1.23	0.46	232	14.7292	76.4569	30613	KU3
27	Ballari	Kudligi	Shanthanahalli	56	0.87	0.42	220	14.7208	76.3958	30617	KU4
28	Ballari	Kudligi	Hosahalli	122	0.30	0.56	460	14.6119	76.4731	30619	KU5
29	Ballari	Kudligi	Gurdumungu	69	1.42	0.63	288	14.7175	76.5181	30618	KU6
30	Ballari	Kudligi	Lokkikere	63	1.28	0.96	224	14.6250	76.5025	30620	KU7
31	Ballari	Kudligi	Kottur	39	0.99	0.53	480	14.8222	76.2181	30610	KU8
32	Ballari	Sandur	Toranagalu	30	1.75	0.81	700	15.1972	76.6792	30715	KU9
33	Ballari	Sandur	Taranagar	37	0.64	0.60	396	15.1284	76.6214	30710	KU10
34	Ballari	Sandur	Susheel Nagar	48	0.22	0.48	500	15.1361	76.4833	30703	KU11
35	Ballari	Sandur	Sandur	2	0.37	0.67	176	15.0875	76.5444	30708	KU12
36	Ballari	Sandur	Doroji	107	0.29	0.48	436	15.2639	76.6681	30705	KU13

	Alternate Source
	Not Potable

BALLARI DISTRICT:

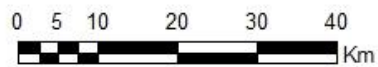
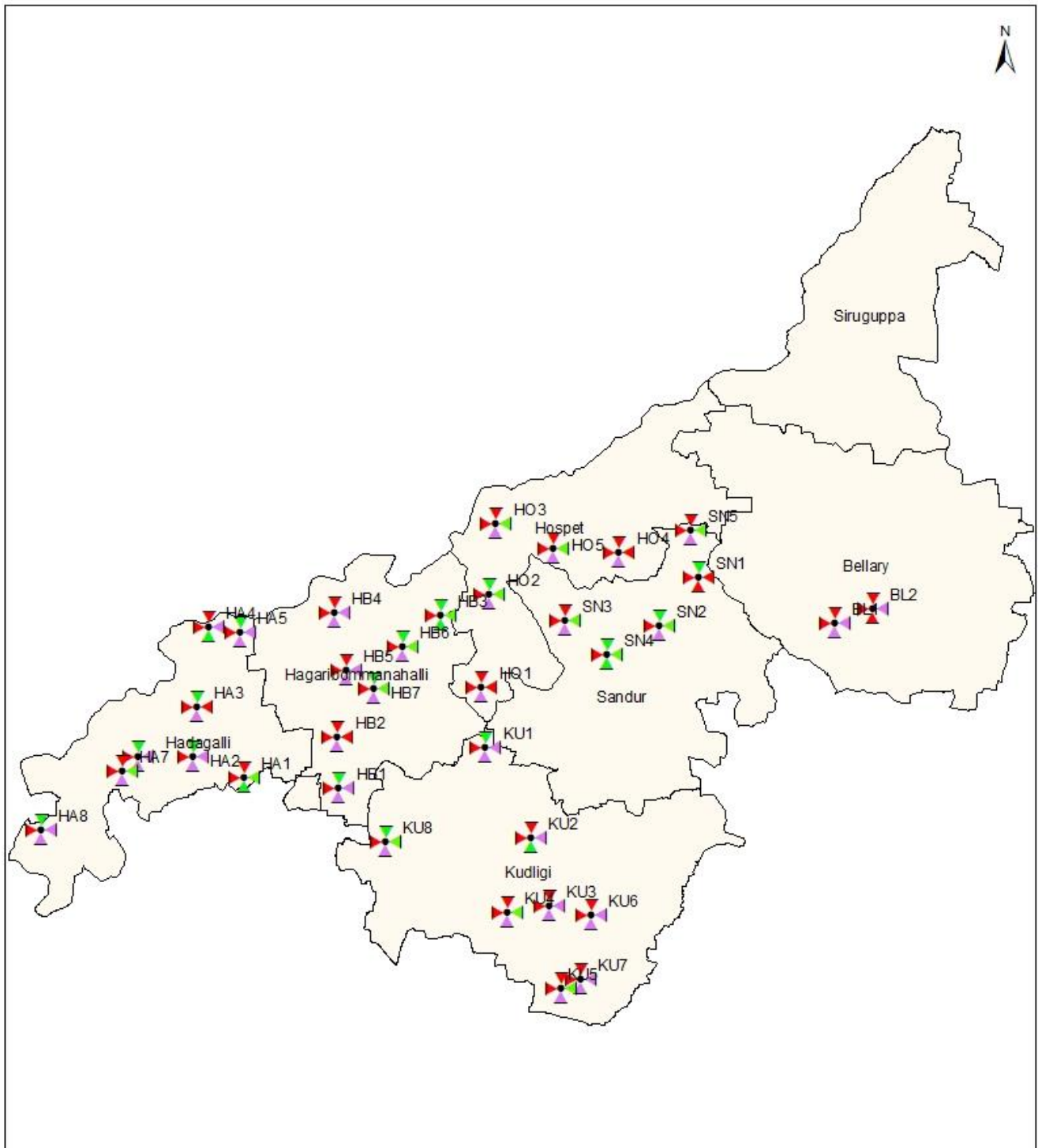
Water samples collected from 36 monitoring stations of Ballari district were analysed. Results of chemical analysis are given in Table-10. Out of 36 samples analysed 20 samples (55%) viz., 3 samples from H.B Halli taluk, 3 samples from Hadagali taluk, 4 samples from Hospet taluk, 6 samples from Kudlige taluk, 2 samples from Sandur and 2 samples from Ballari Contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 2 mg/L and 210 mg/L. The maximum Nitrate content found in Kuduthini station of Ballari taluk.

Out of 36 samples analysed 5 samples (14%) viz., 1 sample from H.B Halli taluk, 1 sample from Hadagali taluk, 2 samples from Hospet taluk and 1 sample from Sandur taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.22 mg/L and 4.99 mg/L. The maximum Fluoride content found in Nellukudure station of H.B Halli taluk.

Water Samples collected from all 36 (100%) monitoring stations contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Iron varies between 0.34 mg/L and 0.96 mg/L. The maximum Total Iron content found in Lakkikere station of Kudligi taluk.

Out of 36 samples analysed 1 sample (5%) 1 sample from Sandur taluk, contained Total Hardness more than permissible limit of Indian Drinking Water Specification. The content Total Hardness varies between 152 mg/L and 952 mg/L. The maximum Total Hardness content found in Kuduthini station of Ballari taluk.

WATER QUALITY DATA OF BALLARI DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

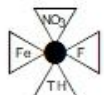


Table - 11

WATER QUALITY DATA OF BENGALURU RURAL DISTRICT 2017-18										
Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	11
1	Bangalore Rural	Devanahalli	Devanahalli	102	0.22	0.08	564	13.2458	77.7283	DE1
2	Bangalore Rural	Devanahalli	Vijayapura	15	0.13	0.05	320	13.2950	77.7972	DE2
3	Bangalore Rural	Devanahalli	Dinnuru	12	0.47	0.10	124	13.2528	77.8014	DE3
4	Bangalore Rural	Devanahalli	Kodagurki	2	0.92	0.06	196	13.2992	77.7011	DE4
5	Bangalore Rural	Devanahalli	Mudiganahalli	10	0.32	0.09	144	13.3394	77.6884	DE5
6	Bangalore Rural	Devanahalli	Jyothipura	9	0.74	0.05	204	13.2925	77.6286	DE6
7	Bangalore Rural	Doddaballapur	Doddaballapur	19	0.02	0.06	672	13.2761	77.5542	DB1
8	Bangalore Rural	Doddaballapur	Rajaghatta	19	0.72	0.07	156	13.3261	77.5950	DB2
9	Bangalore Rural	Doddaballapur	Melekote	9	0.59	0.02	388	13.3633	77.6256	DB3
10	Bangalore Rural	Doddaballapur	Tubugere	1	0.16	0.08	400	13.3708	77.5708	DB4
11	Bangalore Rural	Doddaballapur	Naranahalli	19	0.2	0.05	376	13.2906	77.4408	DB5
12	Bangalore Rural	Doddaballapur	Bhaktharahalli	2	0.23	0.04	312	13.3556	77.3708	DB6
13	Bangalore Rural	Doddaballapur	Sasalu	50	0.44	0.05	492	13.4083	77.3875	DB7
14	Bangalore Rural	Doddaballapur	Vanigarahalli	96	0.09	0.03	368	13.3486	77.4542	DB8
15	Bangalore Rural	Doddaballapur	Kattihosahalli	24	0.09	0.08	400	13.2794	77.3797	DB9
16	Bangalore Rural	Doddaballapur	Kanasawadi	1	0.12	0.04	192	13.2068	77.4397	DB10
17	Bangalore Rural	Hosakote	Anugondanahalli	25	0.37	0.07	232	12.9564	77.8164	HO1
18	Bangalore Rural	Hosakote	Hosakote	186	0.31	0.05	860	12.9557	77.8203	HO2
19	Bangalore Rural	Hosakote	Upparahalli	41	0.43	0.04	256	13.0900	77.7814	HO3
20	Bangalore Rural	Hosakote	Hindiganalu	53	0.4	0.02	492	13.2208	77.9164	HO4
21	Bangalore Rural	Hosakote	Channapura	48	0.41	0.08	312	13.1067	77.8678	HO5
22	Bangalore Rural	Nelamangala	Narasipura	4	0.22	0.02	232	13.2725	77.2450	NE1
23	Bangalore Rural	Nelamangala	Thyamagondlu	35	0.35	0.07	888	13.2167	77.3025	NE2
24	Bangalore Rural	Nelamangala	Thonachinakuppe	1	0.25	0.04	376	13.1400	77.3483	NE3
25	Bangalore Rural	Nelamangala	Nelamangala	18	0.30	0.05	588	13.0947	77.4025	NE4
26	Bangalore Rural	Nelamangala	Mahadevapura	12	0.55	0.03	296	13.0658	77.3200	NE5

	Alternate Source
	Not Potable

BENGALURU RURAL DISTRICT:

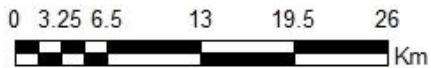
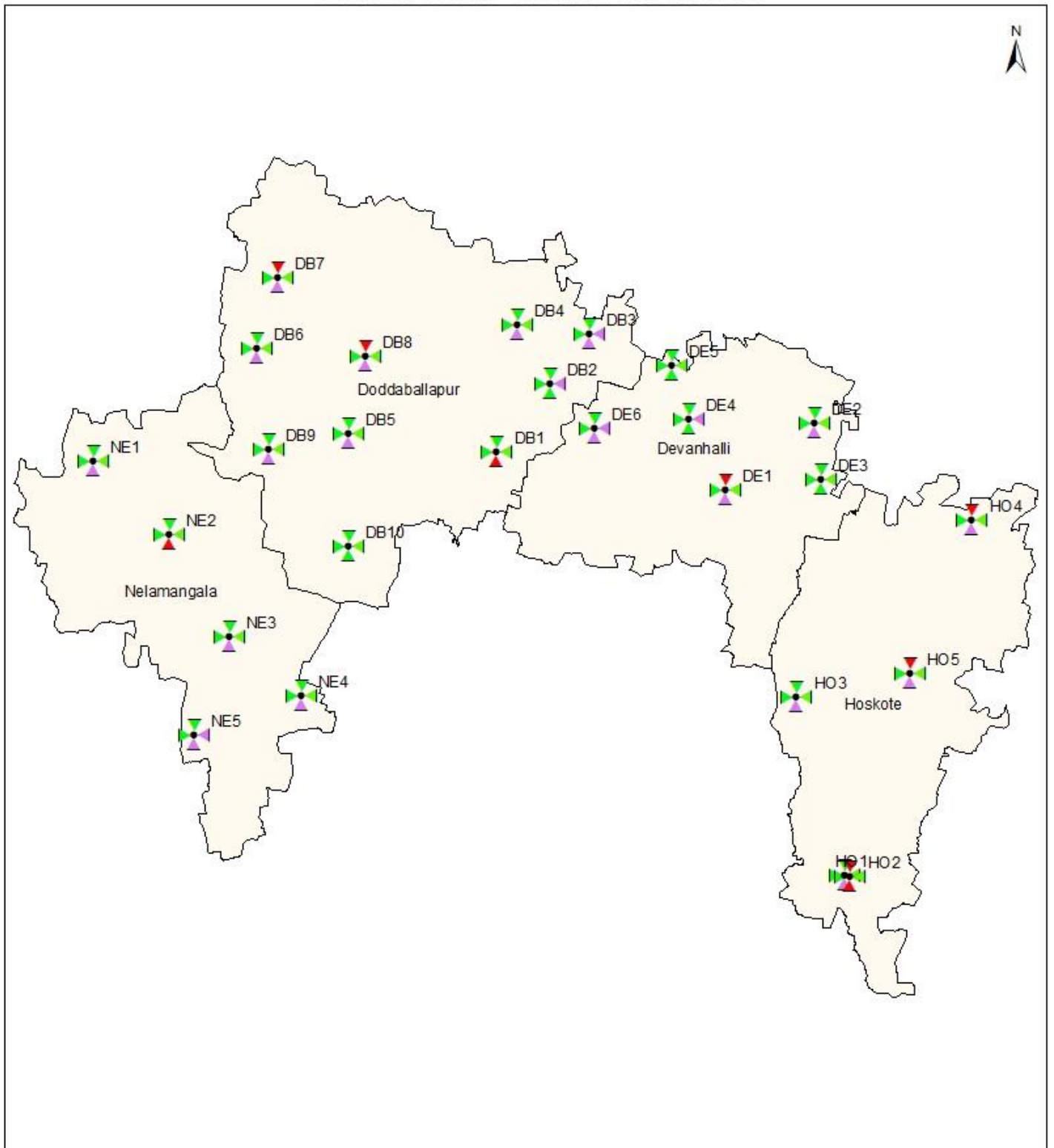
Water samples collected from 26 monitoring stations of Bengaluru Rural were analysed. Results of chemical analysis are given in Table-11. Out of 26 samples analysed 6 samples (23%) viz., 1 sample from Devanahalli taluk, 2 samples from Doddaballapura taluk, 3 samples from Hosakote taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 1 mg/L and 186 mg/L. The maximum Nitrate content found in Hosakote station of Hosakote taluk

Samples collected from 26 monitoring stations do not contain Fluoride content more than Permissible limits of Indian Drinking water specification. The content of Fluoride varies from 0.02 mg/L and 0.92 mg/L. The maximum limit of Fluoride content found in Kodagurki station of Devanahalli taluk.

Samples collected from 26 monitoring stations do not contain Total Iron content more than Acceptable limit of Indian Drinking water specification. The content of Iron varies from 0.02 mg/L and 0.10 mg/L. The maximum limit of Iron content found in Dinnur station of Devanahalli taluk.

Out of 26 samples analysed, 4 sample (15%) viz., 1 sample from Nelamangala taluk, 1 sample from Hosakote taluk, 1 sample from Doddaballapura taluk, and 1 sample from Devanahalli taluk contained Total Hardness more than permissible limit of Indian Drinking Water Specification. The content of Total Hardness varies between 124 mg/L and 888 mg/L. The maximum Total Hardness content found in Thyamagondlu station of Nelamangala taluk

BENGALURU RURAL DISTRICTS



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

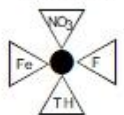


Table - 12

WATER QUALITY DATA OF BENGALURU URBAN DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	11
1	Bangalore Urban	Anekal	Bannerghatta	32	0.31	0.05	380	12.8083	77.5833	A1
2	Bangalore Urban	Anekal	Jigani	85	0.16	0.03	496	12.7833	77.6333	A2
3	Bangalore Urban	Anekal	Anekal	36	0.28	0.07	500	12.7078	77.6958	A3
4	Bangalore Urban	Anekal	Attibele	85	0.35	0.02	428	12.7750	77.7764	A4
5	Bangalore Urban	Anekal	Chandapura	05	0.37	0.03	832	12.8014	77.7083	A5
6	Bangalore Urban	Anekal	Sarjapura	30	0.30	0.30	160	12.8583	77.7894	A6
7	Bangalore Urban	Anekal	Kalkere	122	0.27	0.05	624	13 03 2.32	77.4028.8	A7
8	Bangalore Urban	Bangalore (N)	Yelahanka	140	0.17	0.05	332	13.0997	77.5922	BN1
9	Bangalore Urban	Bangalore (N)	Rajanukunte	49	0.10	0.04	420	13.1665	77.5611	BN2
10	Bangalore Urban	Bangalore (N)	High Court	25.00	0.25	0.03	292	12.9781	77.5931	BN3
11	Bangalore Urban	Bangalore (N)	Thimmenahalli	79.00	0.11	0.09	304	12.9764	77.5361	BN4
12	Bangalore Urban	Bangalore (N)	Byadarahalli	20.00	0.27	0.06	408	12.9918	77.4784	BN5
13	Bangalore Urban	Bangalore (N)	Sondekoppa	6.00	0.28	0.80	584	13.0219	77.3850	BN6
14	Bangalore Urban	Bangalore (N)	Adakimaranahalli	40.00	0.17	0.08	868	13.0653	77.4453	BN7
15	Bangalore Urban	Bangalore (N)	Thotagere	150	0.13	0.09	324	13.1361	77.4444	BN8
16	Bangalore Urban	Bangalore (N)	Chikkabanavara	08	0.32	0.03	668	13.0831	77.5014	BN9
17	Bangalore Urban	Bangalore (N)	Jalahalli	156.0	0.10	0.04	368	13.0424	77.5492	BN10
18	Bangalore Urban	Bangalore (N)	Laggere	19.00	0.18	0.10	432	13.0094	77.5253	BN11
19	Bangalore Urban	Bangalore (N)	Bagalagunte	52	0.21	0.1	612	13.0531	77.4956	BN12
20	Bangalore Urban	Bangalore (N)	Sadashivnagar	12.00	0.38	0.06	568	13.0067	77.5811	BN13
21	Bangalore Urban	Bangalore (N)	Hebbal Kempapura	72	0.11	0.18	148	13.0488	77.6040	BN14
22	Bangalore Urban	Bangalore (E)	K.Narayapura	09	0.08	0.09	188	13 5 54	77 3831	BE1
23	Bangalore Urban	Bangalore (E)	Avalahalli	94	0.47	0.02	720	13.0356	77.7372	BE2
24	Bangalore Urban	Bangalore (E)	Manduru	258	0.22	0.08	720	13.0811	77.7394	BE3
25	Bangalore Urban	Bangalore (S)	Talaghattapura	19.00	0.16	0.11	108	12.8667	77.5333	BS1
26	Bangalore Urban	Bangalore (S)	Thavarekere	27.00	0.16	0.04	316	12.9596	77.4020	BS2
27	Bangalore Urban	Bangalore (S)	Kethohalli	4.00	0.24	0.16	440	12.9069	77.4053	BS3
28	Bangalore Urban	Bangalore (S)	Marenahalli	3.00	0.18	0.10	205	12.9722	77.3611	BS4
29	Bangalore Urban	Bangalore (S)	Begur	75	0.42	0.02	432	12.8769	77.6253	BS5
30	Bangalore Urban	Bangalore (S)	Devarabeesanahalli	10	0.2	0.09	336	12.9311	77.6856	BS6
31	Bangalore Urban	Bangalore (S)	Mahadevapura	25.00	0.45	0.02	632	12.9903	77.6961	BS7
32	Bangalore Urban	Bangalore (S)	Doddakannahalli	04	0.15	0.15	520	12.9042	77.7028	BS7
33	Bangalore Urban	Bangalore (S)	HSR Layout	02	0.33	0.03	336	12.9081	77.6475	BS9
34	Bangalore Urban	Bangalore (S)	Pattanagere(R.R.Nagar)	83	0.13	0.02	292	12.55 44.95 44	77.312.40 24	BS10

	Alternate Source
	Not Potable

BENGALURU URBAN DISTRICT:

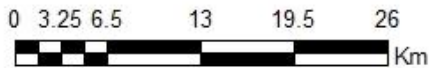
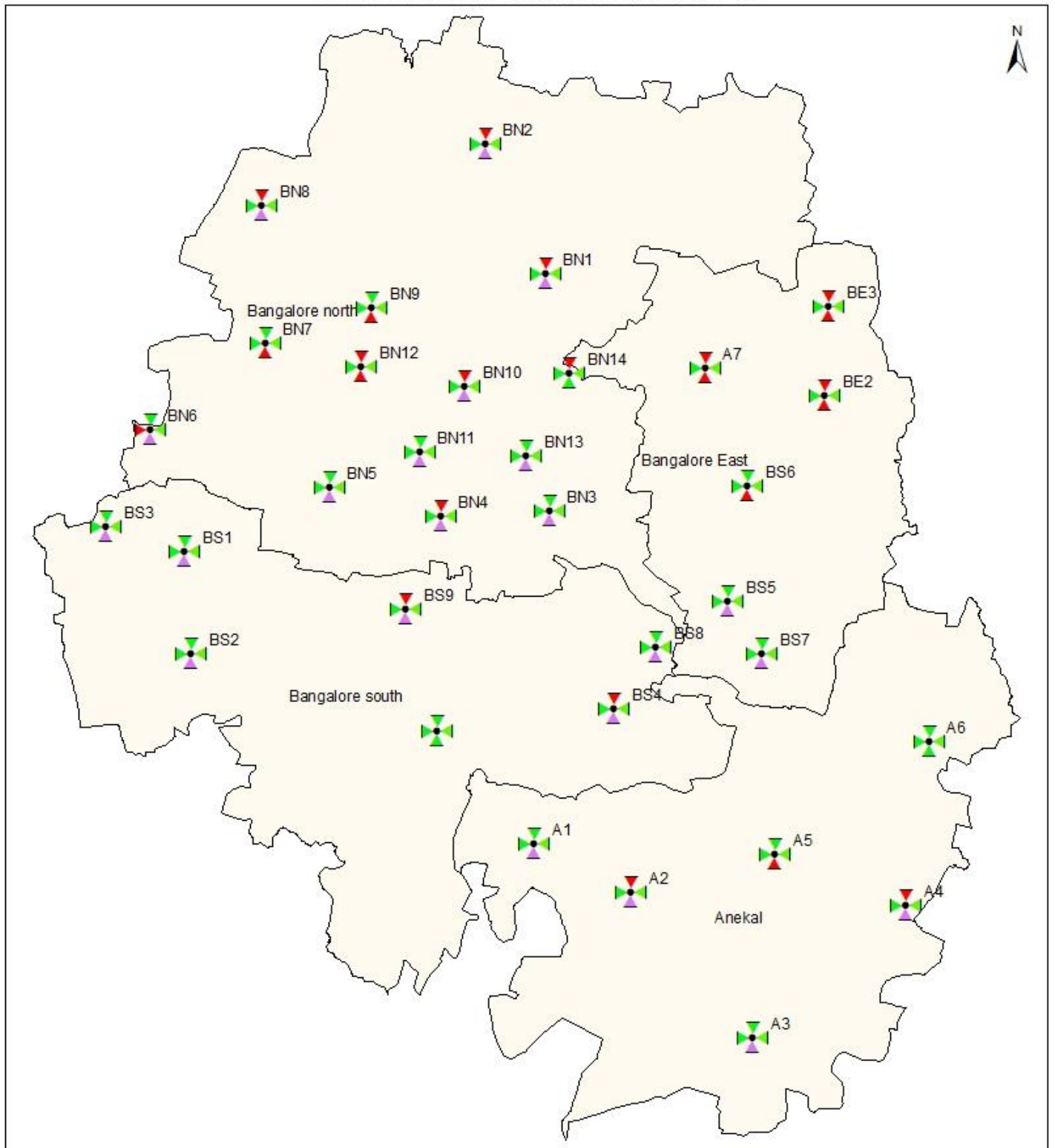
Water samples collected from 34 monitoring stations of Bengaluru Rural Districts were analysed. Results of chemical analysis are given in Table-12. Out of 34 samples analysed 14 samples (41%) Viz., 3 samples from Anekal Taluk, 7 samples from Bengaluru North Taluk, 2 samples from Bengaluru East taluk and 2 Samples from Bengaluru South taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 2 mg/L and 258 mg/L. The maximum Nitrate content found in Manduru station of Bengaluru East taluk.

Samples collected from 34 monitoring stations do not contain Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies from 0.08 mg/L and 0.47 mg/L. The maximum limit of Fluoride content found in Avalahalli Station of Bengaluru East taluk.

Out of 34 samples analysed, 1 sample (3%) 1 sample from Bengaluru North Taluk, contained Total Iron content beyond the Acceptable limit. The Iron content varies between 0.02mg/L and 0.80 mg/L. The maximum Iron content found in Sondekoppa station of Bengaluru North taluk

Out of 34 samples analysed, 8 sample (23%) Viz., 2 samples from Anekal Taluk, 3 samples from Bengaluru North taluk, 2 samples from Bengaluru East taluk and 1 Sample from Bengaluru South taluk contained total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 108 mg/L and 868 mg/L. The maximum Total Hardness content found in Adakimaranahalli station of Bengaluru North taluk.

BENGALURU URBAN DISTRICTS



POTABLE

ALTERNATE

NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

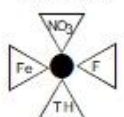


Table - 13

WATER QUALITY DATA OF BAGALKOTE DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	11
1	Bagalakote	Badami	Banashankari	18	0.8	0.02	760	15 5320.13 N	75 4214.28 E	BD1
2	Bagalakote	Badami	Kerooru	09	1.00	0.01	308	16 0104.34 N	75 3258.03 E	BD2
3	Bagalakote	Badami	Pattadakallu	30	0.70	0.02	1072	15 5656.60 N	75 4848.38 E	BD3
4	Bagalakote	Badami	Muttalagiri	35	1.00	0.02	452	15 5335.72 N	75 3653.47 E	BD4
5	Bagalakote	Badami	Hiremuchalagudda	66	0.30	0.03	684	15 5923.43 N	75 3929.60 E	BD5
6	Bagalakote	Badami	Kulgeri cross	18	2.50	0.02	272	15 5432.79 N	75 3017.77 E	BD6
7	Bagalakote	Badami	Hoolageri	09	0.60	0.02	524	16 0523.05 N	75 3438.82 E	BD7
8	Bagalakote	Badami	Badami	40	0.30	0.03	288	155455.00 N	75 4034.20 E	BD8
9	Bagalakote	Badami	Guledagudda	80	0.60	0.01	308	16 0306.95 N	75 4747.87 E	BD9
10	Bagalakote	Badami	Halemahakuta	03	0.20	0.03	104			BD10
11	Bagalakote	Badami	Hosamahakuta	06	0.20	0.03	60			BD11
12	Bagalakote	Badami	Siddanakolla	07	0.40	0.02	116			BD12
13	Bagalakote	Bagalakote	Mannikatti	27	0.70	0.02	496	16 1006.16 N	75 4623.69 E	BG1
14	Bagalakote	Bagalakote	Shirroru	18	0.60	0.02	332	16 0551.73 N	75 4647.63 E	BG2
15	Bagalakote	Bagalakote	Bagalakote	05	0.60	0.01	220	16 1113.08 N	75 4140.65 E	BG3
16	Bagalakote	Bagalakote	Bevooru	31	0.40	0.01	328	16 1227.73 N	75 5344.29 E	BG4
17	Bagalakote	Bagalakote	Khajjidona	13	0.90	0.02	248	16 1034.00 N	75 2701.50 E	BG5
18	Bagalakote	Bagalakote	Kaladagi	35	0.50	0.02	604	16 1212.94 N	75 2952.07 E	BG6
19	Bagalakote	Beelagi	Teggi	27	0.30	0.02	600	16 2233.62 N	75 3147.75 E	BE1
20	Bagalakote	Beelagi	Boodihaala	09	0.30	0.03	352	16 1518.86 N	75 3609.85 E	BE2
21	Bagalakote	Beelagi	Yadahalli	05	0.30	0.03	144	16 2341.84 N	75 2715.50 E	BE3
22	Bagalakote	Beelagi	Beelagi	102	0.40	0.02	1364	16 2060.10 N	75 3778.70 E	BE4
23	Bagalakote	Beelagi	Chikkalagudi	04	0.20	0.01	68	16 1551.17 N	75 2617.07 E	BE5
24	Bagalakote	Hunagunda	Ameenagad	35	1.10	0.01	484	16 0319.29 N	76 5642.78 E	HG1
25	Bagalakote	Hunagunda	Belagalla	06	0.30	0.01	200	16 0941.98 N	76 0112.80 E	HG2
26	Bagalakote	Hunagunda	Chittaragi	22	2.30	0.02	572	16 0600.75 N	76 0140.38 E	HG3
27	Bagalakote	Hunagunda	Ilkal	18	1.60	0.02	376	15 5806.53 N	76 0645.51 E	HG4
28	Bagalakote	Hunagunda	Kandagalla	04	0.10	0.02	104	15 5728.43 N	76 1615.67 E	HG5
29	Bagalakote	Hunagunda	Karadi	20	1.60	0.02	228	16 0553.30 N	76 1222.23 E	HG6
30	Bagalakote	Hunagunda	Nandavadagi	266	1.70	0.03	664	16 0057.52 N	76 1658.37 E	HG7
31	Bagalakote	Hunagunda	Hunagunda	50	1.30	0.02	1652	16 0305.84 N	76 0349.39 E	HG8
32	Bagalakote	Hunagunda	Muradi	09	1.70	0.03	976	15 5210.56 N	75 5703.41 E	HG9
33	Bagalakote	Hunagunda	Kodihal	22	1.80	0.02	384	16 0530.71 N	76 1824.07 E	HG10
34	Bagalakote	Hunagunda	Adavihala	18	1.60	0.02	172	16 1147.49 N	76 0416.08 E	HG11
35	Bagalakote	Hunagunda	Hire Adapura	20	1.20	0.02	236	16 0110.83 N	76 1253.97 E	HG12
36	Bagalakote	Hunagunda	Kamatagi	36	0.60	0.01	388	160610.60N	75 5159.54E	HG13
37	Bagalakote	Jamakhandi	Savalagi	13	0.10	0.03	352	16 4015.96 N	75 2059.96 E	JK1
38	Bagalakote	Jamakhandi	Siddapura	58	0.50	0.02	496	16 2720.48 N	75 1706.97 E	JK2
39	Bagalakote	Jamakhandi	Teradala	04	0.20	0.01	100	16 2923.12 N	75 0242.31 E	JK3
40	Bagalakote	Jamakhandi	Banahatti (Rabakavi)	31	0.20	0.01	336	16 2836.00 N	75 0621.41 E	JK4

1	2	3	4	5	6	7	8	9	10	11
41	Bagalakote	Jamakhandi	Kannuru	09	0.60	0.03	664	16 2600.81 N	75 2117.90 E	JK5
42	Bagalakote	Jamakhandi	Kumbarahalla	10	0.60	0.02	664	16 3222.40 N	75 1953.40 E	JK6
43	Bagalakote	Jamakhandi	Tungala	22	0.20	0.02	348	16 4132.50 N	75 1738.10 E	JK7
44	Bagalakote	Jamakhandi	Jamakhandi	09	0.30	0.03	232	16 3035.16 N	75 1637.77 E	JK8
45	Bagalakote	Mudhol	Halaki	31	1.10	0.02	328	16 1308.70 N	75 1520.96 E	MD1
46	Bagalakote	Mudhol	Mahalingapura	18	0.50	0.01	240	16 2329.89 N	75 0611.59 E	MD2
47	Bagalakote	Mudhol	Malapur	13	0.70	0.01	276	16 2202.75 N	75 1637.04 E	MD3
48	Bagalakote	Mudhol	Lokapur	35	0.50	0.02	460	16 0947.32 N	75 2200.28 E	MD4
49	Bagalakote	Mudhol	Mudhol	03	0.30	0.05	92	16 2027.47 N	75 1637.51 E	MD5

	Alternate Source
	Not Potable

BAGALAKOTE DISTRICT:

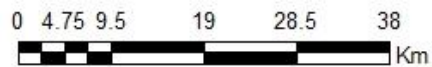
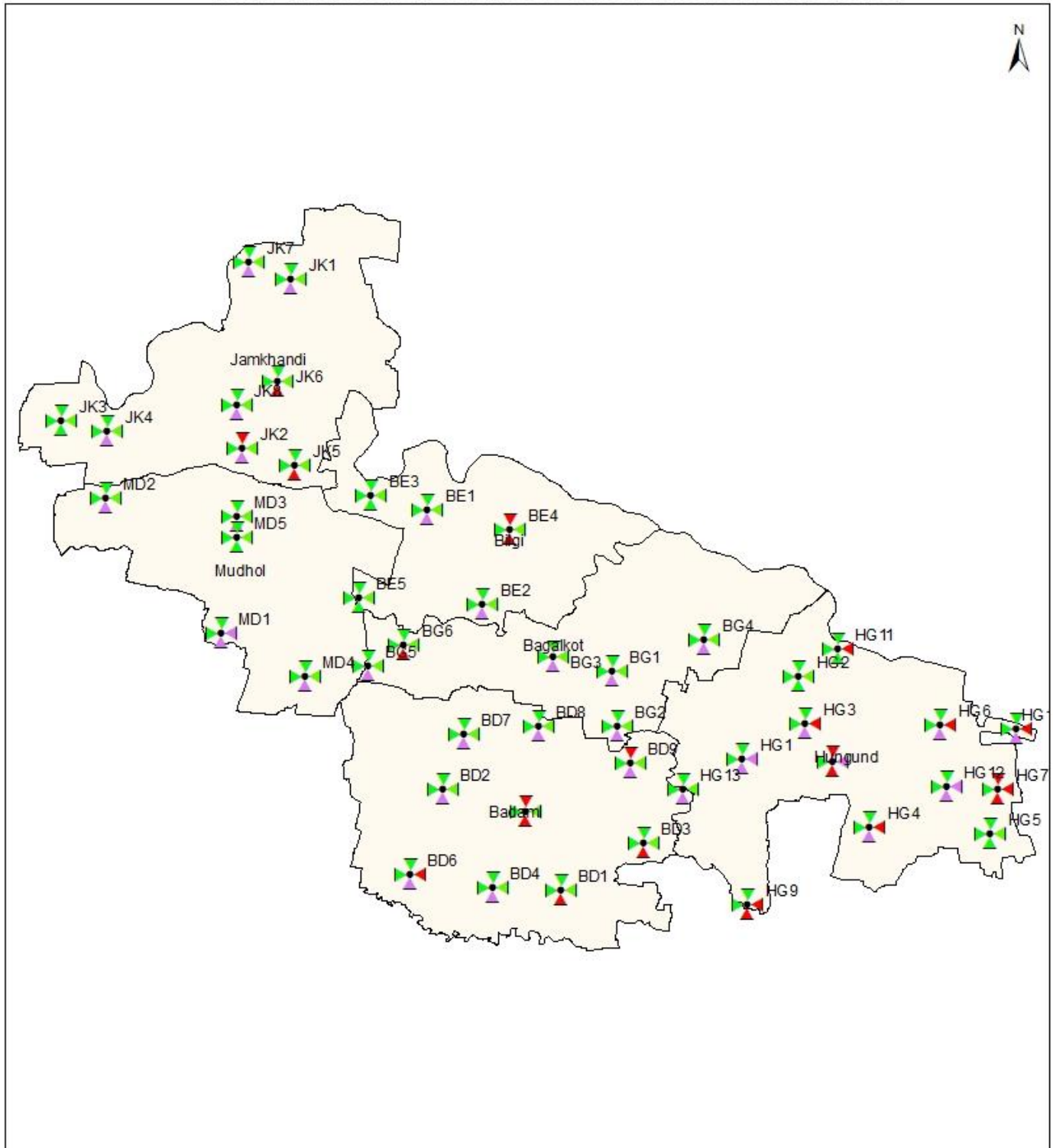
Water samples collected from 49 monitoring stations of Bagalakote districts were analysed. Results of chemical analysis are given in Table-13. Out of 49 samples analysed 6 samples (12%) Viz., 2 samples from Badami taluk, 1 sample from Beelagi taluk, 2 samples from Hunagunda and 1 Samples from Jamakandi taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water specification. The content of Nitrate varies between 3 mg/L and 266 mg/L. The maximum Nitrate content found in Nandavadagi station of Hunagunda taluk.

