



**GOVERNMENT OF KARNATAKA
DEPARTMENT OF AGRICULTURE**

**Pradhan Mantri Krishi Sinchayee Yojana
(PMKSY)**

**DISTRICT IRRIGATION PLAN
MANDYADISTRICT**



2016

GOVERNMENT OF KARNATAKA



Sri S. Ziyaullah IAS
Deputy Commissioner

Foreword

"Hon'ble President in his address to the Joint Session of Parliament of 16th Lok Sabha indicated that each drop of water is precious and launched Pradhana Mantri Krishi Sinchayee Yojana (PMKSY), with a major objective to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision irrigation and other water saving technologies. It will complete the long pending irrigation projects on priority. Micro-irrigation will be popularized to ensure Per Drop More Crop. A district irrigation plan encompassing the activities to be undertaken to accomplish the above objective in the light of existing status is a prerequisite for the implementation of the programme

All the seven taluks of Mandya district are located in Southern Dry Zone (ZoneVI) of Karnataka. The district experiences semi-arid type of climate. The district is kharif predominant with nearly 50 per cent rain is received during Kharif season (June to September).

The district is blessed with irrigation from two major reservoirs (Krishnaraja Sagar and Hemavathi), besides these, there are number of anecut channels. The Cauvery basin is known for extensive system of low level barrages built during the 19th century and early parts of 20th Century, Hemavathi left bank canal is irrigating parts of K.R.Pet, Nagamangala, Pandavapura and Mandya taluks. The rest of the land is irrigated by other sources like tanks, wells and bore wells.

The present plan aims to give impetus on utilizing water for expansion of irrigated area, establishment of new industries, creation of special economic zone and also filling of treated sewage water to the existing tanks so that the district's water demand are adequately met in a balanced and efficient manner.

It is proposed to take various developmental activities to improve irrigation facilities in the district and also to create additional irrigation potential by 2020 with a budgetary support of Rs.4300.04crores. This will help inintensive cultivation of crops, taking up of multiple crops, judicious use of water, change of cropping pattern which will create additional employment and income to farming community.

I appreciate the efforts of the Department of Agriculture, particularly Joint Director of Agriculture in collection of information from various departments and organizing District Level meetings which has led to finalize this report. I thank the head of all the line departments for providing timely information on their concerned templates.

I express my deep sense of gratitude to Sri. M. Krishnappa, Hon'ble Minister for Housing, Government of Karnataka and Mandya District incharge Minister for providing valuable suggestions.

I also thank all the MLAs, MLCs, MP, ZP President and Vice President for their valuable guidance and suggestions.

I thank the President and members of PLUS TRUST, Bengaluru for compilation, analysis and printing of the District Irrigation Plan in an exhaustive and excellent manner.

I hope this report will be useful in planning and efficient management of precious water resource of Mandyadistrict.

Date:


Deputy Commissioner

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PRADHAN MANTRI KRISHI SINCHAYEE YOJANA (PMKSY)

I. Introduction:

The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies (More crop per drop), enhance recharge of aquifers and introduce sustainable water conservation practices by exploring the feasibility of reusing treated municipal waste water for peri-urban agriculture and attract greater private investment in precision irrigation system.

PMKSY has been conceived amalgamating ongoing schemes *viz.*, Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD & GR), Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR) and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC). The scheme will be implemented by Ministry of Agriculture, Water Resources and Rural Development. Ministry of Rural Development is to mainly undertake rain water conservation, construction of farm pond, water harvesting structures, small check dams and contour bunding etc., MoWR, RD &GR, is to undertake various measures for creation of assured irrigation source, construction of diversion canals, field channels, water diversion/lift irrigation, including development of water distribution systems. Ministry of Agriculture will promote efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain-guns in the farm “(Jal Sinchan)”, construction of micro-irrigation structures to supplement source creation activities, extension

activities for promotion of scientific moisture conservation and agronomic measures.

Programme architecture of PMKSY will be to adopt a ‘decentralized State level planning and projectised execution’ structure that will allow States to draw up their own irrigation development plans based on District Irrigation Plan (DIP) and State Irrigation Plan (SIP). It will be operative as convergence platform for all water sector activities including drinking water & sanitation, MGNREGA, application of science & technology etc., through comprehensive plan. State Level Sanctioning Committee (SLSC) chaired by the Chief Secretary of the State with the authority to oversee its implementation and sanction of projects.