Out of 49 samples analysed, 8 sample (16%) Viz., 1 sample from Badami Taluk and 7 Samples from Hunagunda taluk contained Fluoride content beyond the Premissible limit of Indian Drinking Water Specification. The Fluoride content varies between 0.10 mg/L and 2.50 mg/L. The maximum Iron content found in Kulgeri cross station of Badami taluk.

Samples collected from 49 monitoring stations do not containe Total Iron content more than Acceptable limit of Indian Drinking water specification. The content of Total Iron varies from 0.01 mg/L and 0.05 mg/L. The maximum limit of Total Iron content found in Mudhol station of Mudhol taluk.

Out of 49 samples analysed, 10 sample (20%) Viz., 3 samples from Badami taluk, 1 sample from Bagalkote taluk, 1 sample from Beelagi taluk, 3 Samples from Hunagunda taluk and 2 Samples fom Jamakhandi contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 60 mg/L and 1652 mg/L. The maximum Total Hardness content found in Hunagunda station of Hunagunda taluk.

WATER QUALITY DATA OF BAGALAKOTE DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

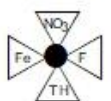


Table - 14

WATER QUALITY DATA OF BELAGAVI DISTRICT 2017-18											
Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Belagavi	Athani	Budachi	114	0.34	0.2	976	16.7372	75.1492	20105	AT1
2	Belagavi	Athani	Radderhatti	62	0.52	0.2	528	16.6367	75.0797	20106	AT2
3	Belagavi	Athani	Kagawad	32	0.88	nil	352	16.6950	74.7186	20107	AT3
4	Belagavi	Athani	Telsang	96	0.56	nil	776	16.7914	75.3400	20108	AT4
5	Belagavi	Athani	Adahalli	26	0.22	nil	268	16.7920	75.2108	20111	AT5
6	Belagavi	Athani	Malabad	22	0.26	0.2	220	16.8839	75.1186	20114	AT6
7	Belagavi	Athani	Kakkamari	40	0.44	0.1	472	16.8656	75.2978	20112	AT7
8	Belagavi	Athani	Kokatanur	36	0.32	0.1	372	16.6889	75.2183	020113A	AT8
9	Belagavi	Athani	Jambagi	32	0.38	nil	336	16.8442	75.0075	020116A	AT9
10	Belagavi	Athani	Gundewadi	104	0.35	0.2	896	16.8170	75.0942	020109B	AT10
11	Belagavi	Athani	Athani	58	0.28	0.2	536	16.7233	75.0575	20101	AT11
12	Belagavi	Athani	Murgundi	58	0.56	0.1	532	16.7403	74.9861	20102	AT12
13	Belagavi	Athani	Navalihal	136	0.66	nil	1424	16.7456	74.9011	20103	AT13
14	Belagavi	Athani	Shedbal	34	0.38	nil	420	16.7175	74.7534	20104	AT14
15	Belagavi	Athani	Shiraguppi	32	0.48	0.1	896	16.6183	74.7106	20110	AT15
16	Belagavi	Athani	Ananthpur	48	0.62	0.1	488	16.9178	75.0753	20115	AT16
17	Belagavi	Bailhongala	Bailhongal	22	0.42	0.1	236	15.8214	74.8572	20202	BA1
18	Belagavi	Bailhongala	Sampagaon	24	0.86	nil	308	15.7950	74.7556	020203A	BA2
19	Belagavi	Bailhongala	Sutagatti	20	0.34	0.1	192	15.8903	74.7233	20208	BA3
20	Belagavi	Bailhongala	Chikkabage wadi	34	0.72	nil	368	15.7722	74.6834	20214	BA4
21	Belagavi	Bailhongala	Belavadi	42	0.52	0.1	424	15.7189	74.9161	20201	BA5
22	Belagavi	Bailhongala	Sangolli	30	0.44	nil	332	15.7183	74.8342	020204B	BA6
23	Belagavi	Bailhongala	M.K.Hubli	28	0.58	nil	304	15.7253	74.6945	020207A	BA7
24	Belagavi	Bailhongala	Ambadagatti	62	0.94	0.2	560	15.6383	74.7359	20206	BA8
25	Belagavi	Bailhongala	Nesargi	74	0.98	0.2	648	15.9079	74.7740	20209	BA9

1	2	3	4	5	6	7	8	9	10	11	12
26	Belagavi	Bailhongala	Kittur	42	0.74	0.1	416	15.5809	74.7676	20205	BA10
27	Belagavi	Belagavi	Peeranawadi	20	0.22	0.1	200	15.8036	74.4822	20301	BE1
28	Belagavi	Belagavi	Yamunapur	20	0.27	nil	212	15.9106	74.5242	20302	BE2
29	Belagavi	Belagavi	Khanagaon	16	0.23	nil	176	15.9124	74.6265	20303	BE3
30	Belagavi	Belagavi	Hindwadi	14	0.26	nil	148	15.8342	74.5059	20304	BE4
31	Belagavi	Belagavi	Sulaga	18	0.17	0.1	162	15.8770	74.4531	20305	BE5
32	Belagavi	Belagavi	Yalabail	6	0.18	nil	64	15.8256	74.3733	20307	BE6
33	Belagavi	Belagavi	Sambra	26	0.18	0.1	308	15.8678	74.6097	20311	BE7
34	Belagavi	Belagavi	Desur	22	0.44	0.1	224	15.7422	74.4986	20314	BE8
35	Belagavi	Belagavi	Halaga	20	0.32	nil	220	15.8220	74.5586	20313	BE9
36	Belagavi	Belagavi	Hrebagewadi	30	0.66	0.1	384	15.7761	74.6372	20308	BE10
37	Belagavi	Belagavi	Kadoli	18	0.52	nil	216	15.9381	74.4878	20309	BE11
38	Belagavi	Chikkodi	Kharoshi	38	0.72	0.1	424	16.3664	74.5789	20401	CH1
39	Belagavi	Chikkodi	Gavani	20	1.22	nil	184	16.3725	74.4072	20403	CH2
40	Belagavi	Chikkodi	Nagaramuna valli	68	0.32	0.1	556	16.3642	74.6817	020404A	CH3
41	Belagavi	Chikkodi	Sadalaga	22	0.31	nil	208	16.5517	74.5297	020408A	CH4
42	Belagavi	Chikkodi	Chikkodi	20	0.28	nil	188	16.4236	74.5714	20410	CH5
43	Belagavi	Chikkodi	Bidakihal	42	0.54	0.1	496	16.5395	74.4845	20411	CH6
44	Belagavi	Chikkodi	Yamagarani	9	0.16	nil	80	16.4481	74.3586	020405A	CH7
45	Belagavi	Chikkodi	Nippani	28	0.34	nil	328	16.3972	74.3786	20406	CH8
46	Belagavi	Chikkodi	Chinchani	4	0.14	nil	44	16.1819	74.7504	20402	CH9
47	Belagavi	Gokak	Kallehole	22	0.48	nil	268	16.2653	74.8681	20507	GK1
48	Belagavi	Gokak	Naganur	20	0.62	nil	212	16.3061	74.9142	20508	GK2
49	Belagavi	Gokak	Betageri	40	1.02	0.1	436	16.1456	74.9786	020506A	GK3
50	Belagavi	Gokak	Gokak	76	0.92	0.2	672	16.1505	74.8275	020509A	GK4
51	Belagavi	Gokak	Yadwad	90	2.54	0.2	808	16.2389	75.1783	020511B	GK5
52	Belagavi	Gokak	Koujalagi	72	1.02	0.2	668	16.2039	75.0581	020502B	GK6
53	Belagavi	Gokak	K.Hosuru	24	0.44	nil	244	16.0458	74.8259	020503A	GK7
54	Belagavi	Gokak	Chikkanandi	16	0.68	nil	192	16.0887	74.9444	20811	GK8
55	Belagavi	Gokak	Gurlapur	38	0.44	0.1	436	16.3706	74.9539	20510	GK9
56	Belagavi	Hukkeri	Hukkeri	22	1.02	nil	224	16.2364	74.6028	20601	HK1
57	Belagavi	Hukkeri	Yadgud	36	0.4	0.1	404	16.3214	74.6047	20606	HK2
58	Belagavi	Hukkeri	Nerli	108	0.38	0.2	744	16.2536	74.5475	20602	HK3
59	Belagavi	Hukkeri	Hattaragi	42	0.38	0.2	448	16.1292	74.5156	020604A	HK4

1	2	3	4	5	6	7	8	9	10	11	12
60	Belagavi	Hukkeri	Hebbal	32	0.36	0.1	320	16.2161	74.5195	20603	HK5
61	Belagavi	Hukkeri	Sankeshwar	30	0.26	nil	316	16.2539	74.4881	20607	HK6
62	Belagavi	Khanapura	Kumbarda	10	0.18	nil	76	15.4222	74.5739	20703	KN1
63	Belagavi	Khanapura	Gunji	0.1	0.24	0.6	64	15.5361	74.4914	20710	KN2
64	Belagavi	Khanapura	Parishwad	18	0.23	0.1	200	15.6904	74.6210	20707	KN3
65	Belagavi	Khanapura	Beedi	10	0.34	nil	80	15.5625	74.6481	20711	KN4
66	Belagavi	Khanapura	Linganamath	22	0.44	0.1	220	15.4567	74.7325	20701	KN5
67	Belagavi	Khanapura	Khanapur	16	0.21	0.1	172	15.6358	74.5056	20705	KN6
68	Belagavi	Khanapura	Nagarali	20	0.18	0.1	216	15.4147	74.6139	20702	KN7
69	Belagavi	Khanapura	Londa	8	0.14	nil	96	15.4456	74.4900	20704	KN8
70	Belagavi	Raibhag	Yadravi	62	0.3	0.1	584	16.5183	74.7283	20903	RB1
71	Belagavi	Raibhag	Raibag	32	0.32	0.1	372	16.4878	74.7806	020905A	RB2
72	Belagavi	Raibhag	Harugeri	24	0.24	0.1	408	16.5150	74.9500	20909	RB3
73	Belagavi	Raibhag	Bammanahal	28	0.48	0.1	324	16.4844	74.8195	020910A	RB4
74	Belagavi	Raibhag	Kudachi	32	0.36	0.1	392	16.6214	74.8564	020904A	RB5
75	Belagavi	Raibhag	Biradi	128	0.52	0.2	1004	16.5486	74.8011	020906A	RB6
76	Belagavi	Raibhag	Mugalkod	18	0.22	0.1	192	16.4292	74.9589	20911	RB7
77	Belagavi	Ramdurga	Hallolli	30	0.72	nil	360	15.9633	75.2494	20802	RM1
78	Belagavi	Ramdurga	Salahalli	68	0.44	0.2	608	16.0720	75.2325	020804A	RM2
79	Belagavi	Ramdurga	Huligoppa	8	0.18	nil	88	15.9322	75.3608	20806	RM3
80	Belagavi	Ramdurga	Ramdurg	34	0.34	0.1	348	15.9417	75.3011	20812	RM4
81	Belagavi	Ramdurga	Chinchakandi	24	0.52	nil	264	15.9345	75.3169	20811	RM5
82	Belagavi	Ramdurga	Mudenur	34	0.66	0.1	412	15.9897	75.3420	020803A	RM6
83	Belagavi	Ramdurga	K.Chandargi	54	0.52	0.1	568	16.0400	75.1422	20801	RM7
84	Belagavi	Ramdurga	Chinchanur	24	0.8	nil	292	15.9236	75.1192	020809A	RM8
85	Belagavi	Ramdurga	Sureban	160	0.44	0.2	1112	15.8936	75.3939	020810B	RM9
86	Belagavi	Ramdurga	Batakurki	24	0.56	nil	312	16.0772	75.3692	020807A	RM10
87	Belagavi	Ramdurga	Katakol	22	0.52	0.1	288	15.9836	75.1361	20805	RM11
88	Belagavi	Ramdurga	Hoskote	34	1.06	0.1	428	16.1659	75.2656	20813	RM12
89	Belagavi	Savadathi	Inamhongal	30	3.14	0.1	328	15.6270	75.0775	21001	SA1
90	Belagavi	Savadathi	Savadatti	34	0.78	0.1	392	15.7731	75.1128	021006A	SA2
91	Belagavi	Savadathi	Karikatti (Asundi)	76	0.96	0.2	600	15.7287	75.0291	21011	SA3
92	Belagavi	Savadathi	Munavalli	18	0.42	0.1	172	15.8522	75.1178	21014	SA4
93	Belagavi	Savadathi	Gondi	6	0.38	nil	88	15.8514	75.0864	21019	SA5
94	Belagavi	Savadathi	Yaraganavi	28	1.88	nil	300	16.0267	75.0009	21008	SA6
95	Belagavi	Savadathi	Korakoppa	34	1.12	nil	396	16.0222	75.0859	21007	SA7
96	Belagavi	Savadathi	Sirasangi	42	0.39	nil	468	15.8653	75.2592	21004	SA8
97	Belagavi	Savadathi	Hulikatti	18	0.28	nil	168	15.8175	75.2228	21016	SA9
98	Belagavi	Savadathi	Harlapur	24	0.62	nil	264	15.7550	75.1778	21017	SA10
99	Belagavi	Savadathi	Hosuru	32	1.68	0.1	340	15.8164	74.9256	21015	SA11
100	Belagavi	Savadathi	Murgod	38	0.32	nil	320	15.8870	74.9278	21002	SA12

1	2	3	4	5	6	7	8	9	10	11	12
101	Belagavi	Savadathi	Hooli	36	0.62	0.1	424	15.7931	75.1931	21003	SA14
102	Belagavi	Savadathi	Murakumbi	10	0.44	nil	120	15.8447	74.8817	21005	SA15
103	Belagavi	Bailhongala	Bailur	76	0.68	0.2	696	15 33 .04N	74 43 11.07E	20212	BH11
104	Belagavi	Gokak	Benchinmaradi	58	1.51	0.1	520	16 064.01N	74 125.02E		GK10

	Alternate Source
	Not Potable

BELAGAVI DISTRICT:

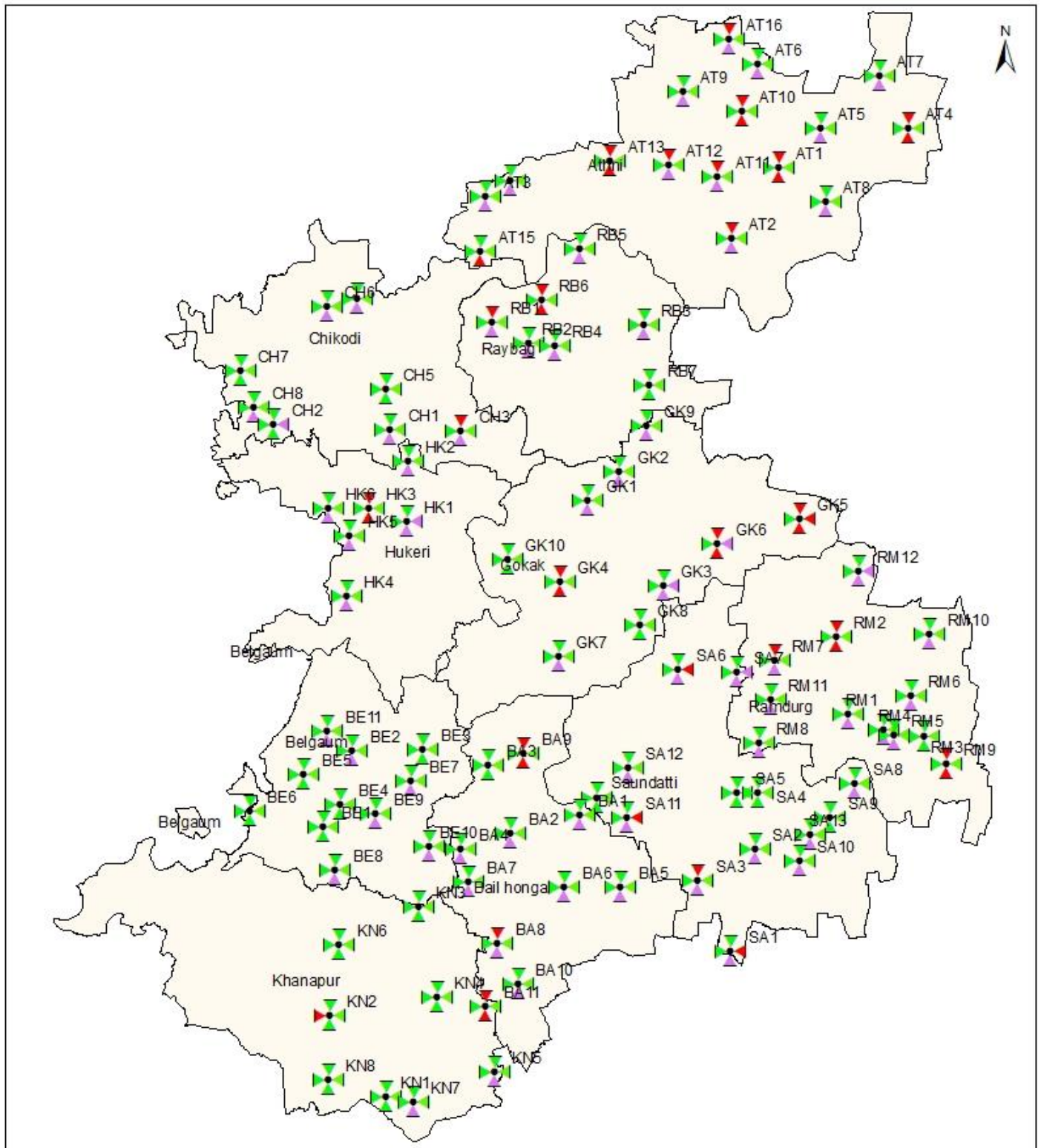
Water samples collected from 104 monitoring stations of Belagavi district were analysed. Results of chemical analysis are given in Table-14. Out of 104 samples analysed 23 samples (22%) Viz., 8 samples from Athani taluk, 2 samples from Bailahongala taluk, 1 sample from Chikkodi taluk, 4 samples from Gokak taluk, 1 sample from Hukkeri taluk, 2 Samples from Raibhag taluk, 3 Samples from Ramadurga taluk, 1 Sample from savadathi taluk and 1 Sample from Bailahongala taluk contained Nitrate content more than Acceptable limit of Indian Drinking water specification. The content of Nitrate varies between 4 mg/L and 160 mg/L. The maximum Nitrate content found in Sureban station of Ramadurga taluk.

Out of 104 samples analysed, 5 sample (5%) Viz., 2 samples from Gokak taluk, and 3 samples from Savadathi taluk, contained Fluoride content beyond the Premissible limit of Indian Drinking Water Specification. The Fluoride content varies between 0.10 mg/L and 2.50 mg/L. The maximum Iron content found in Kulgeri cross station of Badami taluk.

Samples collected from 104 monitoring stations do not contain Total Iron content more than Acceptable limit of Indian Drinking water specification. The content of Total Iron varies from Nil mg/L and 0.2 mg/L.

Out of 104 samples analysed, 14 sample (13%) Viz., 5 samples from Athani taluk, 2 samples from Bailahongala taluk, 3 samples from Gokak taluk, 1 sample from Hukkeri taluk and 1 sample from Raibag taluk and 2 sample from Ramadurga taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 44 mg/L and 1424 mg/L. The maximum Total Hardness content found in Navalihal station of Athani taluk.

WATER QUALITY DATA OF BELAGAVI DISTRICT



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

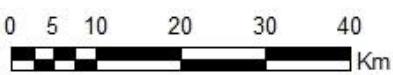


Table - 15

WATER QUALITY DATA OF CHITRADURGA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	11
1	Chitradurga	Chalkere	Kammathamariunte,	32	1.3	0.03	640	14149.50N	7639'39.50E	CH1
2	Chitradurga	Chalkere	Mylanahalli	56	0.07	1.30	600	1426'45.50N	7649'26.00E	CH2
3	Chitradurga	Chalkere	Parashurampur	78	0.05	0.05	800	1415'17.00N	7653'0.10E	CH3
4	Chitradurga	Chalkere	Budnahatti	12	0.08	0.05	248	14223.70N	7639'15.30E	CH4
5	Chitradurga	Chalkere	Dodderi	56	01.0	1.0	152	1417'51.00N	7642'28.73E	CH5
6	Chitradurga	Chalkere	Kaparahalli	43	0.80	1.80	320	1409'59.20N	7641'36.90E	CH6
7	Chitradurga	Chalkere	N.G.Halli	52	0.71	1.30	200	1423'13.79N	7650'23.30E	CH7
8	Chitradurga	Chalkere	Purlehalli	16	0.91	0.03	240	1416'44.90N	7647'49.40E	CH8
9	Chitradurga	Chalkere	Heggere	8	0.81	0.30	680	1336'20.23N	7626'15.01E	CH9
10	Chitradurga	Chalkere	Ajjikamasagar	38	0.03	0.03	400	1345'41.34N	7623'13.71E	CH10
11	Chitradurga	Chalkere	Chalkere	73	0.50	0.07	400	1418'19.48N	7637'48.45E	CH11
12	Chitradurga	Chalkere	T.N.Kote	16	0.03	0.05	320	141144.33N	7649'28.02E	CH12
13	Chitradurga	Chalkere	Hosahalli	32	0.02	0.23	240	1426'54.90N	7639'37.70E	CH13
14	Chitradurga	Chitradurga	C.G.Halli	72	0.02	0.03	372	142237.9N	7622'17.7E	CD1
15	Chitradurga	Chitradurga	Balenahalli	43	01.0	1.30	380	14 019.32N	7638'11.66	CD2
16	Chitradurga	Chitradurga	B.D.Ghatta	78	1.5	0.05	596	14268.30N	7610'43.60E	CD3
17	Chitradurga	Chitradurga	Hireguntanuru	45	0.70	0.07	284	1413'1.10N	7617'4.70E	CD4
18	Chitradurga	Chitradurga	Chitradurga	49	0.70	1.20	460	1412'37.55N	7624'55.70E	CD5
19	Chitradurga	Hiriyuru	Yalkuranahalli,	35	0.07	0.07	392	1403'55.28N	7627'11.52E	HY1
20	Chitradurga	Hiriyuru	Hiriyuru	45	0.07	0.03	520	1357'33.40N	7636'47.18E	HY2
21	Chitradurga	Hiriyuru	Bharamagiri	56	0.07	0.08	320	1355'44.71N	7629'54.63E	HY3
22	Chitradurga	Hiriyuru	Madihalli	68	01.0	0.05	480	1408'2.49N	763135.32E	HY4
23	Chitradurga	Hiriyuru	Bagganadu	73	0.03	2.5	260	13524.22N	7641'31.98E	HY5
24	Chitradurga	Hiriyuru	Yalladakere	52	0.05	02.0	620	1347'16.00N	7633'55.99E	HY6
25	Chitradurga	Hiriyuru	Gollahalli	6	0.05	1.20	188	1407'26.40N	7639'12.63E	HY7
26	Chitradurga	Hiriyuru	Bharamsagara	78	0.80	0.02	380	1421'59.30N	7611'39.60E	HY8
27	Chitradurga	Hiriyuru	Vijapura	56	0.91	0.08	420	1417'34.30N	7616'51.80E	HY9
28	Chitradurga	Hiriyuru	Madakripura	12	0.75	0.03	660	1413'32.80N	7626'22.10E	HY10
29	Chitradurga	Hiriyuru	Kallahalli	18	0.75	01.0	432	1414'44.20N	7630'37.50E	HY11
30	Chitradurga	Hiriyuru	Belaghatta	28	0.75	0.07	368	1418'39.10N	7627'15.80E	HY12

1	2	3	4	5	6	7	8	9	10	11
31	Chitradurga	Hiriyuru	Bommakkanahalli	47	0.91	1.0	292	1422'23.50N	7630'37.80E	HY13
32	Chitradurga	Hiriyuru	Hariyabbe	37	0.80	01.0	280	1403'27.10N	7648'45.40E	HY14
33	Chitradurga	Holalkere	Arehallihatti	15	0.81	01.0	148	1402'12.57N	7608'17.80E	HL1
34	Chitradurga	Holalkere	Chitrhalli	12	0.05	01.0	480	1405'48.92N	7616'27.58E	HL2
35	Chitradurga	Holalkere	H.D.pura	61	0.03	1.30	640	1401'53.07N	7619'40.23E	HL3
36	Chitradurga	Holalkere	Amruthapura	8	0.71	1.30	720	1408'16.00N	7614'41.70E	HL4
37	Chitradurga	Holalkere	Kumminaghatta	32	0.70	0.08	720	1358'54.58N	7617'45.26E	HL5
38	Chitradurga	Holalkere	Sasalu	39	0.03	0.08	400	1412'37.08N	7606'27.40E	HL6
39	Chitradurga	Hosadurga	Guddada Nerelekere	36	0.05	1.20	436	1347'19.60N	7628'7.67E	HD1
40	Chitradurga	Hosadurga	Belageur	37	0.81	1.20	364	1337'46.61N	7617'20.66E	HD2
41	Chitradurga	Hosadurga	Seeranakuntee	43	0.81	0.90	440	1353'27.31N	7625'37.80E	HD3
42	Chitradurga	Hosadurga	Madadakere	52	0.95	0.90	760	1353'14.05N	7623'8.36E	HD4
43	Chitradurga	Hosadurga	Devigere	61	0.81	0.90	440	1352'17.77N	7613'34.65E	HD5
44	Chitradurga	Hosadurga	Chikkabyldakere	73	0.72	01.0	292	1342'16.67N	7631'29.29E	HD6
45	Chitradurga	Hosadurga	Narasipura	45	0.05	0.03	592	1352'59.55N	7617'57.60E	HD7
46	Chitradurga	Molakalmuru	Rampura	53	01.0	0.03	784	1453'6.70N	7646'59.57E	MK1
47	Chitradurga	Molakalmuru	B.G.Kere	28	0.80	0.05	364	1435'39.80N	7640'16.90E	MK2
48	Chitradurga	Molakalmuru	Molakalmuru	46	0.07	0.03	340	1443'6.44N	7645'24.98E	MK3

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CHITRADURGA DISTRICT:

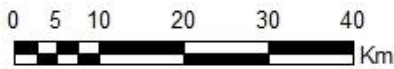
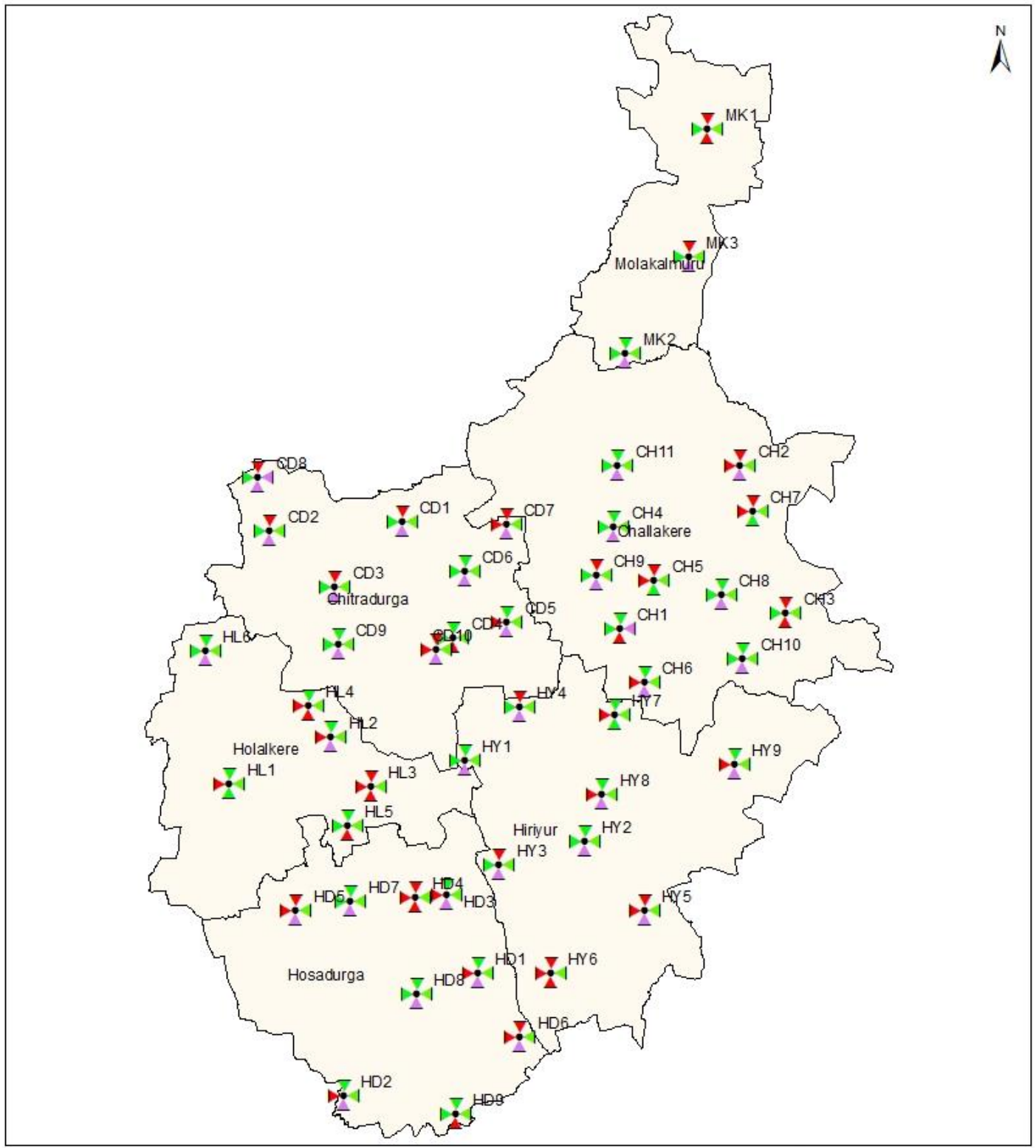
Water samples collected from 48 monitoring stations of Chitradurga District were analysed. Results of chemical analysis are given in Table-15. Out of 48 samples analysed 24 samples (63%) Viz., 5 samples from Challakere taluk, 4 samples from Chitradurga taluk, 8 samples from Hiriyur taluk, 1 sample from Holalkere taluk, 5 samples from Hosadurga taluk and 1 samples from Molakalmuru taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 6 mg/L and 78 mg/L. The maximum Nitrate content found in Parashurampura station of Challakere taluk, Bahaddurghatta and Bharamasagara of Hiriyur taluk.

Samples collected from 48 monitoring stations do not containe Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies from 0.02 mg/L and 1.50 mg/L. The maximum Fluoride content found in Bahaddurghatta station Chitradurga taluk.

Out of 48 samples analysed, 23 sample (48%) Viz., 5 samples from Challakere taluk, 2 Samples from Chitradurga taluk, 6 Samples from Hiriyur taluk, 4 from Holalkere taluk and 6 samples from Hossadurga taluk contained Iron content beyond the Acceptable limit. The Iron content varies between 0.03mg/L and 2.5 mg/L. The maximum Total Iron content found in Bagganadu station of Hiriyuru taluk.

Out of 48 samples analysed, 11 sample (23%) Viz., 4 samples from Challakere taluk, 2 samples from Hiriyuru taluk, 3 samples from Holalkere taluk, 1 Sample from Hosadurga taluk and 1 Sample from Molakalmuru taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 148 mg/L and 800 mg/L. The maximum Total Hardness content found in Parashuramapura station of Challakere taluk.

WATER QUALITY DATA OF CHITRADURGA DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600



Table - 16

WATER QUALITY DATA OF CHAMRAJANAGARA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	11
1	Chamarajnaragar	Chamarajanagar	Yadapura	24	0.47	-	416	11.9139	76.9055	CH1
2	Chamarajnaragar	Chamarajanagar	Masagara	30	0.53	0.03	600	11.9577	76.9380	CH2
3	Chamarajnaragar	Chamarajanagar	Attigulipur	12	0.37	-	308	11.8300	77.0055	CH3
4	Chamarajnaragar	Chamarajanagar	Bisilavadi	8	0.3	0.03	308	11.8059	76.9448	CH4
5	Chamarajnaragar	Chamarajanagar	Yanagalli	90	0.68	-	808	11.7669	76.8645	CH5
6	Chamarajnaragar	Chamarajanagar	Devalapura	2	0.37	0.03	304	11.8505	76.8153	CH6
7	Chamarajnaragar	Chamarajanagar	Chamarajanagar	30	0.41	-	516	11.9183	76.9401	CH7
8	Chamarajnaragar	Chamarajanagar	Bedarapura	10	0.78	-	432	11.9623	76.8876	CH8
9	Chamarajnaragar	Chamarajanagar	Haradanahalli	1	0.54	0.05	440	11.8930	76.9528	CH9
10	Chamarajnaragar	Chamarajanagar	Harave	80	0.56	-	744	11.9383	76.8075	CH10
11	Chamarajnaragar	Chamarajanagar	Yadiyuru	12	0.39	0.05	500	12.0132	76.9661	CH11
12	Chamarajnaragar	Kollegal	Uttamballi	80	0.37	-	788	12.1417	77.0761	KG1
13	Chamarajnaragar	Kollegal	Kollegal	35	0.54	-	652	12.1536	77.1108	KG2
14	Chamarajnaragar	Kollegal	Lokkanahalli	15	0.63	0.06	728	12.0241	77.2484	KG3
15	Chamarajnaragar	Kollegal	Hunooru	6	0.73	0.04	380	12.0884	77.3005	KG4
16	Chamarajnaragar	Kollegal	Ajjipura	60	0.81	-	672	12.0443	77.3524	KG5
17	Chamarajnaragar	Kollegal	Bandalli	57	0.51	0.06	636	12.1677	77.3583	KG6
18	Chamarajnaragar	Kollegal	Shangam	45	0.49	0.11	716	12.2034	77.3926	KG7
19	Chamarajnaragar	Kollegal	Kowdalli	90	0.94	-	808	12.0679	77.4418	KG8
20	Chamarajnaragar	Kollegal	Danagere	84	0.37	-	788	12.2117	77.1434	KG9
21	Chamarajnaragar	Yalandur	Yalandur	25	0.73	0.17	452	12.0469	77.0294	YL1
22	Chamarajnaragar	Yalandur	Duggatti	20	0.47	0.07	476	12.0465	77.0071	YL2
23	Chamarajnaragar	Gundlupete	Terakanambi	2	0.37	0.09	304	11.8156	76.7921	GU1
24	Chamarajnaragar	Gundlupete	Bommalapura	5	0.47	0.03	660	11.7254	76.7235	GU2
25	Chamarajnaragar	Gundlupete	Gundlupete	20	0.47	-	720	11.8058	76.6874	GU3
26	Chamarajnaragar	Gundlupete	Hasaguli	2	0.47	0.07	208	11.8862	76.6439	GU4
27	Chamarajnaragar	Gundlupete	Tekkanahalli	44	1.37	0.03	408	11.6196	76.5904	GU5
28	Chamarajnaragar	Gundlupete	Sidddyyanapura	16	0.51	-	478	11.7247	76.6536	GU6
29	Chamarajnaragar	Gundlupete	Kaggaladahundi	15	0.54	-	420	11.7780	76.5693	GU7
30	Chamarajnaragar	Gundlupete	Beemanabeedu	5	0.51	0.04	492	11.7878	76.6286	GU8
31	Chamarajnaragar	Chamarajanagar	Beguru	55	0.33	-	388	11.9888	76.7506	CH12

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CHAMARAJANAGARA DISTRICT:

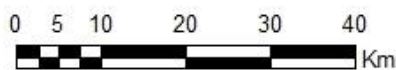
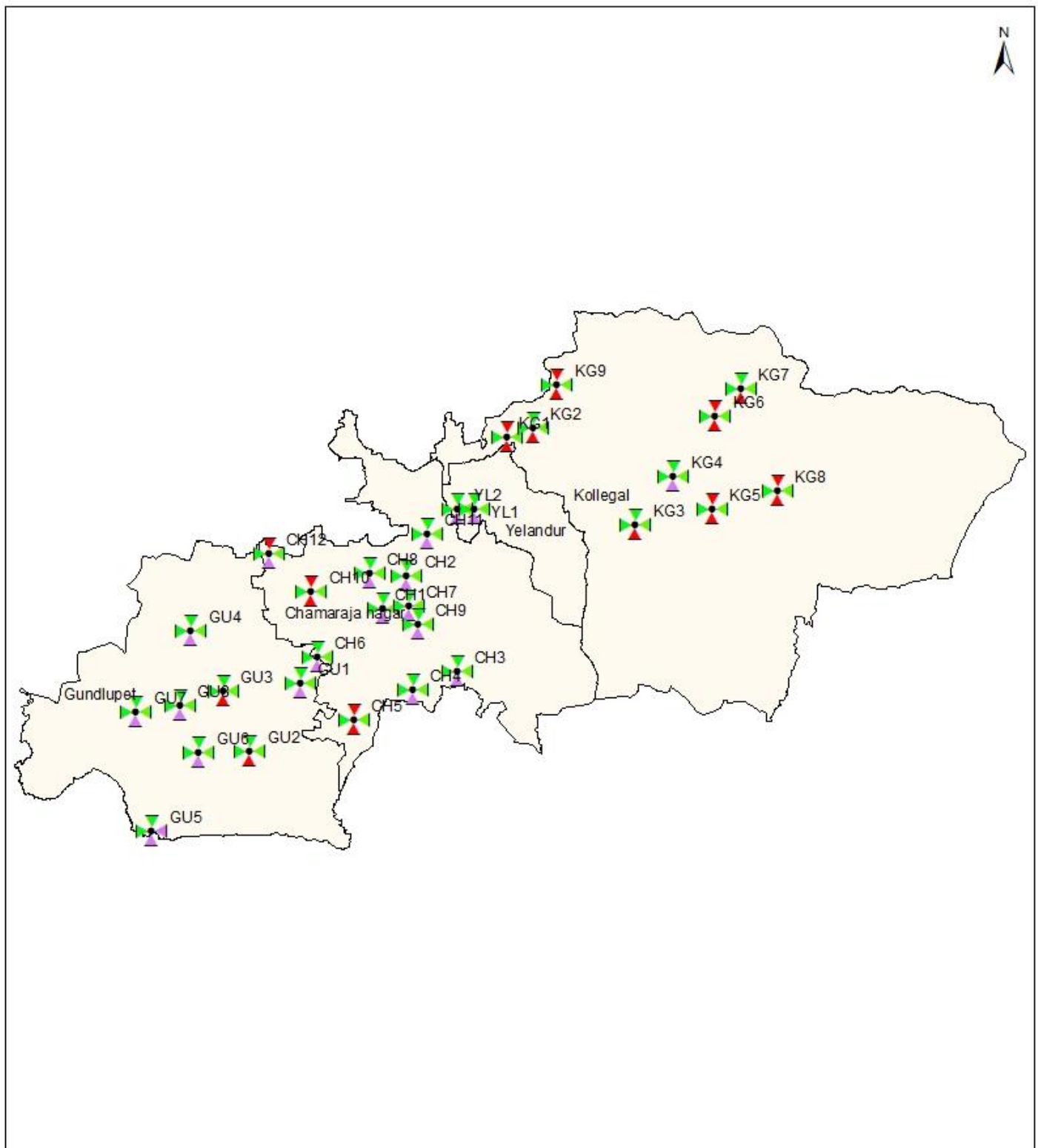
Water samples collected from 31 monitoring stations of Chamarajanagara District were analysed. Results of chemical analysis are given in Table-16. Out of 31 samples analysed 9 samples (29%) Viz., 3 samples from Chamarajanagara taluk and 6 samples from Kollegal taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 1 mg/L and 90 mg/L. The maximum Nitrate content found in Yenagalli station of Chamarajanagara Taluk, Kowdalli station of Kollegal taluk.

Samples collected from 31 monitoring stations do not containe Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies from Nil mg/L and 1.37 mg/L. The maximum limit of Fluoride content found in Tekkanahalli station Gundlupete taluk.

Samples collected from 31 monitoring stations do not containe Total Iron content more than Acceptable limit of Indian Drinking water specification. The content of Iron varies from Nil mg/L and 0.17 mg/L. The maximum limit of Iron content found in Yalandur station of Yalandur taluk.

Out of 31 samples analysed, 12 sample (39%) Viz., 2 samples from Chamarajanagara taluk, 8 samples from Kollegal taluk and 2 samples from Gundlupete taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 208 mg/L and 808 mg/L. The maximum Total Hardness content found in Yanagalli station of Chamarajanagara taluk.

WATER QUALITY DATA OF CHAMRAJANAGARA DISTRICT



- POTABLE ●
- ALTERNATE ●
- NON-POTABLE ●

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

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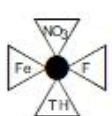


Table - 17

WATER QUALITY DATA OF CHIKKABALLAPURA DISTRICT 2017-18

Sl. No	Taluk	Village	Concentration in mg/L				Lat	Long	Well code no.	Well ID
			NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	3	4	5	6	7	8	9	10	11	12
1	Bagepalli	Achaganapalli	2	3.18	0.02	292	13.6364	77.9661	130104(HP)	BG1
2	Bagepalli	Chelur	175	1.35	0.03	860	13.7061	78.1011	130102	BG2
3	Bagepalli	Chakavelu	51	1.68	0.02	596	13.8247	78.0992	130108(HP)	BG3
4	Bagepalli	Billur	9	0.17	0.03	36	13.8569	78.0064	130109	BG4
5	Bagepalli	Pathapalya	2	0.08	0.04	20	13.7550	77.9472	130106	BG5
6	Bagepalli	Gorthapalli	57	2.45	0.06	272	13.9239	77.9578	130111	BG6
7	Bagepalli	Thattagaripalli	32	2.80	0.03	332	13.8531	77.9317	130110(HP)	BG7
8	Bagepalli	Gulur	161	1.98	0.04	520	13.8400	77.8364	130114	BG8
9	Bagepalli	Marganakunte	26	3.08	0.05	340	13.8856	77.8456	130112(HP)	BG9
10	Bagepalli	Bagepalli	44	2.66	0.03	360	13.7825	77.7967	130101	BG10
11	Bagepalli	Mittemari	52	0.93	0.02	640	13.6831	77.8661	130105	BG11
12	Chikkaballapur	Bandammanahalli	63	1.14	0.04	272	13.4585	77.6599	130302	CB1
13	Chikkaballapur	Chikkaballapura	95	0.21	0.04	616	13.4494	77.7356	130301	CB2
14	Chikkaballapur	Veeranahalli	121	0.46	0.02	392	13.3636	77.6953	130308	CB3
15	Chikkaballapur	Gundlamandikal	7	0.95	0.03	264	13.5978	77.7392	130306	CB4
16	Chikkaballapur	Arur	20	0.99	0.05	604	13.5761	77.7839	130305	CB5
17	Chikkaballapur	Beerganahalli	34	0.92	0.03	240	13.5289	77.7522	130307	CB6
18	Chikkaballapur	Ajjawara	24	0.98	0.05	244	13.4072	77.7760	130304	CB7
19	Chinthamani	Hirepalya	122	1.01	0.03	608	13.2822	77.9606	130404	CH1
20	Chinthamani	Konganahalli	6	2.23	0.07	380	13.3306	78.0006	130407	CH2
21	Chinthamani	Lakshmidivikote	5	1.26	0.04	184	13.4347	77.9972	130410(HP)	CH3
22	Chinthamani	Chinthamani	100	0.60	0.02	520	13.4075	78.0667	130402(HP)	CH4
23	Chinthamani	Kodadavadi	8	1.11	0.15	280	13.3675	78.1347	130408	CH5
24	Chinthamani	Murgamalla	73	0.50	0.35	180	13.4364	78.1289	130412(HP)	CH6
25	Chinthamani	Irrigampalli	90	1.52	0.03	520	13.5339	78.1314	130405	CH7
	3	4	5	6	7	8	9	10	11	12
26	Chinthamani	Kencharlahalli	8	1.40	0.08	160	13.5397	78.0700	130409(HP)	CH8

27	Chinthamani	Munganahalli	15	3.21	0.02	268	13.5864	78.1781	130411	CH9
28	Chinthamani	Chikalnerpur	10	2.10	0.03	280	13.6542	78.0750	130403(HP)	CH10
29	Chinthamani	Burudugunte	39	1.70	0.21	432	13.5914	78.0358	130401(HP)	CH11
30	Gowribidanur	Manchenahalli	60	0.72	0.02	560	13.4961	77.6056	130510	GB1
31	Gowribidanur	Thippaganahalli	12	1.04	0.03	248	13.4480	77.5153	130503	GB2
32	Gowribidanur	Allipura	5	0.92	0.03	472	13.4875	77.4600	130514(HP)	GB3
33	Gowribidanur	Alkapura	46	0.26	0.04	940	13.5525	77.5289	130507	GB4
34	Gowribidanur	Gowribidanur	3	1.18	0.02	172	13.6078	77.5194	130501	GB5
35	Gowribidanur	Hosur	104	0.18	0.05	812	13.5842	77.4386	130502	GB6
36	Gowribidanur	Kurudi	105	0.47	0.03	796	13.6250	77.3875	130501	GB7
37	Gowribidanur	Kudamlakunte	13	0.98	0.04	400	13.7029	77.5021	130504(HP)	GB8
38	Gowribidanur	D.N.Palya	72	1.04	0.05	592	13.6283	77.6056	130506	GB9
39	Gowribidanur	Vatadahosalli	21	0.86	0.02	420	13.7167	77.6250	130512	GB10
40	Gudibande	Yellodu	105	1.57	0.03	408	13.7364	77.6867	130603	GU1
41	Gudibande	Gudibande	74	0.08	0.04	412	13.6711	77.7036	130601	GU2
42	Gudibande	Varlakonda	95	0.67	0.03	400	13.6333	77.7911	130606(HP)	GU3
43	Siddlaghatta	Sadali	29	1.52	0.02	440	13.6233	77.8703	131003	SG1
44	Siddlaghatta	Jangamakote	171	0.24	0.02	816	13.2600	77.8486	131011	SG2
45	Siddlaghatta	H.Cross	10	1.40	0.08	392	13.2408	77.9308	131008	SG3
46	Siddlaghatta	Hunsenahalli	9	1.08	0.04	200	13.4003	77.9497	131009	SG4
47	Siddlaghatta	Ganjikunte	6	2.08	0.05	372	13.4892	77.9847	131004(HP)	SG5
48	Siddlaghatta	Sidlaghatta	96	0.14	0.18	288	13.3922	77.8656	131012	SG6
49	Siddlaghatta	Ajjakadirenahalli	57	0.36	0.03	376	13.4847	77.8639	131001(HP)	SG7
50	Siddlaghatta	Dibbarahalli	3	1.17	0.05	484	13.5564	77.9064	131002	SG8
51	Siddlaghatta	Gandlachinthe	1	1.13	0.03	268	13.5900	77.9283	131005	SG9

	Alternate Source
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CHIKKABALLAPURA DISTRICT:

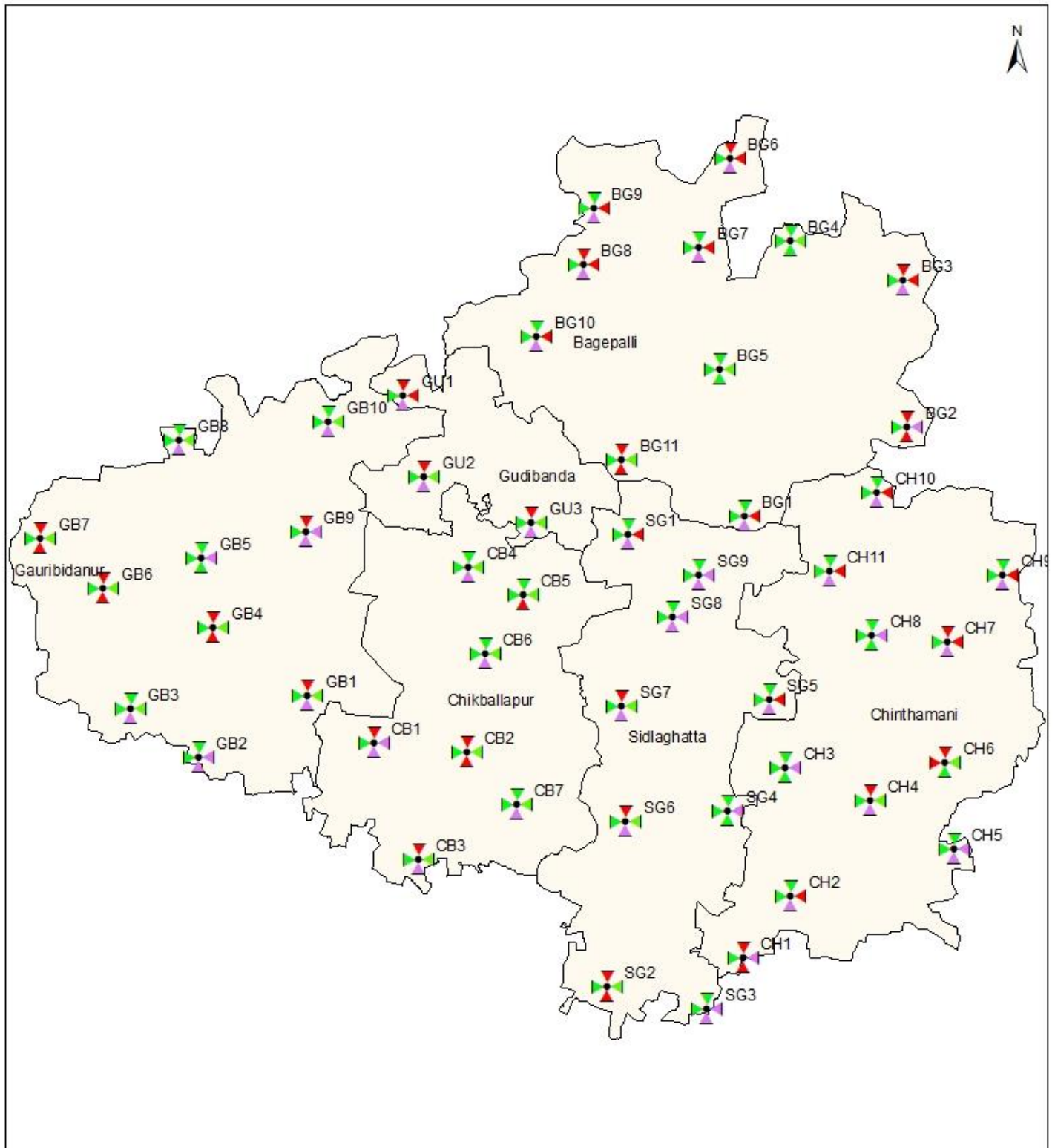
Water samples collected from 51 monitoring stations of Chikkaballapura district were analysed. Results of chemical analysis are given in Table-17. Out of 51 samples analysed 23 samples (45%) Viz., 5 samples from Bagepalli Taluk, 3 samples from Chikkaballapura Taluk, 4 samples from Chintamani taluk, 5 samples from Gowribidanuru Taluk, 3 samples from Gudibande taluk and 3 Samples from Siddlaghatta Taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 1 mg/L and 175 mg/L. The maximum Nitrate content Contained Nitrate content found in Chelur station of Bagepalli taluk.

Out of 51 samples analysed 15 samples (29%) Viz., 7 samples from Bagepalli taluk, 5 samples from Chintamani taluk, 1 sample from Gudibande taluk and 2 samples from Siddlaghatta taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.08 mg/L and 3.21 mg/L. The maximum Fluoride content found in Munganahalli station of Chintamani taluk.

Out of 51 samples analysed, 1 sample (2%) 1 sample from Chintamani taluk contained Total Iron content beyond the Acceptable limit. The Total Iron content varies between 0.02 mg/L and 0.35 mg/L. The maximum Total Iron content found in Murugamalla station of Chintamani taluk

Out of 51 samples analysed 9 sample (17%) Viz., 2 samples from Bagepalli taluk, 3 Samples from Chikkaballapura taluk, 1 sample from Chintamani taluk, 2 samples from Gowribidanur and 1 sample from Siddlaghatta contained Total Hardness more than permissible limit of Indian Drinking Water Specification. The content of Total Hardness varies between 20 mg/L and 940 mg/L. The maximum Total Hardness content found in Alkapura station of Gowribidanur taluk.

WATER QUALITY DATA OF CHIKKABALLAPURA DISTRICT



POTABLE ●

ALTERNATE ●

NON-POTABLE ●

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

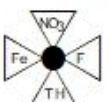


Table - 18

WATER QUALITY DATA OF CHIKKAMAGALURU DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	11
1	Chikkamagalur	Chikkamagalur	Kabbinasethuve	8	0.12	0.03	44	13.2208	75.6806	CM1
2	Chikkamagalur	Chikkamagalur	Uddeboranahalli	46	0.40	0.06	416	13.3986	75.8906	CM2
3	Chikkamagalur	Chikkamagalur	Hospet	10	0.22	1.42	392	13.4750	75.8033	CM3
4	Chikkamagalur	Chikkamagalur	Jenugadde	19	0.09	0.12	112	13.3406	75.5458	CM4
5	Chikkamagalur	Chikkamagalur	Chikkamagaur	34	0.08	0.04	80	13.3167	75.7703	CM5
6	Chikkamagalur	Chikkamagalur	Kalasapura	152	0.15	0.24	620	13.2792	75.9375	CM6
7	Chikkamagalur	Chikkamagalur	Magadi	03	0.14	0.03	92	13.2594	75.8531	CM7
8	Chikkamagalur	Chikkamagalur	Avathi	65	0.25	0.06	480	13.3408	75.6414	CM8
9	Chikkamagalur	Kadur	Sakarayatna	05	0.10	0.19	152	13.4306	75.9194	KD1
10	Chikkamagalur	Kadur	Mathigatta	88	0.40	0.43	616	13.4875	76.0847	KD2
11	Chikkamagalur	Kadur	Yellambalse	144	0.33	0.03	636	13.5694	76.1083	KD3
12	Chikkamagalur	Kadur	Singatagere	11	0.75	0.02	345	13.5125	76.1792	KD4
13	Chikkamagalur	Kadur	Hachihalli	14	0.62	0.03	520	13.6128	76.2406	KD5
14	Chikkamagalur	Kadur	Yagati	69	0.49	0.1	480	13.6131	76.1542	KD6
15	Chikkamagalur	Kadur	Dasarahalli	118	0.45	0.03	1064	13.6208	76.0422	KD7
16	Chikkamagalur	Kadur	Antharaghatta	14	0.43	0.02	352	13.7306	76.1167	KD8
17	Chikkamagalur	Kadur	Birur	3	0.34	0.05	72	13.5997	75.9669	KD9
18	Chikkamagalur	Kadur	Kadur town	160	0.23	0.02	552	13.5528	76.0075	KD10
19	Chikkamagalur	Koppa	Kudregundi	17	0.08	0.04	108	13.5500	75.4194	KD11
20	Chikkamagalur	Koppa	Koppa town	01	0.07	0.21	44	13.5278	75.3611	KP1
21	Chikkamagalur	Koppa	Hariharapura	11	0.08	0.11	48	13.5222	75.2958	KP2
22	Chikkamagalur	Koppa	Kalkere	01	0.13	0.06	28	13.4556	75.3464	KP3
23	Chikkamagalur	Koppa	Jayapura	03	0.07	0.25	60	13.2409	75.2224	KP4
24	Chikkamagalur	Mudigere	Mudigere Town	01	0.08	0.21	44	13.1333	75.6417	MG1
25	Chikkamagalur	Mudigere	Gonibeedu	18	0.07	0.03	96	13.0875	75.7056	MG2
26	Chikkamagalur	Mudigere	Devarunda	02	0.05	0.52	24	13.0417	75.6250	MG3
27	Chikkamagalur	Mudigere	Kottigehara	14	0.04	0.07	48	13.1208	75.5250	MG4
28	Chikkamagalur	Mudigere	Niduvale	08	0.05	0.25	40	13.1806	75.5014	MG5
29	Chikkamagalur	Mudigere	Sunkasale	05	0.04	0.04	40	13.1581	75.4514	MG
30	Chikkamagalur	Mudigere	Kalasa	01	0.06	0.33	32	13.2361	75.3611	MG7
31	Chikkamagalur	N.R.Pura	Magundi	01	0.07	0.11	40	13.2750	75.4833	NR1
32	Chikkamagalur	N.R.Pura	Kadlemakki	05	0.11	0.05	48	13.3583	75.4667	NR2
33	Chikkamagalur	N.R.Pura	C.Agrahara	02	0.09	0.05	56	13.4651	75.4687	NR3
34	Chikkamagalur	N.R.Pura	Muthinakoppa	02	0.09	0.2	48	13.7194	75.4667	NR4
35	Chikkamagalur	N.R.Pura	N.R.Pura Town	42	0.09	0.02	152	13.6083	75.5194	NR5
36	Chikkamagalur	Sringeri	Begar	02	0.06	0.03	40	13.5056	75.1944	SR1
37	Chikkamagalur	Sringeri	Kigga	02	0.07	0.02	52	13.4194	75.1931	SR2
38	Chikkamagalur	Sringeri	Sringeri town	01	0.06	0.09	28	13.4194	75.2528	SR3
1	2	3	4	5	6	7	8	9	10	11
39	Chikkamagalur	Sringeri	Kunchebylu	0.6	0.06	0.07	40	13.3873	75.2976	SR4

40	Chikkamagalur	Tarikere	Udevu	14	0.18	0.26	356	13.5633	75.8347	TK1
41	Chikkamagalur	Tarikere	Lingadahalli	1.4	0.04	0.12	20	13.5944	75.8431	TK2
42	Chikkamagalur	Tarikere	Doranaluru	125	0.22	0.1	776	13.6764	75.8361	TK3
43	Chikkamagalur	Tarikere	Sompura	0.71	0.41	0.08	320	13.7272	75.6792	TK4
44	Chikkamagalur	Tarikere	Ganjigere	13	0.32	0.04	312	13.7233	75.7061	TK5
45	Chikkamagalur	Tarikere	Duglapura	2	0.33	0.06	260	13.7153	75.7494	TK6
46	Chikkamagalur	Tarikere	Tarikere town	67	0.22	0.1	404	13.7083	75.8167	TK7
47	Chikkamagalur	Tarikere	Samatala	51	0.28	1.68	860	13.7258	75.8564	TK8
48	Chikkamagalur	Tarikere	Shivapura	28	0.25	0.08	348	13.6653	75.9292	TK9
49	Chikkamagalur	Tarikere	Sokke	50	0.25	0.26	1052	13.7114	75.9639	TK10
50	Chikkamagalur	Tarikere	Makanahalli	15	0.37	0.12	456	13.7125	75.9297	TK11
51	Chikkamagalur	Tarikere	Chikkanavangla	22	0.24	0.1	604	13.7958	75.9833	TK12
52	Chikkamagalur	Tarikere	Shivani	163	0.84	0.08	568	13.8167	76.0333	TK13
53	Chikkamagalur	Tarikere	Bettadahalli	32	0.27	0.09	436	13.6922	75.8975	TK14

	AlterntE Source
	Not Potable

CHIKKAMAGALURU DISTRICT:

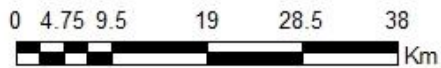
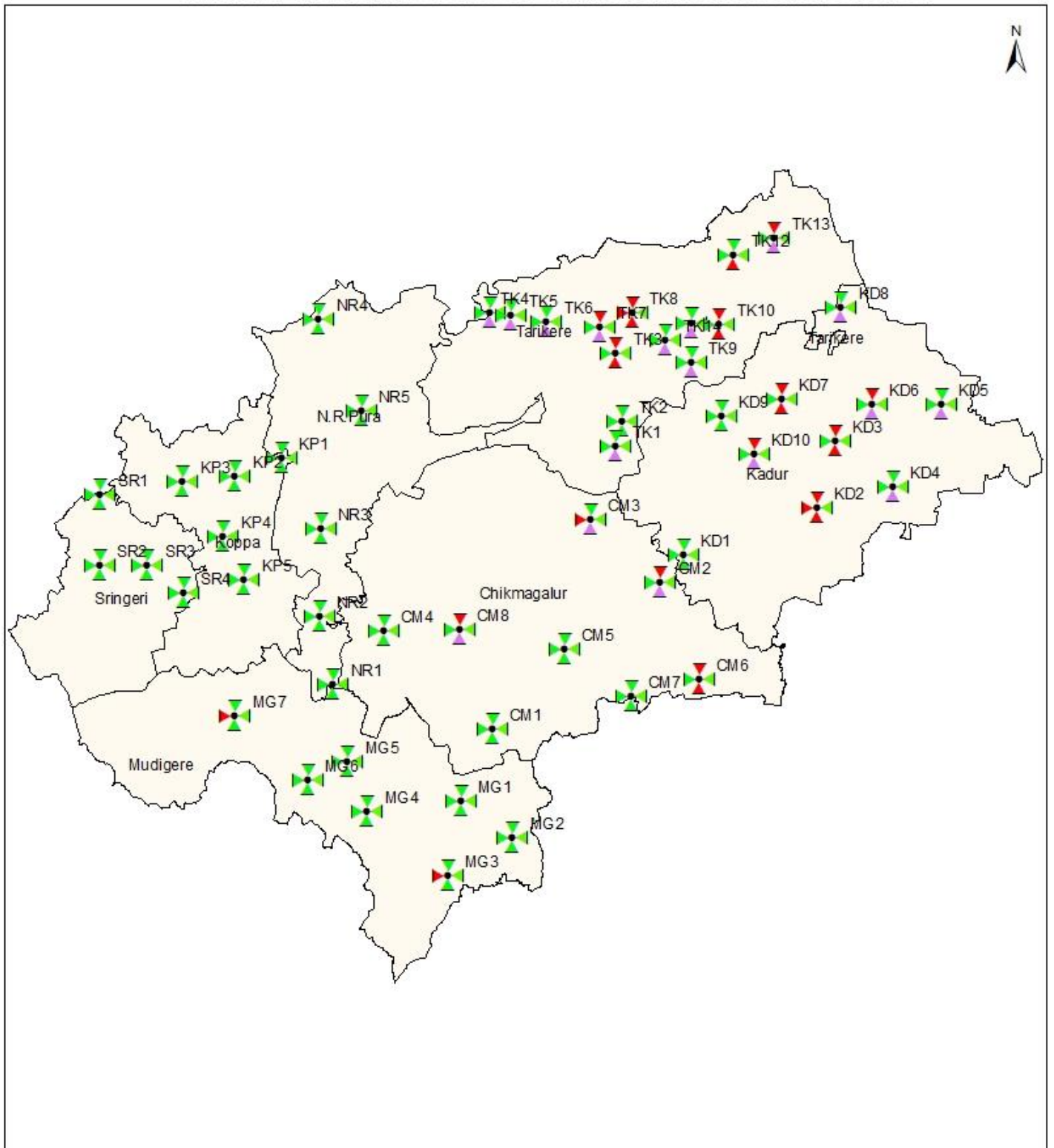
Water samples collected from 53 monitoring stations of Chikkamagalur District were analysed. Results of chemical analysis are given in Table-18. Out of 53 samples analysed 13 samples (23%) Viz., 3 samples from Chikkamagalur taluk, 5 samples from Kadur taluk and 5 samples from Tarikere taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 0.6 mg/L and 163 mg/L. The maximum Nitrate content found in Shivani station of Tarikere taluk.

Samples collected from 53 monitoring stations do not contain Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies from 0.04 mg/L and 0.84 mg/L. The maximum limit of Fluoride content found in Shivni station of Tarikere taluk.

Out of 53 samples analysed, 2 samples (2%) Viz., 1 sample from Chikamagalur taluk and 1 Sample from Tarikere taluk contained Total Iron content beyond the Acceptable limit of Indian Drinking water specification. The Total Iron content varies between 0.02 mg/L and 1.68 mg/L. The maximum Total Iron content found in Samatala station of Tarikere taluk

Out of 53 samples analysed, 8 samples (15%) Viz., 1 sample from Chikamagalur taluk, 3 samples from kadur taluk and 4 samples from Tarikere taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 20 mg/L and 1064 mg/L. The maximum Total Hardness content found in Dasarahalli station of Kadur taluk.

WATER QUALITY DATA OF CHIKKAMAGALUR DISTRICT



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

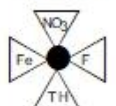


Table - 19

WATER QUALITY DATA OF DAKSHINA KANNADA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	D.Kannada	Bantwal	Mudipu	0.15	0.18	0.06	84	12.8069	74.9544	80105	B1
2	D.Kannada	Bantwal	Mani	0.12	0.36	0.22	192	12.8336	75.1200	80103	B2
3	D.Kannada	Bantwal	Bantwal	45	0.04	0.08	64	12.9053	75.0415	80101	B3
4	D.Kannada	Bantwal	Rayi	01	0.14	0.05	100	12.9653	75.0489	80107	B4
5	D.Kannada	Bantwal	Pudu	11	0.09	0.02	60	12.8618	74.9674		B5
6	D.Kannada	Bantwal	Ukkudu	0.1	0.16	0.04	128	12.7436	75.1078	80109	B6
7	D.Kannada	Belthangadi	Uruvalu	17	0.10	0.01	92	12.8780	75.2700	80208	BE1
8	D.Kannada	Belthangadi	Ujire	02	0.05	0.11	68	12.9969	75.3269	80206	BE2
9	D.Kannada	Belthangadi	Mundaje	01	0.15	0.02	28	13.0371	75.3642	80202	BE3
10	D.Kannada	Belthangadi	Punjalkatte	02	0.21	0.05	104	12.9486	75.1819	80205	BE4
11	D.Kannada	Belthangadi	Venur	08	0.06	0.06	40	13.0150	75.1317	80210	BE5
12	D.Kannada	Belthangadi	Naravi	01	0.03	0.09	32	13.1192	75.1531	80203	BE7
13	D.Kannada	Mangalore	Kotekar	0.15	0.2	0.04	136	12.8014	74.8924		M1
14	D.Kannada	Mangalore	Shirthedy	0.12	0.33	0.37	40	13.0842	75.0839	80310	M2
15	D.Kannada	Mangalore	Beluvi	01	0.23	0.03	68	13.1267	74.9942	80302	M3
16	D.Kannada	Mangalore	Moodabidre	03	0.07	0.03	20	13.0747	74.9917	80307	M4
17	D.Kannada	Mangalore	Gehjimatta	01	0.15	0.18	72	12.9839	74.9550	80304	M5
18	D.Kannada	Mangalore	Bajape	0.1	0.15	0.22	88	12.9825	74.8892	80301	M6
19	D.Kannada	Mangalore	Surathkal	01	0.10	0.21	28	12.9964	74.8011	80312	M8
20	D.Kannada	Mangalore	Mulki	08	0.08	0.02	28	13.0869	74.7917	80309	M9
21	D.Kannada	Puttur	Bettampadi	0.1	0.29	0.04	88	12.6639	75.1996		P1
22	D.Kannada	Puttur	Sarve	01	0.15	0.09	148	12.7422	75.2978	80410	P2
23	D.Kannada	Puttur	Uppinangadi	0.31	0.11	0.03	32	12.8350	75.2592	80412	P3
24	D.Kannada	Puttur	Kuntur	01	0.09	0.04	100	12.7750	75.3717	80404	P4
25	D.Kannada	Puttur	Kadaba	04	0.04	0.30	52	12.7400	75.4703	80402	P5
26	D.Kannada	Puttur	Gundya	0.16	0.09	0.04	32	12.8269	75.5728	80401	P6
27	D.Kannada	Sullya	Subramanya	01	0.17	0.03	136	12.6636	75.6136	80510	S1
28	D.Kannada	Sulya	Jalsur	0.15	0.14	0.09	52	12.5983	75.3383	80507	S2
29	D.Kannada	Sulya	Aranjodu	0.11	0.13	0.07	60	12.5208	75.4750	80501	S3
30	D.Kannada	Sulya	Sampige	0.2	0.12	0.11	104	12.5114	75.5489	80509	S4
31	D.Kannada	Sulya	Guttigaru	01	0.14	0.29	176	12.6311	75.5289	80505	S5
32	D.Kannada	Sulya	Bellare	01	0.14	0.37	92	12.6647	75.3644	80503	S6

	Alternate Source
	Not Potable

DAKSHINA KANNADA DISTRICT:

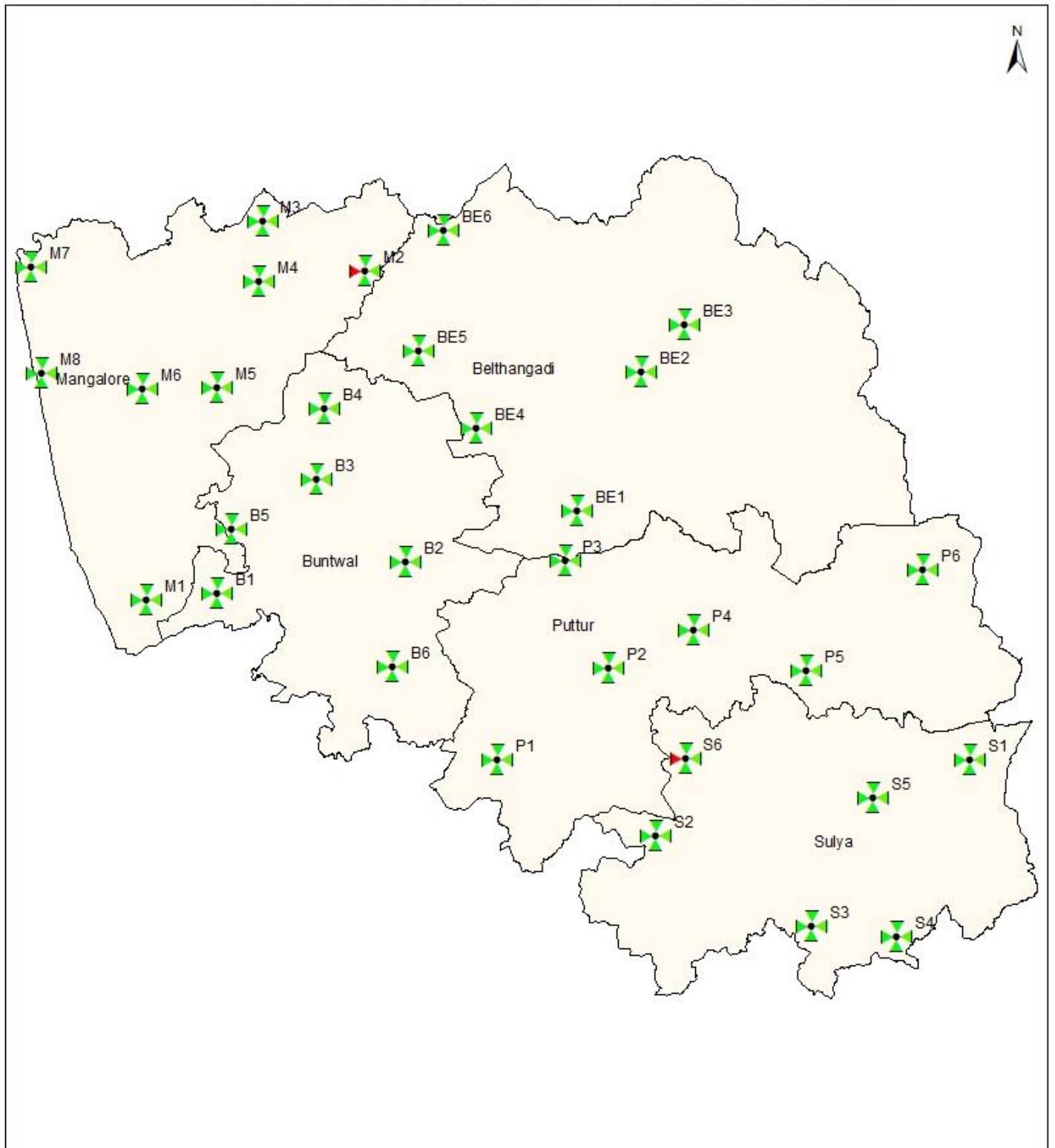
Water samples collected from 32 monitoring stations of Dakshina kannada District were analysed. Results of chemical analysis are given in Table-19 .No samples collected from 32 monitoring stations contained Nitrate content more than Acceptable limit of Indian Drinking water specification. The content of Nitrate varies between 0.01 mg/L and 45 mg/L. The maximum limit of Nitrate content found in Bantwal station of Bantwal taluk.

Samples collected from 32 monitoring stations do not containe Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies between 0.04 mg/L and 0.36 mg/L. The maximum limit of Fluoride content found in Mani station of Bantwal taluk.

Out of 32 samples analysed, 2 sample (6%) Viz., 1 sample from Mangaluru taluk and 1 Sample from Sulya taluk contained Total Iron content beyond the Acceptable limit of Indian Drinking water specification. The Iron content varies between 0.01 mg/L and 0.37 mg/L. The maximum Iron content found in Shirthedy Station of Mangalur Taluk and Bellare station of Sulya taluk.

Samples collected from 32 monitoring stations do not contained Toatal Hardness content more than Permissible limit of Indian Drinking water specification. The content of Total Hardness varies between 20 mg/L and 192 mg/L. The maximum limit of Toatal Hardness content found in Mani station of Bantwal taluk.

WATER QUALITY DATA OF DAKSHINA KANNADA



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

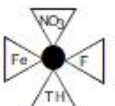


Table - 20

WATER QUALITY DATA OF DAVANAGERE DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Davanagere	Davanagere	Kukkavada	72	0.81	0.07	388	14.3306	75.8861	70303	DG1
2	Davanagere	Davanagere	Anaji	12	0.02	0.07	720	14.4808	76.0800	70315	DG2
3	Davanagere	Davanagere	Hunasekatte	32	0.02	0.73	512	14.3708	76.1292	70306	DG3
4	Davanagere	Davanagere	Adagodu	56	0.03	0.50	120	14.3914	76.0461	70312	DG4
5	Davanagere	Davanagere	Avaragere	56	1.80	0.21	576	14.4456	75.9464	70302	DG5
6	Davanagere	Davanagere	Hadahadi	18	0.80	0.07	544	14 21 34	75 53 28	070314	DG6
7	Davanagere	Davanagere	Kandagallu	16	0.81	0.61	356	14 19 45	76 02 15	070311	DG7
8	Davanagere	Davanagere	Kodaganuru	18	0.02	0.04	520	14 19 45	76 02 15	070311	DG8
9	Davanagere	Davanagere	Doddabathi	48	0.05	0.25	212	142856	755129	070310	DG9
10	Davanagere	Davanagere	Hirekogaluru	16	0.05	0.71	860	14 11 47	75 57 16	170210	DG10
11	Davanagere	Davanagere	Doddaghatta	52	0.05	0.21	120	14 13 00	75 53 00	170209	DG11
12	Davanagere	Davanagere	Basavapattana	13	0.05	0.71	260	14 11 54	75 48 40	170213	DG12
13	Davanagere	Davanagere	Kariganuru	17	0.05	0.31	236	14 18 23	75 51 07	170208	DG13
14	Davanagere	Jagaluru	Pallagatte	43	0.81	0.30	520	14.5708	76.1972	70808	JG1
15	Davanagere	Jagaluru	uchangipura	25	0.81	0.03	240	14.6028	76.1597	70809	JG2
16	Davanagere	Jagaluru	Adagodu	42	1.00	0.03	304	14.5606	76.1519	70807	JG3
17	Davanagere	Jagaluru	Bilchodu	18	1.80	0.02	224	14.4936	76.1561	70803	JG4
18	Davanagere	Jagaluru	Kyadanahalli	12	1.00	1.80	240	14.6356	76.3417	70812	JG5
19	Davanagere	Channagiri	Joladalu	18	1.00	0.02	192	13.9614	75.8550		CG1
20	Davanagere	Channagiri	Santhebennuru	18	0.03	0.02	544	14.1681	76.0025		CG2
21	Davanagere	Channagiri	Hebbalagere	9	0.03	0.03	304	14.0433	76.0022	170206	CG3
22	Davanagere	Channagiri	Arishinaghatta	74	0.02	0.07	584	14.1117	75.8819	170215	CG4
23	Davanagere	Channagiri	Channagiri	53	0.03	0.03	244	14.0203	75.9300	170201	CG5
24	Davanagere	Channagiri	Maravanji	72	0.02	0.05	316	135647	755828	170210A	CG6
25	Davanagere	Channagiri	Tavarekere	63	0.05	0.01	348	13 51 14	75 57 45	170203	CG7
26	Davanagere	Channagiri	Devarahalli	58	0.03	0.05	836	140613	755809	170211A	CG8
27	Davanagere	Channagiri	Benakanahalli	16	0.05	0.51	340	14 12 45	75 42 40	170309A	CG1
28	Davanagere	Channagiri	Devanayakanahalli	3	0.01	0.71	80	141420	753905	170310	CG2
29	Davanagere	Harapanahalli	Uchangidurga	32	1.00	0.01	280	14.5619	76.0542	0	HP1

1	2	3	4	5	6	7	8	9	10	11	12
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30	Davanagere	Harapanahalli	Kaanahalli	56	1.00	0.01	420	14.8708	76.0172	30306	HP2
31	Davanagere	Harapanahalli	Chiratenahalli	18	0.08	0.01	492	14.6944	75.9053	30304	HP3
32	Davanagere	Harapanahalli	kunchuru	44	1.00	0.80	560	14.7300	75.8214		HP4
33	Davanagere	Harapanahalli	Bennehalli	18	0.08	0.01	680	14.7925	76.1154	30302	HP5
34	Davanagere	Harapanahalli	Arasikere	32	0.05	0.2	400	14.6869	76.0714		HP6
35	Davanagere	Harapanahalli	Harapanahalli	33	0.80	0.65	320	14.7931	75.9889	30305	HP7
36	Davanagere	Harapanahalli	Telagi	38	0.03	0.02	320	14.6553	75.8919	30310	HP8
37	Davanagere	Harapanahalli	Kanivehalli	78	0.05	0.01	620	14 52 20	76 01 00	030306	HP9
38	Davanagere	Harapanahalli	Kadabagere	46	0.08	0.2	640	14 42 50	76 05 20	030307	HP10
39	Davanagere	Harapanahalli	Kumaranahalli	78	1.00	0.02	288	144420	760215	030308D	HP11
40	Davanagere	Harihara	Kamalapura	45	0.01	0.01	160	14.4440	75.7334	70406	HH1
41	Davanagere	Harihara	Malebennuru	2	0.08	0.01	840	14.3561	75.7411	70407	HH2
42	Davanagere	Harihara	Ekkegundi	18	1.00	0.01	220	14.4269	75.7783	70404	HH3
43	Davanagere	Harihara	Kondaggi	38	0.65	0.31	344	14 34 12	75 52 20	070403	HH4
44	Davanagere	Honnali	Hosalingapura	16	0.01	0.03	252	14.1083	75.7328		HN1
45	Davanagere	Honnali	Arakere	12	0.02	0.05	172	14.2778	75.6764	170311	HN2
46	Davanagere	Honnali	Chinnikatte	15	0.71	0.25	212	14.1222	75.4889	170313	HN3
47	Davanagere	Honnali	Nyamathi	72	0.80	0.71	244	14.1495	75.5650		HN4
48	Davanagere	Honnali	Hosouru	43	0.73	0.05	308	14.2861	75.7828		HN5

	Alternate Source
	Not Potable

DAVANAGERE DISTRICT:

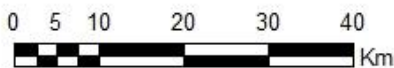
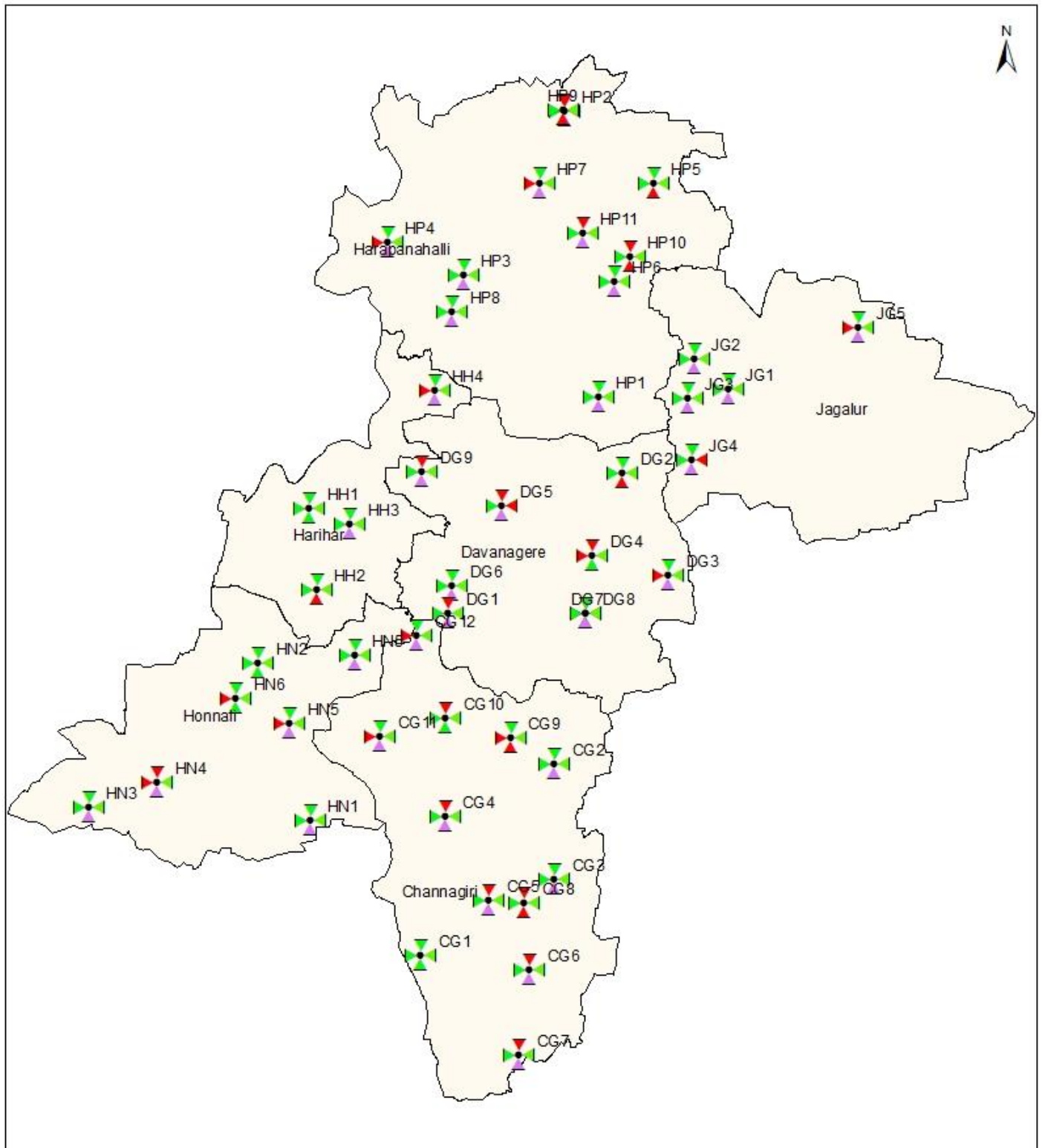
Water samples collected from 48 monitoring stations of Davanagere district were analysed. Results of chemical analysis are given in Table-20. Out of 48 samples analysed 16 samples (33%) Viz., 5 samples from Davanagere taluk, 5 samples from Channagiri taluk, 4 samples from Harapanahalli taluk, 1 sample from Harihara taluk and 1 sample from Honnali taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 2 mg/L and 78 mg/L. The maximum Nitrate content found in Kanivehalli and Kumaranahalli stations of Harapanahalli taluk.

Out of 48 samples analysed 2 samples (4%) Viz., 1 sample from Davanagere taluk and 1 sample from Jagalur taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.01 mg/L and 1.80 mg/L. The maximum Fluoride content found in Avaragere Station of Davanagere taluk and Bilchodu station of Jagalur taluk.

Out of 48 samples analysed, 13 sample (27%) Viz., 6 samples from Davanagere taluk, 1 Sample from Jagalur taluk, 2 Samples from Channagiri taluk, 2 Samples from harapanahalli taluk, 1 sample from Harihara taluk and 1 sample from Honnali taluk contained Total Iron content beyond the Acceptable limit. The Iron content varies between 0.01 mg/L and 1.80 mg/L. The maximum Total Iron content found in Kyadanahalli station of Jagalur taluk

Out of 48 samples analysed 7 sample (14%) Viz., 2 samples from Davanagere taluk, 1 Sample from Channagiri taluk, 3 Samples from Harapanahalli taluk and 1 Sample from Harihara contained Total Hardness more than permissible limit of Indian Drinking Water Specification. The content Total Hardness varies between 80 mg/L and 860 mg/L. The maximum Total Hardness content found in Hirekogaluru station of Davanagere taluk.

WATER QUALITY DATA OF DAVANAGERE DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600



Table - 21

WATER QUALITY DATA OF DHARWAD DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Dharwad	Dharwad	Amminbhavi	18	0.8	0.01	316	15.5383	75.0550	090218HP	DH1
2	Dharwad	Dharwad	Kotbagi	10	0.30	0.01	340	15.6100	74.9600	90207	DH2
3	Dharwad	Dharwad	Somapur	14	0.60	0.01	764	15.4653	75.0938	90201	DH3
4	Dharwad	Dharwad	Vanahalli	27	1.50	0.02	472	15.5289	75.1588	90217	DH4
5	Dharwad	Dharwad	Mandihal	5	0.20	0.01	164	15.4565	74.8888	090219HP	DH5
6	Dharwad	Dharwad	Aravatagi	4	0.40	0.02	160	15.4487	74.8270	090212HP	DH6
7	Dharwad	Dharwad	Banadur	5	0.20	0.01	200	15.3415	74.8979	90214	DH7
8	Dharwad	Dharwad	Yarikoppa	35	0.10	0.02	272	15.3892	75.0092	090215HP	DH8
9	Dharwad	Dharwad	Guledkoppa	3	0.20	0.02	148	15.5478	74.8525	090209HP	DH9
10	Dharwad	Dharwad	Alnavar	9	0.20	0.02	304	15.4260	74.7374	090220HP	DH10
11	Dharwad	Dharwad	Garag	8	0.10	0.02	268	15.5618	74.9415	090221HP	DH11
12	Dharwad	Dharwad	Dharwad	10	0.20	0.02	168	15.4587	75.0112	090222pz	DH12
13	Dharwad	Dharwad	Byahati	13	2.20	0.01	460	15.4734	74.9903	090710HP	DH13
14	Dharwad	Dharwad	Yarikoppa	35	0.10	0.02	272	15.3936	75.0048	090215HP	DH14
15	Dharwad	Dharwad	Tadakoda	22	0.50	0.02	252	15.6006	74.9033	090208HP	DH15
16	Dharwad	Kundagol	Hirebudihal	8	0.20	0.03	240	15.1363	75.2190	090902HP	KU1
17	Dharwad	Kundagol	Jigalur	13	0.20	0.03	172	15.1317	75.1481	090908HP	KU2
18	Dharwad	Kundagol	Kundagol	22	0.30	0.02	352	15.2500	75.2500	90903	KU3
19	Dharwad	Kundagol	Gudigeri	5	0.30	0.01	172	15.1235	75.3621	090901HP	KU4
20	Dharwad	Navalagunda	Navalagunda	8	0.10	0.01	424	15.5335	75.3550	091204HP	N1
21	Dharwad	Navalagunda	Navalgund	60	0.80	0.03	3848	15.5335	75.3550	091204HP	N2
22	Dharwad	Navalagunda	Annigeri	100	0.50	0.01	760	150 25 07	750 26 00		N3
23	Dharwad	Hubli	Manturu	160	0.30	0.03	1720	15.3351	75.2397	090703HP	H1
24	Dharwad	Hubli	Beednal		0.40	0.01	452	15.3280	75.1528	090712HP	H3
25	Dharwad	Hubli	Sherwad	1	0.10	0.02	16	15.2603	75.1867	90705	H4
26	Dharwad	Hubli	Chebbi	7	0.20	0.04	120	15.2233	75.1411	090702HP	H5
27	Dharwad	Hubli	Hubli	9	0.40	0.01	304	15.3457	75.1676	090711HP	H6
28	Dharwad	Kalaghatagi	T.Honnalli	5	0.20	0.01	216	15.1456	75.0606	090803HP	K1
29	Dharwad	Kalaghatagi	Dumma wada	62	0.10	0.01	740	15.3065	75.0214	090804HP	K2
30	Dharwad	Kalaghatagi	Kalaghatagi	50	0.10	0.02	712	15.1835	74.9676	90801	K3

	Alternate Source
	Not Potable

DHARAWADA DISTRICT:

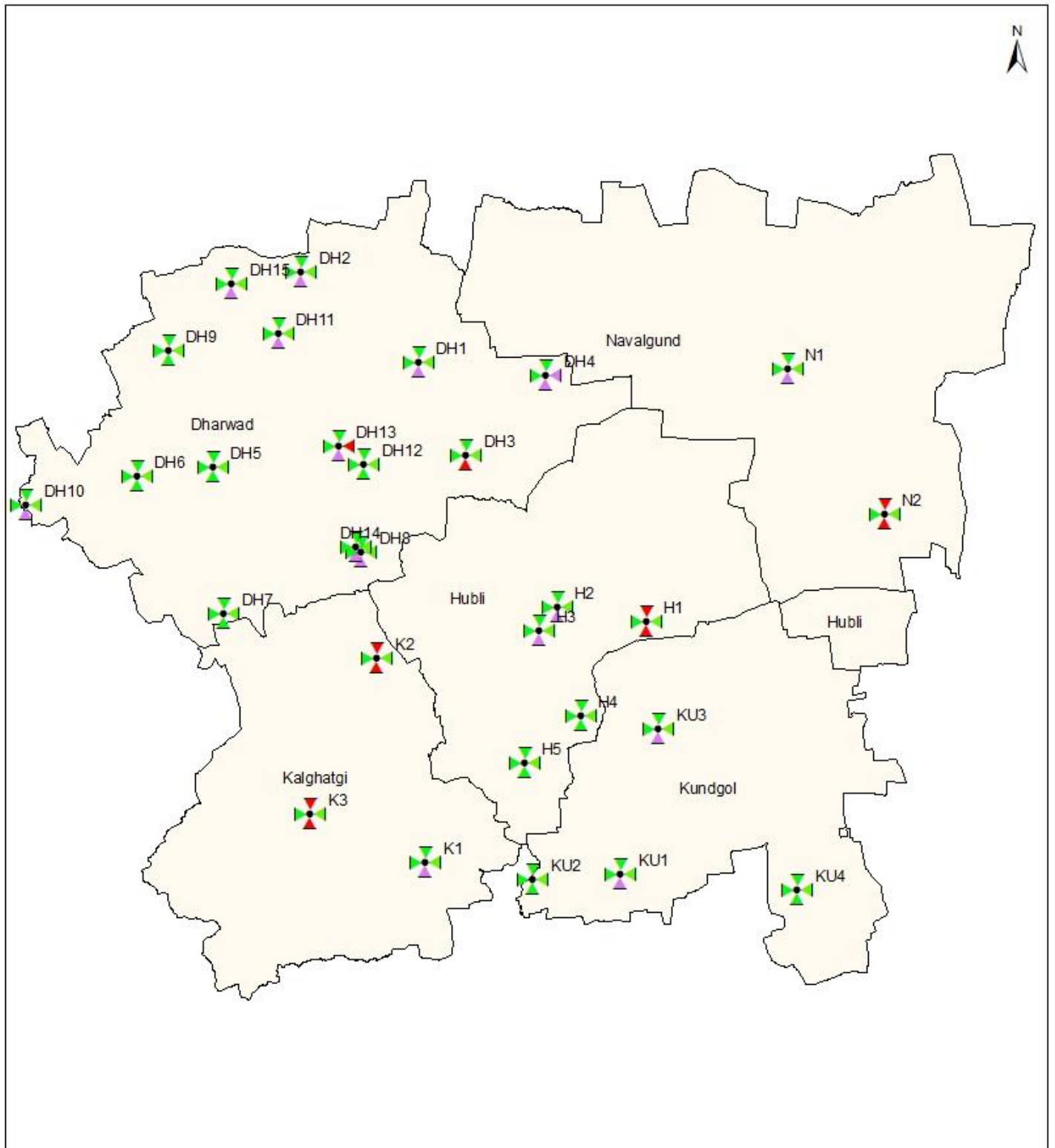
Water samples collected from 30 monitoring stations of Dharawada District were analysed. Results of chemical analysis are given in Table-21. Out of 30 samples analysed 5 samples (17%) Viz., 2 samples from Navalagunda taluk, 1 sample from Hubli taluk, and 2 samples from Kalaghatagi taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 1 mg/L and 160 mg/L. The maximum Nitrate content found in Manturu station of Hubli taluk.

Out of 30 samples analysed 1 sample (3%) from Dharawad taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.10 mg/L and 2.20 mg/L. The maximum Fluoride content found in Byahatti station of Dharawad taluk.

No samples collected from 30 monitoring stations contained Total Iron content more than Acceptable limit of Indian Drinking water specification. The content of Iron varies from 0.01 mg/L and 0.04 mg/L. The maximum limit of Iron content found in Chebbi station of Hubli taluk.

Out of 30 samples analysed, 6 sample (20%) Viz., 1 sample from Dharwad taluk, 2 samples from Navalagunda taluk, 1 sample from Hubli taluk and 2 samples from Kalaghatagi contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 16 mg/L and 3848 mg/L. The maximum Total Hardness content found in Navalagunda station of Navalagunda taluk.

WATER QUALITY DATA OF DHARWAD DISTRICT



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

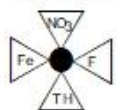


Table - 22

WATER QUALITY DATA OF GADAG DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well Code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Gadag	Gadag	Harlapur	40	0.9	0.05	200	15.4208	75.7744	090311HP	G1
2	Gadag	Gadag	Kurtakote	18	1.60	0.35	120	15.3736	75.5256	90307	G2
3	Gadag	Gadag	Huilgola	30	1.70	0.02	328	15.5250	75.6583	90302	G3
4	Gadag	Gadag	Gadag	10	2.50	0.02	216	15.4648	75.6057	90305	G4
5	Gadag	Gadag	Harthi	4	0.90	0.01	160	15.19'30	75.33'30	90304	G5
6	Gadag	Gadag	Papanashi	13	1.80	0.08	572	15.22'00	75.41'00	90303	G6
7	Gadag	Gadag	Lakkundi	100	0.20	0.03	800	15.23'31	75.43'00	91807	G7
8	Gadag	Gadag	Hulkoti	35	2.20	0.02	128	15.25'30	75.33'00	90301	G8
9	Gadag	Gadag	Yalishirur	13	2.10	0.02	212	15.16'20	75.36'08	90308	G9
10	Gadag	Gadag	Beladadi	13	2.10	0.02	212	15.20'25	75.37'15	90306	G10
11	Gadag	Shirahatti	Lakshmeshwar	12	0.30	0.02	168	15.1250	75.4667	91702	S1
12	Gadag	Shirahatti	Dodduru	6	1.60	0.01	156	15.0597	75.5139	91704	S2
13	Gadag	Shirahatti	Balehosuru	14	0.60	0.01	200	14.9833	75.6000	091713B W	S3
14	Gadag	Shirahatti	Yattinahalla	5	4.00	0.01	108	15.15'00	75.26'10	091716HP	S4
15	Gadag	Shirahatti	Bellatti	58	1.80	0.10	640	15.04'50	75.38'55	91701	S5
16	Gadag	Shirahatti	Devihal	53	1.50	0.10	620	15.06'25	75.37'20	91708	S6
17	Gadag	Shirahatti	Vadavihosur	18	0.30	0.02	216	15.02'40	75.41'10	91706	S7
18	Gadag	Shirahatti	Itagi	35	1.70	0.05	168	14.57'10	75.43'10	091714HP	S8
19	Gadag	Shirahatti	Shirahatti	15	3.00	0.02	616	15.14'00	75.34'15	91711	S9
20	Gadag	Shirahatti	Bannikoppa	13	2.10	0.02	212	15.06'00	75.43'00	91703	S10
21	Gadag	Rona	Naregal	36	0.10	0.02	228	15.5708	75.8083	91409	R1
22	Gadag	Rona	Jakkali	30	0.60	0.02	360	15.6194	75.7861	91402	R2
23	Gadag	Rona	Belavanaki	80	0.60	0.40	1680	15.6667	75.5686	91808	R3
24	Gadag	Rona	Nidagundi	18	0.70	0.02	268	15.39'35	75.50'55	91403	R4
25	Gadag	Rona	Gajendragada	27	1.10	0.01	288	15.44'15	75.58'00	91401	R5
26	Gadag	Rona	Mallapur	60	0.90	0.02	616	15.40'08	75.37'25	91809	R6
27	Gadag	Rona	Rona	28	1.20	0.02	320	15.42'00	75.44'00	91408	R7
28	Gadag	Rona	Hole-Alur	30	0.70	0.01	640				R8
29	Gadag	Rona	Mushigeri	18	0.60	0.02	212	15.47'50	75.51'25	91405	R9
30	Gadag	Rona	Soodi	50	0.50	0.01	620	15.43'45	75.51'50	91407	R10
31	Gadag	Rona	Hirehala	35	1.60	0.02	1040	15.48'00	75.46'00	91414	R11
32	Gadag	Rona	Honnalli	13	2.10	0.03	212	15.42'05	75.48'40	91404	R12
33	Gadag	Mundargi	Kalakeri	40	3.80	0.01	172	15.1476	75.8352	91804	M1
34	Gadag	Mundargi	Dambala	50	0.30	0.03	300	15.2931	75.7750	91805	M2
35	Gadag	Mundargi	Baradur	40	3.80	0.01	172	15.14'00	75.52'00	91001	M3
36	Gadag	Mundargi	Bagewadi	15	3.00	0.02	616	15.07'00	75.46'00	91005	M4

1	2	3	4	5	6	7	8	9	10	11	12
37	Gadag	Mundargi	Doni	4	4.20	0.02	192	1517'50	7545'40	91006	M5
38	Gadag	Naragund	Shirola	70	0.20	0.02	804	1549'30	7532'04	91810	N1
39	Gadag	Naragund	Konnur	60	0.60	0.08	776	1551'15	7529'30	91811	N2

	Alternate Source
	Not Potable

GADAG DISTRICT:

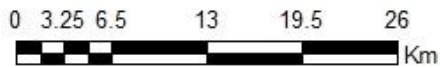
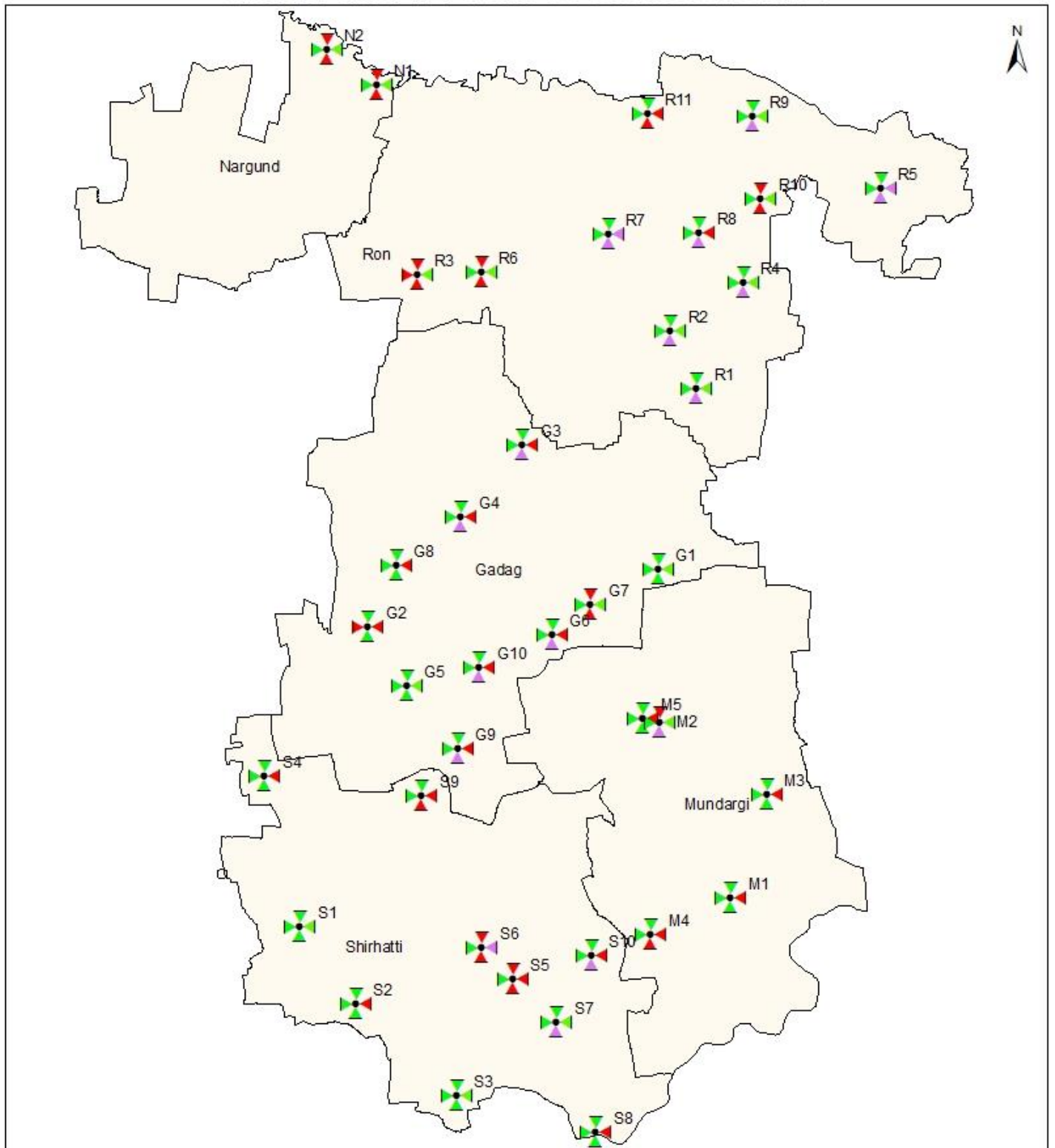
Water samples collected from 39 monitoring stations of Gadag District were analysed. Results of chemical analysis are given in Table-22. Out of 39 samples analysed 9 samples (23%) Viz., 1 sample from Gadag taluk, 2 samples from Shirahatti taluk, 3 samples from Rona taluk, 1 Sample from Mundaragi taluk and 2 Samples from Naragunda taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 4 mg/L and 100 mg/L. The maximum Nitrate content found in Lakkundi station of Gadag taluk.

Out of 39 samples analysed 19 samples (49%) Viz., 7 samples from Gadag taluk, 6 samples from Shirahatti taluk, 2 samples from Rona taluk and 4 samples from Mundaragi taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.10 mg/L and 4.20 mg/L. The maximum Fluoride content found in Doni station of Mundaragi taluk.

Out of 39 samples analysed 02 samples (5%) Viz., 1 sample from Gadag taluk and 1 sample from Rona taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Iron varies between 0.01 mg/L and 0.40 mg/L. The maximum limit of Iron content found in Belavanki station of Rona taluk.

Out of 39 samples analysed, 12 sample (31%) Viz., 1 sample from Gadag taluk, 3 samples from Shirahatti taluk, 5 samples from Rona taluk ,1 sample from Mundaragi taluk and 2 samples from Naralagunda taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 108 mg/L and 1680 mg/L. The maximum Total Hardness content found in Belavanaki Station of Rona taluk.

WATER QUALITY DATA OF GADAG DISTRICT



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

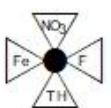


Table-23

WATER QUALITY DATA OF HAVERI DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Haveri	Byadagi	Tadasa	5	0.20	0.02	136	14.6083	75.4083	90102	B1
2	Haveri	Byadagi	Kaginele	18	0.30	0.02	168	14.6917	75.3583	900103 HP	B2
3	Haveri	Byadagi	Motebennur	14	0.20	0.01	616	14.7167	75.4833	90104 HP	B3
4	Haveri	Byadagi	Byadagi	7	0.30	0.02	256	14 40 30	75 29 15	90101HP	B4
5	Haveri	Hanagal	Makarvalli	4	0.20	0.01	116	14.6540	75.1690	90407	B5
6	Haveri	Hanagal	Bommanahalli	5	0.40	0.01	148	14.8833	75.1333	90401	B6
7	Haveri	Hanagal	Sammalagi	3	0.20	0.01	80	14.6972	75.0383	90409	B7
8	Haveri	Hanagal	Hanagal	10	0.20	0.02	188	14.7707	75.1226	90411 HP	B8
9	Haveri	Hanagal	Hanumankoppa	8	0.20	0.01	336	14.7052	75.0970	090410 HP	B9
10	Haveri	Hanagal	Akki-alur	35	0.10	0.02	612	14.7304	75.1662	90405	B10
11	Haveri	Hanagal	Maharajpet	10	0.50	0.01	168	14.8221	75.1613	90402	B11
12	Haveri	Hanagal	Aadur	2	0.20	0.08	156	14.7751	75.2494	90403 HP	B12
13	Haveri	Hanagal	Konankere	6	0.40	0.01	140	14 57 12	75 08 40		B13
14	Haveri	Haveri	Agadi	20	0.50	0.02	668	14.8167	75.4750	90504	HV1
15	Haveri	Haveri	Kanavalli	10	0.20	0.01	624	14.8529	75.3317	90508HP	HV 2
16	Haveri	Haveri	Haleritti	9	0.20	0.02	680	14.8658	75.5397	90501	HV3
17	Haveri	Haveri	Guttal	7	0.90	0.02	228	14.8333	75.6417	90503HP	HV4
18	Haveri	Haveri	Sanguru	7	0.40	0.01	252	14.7773	75.3009	090509 HP	HV5
19	Haveri	Haveri	Honnatti	8	0.40	0.01	608	14 4 47	75 38 20		HV6
20	Haveri	Haveri	Negalur	5	0.30	0.02	128	14 53 35	75 36 18	90507HP	HV7
21	Haveri	Haveri	Haveri	8	0.20	0.02	264	14 47 30	75 2351	90502	HV8
22	Haveri	Hirekerur	Koda	6	0.60	0.01	176	14.5181	75.4469	90606	HK1
23	Haveri	Hirekerur	Kaduru	36	0.40	0.01	360	14.4139	75.5500	90605 HP	HK2
24	Haveri	Hirekerur	Hirekerur	22	0.40	0.01	216	14.4500	75.4003	90602	HK3
25	Haveri	Hirekerur	Masuru	9	0.30	0.01	216	14.3667	75.4500	90603 HP	HK4
26	Haveri	Hirekerur	Rattihalli	10	0.50	0.01	612	14 25 13	75 30 27	90604	HK5
27	Haveri	Hirekerur	Hamsabhavi	5	0.30	0.01	172	14 34 15	75 22 11	9066601	HK6
28	Haveri	Ranebennur	Tamminkatti	9	1.00	0.02	256	14.4130	75.6188	91308	R1
29	Haveri	Ranebennur	Haregoppa	14	1.60	0.02	188	14.5161	75.5697	91307	R2
30	Haveri	Ranebennur	Halageri	10	0.50	0.01	680	14.5583	75.6083	91304	R2
31	Haveri	Ranebennur	Ranebennur	9	0.60	0.01	248	14.6333	75.6250	91301	R3
32	Haveri	Ranebennur	Kamadodu	7	0.80	0.01	168	14 34 26	75 40 55	91302HP	R4
33	Haveri	Ranebennur	Asundi	4	0.50	0.01	96	14 38 14	75 39 32	901306HP	R5
34	Haveri	Savanur	Kadacol	6	0.30	0.02	180	14.9833	75.4667	91503	S1
35	Haveri	Savanur	Karadagi	8	0.90	0.10	296	15.0328	75.3048	91504	S2

1	2	3	4	5	6	7	8	9	10	11	12
36	Haveri	Savanur	Yalavagi	66	0.20	0.01	800	15.0333	75.4000	91502	S3
37	Haveri	Savanur	Savanur	31	0.50	0.02	340	14.9657	75.3377	91501	S4
38	Haveri	Shiggav	Hulaguru	70	0.20	0.01	760	15.0833	75.2833	91607	SH1
39	Haveri	Shiggav	Dundasi	22	0.20	0.02	360	15.0293	75.1434	91603	SH2
40	Haveri	Shiggav	Bankapur	18	0.10	0.02	604	14.9226	75.2639	91605	SH3
41	Haveri	Shiggav	Shiggav	14	0.30	0.02	620	14.9967	75.2107	91608	SH4

	Alternate Source
	Not Potable

HAVERI DISTRICT:

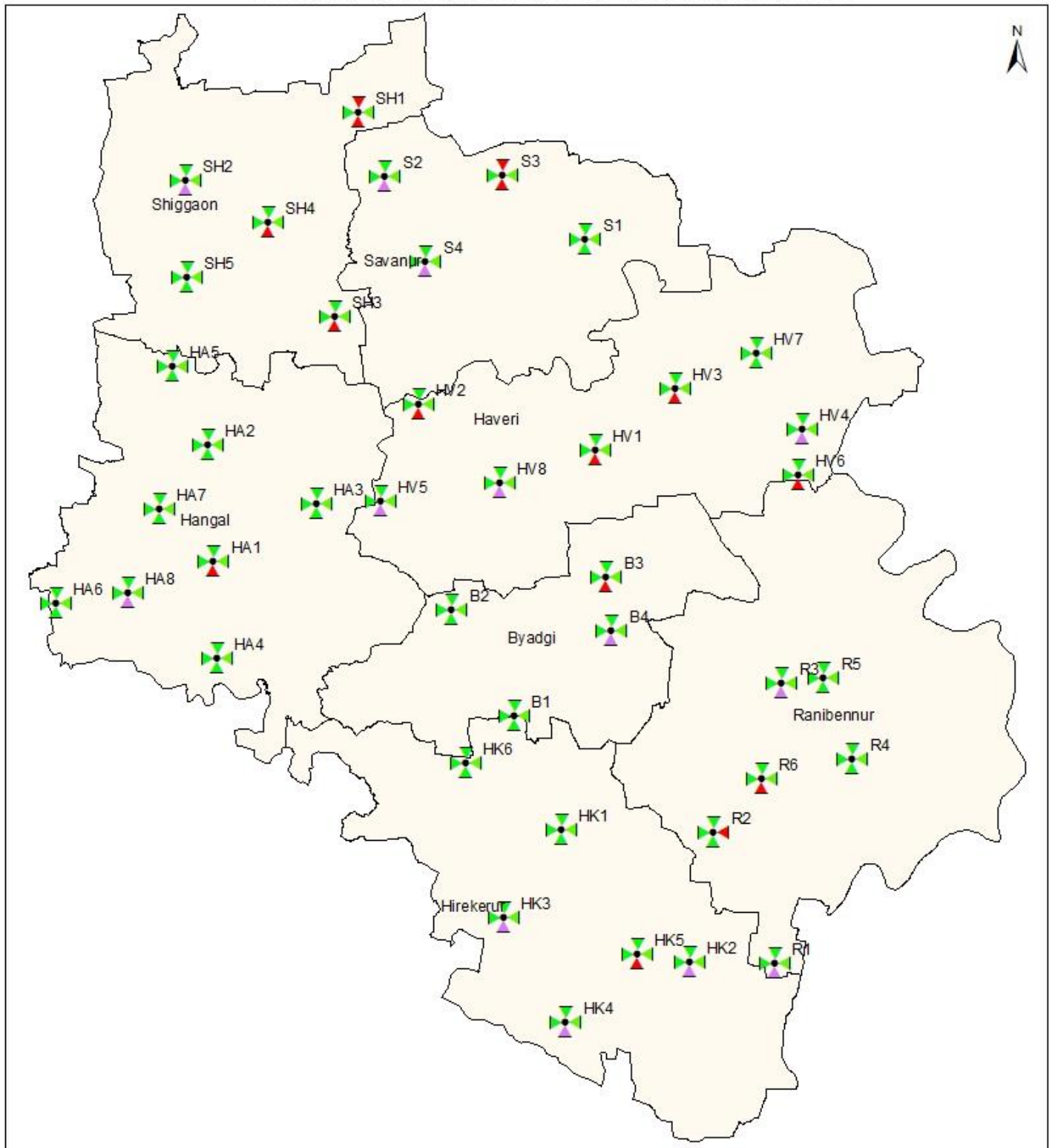
Water samples collected from 41 monitoring stations of Haveri District were analysed. Results of chemical analysis are given in Table-23. Out of 41 samples analysed 2 samples (5%) Viz., 1 sample from Shiggav taluk and 1 sample from Savanur taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 2 mg/L and 70 mg/L. The maximum Nitrate content found in Hulaguru station of Shiggav Taluk.

Out of 41 samples analysed 1 sample (2%) 1 sample from Ranebennur taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.10 mg/L and 1.60 mg/L. The maximum Fluoride content found in Haregoppa station of Ranebennur taluk.

Samples collected from 41 monitoring stations do not contain Total Iron content more than Acceptable limit of Indian Drinking water specification. The content of Iron varies from 0.01 mg/L and 0.10 mg/L. The maximum limit of Iron content found in Karadagi station of Savanur taluk.

Out of 41 samples analysed, 12 samples (29%) Viz., 1 sample from Byadagi Taluk, 1 sample from Hanagal Taluk, 4 samples from Haveri Taluk, 1 sample from Hirekerur Taluk, 1 sample from Ranebennur Taluk, 1 sample from Savanur Taluk and 3 samples from Shiggav Taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 80 mg/L and 800 mg/L. The maximum Total Hardness content found in Yalavagi station of Savanur taluk.

WATER QUALITY DATA OF HAVERI DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

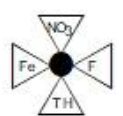


Table - 24

WATER QUALITY DATA OF HASSAN DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	ID. No
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Hassan	Alur	Biba	26	0.46	0.10	284	12.9547	75.9789	110104	AL1
2	Hassan	Alur	Intipura	16	0.33	0.03	320	12.9967	75.9647	110105	AL2
3	Hassan	Alur	K.H.Koti	17	0.54	0.03	236	12.8594	75.8553	110106HP	AL3
4	Hassan	Alur	kunduru	4	0.61	0.05	288	12.8639	75.9689	110101	AL4
5	Hassan	Arakalgudu	Arakalagudu	2	0.34	0.03	160	12.7606	76.0608	110201	AG1
6	Hassan	Arakalgudu	Devarahalli	42	0.36	0.00	220	12.7678	76.1058	110211HP	AG2
7	Hassan	Arakalgudu	Daddamagge	38	0.41	0.00	420	12.6892	76.0833	110209	AG3
8	Hassan	Arakalgudu	Honnenahalli	16	1.13	0.00	276	12.5967	76.1731	110203	AG4
9	Hassan	Arakalgudu	Konanuru	18	0.54	0.00	180	12.6289	76.0517	110213HP	AG5
10	Hassan	Arakalgudu	Mallipatna	12	0.54	0.00	232	12.7553	75.9622	110214HP	AG6
11	Hassan	Arakalgudu	Ramanathapura	23	0.53	0.03	332	12.6189	76.0844	110210HP	AG7
12	Hassan	Arasikere	Bhageshpura	2	0.37	3.48	288	13.1494	76.2306	110318	AK1
13	Hassan	Arasikere	Gandsi	8	0.41	0.00	384	13.1581	76.3056	110322HP	AK2
14	Hassan	Arasikere	Chindenahalli	33	0.71	0.00	428	13.1777	76.3902	110320HP	AK3
15	Hassan	Arasikere	Mududi	16	1.57	0.00	356	13.2042	76.2814	110325HP	AK4
16	Hassan	Arasikere	Harenahalli	24	0.69	0.03	533	13.2472	76.2264	110323HP	AK5
17	Hassan	Arasikere	Arasikere	40	0.66	0.02	268	13.3117	76.2575	110310	AK6
18	Hassan	Arasikere	S.Koppalu	35	1.56	0.00	496	13.3447	76.3250	110308	AK7
19	Hassan	Arasikere	Ramenahalli	30	1.67	0.08	492	13.3889	76.3431	110316	AK8
20	Hassan	Arasikere	B.M.Kurki	25	0.75	0.00	496	13.4600	76.3528	110321HP	AK9
21	Hassan	Arasikere	Kallumadarahalli	22	0.83	0.05	344	13.4811	76.2628	110324HP	AK10
22	Hassan	Arasikere	Shanagere	12	0.69	0.00	244	13.4375	76.1936	110326HP	AK11
23	Hassan	Arasikere	Bendekere	40	1.75	0.03	372	13.3608	76.2142	110319HP	AK12
24	Hassan	Arasikere	Arakere	3	1.57	0.00	316	13.3750	76.1311	110317HP	AK13
25	Hassan	Arasikere	Banduru	20	0.63	0.00	224	13.2917	76.1028	110312	AK14
26	Hassan	Arasikere	Javagal	70	0.31	0.06	736	13.3014	76.0569	110307	AK15
27	Hassan	Beluru	Hagare	8	0.33	0.00	368	13.1278	75.9922	110407	B1
28	Hassan	Beluru	Rayapura	30	0.41	0.00	692	13.1636	75.8858	110415HP	B2
29	Hassan	Beluru	Harehalli	37	0.45	0.03	236	13.0428	75.8072	110411HPA	B3
30	Hassan	Beluru	Bikkodu	32	0.47	0.09	196	13.0756	75.8636	110402A	B4
31	Hassan	Beluru	Gondhalli	25	0.33	0.02	184	13.1836	75.7581	110408 A	B5
32	Hassan	Beluru	Nagenahalli	8	0.51	0.03	188	13.1200	75.7756	110414HP	B6
33	Hassan	Beluru	Shettigere	66	0.36	0.03	464	13.2139	75.8556	110416HP	B7
34	Hassan	Beluru	Halebeedu	60	0.43	0.00	508	13.2164	75.9931	110413HP	B8

1	2	3	4	5	6	7	8	9	10	11	12
35	Hassan	Channarayapatna	Hirisave	4	0.39	0.00	184	12.9508	76.5747	110504	C1
36	Hassan	Channarayapatna	Devaraghalli	16	0.51	0.02	304	12.8683	76.4586	110515HP	C2
37	Hassan	Channarayapatna	Nuggehalli	22	0.54	0.00	268	13.0047	76.4753	110514HP	C3
38	Hassan	Channarayapatna	Muddenahalli	50	0.61	0.36	556	13.0183	76.3411	110502	C4
39	Hassan	Channarayapatna	Kumbinahalli	12	0.63	0.04	376	12.8564	76.5433	110513HP	C5
40	Hassan	Channarayapatna	Kannahalli	66	0.41	0.00	496	13.1272	76.4628	110509	C6
41	Hassan	Channarayapatna	Kalkeri	30	0.46	0.13	400	12.9606	76.4172	110510A	C7
42	Hassan	Channarayapatna	J.H.Halli	65	0.71	0.00	588	12.9750	76.3064	110512HP	C8
43	Hassan	Channarayapatna	Barguru	31	0.32	0.00	417	12.9411	76.3608	110507B	C9
44	Hassan	Channarayapatna	Channarayapatna	5	0.44	0.00	240	12.9047	76.3869	110503	C10
45	Hassan	Channarayapatna	Akkanahalli	10	0.37	0.00	276	13.0114	76.5083	110511	C11
46	Hassan	Hassan	Shantigrama	27	0.61	0.00	276	12.9847	76.2181	110618HP	H1
47	Hassan	Hassan	Salagame	120	0.37	0.00	388	13.0814	76.0892	110610A	H2
48	Hassan	Hassan	Nitturu	6	0.34	0.04	228	13.1528	76.1336	110614	H3
49	Hassan	Hassan	Kattaya	32	0.39	0.05	312	12.8894	76.0744	110617HP	H4
50	Hassan	Hassan	Kandalli	44	0.32	0.05	400	12.9722	76.0586	110616HP	H5
51	Hassan	Hassan	M.Hosahalli	38	0.37	0.00	388	12.8944	76.1611	110611	H6
52	Hassan	Hassan	Channapatna	42	0.45	0.03	260	12.9844	76.1094	110603A	H7
53	Hassan	Holenarasipura	Yalachaganahalli	6	0.54	0.00	136	12.7397	76.2256	110712HP	HO1
54	Hassan	Holenarasipura	Holenarasipura	4	0.32	0.00	220	12.7872	76.2411	110706	HO2
55	Hassan	Holenarasipura	Hallimysore	54	0.61	0.02	316	12.6578	76.2592	110711HP	HO3
56	Hassan	Holenarasipura	Halekote	2	1.39	0.00	252	12.8481	76.1775	110702	HO4
57	Hassan	Holenarasipura	Doddakadanuru	12	0.71	0.00	242	12.7039	76.2921	110710HP	HO5
58	Hassan	Holenarasipura	Beechanahalli	3	0.46	0.00	408	12.8450	76.2733	110707	HO6
59	Hassan	Sakaleshpura	Ballupete	20	0.51	0.03	220	12.9428	75.8794	110809	S1
60	Hassan	Sakaleshpura	Sakaleshpura	5	0.47	4.05	180	12.9464	75.7844	110801	S2
61	Hassan	Sakaleshpura	Hucchangi	16	0.53	0.03	184	12.7353	75.8131	110814HP	S3
62	Hassan	Sakaleshpura	S.Santhe	20	0.37	0.05	180	12.8602	75.8020	110813HP	S4
63	Hassan	Sakaleshpura	Maranahalli	6	0.42	0.00	164	12.8728	75.7125	110812HP	S5
64	Hassan	Sakaleshpura	Hetturu	3	0.38	0.06	248	12.7972	75.7881	110802	S6
65	Hassan	Sakaleshpura	Agalahatti	1	0.37	0.00	188	12.9703	75.7236	110810HP	S7

	Alternate Source
	Not Potable

HASSAN DISTRICT:

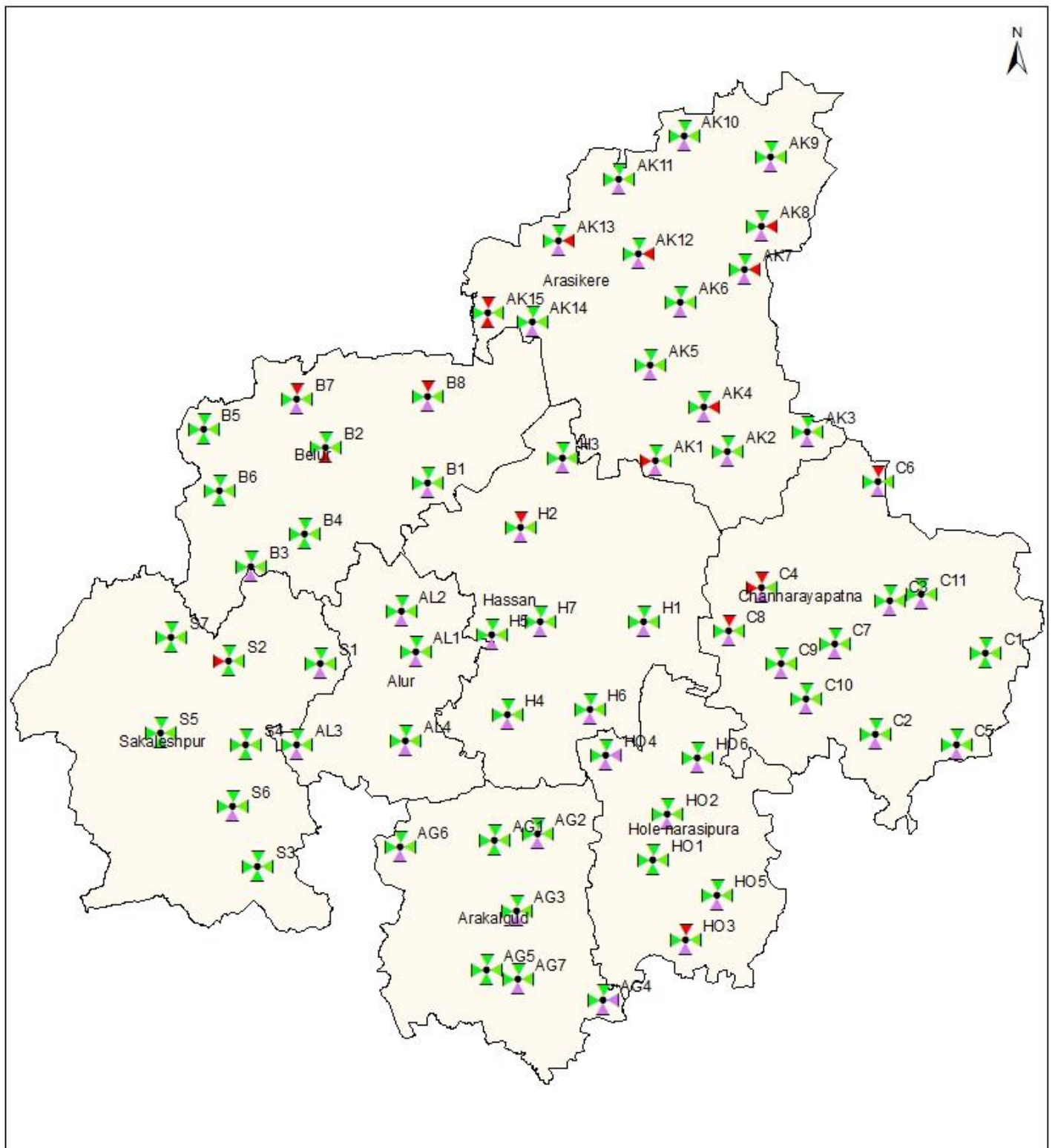
Water samples collected from 65 monitoring stations of Gadag District were analysed. Results of chemical analysis are given in Table-24. Out of 65 samples analysed 8 samples (12%) Viz., 1 sample from Arsikere taluk, 2 samples from Beluru taluk, 3 samples from Chennarayapatna taluk, 1 Sample from Hassan taluk and 1 sample from Holenarasipura taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 1 mg/L and 120 mg/L. The maximum Nitrate content found in Salagame station of Hassan Taluk.

Out of 65 samples analysed 5 samples (8%) 5 samples from Arasikere taluk, contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.31 mg/L and 1.75 mg/L. The maximum Fluoride content found in Bendekere Station of Arasikere taluk.

Out of 65 samples analysed 03 samples (5%) Viz., 1 sample from Sakaleshpura taluk, 1 sample from Arasikere taluk and 1 sample from Rona taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.00 mg/L and 3.48 mg/L. The maximum limit of Iron content found in Bhageshpura Station of Arasikere Taluk.

Out of 65 samples analysed, 2 sample (3%) Viz., 1 sample from Arasikere taluk and 1 sample from Beluru taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 136 mg/L and 736 mg/L. The maximum Total Hardness content found in Javagal Station of Arasikere taluk.

WATER QUALITY DATA OF HASSAN DISTRICT



POTABLE

ALTERNATE

NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

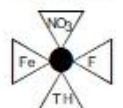


Table - 25

WATER QUALITY DATA OF KOLAR DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code.	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Kolar	Bangarpet	Bodikote	43	1.52	0.09	500	12.9070	78.1247	130204HP	B1
2	Kolar	Bangarpet	Kamasandra	44	0.66	0.03	464	12.8789	78.2017	130210HP	B2
3	Kolar	Bangarpet	Robertsonpet	46	0.15	0.05	900	12.9524	78.2759	130218	B3
4	Kolar	Bangarpet	Gattimadamangala	28	0.22	0.05	484	12.8922	78.2903	130221	B4
5	Kolar	Bangarpet	Balamandi	9	1.33	0.03	232	12.8517	78.1644	130220	B5
6	Kolar	Bangarpet	Sulikunte	29	2.01	0.04	360	13.0328	78.1142	130217	B6
7	Kolar	Bangarpet	Gullahalli	2	3.92	0.15	164	13.0410	78.1405	130219	B7
8	Kolar	Bangarpet	Thappanahalli	1	0.82	0.02	324	12.9750	78.3917	130214BW	B8
9	Kolar	Bangarpet	Aniganahalli	22	0.3	0.03	652	13.0550	78.1633	130201BW	B9
10	Kolar	Bangarpet	Bangarpet	147	1.38	0.02	796	12.9872	78.1833	130203BW	B10
11	Kolar	Bangarpet	Gollahalli	31	1.49	0.04	400	13.0356	78.2942	130208HP	B11
12	Kolar	Bangarpet	Bethamangala	28	0.6	0.02	512	13.0047	78.3311	130205D	B12
13	Kolar	Bangarpet	Sundarpalya	33	0.69	0.03	480	13.0133	78.3978	130216	B13
14	Kolar	Bangarpet	Karadger	7	0.84	0.05	360	12.9359	78.4097	130212BW	B14
15	Kolar	Bangarpet	Ramasagar	7	0.87	0.03	468	12.9750	78.3917	130213Hp	B15
16	Kolar	Bangarpet	Gattikamadenahalli	5	0.23	0.02	580	12.9928	78.2775	130206HP	B16
17	Kolar	Bangarpet	Doddavalagamadi	4	0.88	0.05	372	12.9472	78.2256	130222	B17
18	Kolar	Bangarpet	Kysamhalli	15	0.63	0.02	308	12.9547	78.3461	130215	B18
19	Kolar	Kolar	Muduvatti	1	1.43	0.02	144	13.0640	78.0913	130713	K1
20	Kolar	Kolar	Ammanallur	7	1.59	0.03	156	13.2924	77.9922	130720	K2
21	Kolar	Kolar	Joradevanahalli	62	0.87	0.08	788	13.2000	78.1467	130717	K3
22	Kolar	Kolar	Sugutur	131	0.69	0.15	524	13.2089	78.1033	130709	K4
23	Kolar	Kolar	Narapura	8	0.84	0.05	324	13.1378	78.0042	130708	K5
24	Kolar	Kolar	Vemgal	65	0.61	0.03	456	13.1979	78.0232	130711	K6
25	Kolar	Kolar	Madivala	1	1.01	0.07	464	13.2154	77.9673	130707	K7
26	Kolar	Kolar	Annihalli	15	1.15	0.05	440	13.1894	78.2015	130716	K8
27	Kolar	Kolar	Harati	3	0.35	0.03	280	13.0722	78.2094	130704	K9
28	Kolar	Kolar	Muduvadi	10	0.75	0.02	316	13.2286	78.1661	130706	K10
29	Kolar	Kolar	Kolar	84	0.44	0.09	1064	13.1272	78.1353	130705	K11
30	Kolar	Kolar	Holur	55	0.4	0.18	632	13.2396	78.2157	130719	K12
31	Kolar	Kolar	Shapur	6	1.13	0.02	384	13.0994	78.2556	130714	K13
32	Kolar	Kolar	Ajjappanapalli	31	0.59	0.1	512	13.1397	78.2183	130701	K14
33	Kolar	Kolar	Hultur	21	1.51	0.05	864	13.1317	78.2544	130715	K15
34	Kolar	Kolar	Vakkaleri	140	0.7	0.03	548				K16
35	Kolar	Malur	Shivarpatna	60	0.53	0.02	348	13.0583	77.9917	130807HP	M1
36	Kolar	Malur	Thornahalli	70	0.39	0.03	332	13.0978	77.9131	130815	M2
37	Kolar	Malur	Lakkur	44	1.36	0.02	376	12.9249	77.8942	130803	M3

1	2	3	4	5	6	7	8	9	10	11	12
38	Kolar	Malur	Chikkalluntur	2	1.98	0.04	280	13.0028	78.0125	130809	M4
39	Kolar	Malur	Nosagene	30	0.19	0.03	372	12.9878	77.9158	130814	M6
40	Kolar	Malur	Madanahalli	18	1.27	0.03	308	12.9947	77.8796	130718	M7
41	Kolar	Malur	Hungenehalli	1	1.47	0.02	200	13.0486	77.9911	130811	M8
42	Kolar	Malur	Malur	2	0.46	0.05	224	12.9875	77.9375	130805	M9
43	Kolar	Malur	Jagamangala	8	0.53	0.03	120	12.9107	77.9040	130812	M10
44	Kolar	Malur	Kudiyatur	1	0.98	0.03	196	12.9438	77.9581	130802	M11
45	Kolar	Malur	D.N.Doddi	20	0.42	0.02	292	12.8567	77.9411	130810	M12
46	Kolar	Malur	Masti	172	0.46	0.05	544	12.8681	78.0028	130804HP	M13
47	Kolar	Malur	Dinnahalli	89	0.28	0.03	536	12.8706	78.0606	130801HP	M14
48	Kolar	Malur	Tambihally	1	1.20	0.05	1060	12.9341	77.8775	130710	M15
49	Kolar	Malur	Nootave	37	0.57	0.02	512	12.5548	78.0519	130813	M16
50	Kolar	Malur	Takal	98	1.09	0.03	512	12.5841	78.0454	130808	M17
51	Kolar	Mulbagal	Gokunte	12	1.66	0.09	272	13.3061	78.4153	130903BW	MU1
52	Kolar	Mulbagal	Anagondanahalli	44	0.94	0.13	560	13.0672	78.3639	130901HP	MU2
53	Kolar	Mulbagal	Mallanayanahalli	1	0.95	0.09	360	13.0947	78.4692	130910	MU3
54	Kolar	Mulbagal	Duggasandra	46	0.13	0.02	576	13.2358	78.3669	130921	MU4
55	Kolar	Mulbagal	Ultanur	40	0.83	0.05	472	13.2111	78.2872	130922	MU5
56	Kolar	Mulbagal	Kappalamadagu	47	1.05	0.08	392	13.1917	78.4417	130915	MU6
57	Kolar	Mulbagal	Mulbagal	51	1.10	0.05	408	13.1667	78.4014	130916HP	MU7
58	Kolar	Mulbagal	Gudipalli	191	0.39	0.03	616	13.2764	78.4611	130902BW	MU8
59	Kolar	Mulbagal	Mushtoor	5	0.98	0.03	176	13.2125	78.5344	130917	MU9
60	Kolar	Mulbagal	Jaylur	204	0.62	0.11	772	13.0569	78.4272	130914HP	MU10
61	Kolar	Mulbagal	Thimmaroothanahalli	14	0.94	0.03	360	13.0664	78.4928	130920	MU11
62	Kolar	Mulbagal	Devarayasamudra	52	0.08	0.03	332	13.1364	78.3006	130918	MU12
63	Kolar	Mulbagal	Mothanapalli	154	1.07	0.03	328	13.0558	78.4006	130919	MU13
64	Kolar	Mulbagal	Kurudumale	170	1.53	0.05	496	13.2067	78.3789	130906HP	MU14
65	Kolar	Mulbagal	Avani	52	0.1	0.07	328	13.1072	78.3297	130924	MU15
66	Kolar	Mulbagal	Alangur	46	1.98	0.02	372	13.1636	78.4647	130909	MU16
67	Kolar	Mulbagal	Hebbani	1	0.95	0.04	340	13.2808	78.5686	130904D	MU17
68	Kolar	Mulbagal	Mailapura	4	0.93	0.06	292	13.1361	78.5033	130911BW	MU18
69	Kolar	Mulbagal	Mudiyanur	1	1.58	0.03	284	13.2267	78.3156	130908HP	MU19
70	Kolar	Mulbagal	Nangli	1	1.27	0.04	280	13.1989	78.5167	130912	MU20
71	Kolar	Mulbagal	Byrakur	2	1.03	0.04	176	13.1415	78.2936	130923	MU21
72	Kolar	Srinivaspura	Srinivaspura	1	0.57	0.02	320	13.3428	78.2219	131112	SR1
73	Kolar	Srinivaspura	Yeldur	18	1.12	0.02	240	13.2806	78.2917	131117	SR2
74	Kolar	Srinivaspura	Adgal	28	1.13	0.05	396	13.5208	78.2800	131123	SR3
75	Kolar	Srinivaspura	Bairganapalli	2	0.58	0.05	320	13.5506	78.2264	131124	SR4
76	Kolar	Srinivaspura	Kondamari	61	0.82	0.05	348	13.4578	78.2181	131105	SR5
77	Kolar	Srinivaspura	Yaramavarapalli	18	1.12	0.05	232	13.5328	78.3078	131125	SR6
78	Kolar	Srinivaspura	Hosahalli	1	0.58	0.03	320	13.3117	78.2989	131107	SR7
79	Kolar	Srinivaspura	Thoopalli	16	0.98	0.05	292	13.3903	78.1556	131114	SR8
80	Kolar	Srinivaspura	Veerathimanahalli	1	0.59	0.04	328	13.3689	78.3056	131115HP	SR9
81	Kolar	Srinivaspura	Ronur	28	0.99	0.07	368	13.3939	78.2481	131121	SR10

1	2	3	4	5	6	7	8	9	10	11	12
82	Kolar	Srinivaspura	Dalasanur	30	0.54	0.36	372	13.2756	78.1708	131118	SR11
83	Kolar	Srinivaspura	Pulgurkote	1	1.71	0.03	104	13.4292	78.3574	131110	SR12
84	Kolar	Srinivaspura	Arikunte	11	0.66	0.21	188	13.3897	78.1914	131120	SR13
85	Kolar	Srinivaspura	Somayajalapalli	20	1.09	0.05	368	13.3615	78.3484	131109	SR14
86	Kolar	Srinivaspura	Gownpalli	64	1.01	0.04	500	13.5119	78.2297	131106	SR15
87	Kolar	Srinivaspura	Rayalpadu	24	1.09	0.02	268	13.5325	78.3394	131111	SR16
88	Kolar	Srinivaspura	J.Thimmasandra	12	0.37	0.03	224	13.3836	78.1575	131119	SR17
89	Kolar	Srinivaspura	Nelavanki	1	1.92	0.04	80	13 27 45	78 16 43	131122	SR18

	Alternate Source
	Not Potable

KOLAR DISTRICT:

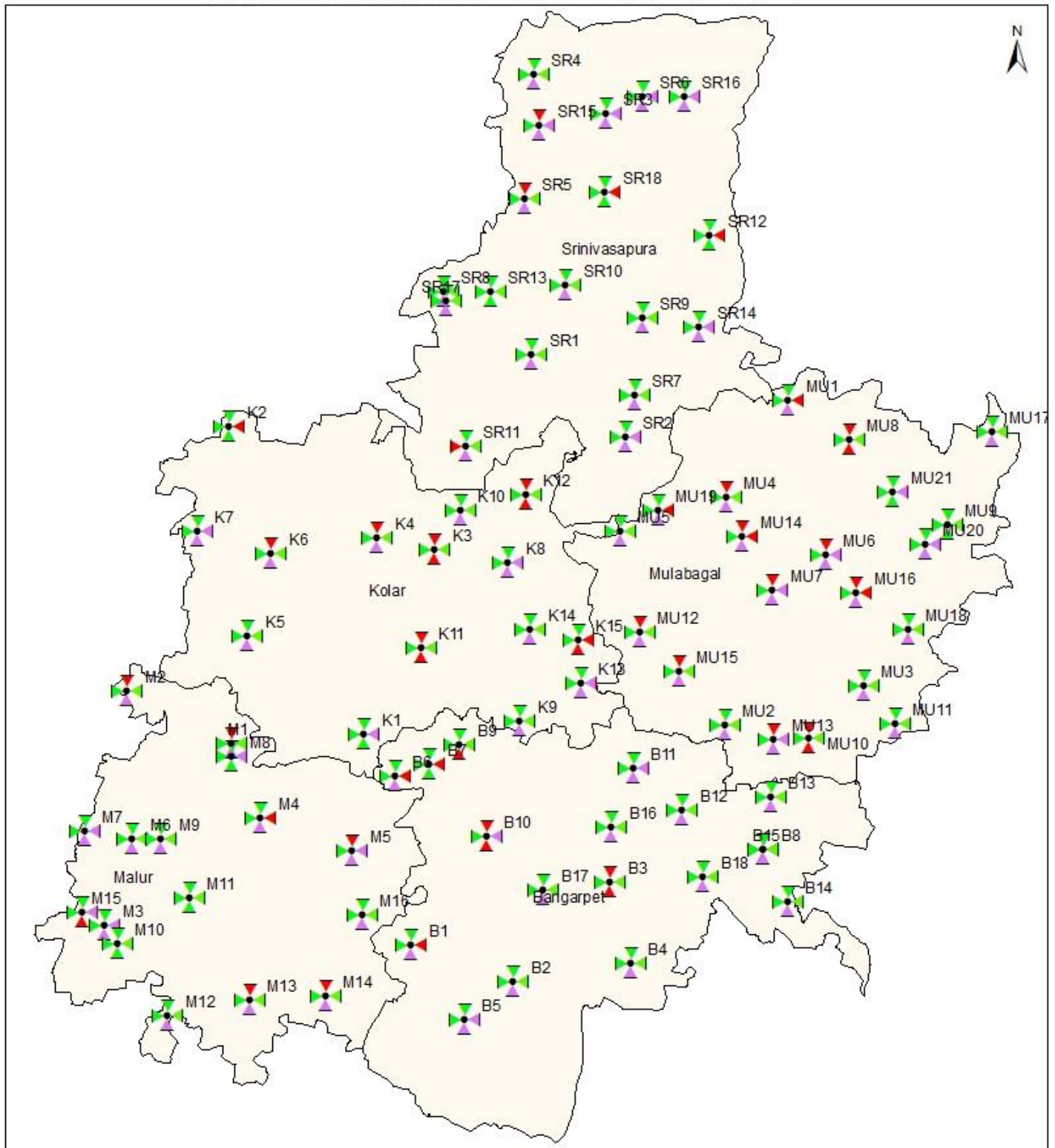
Water samples collected from 89 monitoring stations of Kolar District were analysed. Results of chemical analysis are given in Table-25. Out of 89 samples analysed 25 samples (28%) Viz., 2 sample from Bangarpete taluk, 6 samples from Kolar taluk, 5 samples from Malur taluk, 10 Sample from Mulabagl taluk and 2 Samples from Srinivaspura taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 1 mg/L and 204 mg/L. The maximum Nitrate content found in Jaylur station of Mulbagal Taluk.

Out of 89 samples analysed 12 samples (13%) Viz., 3 samples from Bangarpet Taluk, 2 samples from Kolar taluk, 1 sample from Malur taluk and 4 samples from Mulbagal taluk and 2 samples from Srinivaspura contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.08 mg/L and 3.92 mg/L. The maximum Fluoride content found in Gullahalli station of Bangarpet Taluk.

Out of 89 samples analysed 01 samples (1%) Viz., 1 sample from Srinivaspura Taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Total Iron varies between 0.02 mg/L and 0.36 mg/L. The maximum limit of Iron content found in Dalasanur station of Srinivaspura Taluk.

Out of 89 samples analysed, 10 samples (11%) Viz., 3 samples from Bangarapet Taluk, 4 samples from Kolar Taluk, 1 sample from Malur Taluk and 2 samples from Mulbagal Taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 80 mg/L and 1064 mg/L. The maximum Total Hardness content found in Kolar station of Kolar Taluk.

WATER QUALITY DATA OF KOLAR DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

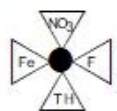


Table - 26

WATER QUALITY DATA OF KODAGU DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Kodagu	Madikeri	Appangala	04	0.14	0.03	94	12.3905	75.7179	12014	M1
2	Kodagu	Madikeri	Kunjila	33	0.13	0.13	253	12.2625	75.6583	120112HP	M2
3	Kodagu	Madikeri	Devarakolli	05	0.19	0.01	76	12.4514	75.5722	120102	M3
4	Kodagu	Madikeri	Sampaje	0.01	0.10	0.01	130	12.4686	75.5675	120111BW	M4
5	Kodagu	Madikeri	Cherambanne	10	0.09	0.01	278	12.3667	75.6206	120113HP	M5
6	Kodagu	Madikeri	Bagamandala	03	0.15	0.02	128	12.3861	75.5192	120106	M6
7	Kodagu	Madikeri	Cheyandane	0.01	0.11	0.06	150	12.2625	75.6883	120109	M7
8	Kodagu	Madikeri	Madikeri	17	0.13	0.05	104	12.4194	75.7344	120101	M8
9	Kodagu	Madikeri	Napoklu	15	0.13	0.01	123	12 18 41	75 41 28	120117hp	M9
10	Kodagu	Madikeri	Murnad	13	0.14	0.01	150	12 18 9.71	75 44 3.84	120116 hp	M10
11	Kodagu	Somavarpete	Somavarpet	20	0.13	0.01	218	12.5972	75.8500	120204	S1
13	Kodagu	Somavarpete	Kodlpete	02	0.17	0.02	269	12.8003	75.8844	120206	S2
14	Kodagu	Somavarpete	Beluru	32	0.19	0.12	241	12.5564	75.8591	120212BW	S3
15	Kodagu	Somavarpete	Hebbali	04	0.14	0.05	419	12.5278	75.9778	120208	S4
16	Kodagu	Somavarpete	Suntikoppa	02	0.13	0.01	330	12.4528	75.8333	120210HP	S5
17	Kodagu	Somavarpete	Kushalnagar	0.01	0.16	0.01	209	12 27 28	75 57 33	120209hp	S6
18	Kodagu	Somavarpete	Sanivarsante	16	0.11	0.03	366	12 43 24	75 53 45	120211hp	S7
19	Kodagu	Somavarpete	Madapura	25	0.15	0.03	346	12 30 7347	75 48 31.48	120214	S8
20	Kodagu	Virajpet	Ammathi	0.01	0.31	0.09	304	12.2386	75.8561	HP2-05	V1
22	Kodagu	Virajpet	Virajpet	18	0.23	0.01	205	12.1967	75.8017	HP2-05	V2
23	Kodagu	Virajpet	Gonikoppa	04	0.34	0.01	327	12.1861	75.9197	120303	V3
24	Kodagu	Virajpet	Ponnampete	33	0.19	0.01	199	12.1396	75.9455	120320BW	V4
25	Kodagu	Virajpet	Srimangala	15	0.17	0.01	245	12.0167	75.9944	120305	V5
26	Kodagu	Virajpet	Kutta	04	0.30	0.09	150	11.9694	76.0489	120317HP	V6
27	Kodagu	Virajpet	Nagarahole	17	0.11	0.01	192	11.9858	76.0847	120319BW	V7
28	Kodagu	Virajpet	Maldare	09	0.11	0.01	391	12 19 00	75 56 05	120314hp	V8
29	Kodagu	Virajpet	Balele	02	0.31	0.01	232	12 09 23	76 01 07	120318bw	V9
30	Kodagu	Virajpet	Kondangeri	03	0.33	0.01	376	12 17 55	75 47 43	120316bw	V10

	Alternate Source
	Not Potable

KODAGU DISTRICT:

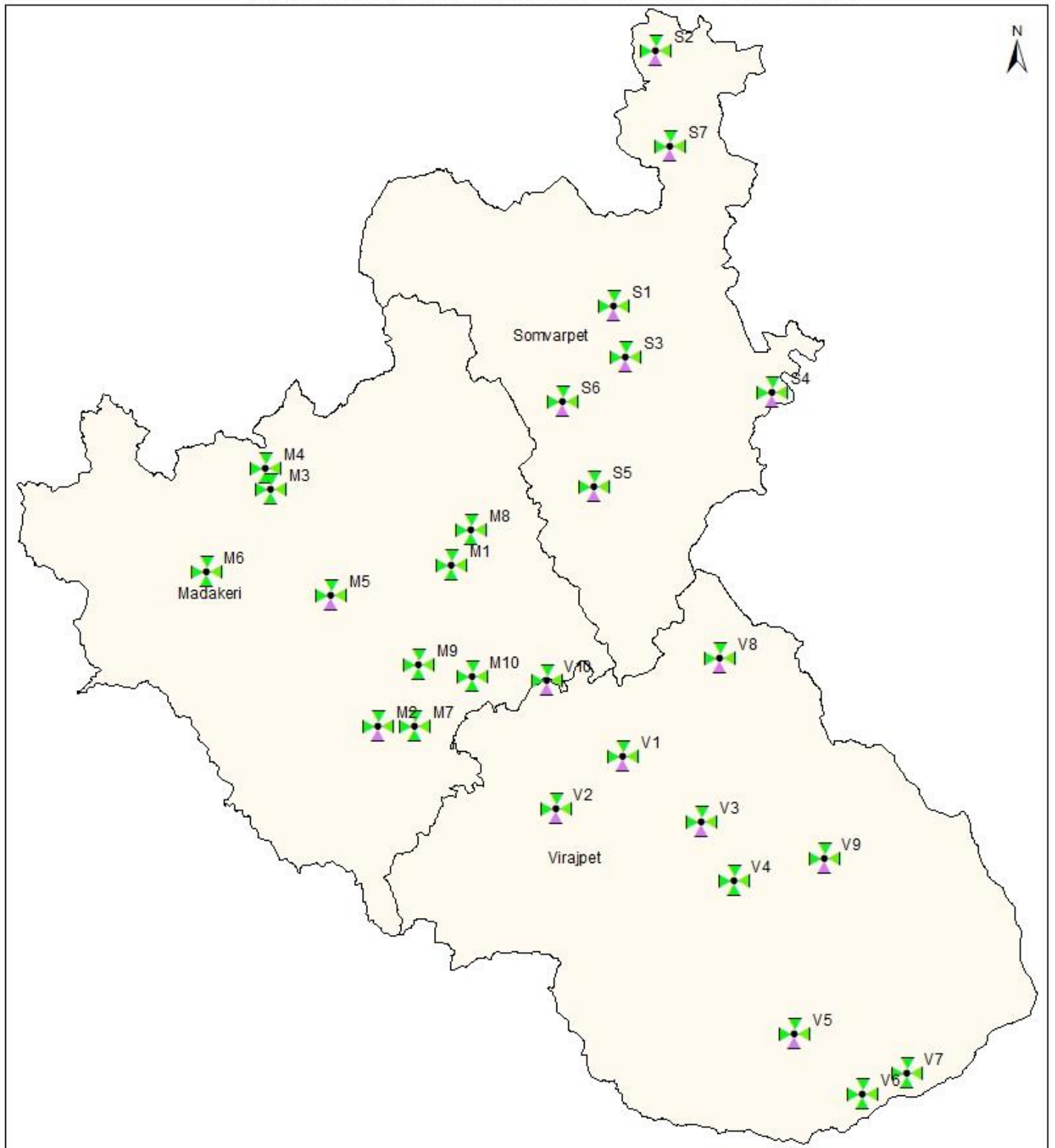
Water samples collected from 30 monitoring stations of Madikeri District were analysed. Results of chemical analysis are given in Table-26. Samples collected from 30 monitoring stations do not contain Nitrate content beyond the Acceptable limit of Indian Drinking water specification. The content of Nitrate varies between 0.01 mg/L and 33 mg/L. The maximum limit of Nitrate content found in Kunjila station of Madikeri Taluk.

Samples collected from 30 monitoring stations do not contain Fluoride content beyond the Permissible limit of Indian Drinking water specification. The content of Fluoride varies between 0.09 mg/L and 0.34 mg/L. The maximum limit of Fluoride content found in Gonikoppa station of Virajpet Taluk.

Samples collected from 30 monitoring stations do not contain Total Iron content beyond the Acceptable limit of Indian Drinking water specification. The content of Total Iron varies between 0.01 mg/L and 0.13 mg/L. The maximum limit of Total Iron content found in Kunjila station of Madikeri Taluk.

Samples collected from 30 monitoring stations do not contain Total Hardness content beyond the Permissible limit of Indian Drinking water specification. The content of Total Hardness varies between 76 mg/L and 419 mg/L. The maximum limit of Total Hardness content found in Hebbali station of Somavarpete Taluk.

WATER QUALITY DATA OF KODAGU DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

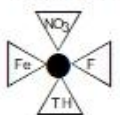


Table - 27

WATER QUALITY DATA OF MANDYA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Mandya	K.R.Pete	S.B. Halli	04	00.47	00.04	380	76.5823	12.8090	140118	K1
2	Mandya	K.R.Pete	K.R.Pete	120	00.31	0.01	820	76.4886	12.6572	140112	K2
3	Mandya	K.R.Pete	Akkihabbal	0.01	00.27	00.03	124	76.3918	12.6220	140101	K3
4	Mandya	K.R.Pete	Mandagere	0.01	00.41	0.01	320	76.3775	12.7308	140117	K4
5	Mandya	K.R.Pete	Kikkeri	18	00.71	0.01	380	76.4258	12.7636	140126	K5
6	Mandya	K.R.Pete	Hirekalale	20	00.33	0.01	384	76.4585	12.7151	140122	K6
7	Mandya	K.R.Pete	Hadanoru	14	00.71	0.01	360	76.5490	12.6071	140111	K7
8	Mandya	K.R.Pete	Kottigehalli	0.01	00.69	00.02	440	76.5576	12.7374	140116	K8
9	Mandya	Maddur	Kandli	30	00.37	0.01	724	76.9314	12.7901	140211	M1
10	Mandya	Maddur	Koppa	09	00.31	00.37	365	76.9562	12.7113	140207	M2
11	Mandya	Maddur	Kesturu	0.01	00.31	00.35	596	77.0603	12.6941	140209	M3
12	Mandya	Maddur	Maddur	40	00.29	00.13	324	77.0381	12.5825	140212	M4
13	Mandya	Maddur	H.Doddi	30	00.41	0.01	472	77.0322	12.5214	140203	M5
14	Mandya	Maddur	T.B.Halli	0.31	01.57	0.01	1675	77.0911	12.4731	140213	M6
15	Mandya	Maddur	Maddur	06	00.33	00.22	280	77.0418	12.5841	140212	M7
16	Mandya	Maddur	Besagarahalli	12	01.47	0.01	424	76.9934	12.6380	140202	M8
17	Mandya	Malavalli	Nelamakanahalli	03	00.27	0.01	392	77.0428	12.4256	140315	MV1
18	Mandya	Malavalli	Haadli	30	00.39	0.01	720	77.1879	12.4265	140312	MV2
19	Mandya	Malavalli	T.K.Halli	170	00.31	0.01	856	77.2007	12.4085	140316	MV3
20	Mandya	Malavalli	Konnapura	06	00.29	00.04	328	77.2333	12.4370	140308	MV4
21	Mandya	Malavalli	Belakavadi	15	00.27	02.79	400	77.1230	12.2578	140309	MV5
22	Mandya	Malavalli	Bhuvalli	09	00.29		360	77.0260	12.3059	140310	MV6
23	Mandya	Malavalli	Malavalli	09	00.33	0.01	464	77.0596	12.3830	140318	MV7
24	Mandya	Malavalli	Kirugavalu	42	00.39		320	76.9461	12.3572	140314	MV8
25	Mandya	Mandya	Javanahalli	130	00.33	0.01	840	76.7441	12.6395	140415	MD1
26	Mandya	Mandya	Pura	60	00.37	0.01	352	76.9366	12.4694	140416	MD2
27	Mandya	Mandya	Biledegalu	110	01.57	0.01	440	76.8718	12.6247	140419	MD3
28	Mandya	Mandya	Baby	03	01.53	0.01	428	76.8513	12.6842	140407	MD4
29	Mandya	Mandya	Boodanuru	90	00.27	00.03	868	76.9463	12.5464	140421	MD5
30	Mandya	Mandya	Toobinakere	40	00.39	00.02	476	76.7973	12.4952	140420	MD6
31	Mandya	Mandya	Mandya	10	00.34	0.01	316	76.8983	12.5257	140422	MD7
32	Mandya	Mandya	Bevakallu	60	00.41	0.01	684	76.7734	12.6113	140426	MD8
33	Mandya	Mandya	M.C.Halli	45	01.59	0.01	412	76.8028	12.5586	140406	MD9
34	Mandya	Nagamangala	Honnekere	03	01.07	0.01	684	76.7037	12.7112	140513	N1
35	Mandya	Nagamangala	Lingammanahundi	100	00.51	0.01	616	76.8122	12.7396	140519	N2
36	Mandya	Nagamangala	Nagamangala	10	00.54	00.03	332	76.7519	12.8342	140525	N3
37	Mandya	Nagamangala	Shivanahalli	06	00.27	00.02	380	76.6912	12.8523	140512	N4
38	Mandya	Nagamangala	Bindiganavile	72	00.63	0.01	552	76.6300	12.8820	140521	N5
39	Mandya	Nagamangala	Kadaballi	04	00.51	00.05	396	76.6417	12.9635	140523	N6

1	2	3	4	5	6	7	8	9	10	11	12
40	Mandya	Nagamangala	Belluru	20	00.37	0.01	572	76.7348	12.9822	140501	N7
41	Mandya	Nagamangala	Nelligere	04	01.63	00.06	448	76.7606	12.9599	140518	N8
42	Mandya	Nagamangala	Milarapatna	0.01	00.34	00.05	492	76.8046	12.8834	140522	N9
43	Mandya	Nagamangala	Devalapura	01	00.43	00.03	576	76.8672	12.8165	140511	N10
44	Mandya	Nagamangala	Kanthapura	90	01.56	0.01	468	76.6854	12.7646	140506	N11
45	Mandya	Pandavapura	Chinakurali	72	00.32	0.01	708	76.5987	12.5400	140611	P1
46	Mandya	Pandavapura	M.Pura	69	01.59	0.01	528	76.6693	12.5721	140622	P2
47	Mandya	Pandavapura	Amruthi	15	01.57	00.09	560	76.6799	12.6358	140619	P3
48	Mandya	Pandavapura	Melukote	21	00.42	0.01	324	76.6482	12.6634	140617	P4
49	Mandya	Srirangapatna	Belagola	54	00.39	0.01	320	76.6094	12.3923	140703	S1
50	Mandya	Srirangapatna	Naguvinahalli	80	00.19	00.05	540	76.6861	12.3884	140709	S2
51	Mandya	Srirangapatna	Srirangapatna	22	00.33	0.01	336	76.6894	12.4244	140708	S3
52	Mandya	Srirangapatna	Harakere	02	0.01	0.01	404	76.8138	12.4108	140702	S4

	Alternate Source
	Not Potable

MANDYA DISTRICT:

Water samples collected from 52 monitoring stations of Mandya District were analysed. Results of chemical analysis are given in Table-27. Out of 52 samples analysed 15 samples (29%) Viz., 1 sample from K.R Pete Taluk, 1 sample from Malavalli Taluk, 6 samples from Mandya Taluk, 3 Sample from Nagamangala Taluk, 2 Samples from Pandavapura Taluk and 2 Samples from Srirangapatna Taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 0.01 mg/L and 170 mg/L. The maximum Nitrate content found in T.K Halli station of Malavalli Taluk.

Out of 52 samples analysed 8 samples (15%) Viz., 1 sample from Maddur Taluk, 3 samples from Mandya Taluk, 2 samples from Nagamangala Taluk and 2 samples from Pandavapura Taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.01 mg/L and 1.63 mg/L. The maximum Fluoride content found in Nelligere Station of Nagamangala Taluk.

Out of 52 samples analysed 03 samples (6%) Viz., 1 sample from Malavalli and 2 Samples from Maddur Taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Total Iron varies between 0.01

mg/L and 2.79 mg/L. The maximum limit of Iron content found in Belakavadi Station of Malavalli Taluk.

Out of 52 samples analysed, 11 samples (21%) Viz., 1 sample from K.R Pete Taluk, 2 samples from Maddur Taluk, 2 samples from Malavalli Taluk, 3 samples from Mandya Taluk, 2 Samples from Nagamangala Taluk and 1 Sample from Pandavapura contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 124 mg/L and 1675 mg/L. The maximum Total Hardness content found in T.B Halli Station of Maddur Taluk.

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WATER QUALITY DATA OF MANDYA DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

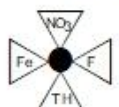


Table - 28

WATER QUALITY DATA OF MYSORE DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Mysore	Hunsur	Gowdagere	30	0.51	0.03	636	12.3991	76.3392	150403	H1
2	Mysore	Hunsur	Kattomalawadi	171	0.46	0.05	820	12.3533	76.2906	150411	H2
3	Mysore	Hunsur	C.Colony	30	0.31	0.03	452	12.2983	76.4372	150405	H3
4	Mysore	Hunsur	Hunsur	35	0.53	0.13	680	12.3129	76.2885	150403	H4
5	Mysore	Hunsur	Kamagowdanahalli	48	0.29	0.01	560	12.2567	76.1995	150410	H5
6	Mysore	Hunsur	Somanahalli	57	0.44	0.01	548	12.3208	76.3413	150412	H6
7	Mysore	Hunsur	Chilakunda	170	0.29	0.01	840	12.3396	76.1864	150908	H7
8	Mysore	H.D Kote	H.D.Kote	9	0.53	0.02	624	12.0880	76.3315	150301	HD1
9	Mysore	H.D Kote	Devalapura	33	0.38	0.03	472	12.0432	76.3774	150314	HD2
10	Mysore	H.D Kote	Antarasante	6	0.38	0.01	1900	12.0166	76.2986	150307	HD3
11	Mysore	H.D Kote	Gangadahosahalli	70	0.51	0.07	948	12.2323	76.4392	150309	HD4
12	Mysore	H.D Kote	Hampapura	180	0.27	0.01	1196	12.1210	76.4706	150310	HD5
13	Mysore	H.D Kote	Mulluru	57	0.51	0.05	592	11.9788	76.4771	150311	HD6
14	Mysore	H.D Kote	Chikkriyur	87	0.31	0.09	804	12.1462	76.3759	150320	HD7
15	Mysore	H.D Kote	Sarguru	40	0.43	0.11	936	11.9993	76.3980	150313	HD8
16	Mysore	H.D Kote	D.B.Kuppe	36	0.33	0.01	476	11.8697	76.1467	150315	HD9
17	Mysore	K.R.Nagara	Chunchanakatte	12	0.56	0.02	536	12.5035	76.2944	150602	K1
18	Mysore	K.R.Nagara	Bherya	110	0.31	0.01	760	12.5879	76.3504	150608	K2
19	Mysore	K.R.Nagara	Thandre	50	0.39	0.11	588	12.6031	76.2702	150609	K3
20	Mysore	K.R.Nagara	Malali	3	0.30	0.19	536	12.4505	76.2995	150610	K4
21	Mysore	K.R.Nagara	K.R.Nagara	9	0.75	0.01	344	12.4358	76.3793	150601	K5
22	Mysore	K.R.Nagara	Haradanahalli	4	0.26	0.01	192	12.5814	76.2082	150603	K6
23	Mysore	K.R.Nagara	Bomanahalli	6	0.28	0.39	328	12.5453	76.3699	150611	K7
24	Mysore	Mysore	Kadakola	100	0.31	0.08	536	12.1934	76.6653	150712	M1
25	Mysore	Mysore	Keelanapura	35	0.37	0.01	748	12.2530	76.8187	150715	M2
26	Mysore	Mysore	Jayapura	80	0.30	0.01	832	12.2055	76.5554	150702	M3
27	Mysore	Mysore	Alanahalli	4	0.37	0.03	240	12.2994	76.7015	150708	M4
28	Mysore	Mysore	Elwala	36	0.34	0.05	764	12.3563	76.5442	150711	M5
29	Mysore	Mysore	Siddalingapura	21	0.31	0.03	248	12.3654	76.6614	150719	M6
30	Mysore	Mysore	Mysore city hebbal	24	0.38	0.04	396	12.3488	76.6124	150720	M7
31	Mysore	Nanjangud	Hura	120	0.30	0.06	624	12.0038	76.5440	150815	N1
32	Mysore	Nanjangud	Sinduvalli pura	36	0.31	0.01	308	12.0311	76.6743	150804	N2
33	Mysore	Nanjangud	Hanumanapura	45	0.27	0.01	368	12.0549	76.8634	150805	N3
34	Mysore	Nanjangud	Hullahalli	90	0.29	0.01	420	12.0987	76.5556	150809	N4
35	Mysore	Nanjangud	Kowlande	80	0.34	0.01	472	12.0321	76.7998	150811	N5
36	Mysore	Nanjangud	Tagaduru	65	0.34	0.01	500	12.0934	76.8113	150810	N6
37	Mysore	Nanjangud	Beguru	65	0.27	0.01	664	12.1198	76.6420	150812	N7
38	Mysore	Nanjangud	Kothanahalli	10	0.34	0.03	628	11.9283	76.5673	150814	N8
39	Mysore	Nanjangud	Kalale	10	0.26	0.04	348	12.0726	76.6630	150813	N9

1	2	3	4	5	6	7	8	9	10	11	12
40	Mysore	Nanjangud	Biligere	25	0.37	0.01	316	12.1531	76.8016	150802	N10
41	Mysore	Nanjangud	Nanjungudu	30	0.21	0.01	368	12.1232	76.6838	150801	N11
42	Mysore	Periyapatna	Piriyapatna	10	0.36		432	12.3380	76.0974	150901	P1
43	Mysore	Periyapatna	Kundahalli	54	0.41	0.37	424	12.3817	76.0370	150910	P2
44	Mysore	Periyapatna	Kitturu	57	0.54	0.09	408	12.4958	76.2097	150911	P3
45	Mysore	Periyapatna	Kanagal	36	0.27	0.01	448	12.5605	76.0270	150912	P4
46	Mysore	Periyapatna	Sulugodu	56	0.39	0.20	460	12.3118	76.0409	150917	P5
47	Mysore	Periyapatna	Dodda Nerale	8	0.34	0.01	464	12.4765	76.0468	150913	P6
48	Mysore	T.Narasipura	Muguru	20	0.19	0.36	644	12.1338	76.9483	151003	T1
49	Mysore	T.Narasipura	Bannuru	14	0.36	0.01	404	12.3301	76.8604	151004	T2
50	Mysore	T.Narasipura	Turuganuru	42	0.31	0.03	472	12.3844	76.9011	151008	T3
51	Mysore	T.Narasipura	Budahalli	6	0.37	0.01	384	12.2852	76.9375	151010	T4
52	Mysore	T.Narasipura	T.Narasipura	27	0.34	0.01	460	12.2089	76.9026	151001	T5
53	Mysore	T.Narasipura	Hemmige	8	0.30	0.01	316	12.2076	77.0055	151009	T6
54	Mysore	T.Narasipura	Bannahalihundi	3	0.34	0.05	596	12.1832	76.8641	151009	T7
55	Mysore	Mysore	Devalapura	27	0.32	0.03	676	11.22 48 80	76.70 04 21	150722	M8

	Alternate Source
	Not Potable

MYSORE DISTRICT:

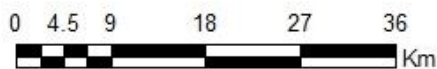
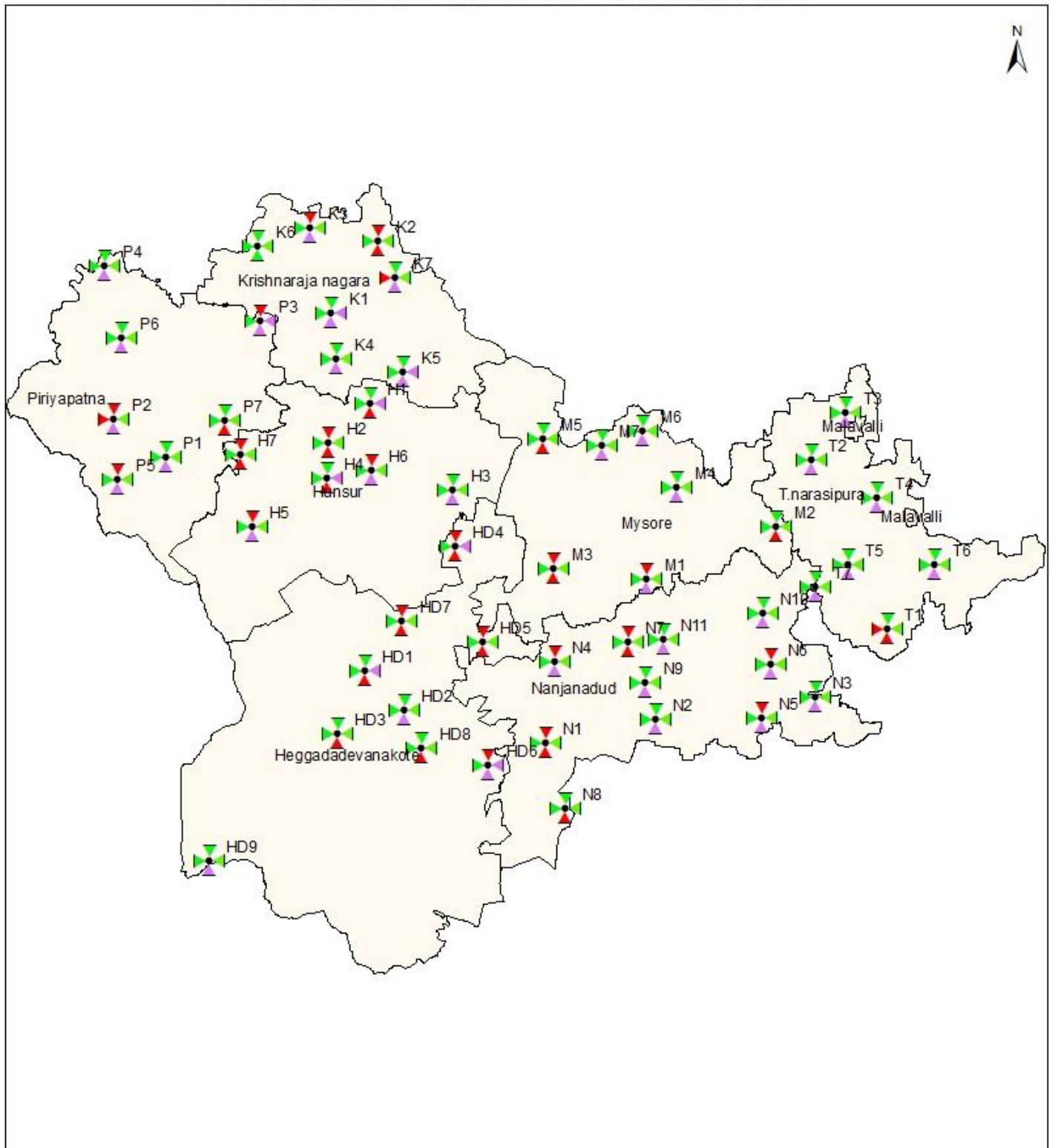
Water samples collected from 55 monitoring stations of Mysore District were analysed. Results of chemical analysis are given in Table-28. Out of 55 samples analysed 20 samples (36%) Viz., 4 samples from H.D Kote taluk, 4 samples from Hunsur taluk, 2 samples from K.R Nagar taluk, 2 sample from Mysore taluk, 5 samples from Nanjanagudu taluk and 3 samples from Periyapatna taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 03 mg/L and 180 mg/L. The maximum Nitrate content found in Hampapura station of H.D Kote taluk.

Samples collected from 55 monitoring stations do not contain Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies between 0.19 mg/L and 0.75 mg/L. The maximum limit of Fluoride content found in K.R Nagar station of K.R Nagar taluk.

Out of 55 samples analysed, 03 samples (5%) Viz., 1 sample from K.R Nagar taluk, 1 Sample from Periyapatna and 1 Sample from T. Narasipura taluk, contained Total Iron content beyond the Acceptable limit of Indian Drinking water specification. The Iron content varies between 0.01 mg/L and 0.39 mg/L. The maximum Iron content found in Bommanahalli Station of K.R Nagar taluk.

Out of 55 samples analysed, 19 samples (34%) Viz., 6 samples from H.D Kote taluk, 4 Samples from Hunsur taluk, 1 Sample from K.R Nagar taluk, 4 Samples from Mysore taluk, 3 Samples from Nanjanagudu taluk and 1 Sample from T Narasipura contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 192 mg/L and 1900 mg/L. The maximum Total Hardness content found in Antarasanthe Station of H.D Kote taluk.

WATER QUALITY DATA OF MYSORE DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

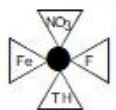


Table - 29

WATER QUALITY DATA OF RAMANAGARA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L			
1	2	3	4	5	6	7	8	9	10	12
1	Ramanagara	Kanakapura	Harohalli	202	0.36	0.15	880	12 40 50	77 28 12	K1
2	Ramanagara	Kanakapura	Doddamaralawadi	4	0.86	0.28	360	12 33 35	77 31 28	K2
3	Ramanagara	Kanakapura	Toppaganahalli	17	1.10	0.02	500	12 36 35	77 26 08	K3
4	Ramanagara	Ramanagar	Kanakapura	37	0.64	0.05	440	12 32 45	77 25 9	R1
5	Ramanagara	Ramanagar	Jakkigowdana Doddi	35	0.97	0.03	388	12 26 45	77 19 40	R2
6	Ramanagara	Kanakapura	Doddaramgere	6	0.78	0.04	440	12 25 49	77 32 31	K4
7	Ramanagara	Kanakapura	Hosadurga	2	1.54	0.05	384	12 24 52	77 33 12	K5
8	Ramanagara	Kanakapura	Kodihalli	20	1.11	0.03	632	12°26'06"	77°29'42"	K6
9	Ramanagara	Kanakapura	Mullahalli	41	0.67	0.05	436	12 23 29	77 26 45	K7
10	Ramanagara	Kanakapura	Dodda Alahalli	82	0.76	0.04	620	12 24 5	77 23 15	K8
11	Ramanagara	Kanakapura	Sathanur	2	0.23	0.09	176	12°26'45'	77°19'37"	K9
12	Ramanagara	Kanakapura	Kabbalu	28	1.39	0.03	364	12 29 53	77 18 29	K10
13	Ramanagara	Channapatna	B.V. Halli	14	0.51	0.04	412	12°35'10'	77°14'10"	C1
14	Ramanagara	Ramanagar	Channapatna	31	0.71	0.03	392	12 39 10	77 12 10	C2
15	Ramanagara	Channapatna	Mathigere	8	0.35	0.05	375	12°38'15"	77°16'40"	C3
16	Ramanagara	Channapatna	K.H. Gudi	8	0.50	0.10	324	12 41 18	77 14 10	C4
17	Ramanagara	Ramanagar	Kailancha	29	1.35	0.04	532	12°39'58"	77°19'30"	R3
18	Ramanagara	Ramanagar	Ramanagar	49	1.41	0.08	496	12 43 59	77 17 34	R4
19	Ramanagara	Ramanagar	Doddasulikere	7	1.62	0.06	280	12 51 07	77 18 02	R5
20	Ramanagara	Magadi	V.G. Doddi	4	1.76	0.21	240	12 53 40	77 16 40	M1
21	Ramanagara	Magadi	Thagachiguppe	34	1.62	0.03	376	12 57 37	77 17 24	M2
22	Ramanagara	Ramanagar	Magadi	5	0.52	0.11	196	12 57 36	77 14 43	R3

1	2	3	4	5	6	7	8	9	10	12
23	Ramanagara	Magadi	Gudimaranahalli	15	0.95	0.08	320	13 03 44	77 16 04	M3
24	Ramanagara	Magadi	Soluru	38	0.55	0.09	140	13 04 10	77 14 35	M4
25	Ramanagara	Magadi	Arshinakunte	34	1.23	0.10	348	13 05 31	77 12 52	M5
26	Ramanagara	Magadi	Hulikallu	11	0.44	0.10	216	13 08 15	77 08 55	M6
27	Ramanagara	Magadi	Thalekote	24	0.77	0.05	344	13 02 19	77 06 36	M7
28	Ramanagara	Magadi	Hulikatte	0.06	0.41	0.03	340	12 53 20	77 08 40	M8
29	Ramanagara	Magadi	Agalakote	135	0.73	0.03	512	12 54 25	77 10 10	M9
30	Ramanagara	Ramanagar	Kanchidoddi	18	1.45	0.05	360	12 47 21	77 13 20	R6
31	Ramanagara	Channapatna	Virupakshapura	1	0.31	0.88	384	12 34 45	77 13 15	C5
32	Ramanagara	Kanakapura	Thimmasandra	51	1.38	0.08	516	12 36 50	77 23 10	K11
33	Ramanagara	Kanakapura	Thuppaganahalli	18	1.80	0.05	428	12 36 35	77 26 08	K12

	Alternate Source
	Not Potable

RAMANAGARA DISTRICT:

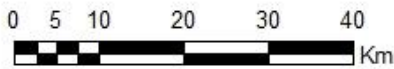
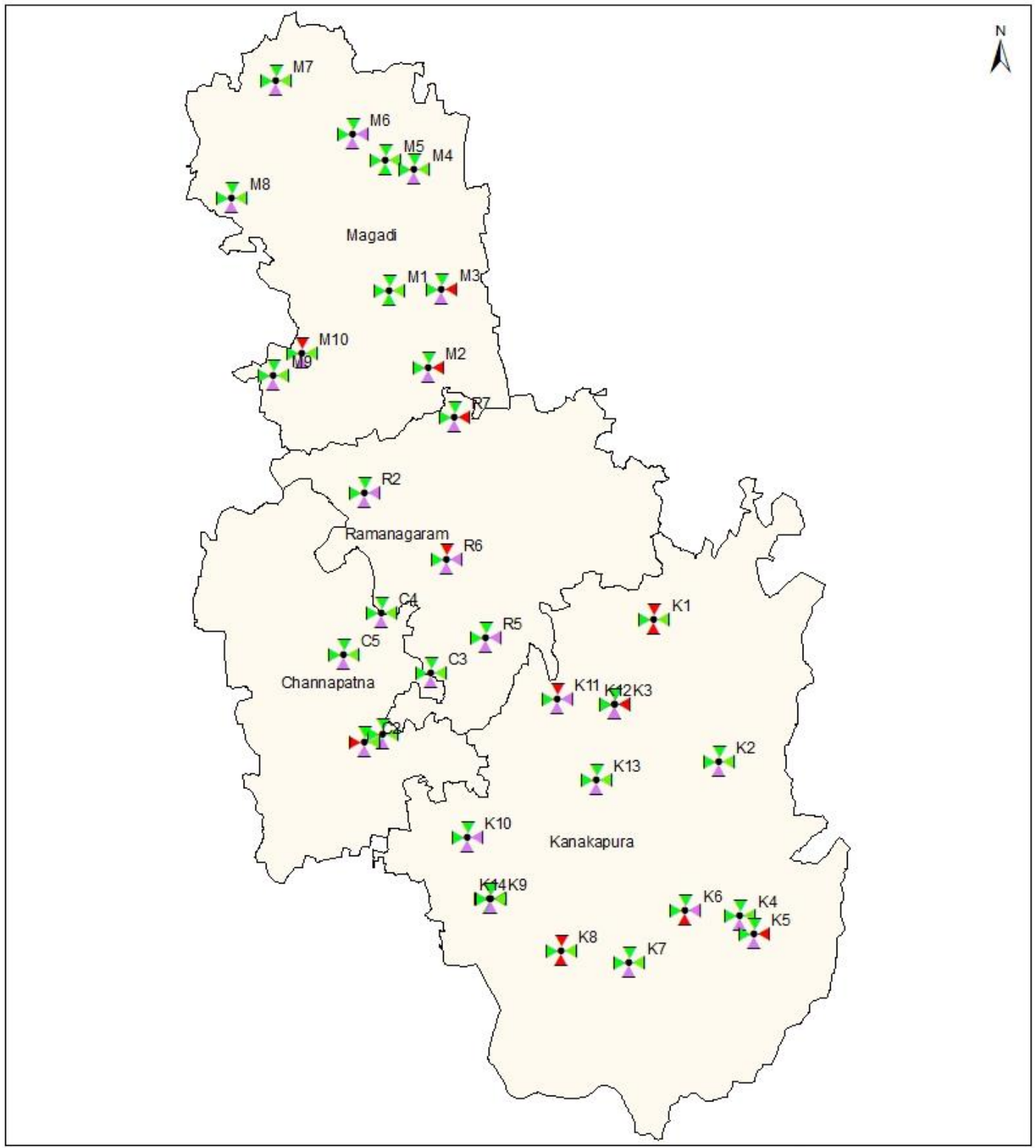
Water samples collected from 33 monitoring stations of Ramanagara District were analysed. Results of chemical analysis are given in Table-29. Out of 33 samples analysed 5 samples (15%) Viz., 3 samples from Kanakpura taluk, 1 sample from Magadi taluk and 1 sample from Ramanagara taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 0.06 mg/L and 202 mg/L. The maximum Nitrate content found in Harohalli station of Kanakpura taluk.

Out of 33 samples analysed 5 samples (15%) Viz., 2 samples from Kanakpura taluk, 2 samples from Magadi taluk and 1 sample from Ramanagara taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.31 mg/L and 1.80 mg/L. The maximum Fluoride content found in Thuppaganahalli station of Kanakpura taluk.

Out of 33 samples analysed 1 sample (3%) 1 sample from Channaptna taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Total Iron varies between 0.03 mg/L and 0.88 mg/L. The maximum limit of Total Iron content found in Virupakshapura station of Channaptna taluk.

Out of 33 samples analysed, 3 samples (9%) 3 samples from Kanakpura taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 140 mg/L and 880 mg/L. The maximum Total Hardness content found in Harohalli station of Kanakpura taluk.

WATER QUALITY DATA OF RAMANAGARA DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600



Table - 30

WATER QUALITY DATA OF SHIMOGA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Shimoga	Bhadravathi	Arabilachi	38	0.03	0.01	260	13.9274	75.7666	170102	B1
2	Shimoga	Bhadravathi	Agaradahalli	41	0.30	0.01	388	14.0068	75.7960	170106	B2
3	Shimoga	Bhadravathi	bhadravathi	23	0.03	0.01	88	13.8516	75.7101		B3
4	Shimoga	Bhadravathi	junction	21	0.03	0.01	64	13.7772	75.6258	170108HP	B4
5	Shimoga	Bhadravathi	Holehunnur	51	0.05	0.02	96	13.9853	75.6878		B5
6	Shimoga	Hosanagara	alagerimandri	6	0.07	0.03	96	14.0186	75.1583	170411	H1
7	Shimoga	Hosanagara	kotethariga	38	0.05	0.02	1061	13.9639	75.2095	170410	H2
8	Shimoga	Hosanagara	Huncha	32	0.03	0.08	52	13.8577	75.2129	170406HP	H3
9	Shimoga	Hosanagara	Hosanagar	61	0.07	0.75	76	13.9172	75.0675	170401	H4
10	Shimoga	Hosanagara	Nagara	42	0.03	1.30	104	13.8249	75.0334	170402	H5
11	Shimoga	Hosanagara	Rippnpet	63	0.05	0.01	280	13.9889	75.2597	170404	H6
12	Shimoga	Sagara	Anandapuram	43	0.03	0.02	20	14.0704	75.2149	170503	S1
13	Shimoga	Sagara	Avinahalli	42	0.05	0.03	116	14.0672	74.9935	170504	S2
14	Shimoga	Sagara	alahalli	18	0.02	0.03	100	14.1996	74.9393	170508HP	S3
15	Shimoga	Sagara	bommathi	16	0.03	0.02	100	14.1722	75.1028	170519HP	S4
16	Shimoga	Sagara	Gowthampura	17	0.03	0.03	164	14.1421	75.2365	170511	S5
17	Shimoga	Sagara	Hirenalluru	18	0.02	0.05	196	14.2714	74.9789	170516	S6
18	Shimoga	Sagara	kargal	22	0.02	0.05	80	14.1900	74.8139	170502	S7
19	Shimoga	Sagara	Keladi	21	0.01	0.03	212	14.2222	75.0167	170507	S8
20	Shimoga	Sagara	Sagara	26	0.01	0.07	56	14.1661	75.0250	170501	S9
21	Shimoga	Sagara	Sharadapura	28	0.01	0.01	80	14.1389	74.9944	170517	S10
22	Shimoga	Sagara	Thygarthi	18	0.02	0.03	160	14.1889	75.1750	170519	S11
23	Shimoga	Sagara	Thalaguppa	16	0.01	0.02	180	14.2146	74.9064	170510	S12
24	Shimoga	Shikaripura	Harogoppa	61	0.03	0.80	328	14.1820	75.4258	170603	SK1
25	Shimoga	Shikaripura	Hosour	15	0.02	0.05	432	14.2556	75.4722	170607A	SK2
26	Shimoga	Shikaripura	kutralli	17	0.07	0.03	340	14.2867	75.3137	170604	SK3
27	Shimoga	Shikaripura	Tharalaghatta	24	0.03	0.80	252	14.2208	75.3889	170601B	SK4
28	Shimoga	Shikaripura	Shikaripura	21	0.03	0.03	360	14.2639	75.3586	170601	SK5
29	Shimoga	Shikaripura	Shiralakoppa	32	0.02	0.80	292	14.3792	75.2522	170602HP	SK6
30	Shimoga	Shikaripura	Saluru	16	0.01	0.80	248	14.2236	75.3069	170612	SK7
31	Shimoga	Shikaripura	Taogarsi	28	0.03	0.01	348	14.4508	75.2102	170612	SK8
32	Shimoga	Shimoga	Chinmane	45	0.07	0.01	108	13.9986	75.3861	170711	SH1
33	Shimoga	Shimoga	Gajanuru	10	0.07	1.29	104	13.8500	75.5411	170704	SH2
34	Shimoga	Shimoga	Holaluru	18	0.80	0.05	112	14.0342	75.6792	170705	SH3
35	Shimoga	Shimoga	Haranahalli	21	0.08	1.30	432	14.0448	75.4595	170710	SH4
36	Shimoga	Shimoga	Kumsi	28	0.03	0.03	224	14.0522	75.4000	170703	SH5
37	Shimoga	Shimoga	Kunchenahalli	32	0.31	0.01	420	14.0569	75.5494	170712	SH6
38	Shimoga	Shimoga	melinattanada	16	0.75	0.01	240	13.9722	75.6192	170702	SH7
39	Shimoga	Shimoga	machenahalli	18	0.02	0.02	328	13.8847	75.6492	170709	SH8
1	2	3	4	5	6	7	8	9	10	11	12
40	Shimoga	Shimoga	shimoga	15	0.03	0.03	92	13.9334	75.5770	170701	SH9
41	Shimoga	Soraba	Anavatti	32	0.02	0.08	280	14.5639	75.1522	170804	SO1

42	Shimoga	Soraba	Hosabele	16	0.01	0.03	136	14.3167	75.0472	170811	SO2
43	Shimoga	Soraba	Hunasavalli	18	0.02	0.05	136	14.5389	75.1892	170808	SO3
44	Shimoga	Soraba	Joladagudde	3	0.02	0.03	72	14.4189	74.9764	170803	SO4
45	Shimoga	Soraba	jade	18	0.03	0.08	268	14.5717	75.0500	170812	SO5
46	Shimoga	Soraba	Kappagadde	28	0.03	0.30	300	14.4764	75.1139	170807HP	SO6
47	Shimoga	Soraba	Soraba	29	0.01	0.08	620	14.3794	75.0975	170801	SO7
48	Shimoga	Soraba	Ulavi	16	0.02	0.09	96	14.2722	75.1092	170802	SO8
49	Shimoga	Soraba	Biluvani	42	0.03	0.08	100	14.3803	75.2111		SO9
50	Shimoga	Soraba	Shipapura	32	0.04	0.08	44	14.3802	75.2111	170809	SO10
51	Shimoga	Soraba	Elsi	38	0.79	0.08	400	14.3722	75.05	170805	SO11
52	Shimoga	Soraba	Agasavalli	17	0.03	0.03	328	14.6072	75.1522	170806A	SO12
53	Shimoga	Tirthahalli	Agumbe	21	0.02	0.20	72	13.5056	75.0944	170902	T1
54	Shimoga	Tirthahalli	Devangi	25	0.03	0.03	88	13.6306	75.2833	170908	T2
55	Shimoga	Tirthahalli	Heggodu	46	0.40	0.04	56	13.6306	75.1832	170904	T3
56	Shimoga	Tirthahalli	Konanduru	18	0.02	0.06	84	13.8103	75.2492	170903	T4
57	Shimoga	Tirthahalli	Kannangi	18	0.05	0.05	108	13.7917	75.3653	170906	T5
58	Shimoga	Tirthahalli	Naluru	28	0.05	0.01	40	13.5944	75.1361	170905	T6
59	Shimoga	Tirthahalli	Shivarajapura	30	0.30	0.03	40	13.6847	75.2194	170907	T7
60	Shimoga	Tirthahalli	Tirthahalli	42	0.02	0.03	92	13.6889	75.2500	170901A	T8
61	Shimoga	Tirthahalli	Thuduru	19	0.03	0.03	108	13.7125	75.3817		T9

	Alterete Source
	Not Potable

SHIMOGA DISTRICT:

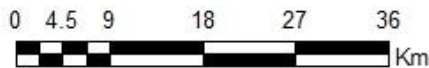
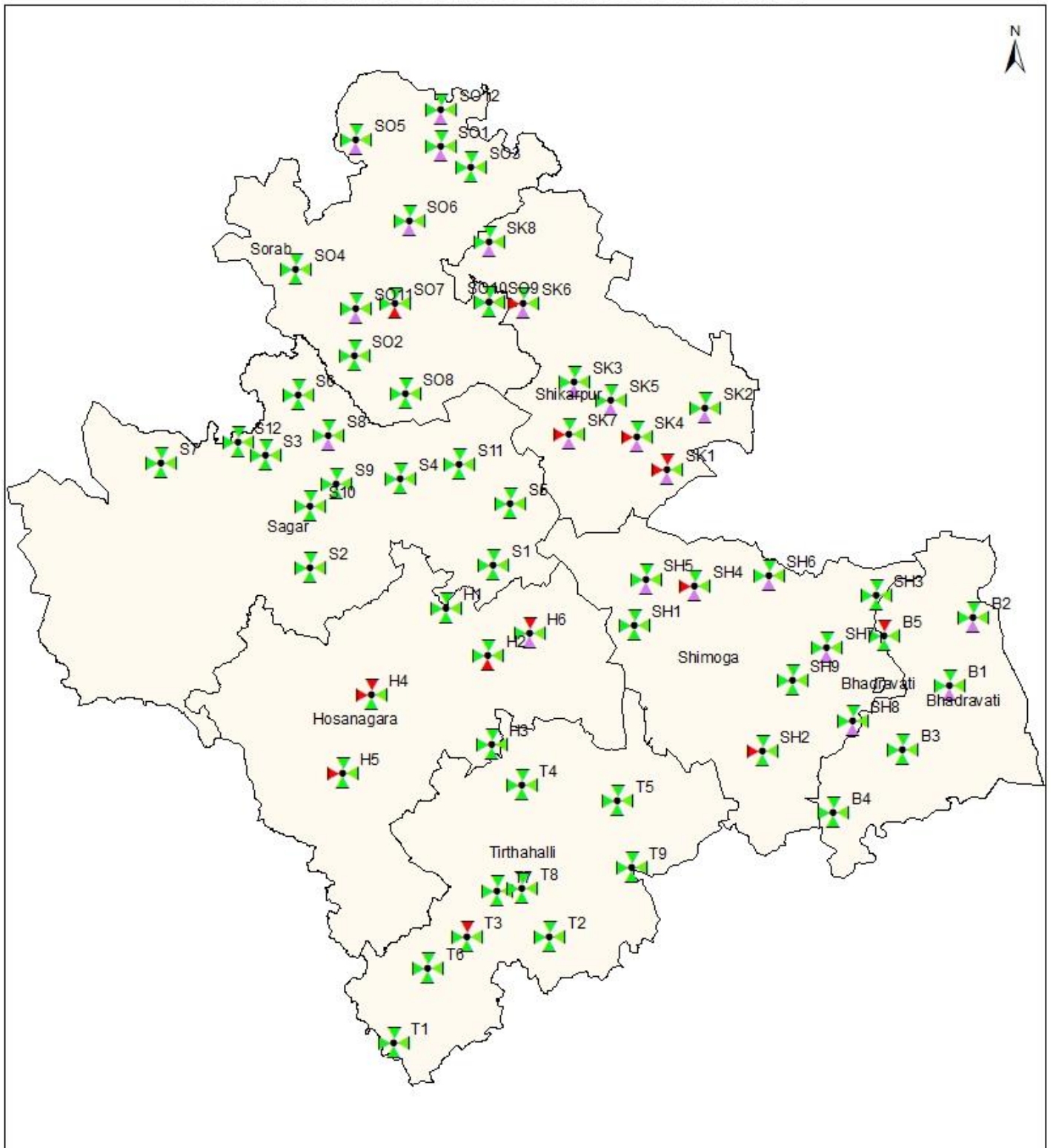
Water samples collected from 61 monitoring stations of Shimoga District were analysed. Results of chemical analysis are given in Table-30. Out of 61 samples analysed 5 samples (8%) Viz., 1 sample from Bhadravathi taluk, 2 samples from Hosanagara taluk, 1 sample from Shikaripura taluk and 1 Sample from Thirthahalli sample contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 3 mg/L and 63 mg/L. The maximum Nitrate content found in Rippnpet station of Hosanagar taluk.

Samples collected from 61 monitoring stations do not contained Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies between 0.01 mg/L and 0.80 mg/L. The maximum limit of Fluoride content found in Holaluru station of Shimoga taluk.

Out of 61 samples analysed 8 samples (13%) 2 samples from Hosanagara taluk, 4 Samples from Shikaripura taluk, 2 Smples from Shimoga taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Total Iron varies between 0.01 mg/L and 1.30 mg/L. The maximum limit of Iron content found in Nagara station of Hosanagara taluk.

Out of 61 samples analysed, 2 samples (3%) 1 sample from Hosanagara taluk and 1 sample from Soraba taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 20 mg/L and 1061 mg/L. The maximum Total Hardness content found in Kotethariga station of Hosanagara taluk.

WATER QUALITY DATA OF SHIMOGA DISTRICT



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

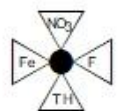


Table -31

WATER QUALITY DATA OF TUMKUR DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Tumkur	C.N.Halli	Kuppur	0.10	0.91	0.04	348	13.4214	76.5316	751	CN12
2	Tumkur	C.N.Halli	Shettikere	0.20	0.30	0.03	656	13.3790	76.5625	789	CN3
3	Tumkur	C.N.Halli	Tarabenahalli	0.10	0.38	0.07	332	13.3736	76.6343	845	CN4
4	Tumkur	C.N.Halli	C.N.Halli	0.10	0.46	0.05	316	13.4261	76.6188	817	CN5
5	Tumkur	C.N.Halli	Salakatte	01	0.41	0.05	532	13.4745	76.6051	768	CN6
6	Tumkur	C.N.Halli	Byrathiganahalli	01	0.45	0.04	560	13.5387	76.6279	718	CN7
7	Tumkur	C.N.Halli	Chikkabidare	44	0.54	0.52	848	13.5413	76.5654	718	CN8
8	Tumkur	C.N.Halli	Yagachihalli	01	0.42	0.03	436	13.6268	76.5822	862	CN9
9	Tumkur	C.N.Halli	Bellara	75	0.37	0.02	968	13.6174	76.6742	679	CN10
12	Tumkur	Gubbi	Kondli Cross	0.10	0.14	0.03	340	13.3804	76.7389	841	G1
13	Tumkur	Gubbi	C.S.Pura	18	0.37	0.03	356	13.1490	76.8838	771	G2
14	Tumkur	Gubbi	Ankasandra	01	0.88	0.04	228	13.5310	76.8918	771	G3
15	Tumkur	Gubbi	MM Kaval	09	0.25	0.03	360	13.4005	76.9719	823	G4
16	Tumkur	Gubbi	Kadaba	01	0.21	0.05	468	13.2426	76.8614	770	G5
17	Tumkur	Gubbi	Nitturu	61	0.22	0.09	544	13.3190	76.8621	797	G6
18	Tumkur	Gubbi	Unaganala	258	0.72	0.19	768	13.26. 58	76 49 10	217	G7
19	Tumkur	Gubbi	Udde Hosakere	9	0.21	0.05	316	13.3716	76.8759	817	G8
20	Tumkur	Gubbi	Gubbi	16	0.37	0.10	480	13.3097	76.9500	823	G9
21	Tumkur	Gubbi	Sanganahalli	01	1.53	0.09	200	13.4408	76.8771	844	G10
23	Tumkur	Koratagere	Jonigarahalli	01	0.80	0.03	168	13.5381	77.1018	862	KO1
24	Tumkur	Koratagere	I.K.Colony	12	1.87	0.08	240	13.4311	77.2382	826	KO2
25	Tumkur	Koratagere	Thimmasandra	04	0.56	0.03	260	13.3937	77.3041	833	KO3
26	Tumkur	Koratagere	Koratagere	77	2.29	0.07	480	13.5276	77.2415	774	KO4
27	Tumkur	Koratagere	Chattenahalli	01	0.28	0.06	460	13.5338	77.3498	736	KO5
28	Tumkur	Koratagere	Tumbadi	02	2.76	0.05	232	13.5668	77.2383	757	KO6
29	Tumkur	Koratagere	Thitha	73	0.81	0.05	460	13 28 30	77 17 32		KO7
30	Tumkur	Kunigal	Amruthur	06	0.39	0.05	440	12.9223	76.9330	722	KU1
31	Tumkur	Kunigal	Chowdanakuppe	27	0.30	0.03	516	12.8610	77.0925	803	KU2
32	Tumkur	Kunigal	Manovalli	07	0.56	0.04	424	13.0051	76.8978	756	KU3
33	Tumkur	Kunigal	Haalappanagudda	07	0.25	0.03	184	13.0043	76.9574	776	KU4
34	Tumkur	Kunigal	Kunigal	33	0.22	0.04	512	13.0229	77.0201	776	KU5
35	Tumkur	Kunigal	Kemppanahalli	05	0.4	0.03	424	12.9562	77.0993	819	KU6
36	Tumkur	Kunigal	Vajarpalya	01	0.31	0.05	384	12.9529	77.0279	821	KU7
37	Tumkur	Kunigal	Daddamavathur	15	0.39	0.04	380	12.9004	77.0412	762	KU8
38	Tumkur	Kunigal	Vadavanaghatta	01	0.52	0.15	232	13 07 59	76 47 10		KU9
39	Tumkur	Madhugiri	Dabbeghatta	10	1.40	0.03	248	13.6746	77.1277	760	M1
40	Tumkur	Madhugiri	Puravara	28	0.68	0.02	448	13.6899	77.3043	690	M2
41	Tumkur	Madhugiri	Mudhugiri	20	1.44	0.06	280	13.6455	77.2028	776	M3

42	Tumkur	Madhugiri	Midigeshi	12	2.31	0.09	308	13.8320	77.2043	735	M4
43	Tumkur	Madhugiri	Hosakere	327	0.92	0.40	920	13.7642	77.1976	738	M5
44	Tumkur	Pavagada	Pavagada	99	2.12	0.09	824	14.1020	77.2865	635	P1
45	Tumkur	Pavagada	Kodamadagu	83	1.78	0.07	304	14.0948	77.3605	600	P2
46	Tumkur	Pavagada	Nagalmadike	70	3.28	0.04	500	14.1858	77.3696	567	P3
47	Tumkur	Pavagada	Bugaduru	73	1.53	0.05	524	14.1874	77.3978	574	P4
48	Tumkur	Pavagada	Kenchaganahalli	42	2.09	0.03	168	14.1883	77.2790	599	P5
49	Tumkur	Pavagada	Y.N.Hosakote	14	3.20	0.07	296	14.2800	77.1756	629	P6
50	Tumkur	Pavagada	Arekyathanahalli	34	2.87	0.05	324	14.1381	77.2069	666	P7
51	Tumkur	Pavagada	Lingadahalli	02	1.94	0.18	228	14.1806	77.0467	647	P8
52	Tumkur	Pavagada	Devalakere	27	1.49	0.05	340	14.1196	77.1440	704	P9
53	Tumkur	Pavagada	Karekyathanahalli	40	2.60	0.03	272	14.0590	77.1074	681	P10
54	Tumkur	Pavagada	Kilaradahalli	20	1.98	0.04	368	14.0583	77.1941	672	P11
55	Tumkur	Sira	Bukkapatna	08	0.95	0.03	468	13.6497	76.7465	679	S1
56	Tumkur	Sira	Sira	41	0.73	0.03	652	13.7434	76.8988	673	S2
57	Tumkur	Sira	Mogadu	01	1.34	0.04	400	13.7253	76.9675	680	S3
58	Tumkur	Sira	Melkunte	01	1.39	2.90	136	13.8211	76.9141	664	S4
59	Tumkur	Sira	Baragur	0.10	1.17	0.07	136	13.9371	76.9815	643	S5
60	Tumkur	Sira	Gandihalli	27	1.13	0.03	220	14.0083	76.9443	617	S6
61	Tumkur	Sira	Pattanayakanahalli	28	0.91	0.02	492	13.8884	76.9186	659	S7
62	Tumkur	Sira	Honnenahalli	06	1.02	0.04	224	13.8516	76.8423	642	S8
63	Tumkur	Sira	Tavarekere	01	1.05	0.03	472	13.7966	76.8034	620	S9
64	Tumkur	Sira	Yaradakatte	112	0.27	0.39	568	13.6996	76.7482	699	S10
65	Tumkur	Sira	Kilaradahalli	07	1.46	0.06	656	13.6592	76.7829	672	S11
66	Tumkur	Sira	Huildore	06	1.95	0.02	320	13.6822	76.8002	674	S12
67	Tumkur	Sira	Kallambella	01	1.67	0.05	356	13.6402	76.9372	707	S13
68	Tumkur	Sira	Seebe Agrahara	08	1.17	0.05	220	13.5629	76.9751	738	S14
69	Tumkur	Tiptur	Kibbanahalli	13	0.2	0.04	368	13.3003	76.6381	845	T1
70	Tumkur	Tiptur	Bommenahalli	0.10	1.06	0.10	244	13.2805	76.5357	868	T2
71	Tumkur	Tiptur	Nonavinakere	0.20	0.27	0.10	288	13.1648	76.5579	824	T3
72	Tumkur	Tiptur	Matthighatta	28	0.28	0.05	548	13.1770	76.4904	836	T4
73	Tumkur	Tiptur	Tiptur	37	0.22	0.07	600	13.2480	76.4730	865	T5
74	Tumkur	Tiptur	Maadihalli	0.10	0.22	0.07	264	13.2742	76.4367	872	T6
75	Tumkur	Tiptur	Halkurki	22	0.7	0.03	520	13.3712	76.4789	793	T7
76	Tumkur	Tiptur	Hulihalli	18	0.82	0.12	440	13.3612	76.4150	823	T8
77	Tumkur	Tiptur	Yagachikate	23	0.29	0.02	260	13.3106	76.7078	862	T9
78	Tumkur	Turuvekere	Mayasandra	16	0.76	0.02	268	13.0836	76.7599	775	TK1
79	Tumkur	Turuvekere	Bytharahosahalli	07	0.98	0.03	244	13.0570	76.7944	773	TK2
80	Tumkur	Turuvekere	Machenahalli	01	0.28	0.17	412	13.2219	76.7042	786	TK3
81	Tumkur	Turuvekere	Gonitumkur	28	0.41	0.03	420	13.1176	76.6541	815	TK4
82	Tumkur	Turuvekere	Turuvekere	88	0.44	0.02	916	13.1685	76.6687	800	TK5
83	Tumkur	Turuvekere	Haridasanahalli	25	0.24	0.02	276	13.2276	76.6550	842	TK6
84	Tumkur	Tumkur	Bellavi	10	0.24	0.05	476	13.4112	77.0185	810	TM1
85	Tumkur	Tumkur	Bugudanhalli	01	0.34	0.06	236	13.3802	77.0500	809	TM2
87	Tumkur	Tumkur	Chikkathallikere	03	0.77	0.02	260	13.4507	77.1173	845	TM3

1	2	3	4	5	6	7	8	9	10	11	12
88	Tumkur	Tumkur	Nerahalu	03	0.4	0.02	392	13.5081	77.0075	778	TM4
89	Tumkur	Tumkur	Tumkur	44	0.23	0.02	428	13.3291	77.0972	820	TM5
90	Tumkur	Tumkur	Holakallu	09	0.31	0.03	288	13.2538	77.1141	849	TM6
91	Tumkur	Tumkur	Nagahalli	0.12	0.45	0.02	220	13.2166	77.0565	814	TM7
92	Tumkur	Tumkur	Hirehalli	32	0.5	0.05	196	13.2817	77.1867	862	TM8
93	Tumkur	Tumkur	Sirivara	0.27	0.36	0.05	200	13.2193	76.9976	809	TM9

	Alternate Source
	Not Potable

TUMKUR DISTRICT:

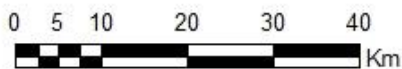
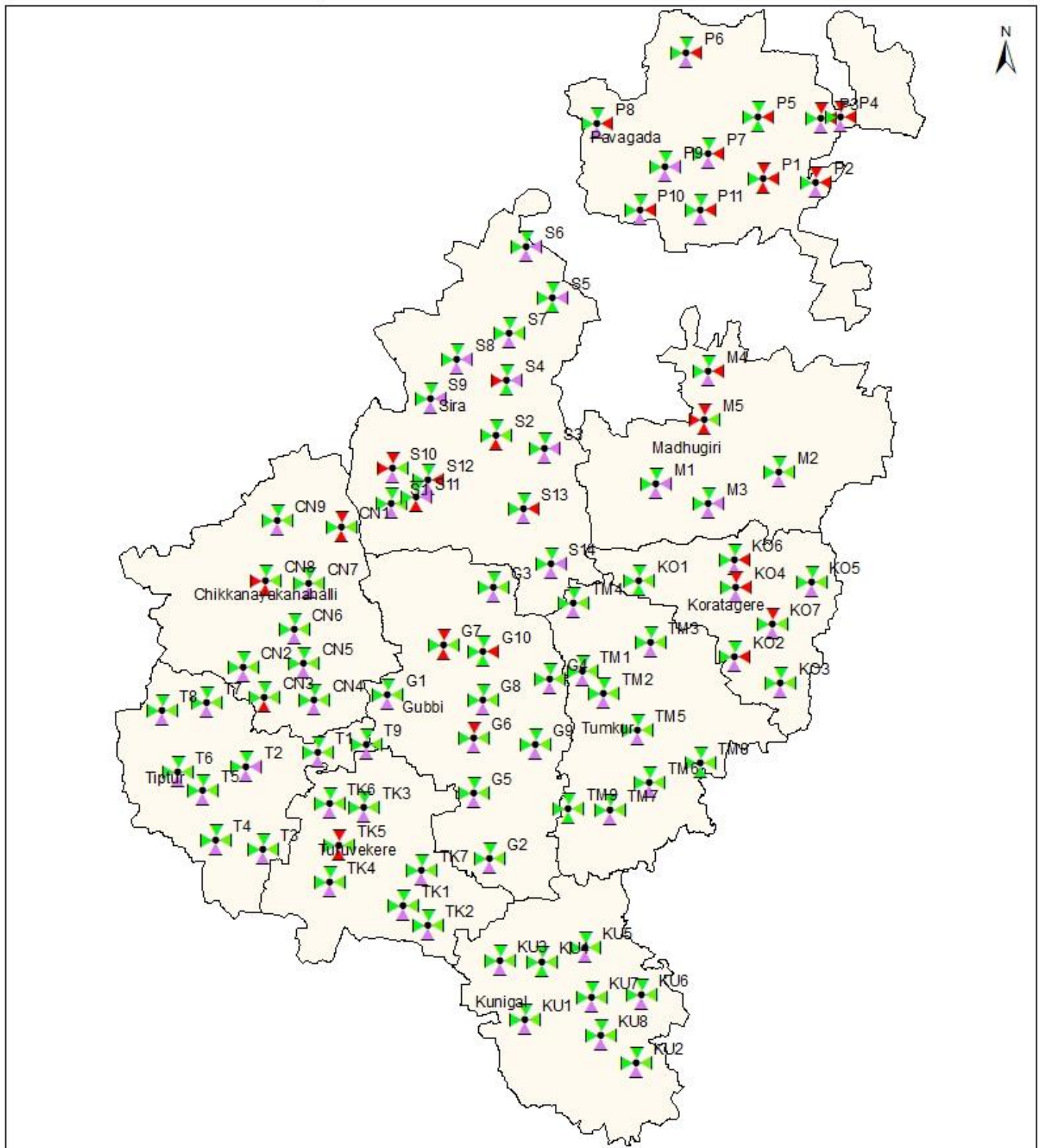
Water samples collected from 93 monitoring stations of Mandya District were analysed. Results of chemical analysis are given in Table-31. Out of 93 samples analysed 12 samples (13%) Viz., 1 sample from C.N Halli taluk, 2 samples from Gubbi taluk, 2 samples from Koratagere taluk, 1 samples from Madhugiri taluk, 4 samples from Pavagada taluk, 1 sample from Sira taluk and 1 Sample from Turavekere taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 0.10 mg/L and 327 mg/L. The maximum Nitrate content found in Hosakere station of Madhugiri taluk.

Out of 93 samples analysed 17 samples (18%) Viz., 1 sample from Gubbi Taluk, 3 samples from Koratagere taluk, 1 sample from Madhugiri taluk, 10 samples from Pavagada and 2 samples from Sira taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.14 mg/L and 3.28 mg/L. The maximum Fluoride content found in Nagalamadike station of Pavagada taluk.

Out of 93 samples analysed 04 samples (4%) 1 sample from C.N halli Taluk, 1 sample from madhugiri taluk and 2 Samples from Sira taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Total Iron varies between 0.02 mg/L and 2.90 mg/L. The maximum limit of Iron content found in Melkunte station of Sira taluk.

Out of 93 samples analysed, 9 samples (9%) 3 samples from C.N Halli taluk, 1 smple from Gubbi taluk, 1 Sample from Madhugiri taluk, 1 Samples from Pavagada taluk, 2 Samples from Sira taluk and 1 Sample from Turavekere taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 136 mg/L and 968 mg/L. The maximum Total Hardness content found in Bellara station of C.N Halli taluk.

WATER QUALITY DATA OF TUMKUR DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600



Table - 32

WATER QUALITY DATA OF UTTARA KANNADA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Karwar	Ankola	Ramanaguli	1	0.10	0.10	28	14.7951	74.5852	190104	AN1
2	Karwar	Ankola	Aversa	8	0.20	0.01	296	14.7262	74.2837	190101	AN2
3	Karwar	Ankola	Ankola	2	0.10	0.05	76	14.6528	74.3164	190102	AN3
4	Karwar	Ankola	Shiruru	1	0.10	0.20	20	14.6057	74.3543	190110	AN4
5	Karwar	Ankola	Sunkanala	2	0.10	1.10	80	14.7369	74.5194	190105	AN5
6	Karwar	Ankola	Mastikatta	2	0.10	2.60	48	14.6805	74.4618	190107	AN6
7	Karwar	Bhatkal	Morukere	1	0.10	0.01	8	14.0152	74.6123	190202	BK1
8	Karwar	Bhatkal	Murdeswar	3	0.10	0.40	128	14.0943	74.4905	190206	BK2
9	Karwar	Bhatkal	Chelki	2	0.10	0.02	68	13.9368	74.5822	190205	BK3
10	Karwar	Bhatkal	Shirali	4	0.10	0.20	56	14.0325	74.5258	190208	BK4
11	Karwar	Bhatkal	Bhatkal	2	0.10	0.01	40	13.9839	74.5583	190201	BK5
12	Karwar	Haliyal	Haliyal	2	0.20	2.20	44	15.3344	74.7533	190306	HY1
13	Karwar	Haliyal	Madnalli	8	0.20	2.00	288	15.3947	74.7489	190307	HY2
14	Karwar	Haliyal	Bharchi	10	0.30	0.10	176	15.3025	74.6089	190311	HY3
15	Karwar	Haliyal	Kulagi	5	0.10	0.06	208	15.1647	74.6386	190305	HY4
16	Karwar	Haliyal	Belavatagi	4	0.20	0.04	208	15.2508	74.8534	190309	HY5
17	Karwar	Haliyal	Dandeli	2	0.20	1.00	64	15.2448	74.6154	190304	HY6
18	Karwar	Haliyal	Bhagavati	3	0.10	0.10	108	15.1478	74.7638	190308	HY7
19	Karwar	Honnavar	Sulebailu	1	0.10	0.50	24	14.1244	74.5036	190402	HN1
20	Karwar	Honnavar	Haladipura	1	0.10	0.03	28	14.3397	74.4285	190409	HN2
21	Karwar	Honnavar	Honnavar	1	0.10	1.80	28	14.2814	74.4511	190403	HN3
22	Karwar	Honnavar	Gerusoppa	1	0.20	0.02	24	14.2413	74.6424	190404	HN4
23	Karwar	Honnavar	Hadinabala	2	0.10	0.35	40	14.2878	74.5094	190408	HN5
24	Karwar	Joida	Kalasa	1	0.10	1.00	20	15.0800	74.4353	191006	HN6
25	Karwar	Joida	Kumbarwad	1	0.10	0.10	28	15.1267	74.4042	191002	JD1
26	Karwar	Joida	Anasi	1	0.10	0.20	48	14.9933	74.3697	191003	JD2
27	Karwar	Joida	Tinaighat	2	0.10	1.80	48	15.4461	74.4031	191011	JD3
28	Karwar	Joida	Anamodu	1	0.10	2.40	20	15.4383	74.3103	191008	JD4
29	Karwar	Joida	Joida	3	0.10	0.10	108	15.1694	74.4847	191007	JD5
30	Karwar	Karwar	Karwar	2	0.10	0.02	92	14.8086	74.1272	190501	KR1
31	Karwar	Karwar	Majali	2	0.10	0.20	148	14.8914	74.1088	190504	KR2
32	Karwar	Karwar	Kadawad	1	0.10	0.20	64	14.8364	74.1739	190503	KR3
33	Karwar	Karwar	Gotegali	6	0.20	1.30	456	14.9031	74.3019	190505	KR4
34	Karwar	Karwar	Kadra	1	0.20	0.02	32	14.9081	74.3481	190506	KR5
35	Karwar	Karwar	Chendiya	5	0.10	2.1	680	14.7689	74.1858	190502	KR6
36	Karwar	Kumata	Gokarna	2	0.10	0.02	124	14.5367	74.3300	190602	KU1
37	Karwar	Kumata	Hareeta	2	0.20	0.02	92	14.5056	74.5161	190601	KU2

1	2	3	4	5	6	7	8	9	10	11	12
38	Karwar	Kumata	Hiregutti	2	0.20	0.02	44	14.5631	74.3875	190610	KU3
39	Karwar	Kumata	Kumata	2	0.10	0.10	52	14.4268	74.4175	190603	KU4
40	Karwar	Kumata	Moruru	2	0.10	2.80	64	14.4428	74.4711	190607	KU5
41	Karwar	Kumata	Santeguli	2	0.40	0.02	88	14.4272	74.5794	190604	KU6
42	Karwar	Mundagod	Mainahalli	4	0.20	0.40	172	14.9772	74.8878	190709	MU1
43	Karwar	Mundagod	Malagi	2	0.10	0.02	68	14.7478	75.0061	190707	MU2
44	Karwar	Mundagod	Katuru	3	0.20	0.03	208	14.8597	75.0361	190702	MU3
45	Karwar	Mundagod	Mundagod	5	0.10	0.03	168	14.9697	75.0369	190705	MU4
46	Karwar	Mundagod	Indooru	4	0.10	3.00	168	15.0228	75.0175	190706	MU5
47	Karwar	Siddapur	Beerlamakke	1	0.10	0.03	12	14.3747	74.6886	190805	SD1
48	Karwar	Siddapur	Nanikatta	2	0.10	0.35	56	14.4811	74.8736	190803	SD2
49	Karwar	Siddapur	Bilagi	2	0.10	1.00	44	14.3603	74.7950	190810	SD3
50	Karwar	Siddapur	Siddapur	1	0.10	0.02	20	14.3450	74.8903	190802	SD4
51	Karwar	Siddapur	Kumbarkuli	1	0.10	0.25	12	14.3089	74.8475	190808	SD5
52	Karwar	Siddapur	Kulibeedu	2	0.10	3.50	32	14.2694	74.8024	190806	SD6
53	Karwar	Siddapur	Hursikatta	2	0.10	1.20	64	14.4303	74.8195	190812	SD7
54	Karwar	Sirsi	Ranihosalli	2	0.10	0.02	52	14.5242	74.5972	190905	SR1
55	Karwar	Sirsi	Ilasuru	1	0.10	1.8	88	14.6811	74.8869	190915	SR2
56	Karwar	Sirsi	Amminalli	2	0.10	2.20	36	14.5465	74.7378	190913	SR3
57	Karwar	Sirsi	Sirsi	3	0.10	0.03	96	14.6147	74.8347	190901	SR4
58	Karwar	Sirsi	Musigadde	2	0.10	1.70	36	14.5636	74.8178	190904	SR5
59	Karwar	Sirsi	Bisalkoppa	2	0.10	0.02	56	14.6992	74.9319	190903	SR6
60	Karwar	Sirsi	Hegadekatta	1	0.10	0.02	16	14.6057	74.7147	190911	SR7
61	Karwar	Sirsi	Navanagere	2	0.10	0.05	56	14.5633	74.9467	190908	SR8
62	Karwar	Sirsi	Banavasi	2	0.10	0.04	48	14.5408	75.0142	190909	SR9
63	Karwar	Yallapur	Arabail	2	0.10	0.02	48	14.8442	74.6450	191100	YL1
64	Karwar	Yallapur	Kiruvatti	8	0.10	0.6	184	15.0569	74.8492	191111	YL2
65	Karwar	Yallapur	Idagundi	2	0.10	0.05	56	14.9110	74.6454	191102	YL3
66	Karwar	Yallapur	Talageri	20	0.10	0.05	88	15.0089	74.7339	191106	YL4
67	Karwar	Yallapur	Nandolli	3	0.10	0.10	112	14.9108	74.7083	191105	YL5
68	Karwar	Yallapur	Manchikere	2	0.10	0.05	72	14.8606	74.8167	191101	YL6

	Alternte Source
	Not Potable

UTTARA KANNADA DISTRICT:

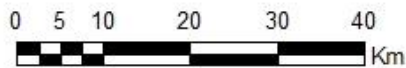
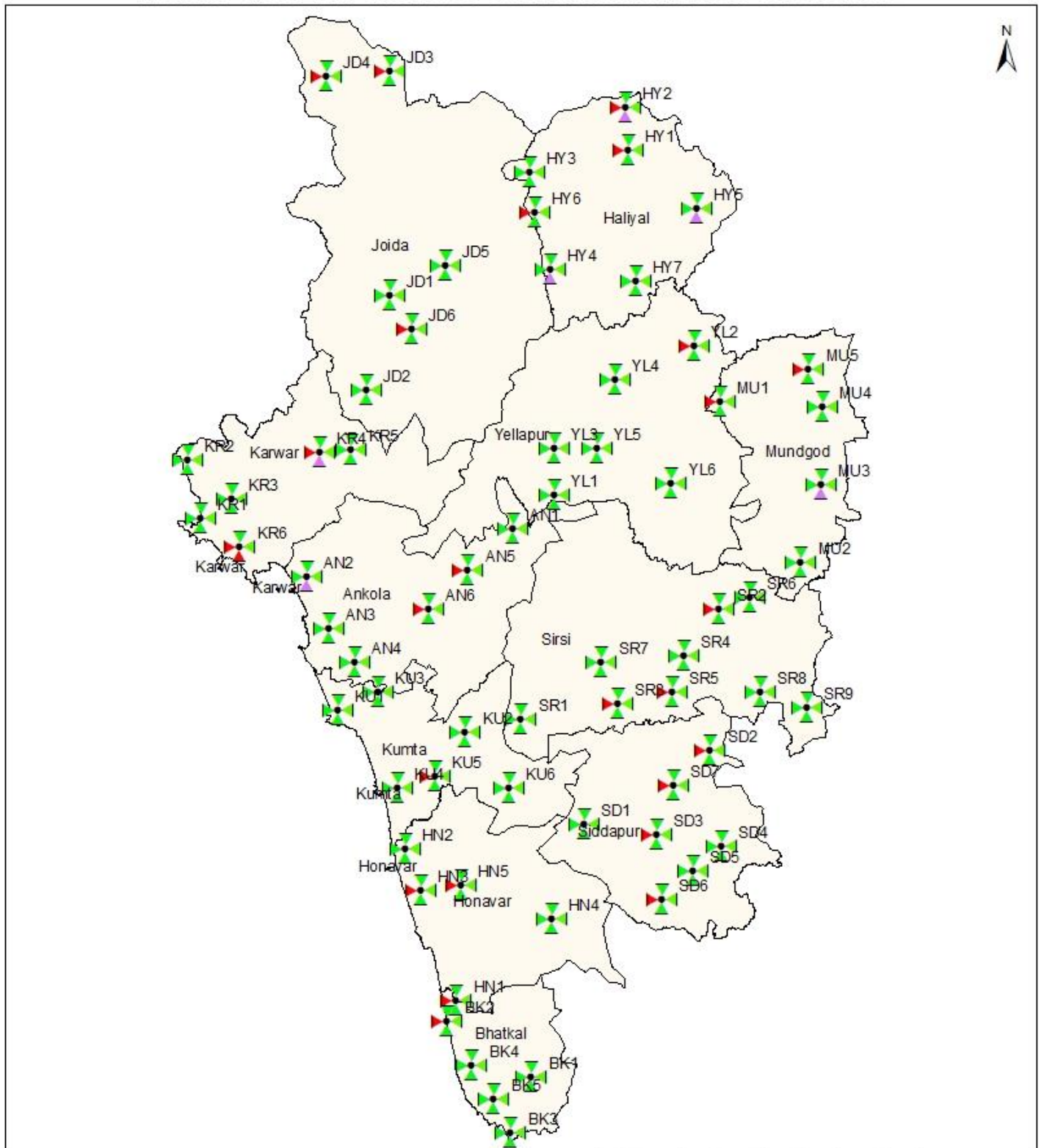
Water samples collected from 68 monitoring stations of Uttara kannada District were analysed. Results of chemical analysis are given in Table-32. Samples collected from 68 monitoring stations do not contain Nitrate content more than Acceptable limit of Indian Drinking water specification. The content of Nitrate varies between 01 mg/L and 20 mg/L. The maximum limit of Nitrate content found in Thalageri station of Yallapura taluk.

Samples collected from 68 monitoring stations do not contain Fluoride content more than Permissible limit of Indian Drinking water specification. The content of Fluoride varies between 0.10 mg/L and 0.40 mg/L. The maximum limit of Fluoride content found in Santeguli station of Kumata taluk.

Out of 68 samples analysed, 24 sample (35%) Viz., 2 samples from Ankola taluk, 1 Sample from Bhakal taluk, 3 Samples from Haliyal taluk, 3 samples from Honnavar taluk, 3 samples from Joida taluk, 2 Samples from Karwar taluk, 1 sample from Kumata taluk, 2 samples from Mundagod taluk, 3 samples from Siddapur Taluk, 3 samples from Sirsi taluk and 1 samples from Yellapura taluk contained Iron content beyond the Acceptable limit of Indian Drinking water specification. The Iron content varies between 0.01 mg/L and 3.50 mg/L. The maximum Total Iron content found in Kulibeedu Station of Siddapur Taluk.

Out of 68 samples analysed, 1 sample (1%) from Karwar taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 8 mg/L and 680 mg/L. The maximum Total Hardness content found in Chandiya station of Karwar taluk.

WATER QUALITY DATA OF UTTARA KANNADA DISTRICT



POTABLE



ALTERNATE



NON-POTABLE



NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

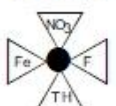


Table - 33

WATER QUALITY DATA OF UDUPI DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code no.	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Udupi	Karkala	Hebri	1	0.06	0.25	68	74.9947	13.4619	702	K1
2	Udupi	Karkala	Kanajar	2	0.26	0.25	52	75.0267	13.4667	706	K2
3	Udupi	Karkala	Varanga	17	0.05	0.02	68	75.0108	13.4008	710	K3
4	Udupi	Karkala	Hirgana	1	0.37	0.62	104	74.9837	13.2743	704	K4
5	Udupi	Karkala	Kukkundur	1	0.08	0.03	44	74.9839	13.2508	707	K5
6	Udupi	Karkala	Mundkur	2	0.07	0.50	72	74.8653	13.1258	709	K6
7	Udupi	Karkala	Satharadhi	2	0.05	0.10	24				K7
8	Udupi	Kundapur	Maravanthe	13	0.05	0.03	28	74.6531	13.7247	810	KU1
9	Udupi	Kundapur	Shankarnarayana	6	0.04	0.03	20	74.8611	13.6078	812	KU2
10	Udupi	Kundapur	Shiroor	4	0.06	0.15	48	74.6078	13.9089	813	KU3
11	Udupi	Kundapur	Kathodu	1	0.04	0.10	20	74.6897	13.8081	804	KU4
12	Udupi	Kundapur	Belve	1	0.04	0.26	20	74.9225	13.5278	801	KU5
13	Udupi	Kundapur	Kandluru	14	0.05	0.07	48	74.7658	13.6375	805	KU6
14	Udupi	Kundapur	Vandre	1	0.05	0.11	32	74.7583	13.7016	818	KU7
15	Udupi	Kundapur	Jadkal	1	0.11	0.03	80	74.8081	13.8033	803	KU8
16	Udupi	Kundapur	Kundapur	12	0.04	0.02	60	74.6976	13.6342	808	KU9
17	Udupi	Kundapur	Teggarse	1	0.04	0.03	40	74.6772	13.8486	815	KU10
18	Udupi	Kundapur	Thekatte	5	0.06	0.35	40	74.7021	13.5492	817	KU11
19	Udupi	Kundapur	Kollur	6	0.05	0.18	44	74 48 47	13 51 53		KU12
20	Udupi	Kundapur	Yadyadi-Mathyadi	3	0.04	0.03	32	74 38 48	13 43 57		KU13
21	Udupi	Udupi	Kodavoor	1	0.06	0.11	160	74.7072	13.3497	905	U1
22	Udupi	Udupi	Perdur	1	0.07	0.60	40	74.9042	13.3833	910	U2
23	Udupi	Udupi	Parkala	3	0.07	0.06	40	74.8148	13.3532	908	U3
24	Udupi	Udupi	Haluvalli	1	0.36	0.89	100	74.8594	13.4169	903	U4
25	Udupi	Udupi	Bramhavar	4	0.08	0.15	48	74.7447	13.4433	901	U5
26	Udupi	Udupi	Manipura	1	0.08	0.28	76	74.7936	13.2942	906	U6
27	Udupi	Udupi	Bada	5	0.18	0.13	96	74 45 49	13 10 51		U7

	Alternate Source
	Not Potable

UDUPI DISTRICT:

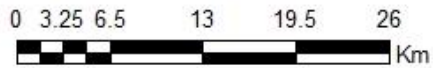
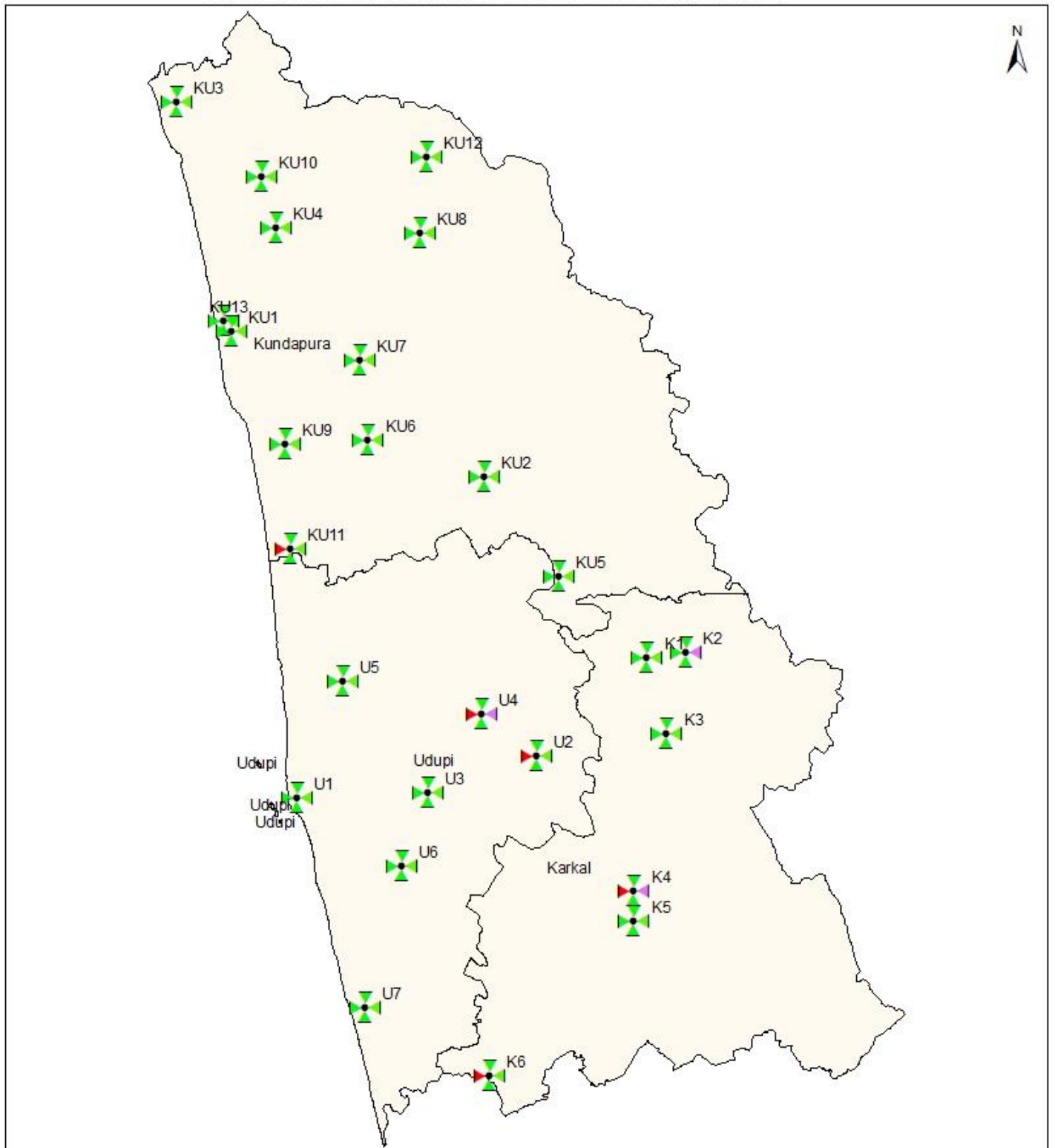
Water samples collected from 27 monitoring stations of Udupi District were analysed. Results of chemical analysis are given in Table-33. Samples collected from 27 monitoring stations do not contain Nitrate content beyond the Acceptable limit of Indian Drinking water specification. The content of Nitrate varies between 1 mg/L and 17 mg/L. The maximum limit of Nitrate content found in Varanga station of Karkal taluk.

Samples collected from 27 monitoring stations do not contain Fluoride contents beyond the Permissible limit of Indian Drinking water specification. The content of Fluoride varies between 0.04 mg/L and 0.07 mg/L. The maximum limit of Fluoride content found in Parkala station of Udupi taluk.

Out of 27 samples analysed 05 samples (18%) 2 sample from Karkala taluk, 1 sample from Kundapura taluk and 2 Samples from Udupi taluk contained Total Iron content more than Acceptable limit of Indian Drinking Water Specification. The content of Total Iron varies between 0.02 mg/L and 0.89 mg/L. The maximum limit of Iron content found in Haluvalli station of Udupi taluk

Samples collected from 27 monitoring stations so not contain Total Hardness content beyond the Permissible limit of Indian Drinking water specification. The content of Total Hardness varies between 20 mg/L and 160 mg/L. The maximum limit of Total Hardness content found in Kodavooru station of Udupi taluk.

WATER QUALITY DATA OF UDUPI DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
<45	<0.30	<1.0	<200
-	-	1.0-1.5	200-600
>45	>0.30	>1.5	>600

LEGEND

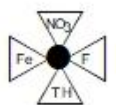


Table - 34

WATER QUALITY DATA OF VIJAYAPURA DISTRICT 2017-18

Sl. No	District	Taluk	Village	Concentration in mg/L				Latitude	Longitude	Well code	Well ID
				NO ₃ mg/L	F mg/L	Fe mg/L	TH (as CaCO ₃) mg/L				
1	2	3	4	5	6	7	8	9	10	11	12
1	Vijayapura	B.Bagewadi	B.Bagewadi	22	0.2	0.02	360	75.9778	16.5686	50301	B1
2	Vijayapura	B.Bagewadi	Dindawar	80	0.30	0.01	604	76.0489	16.6539	50310	B2
3	Vijayapura	B.Bagewadi	Hebbal	18	0.60	0.05	220	75.9486	16.4397	50315	B3
4	Vijayapura	B.Bagewadi	HuvinaHipparagi	9	0.90	0.02	80	76.0789	16.5489	50309	B4
5	Vijayapura	B.Bagewadi	Managuli	80	0.10	0.01	704	75.8046	16.6486	50307	B5
6	Vijayapura	B.Bagewadi	Mattihal	22	0.10	0.01	228	75.7440	16.4568	50304	B6
7	Vijayapura	B.Bagewadi	Satihah	18	0.20	0.01	384	76.0507	16.7222	50312	B7
8	Vijayapura	B.Bagewadi	Telagi	22	0.10	0.01	308	75.8264	16.4819	50308	B8
9	Vijayapura	B.Bagewadi	Ukkali	93	0.60	0.02	724	75.8861	16.7250	50302	B9
10	Vijayapura	B.Bagewadi	Yaranal	22	0.20	0.05	648	75.8611	16.6153	50306	B10
11	Vijayapura	B.Bagewadi	Yambatnal	75	0.20	0.02	608	75.9320	16.7562	50317	B11
12	Vijayapura	B.Bagewadi	K.Salavadagi	18	1.00	0.01	140	76.1028	16.5958	50313	B12
13	Vijayapura	B.Bagewadi	Muttagi	22	0.70	0.01	152	75.8931	16.5306	13925	B13
14	Vijayapura	Indi	Garakhed	22	0.90	0.01	328	76.0614	17.3131	50713	I1
15	Vijayapura	Indi	Anjutagi	18	0.40	0.01	252	75.8456	17.2264	50711	I2
16	Vijayapura	Indi	Baradol	58	0.40	0.02	680	75.7281	17.2778	50727	I3
17	Vijayapura	Indi	Chadachan	10	0.20	0.01	288	75.6708	17.3094	50708	I4
18	Vijayapura	Indi	Dhoolakhed	22	0.20	0.01	820	75.8506	17.3768	50723	I5
19	Vijayapura	Indi	Hirebevanur	62	0.80	0.02	1072	76.0531	17.2414	50717	I6
20	Vijayapura	Indi	Horti	18	0.20	0.02	40	75.7978	17.1181	50710	I7
21	Vijayapura	Indi	Lachyan	9	0.40	0.02	548	75.9689	17.2742	50714	I8
22	Vijayapura	Indi	Nimbal	13	1.70	0.01	288	75.8544	17.1061	50701	I9
23	Vijayapura	Indi	Yalagi	13	0.30	0.01	228	75.8333	17.3189	50712	I10
24	Vijayapura	Indi	Jhalaki	9	1.60	0.01	212	75.8011	17.2503	50706	I11
25	Vijayapura	Indi	Indi	18	1.70	0.02	148	75.9562	17.1700	50704	I12
26	Vijayapura	Muddebihal	Dhavalagi	9	0.20	0.04	136	76.1200	16.4314	50902	M1
27	Vijayapura	Muddebihal	Hulluru	10	2.40	0.01	244	75.9972	16.3611	50916	M2
28	Vijayapura	Muddebihal	Hiremural	5	0.20	0.01	140	76.2158	16.3105	50906	M3
29	Vijayapura	Muddebihal	Jambaladinni	22	0.80	0.02	152	76.2292	16.3861	50915	M4
30	Vijayapura	Muddebihal	Konnuru	75	0.40	0.01	932	76.1681	16.5222	50912	M5
31	Vijayapura	Muddebihal	Muddebihal	5	0.40	0.02	148	76.1286	16.3364	50901	M6
32	Vijayapura	Muddebihal	Yalaguru	5	0.90	0.01	144	75.9247	16.3289	50911	M7
33	Vijayapura	Muddebihal	Nalatawad	50	1.20	0.02	240	76.2889	16.2525	50910	M8
34	Vijayapura	Muddebihal	Tumbagi	49	0.90	0.01	120	76.2906	16.5706	50908	M9
35	Vijayapura	Muddebihal	Madikeshwar	50	0.40	0.01	240	76.1708	16.4722	50909	M10
36	Vijayapura	Muddebihal	Talikote	27	1.00	0.02	612	76.3067	16.4775	50913	M11
37	Vijayapura	Muddebihal	Nebageri	18	1.20	0.01	184	76.1131	16.2817	50907	M12
38	Vijayapura	Muddebihal	Maileshwar	5	1.60	0.10	232	76.3378	16.4647	50914	M13
39	Vijayapura	Sindhagi	Alamel	58	0.40	0.01	364	76.2203	17.0897	51128	S1
1	2	3	4	5	6	7	8	9	10	11	12
40	Vijayapura	Sindhagi	Aski	5	0.50	0.02	772	76.3747	16.6125	51120	S2
41	Vijayapura	Sindhagi	Devanagaon	27	1.20	0.01	108	76.3171	17.1541	51125	S3

42	Vijayapura	Sindhagi	Moratagi	70	0.60	0.02	432	76.4167	17.0056	51124	S4
43	Vijayapura	Sindhagi	Ambalanuru	26	0.50	0.01	120	76.2629	16.6260	51119	S5
44	Vijayapura	Sindhagi	Devarahipparagi	18	0.30	0.01	308	76.0700	16.8189	51102	S6
45	Vijayapura	Sindhagi	Gabasavalagi	50	0.50	0.01	268	76.3453	16.9797	51117	S7
46	Vijayapura	Sindhagi	Kalakeri	27	1.20	0.02	128	76.3083	16.6736	51121	S8
47	Vijayapura	Sindhagi	Balaganuru	9	1.10	0.01	160	76.1397	17.0172	51123	S9
48	Vijayapura	Sindhagi	Yankanchi	5	1.20	0.01	312	76.3522	16.8661	51113	S10
49	Vijayapura	Sindhagi	Chandakavate	9	0.70	0.01	212	76.1480	16.9577	51105	S11
50	Vijayapura	Sindhagi	Bommanajogi	5	0.80	0.01	224	76.1287	16.8233	51109	S12
51	Vijayapura	Sindhagi	Sindhagi	66	0.50	0.01	188	76.2367	16.9169	51101	S13
52	Vijayapura	Vijayapura	Babaleshwar	18	0.20	0.01	716	75.5722	16.6667	50413	V1
53	Vijayapura	Vijayapura	Bijjaragi	9	0.30	0.02	248	75.4439	16.9106	50424	V2
54	Vijayapura	Vijayapura	Kanamadi	53	0.60	0.01	1520	75.3803	16.9328	50426	V3
55	Vijayapura	Vijayapura	Vijayapur	53	0.10	0.01	268	75.7247	16.8289	50403	V4
56	Vijayapura	Vijayapura	Sarawad	13	0.20	0.04	660	75.6403	16.7128	50414	V5
57	Vijayapura	Vijayapura	Tikota	18	0.60	0.01	272	75.5303	16.8392	50435	V6
58	Vijayapura	Vijayapura	Mamadapur	9	0.20	0.02	180	75.6000	16.5333	13839	V7
59	Vijayapura	Vijayapura	Ratnapur	66	0.20	0.02	484	75.5694	16.8306	14014	V8
60	Vijayapura	Vijayapura	Shegunashi	22	0.20	0.03	280	75.5833	16.5833	14027	V9
61	Vijayapura	Vijayapura	Yakkundi	50	0.60	0.01	840	75.5250	16.6244	50415	V10
62	Vijayapura	Vijayapura	Mulavada	22	0.30	0.01	196	1603659	7504350	50402	V11

	Alternate Source
	Not Potable

VIJAYAPURA DISTRICT:

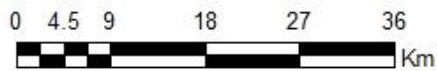
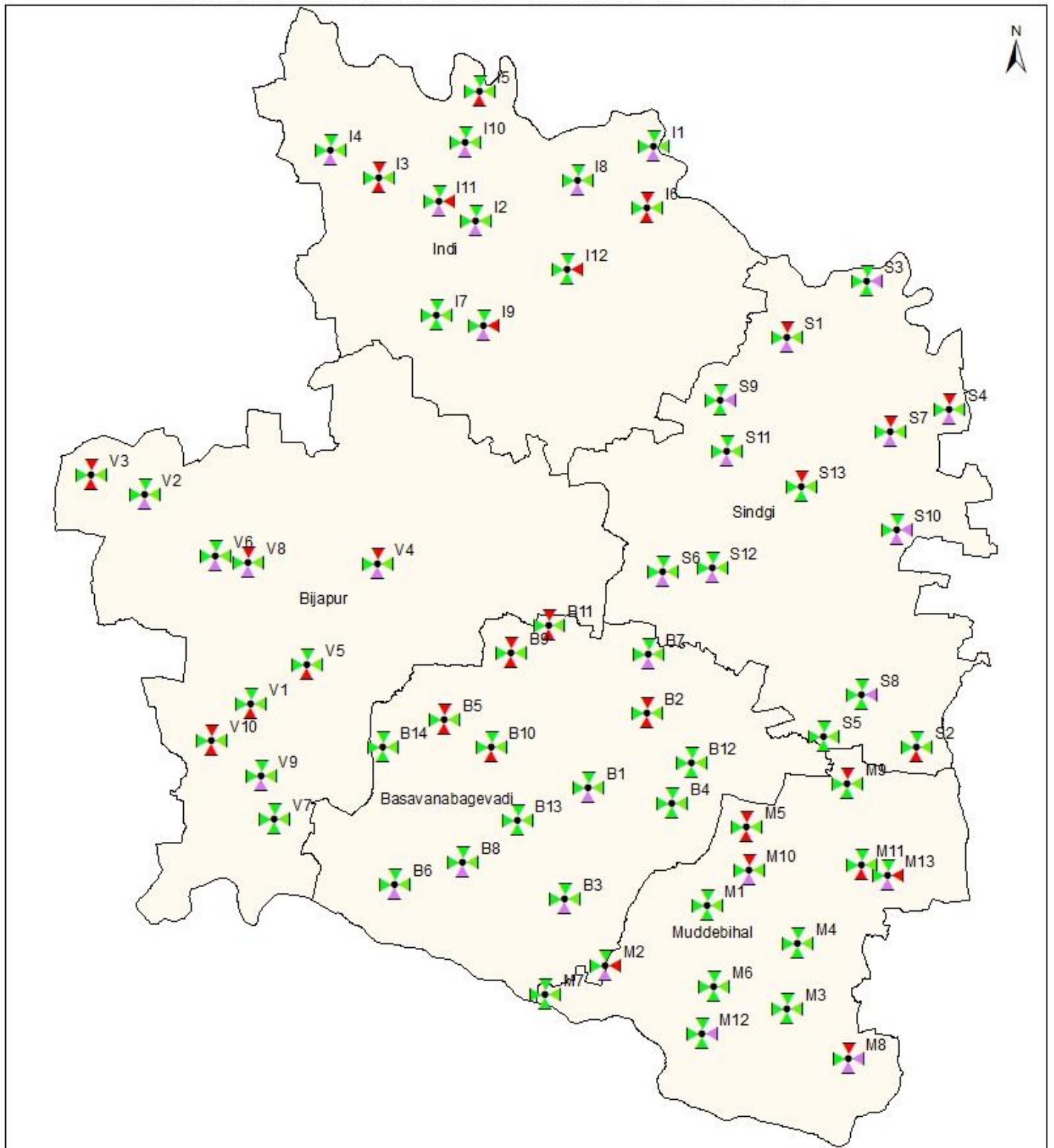
Water samples collected from 62 monitoring stations of Vijayapura District were analysed. Results of chemical analysis are given in Table-34. Out of 62 samples analysed 18 samples (29%) Viz., 4 samples from B.Bagewadi taluk, 2 samples from Indi taluk, 4 samples from Muddebihal taluk, 4 samples from Sindhagi taluk and 4 samples from Vijayapura taluk contained Nitrate content more than Acceptable limit of Indian Drinking Water Specification. The content of Nitrate varies between 5 mg/L and 93 mg/L. The maximum Nitrate content found in Ukkali station of B.Bagewadi taluk.

Out of 62 samples analysed 5 samples (8%) Viz., 3 samples from Indi taluk and 2 samples from Muddebihal taluk contained Fluoride content more than Permissible limit of Indian Drinking Water Specification. The content of Fluoride varies between 0.10 mg/L and 2.40 mg/L. The maximum Fluoride content found in Hullur station of Muddebihal taluk.

Samples collected from 62 monitoring stations do not contain Total Iron content beyond the Acceptable limit of Indian Drinking water specification. The content of Total Iron varies between 0.01 mg/L and 0.10 mg/L. The maximum limit of Total Iron content found in Maileshwar station of Muddebihal taluk.

Out of 62 samples analysed, 15 samples (24%) 5 samples from B.Bagewadi taluk, 3 Samples from Indi taluk, 3 sample from Muddebihal taluk, and 4 samples from Vijayapura taluk contained Total Hardness content more than permissible limit of Indian Drinking Water Specification. Total Hardness content varies between 40 mg/L and 1520 mg/L. The maximum Total Hardness content found in Kanamadi station of Vijayapura taluk.

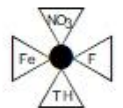
WATER QUALITY DATA OF VIJAYAPURA DISTRICT



- POTABLE
- ALTERNATE
- NON-POTABLE

NO ₃ mg/L	Fe mg/L	F mg/L	TH mg/L
●	●	●	●
<45	<0.30	<1.0	<200
●	●	●	●
-	-	1.0-1.5	200-600
●	●	●	●
>45	>0.30	>1.5	>600

LEGEND



Diseases due to higher concentrations of Nitrate, Fluoride & Hardness in Water



Rain water harvesting and Groundwater recharge structures



Rain water harvesting in Urban and Rural areas



Ground water Awareness programmes in Mysuru District during the year 2017-18