The programme will be supervised and monitored by an Inter-Ministerial National Steering Committee (NSC) will be constituted under the Chairmanship of Prime Minister with Union Ministers from concerned Ministries. A National Executive Committee (NEC) constituted under the Chairmanship of Vice Chairman, NITI Aayog to oversee programme implementation, allocation of resources, inter-ministerial coordination, monitoring & performance assessment, addressing administrative issues etc.,

Components and responsible Ministries/ Departments are as follows:

1. AIBP by MoWR, RD & GR: To focus on faster completion of on-going Major and Medium Irrigation including National Projects.
2. PMKSY (Har Khet Ko Pani) by MoWR, RD & GR: Creation of new water sources through Minor Irrigation (both surface and ground water), Repair, restoration and renovation of water bodies; strengthening carrying capacity of traditional water sources, construction rain water harvesting structures (Jal Sanchan); Command area development, strengthening and creation of distribution network from source to the farm. Improvement in water management and distribution system for water bodies to take advantage of

available source, which is not utilised to its fullest capacity (deriving benefits from low hanging fruits).

3. PMKSY (Watershed) by Dept. of Land Resources, MoRD : Water harvesting structures such as check dams, nala bund, farm ponds, tanks etc. Capacity building, entry point activities, ridge area treatment, drainage line treatment, soil and moisture conservation, nursery raising, afforestation, horticulture, fodder development, livelihood activities for the asset-less persons and production system & micro enterprises for small and marginal farmers etc., Effective rainfall management like field bunding, contour bunding/trenching, staggered trenching, land levelling, mulching etc.,

4. PMKSY (Per drop more crop) by Dept. of Agriculture & Cooperation, MoA Programme management, preparation of State/District Irrigation Plan, approval of annual action plan, Monitoring etc., Promoting efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain-guns in the farm (Jal Sinchay). Topping up of input cost particularly under civil construction beyond permissible limit (40%), under MGNREGA for activities like lining inlet, outlet, silt traps distribution systematic.

Construction of micro irrigation structures to supplement source creation activities including tube wells and dug wells (in areas where ground water is available and not under semi critical /critical /over exploited category of development) which are not supported under PMKSY (WR), PMKSY (Watershed) and MGNREGA.

Secondary storage structures at tail end of canal system to store water when available in abundance (rainy season) or from perennial sources like streams for use during dry periods through effective on-farm water management Water lifting devices like diesel/ electric/ solar pumpsets including water carrying pipes.

Extension activities for promotion of scientific moisture conservation and agronomic measures including cropping alignment to maximize use of available water including rainfall and minimise irrigation requirement (Jal samrankshan)

Capacity building, training for encouraging potential use water source through technological, agronomic and management practices including community irrigation awareness campaign on water saving technologies, practices, programmes etc., organisation of workshops, conferences, publication of booklets, pamphlets, success stories, documentary, advertisements etc. Improved/innovative distribution system like pipe and box outlet system with controlled outlet and other activities of enhancing water use efficiency.

District Irrigation Plans (DIPs):

District Irrigation Plan (DIP) shall be the cornerstone for planning and implementation of PMKSY. DIP will identify the gaps in irrigation infrastructure after taking into consideration the District Agriculture Plans (DAPs) already prepared for Rashtriya Krishi Vikas Yojana (RKVY) vis-à-vis irrigation infrastructure currently available and resources that would be added during XII Plan from other ongoing schemes (both State and Central), like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA), Rashtriya Krishi Vikash Yojana (RKVY), Rural Infrastructure Development Fund (RIDF), Member of Parliament Local Area Development (MPLAD) Scheme, Member of Legislative Assembly Local Area Development (MLALAD) Scheme, Local body funds etc. The gaps identified under Strategic Research & Extension Plan (SREP) be used in preparation of DIP. DIPs will present holistic irrigation development perspective of the district outlining medium to long term development plans integrating three components viz., water sources, distribution network and water use applications incorporating all

usage of water like drinking & domestic use, irrigation and industry. Preparation of DIP will be taken up as joint exercise of all participating departments. DIP will form the compendium of all existing and proposed water resource network system in the district.

The DIPs may be prepared at two levels, the block and the district. Keeping in view the convenience of map preparation and data collection, the work would be primarily done at block level. Block wise irrigation plan is to be prepared depending on the available and potential water resources and water requirement for agriculture sector prioritizing the activities based on socio-economic and location specific requirement. In case of planning is made based on basin/sub basin level, the comprehensive irrigation plan may cover more than one district. The activities identified in the basin/sub-basin plan can be further segregated into district/block level action plans.

i. Background

Hon'ble President in his address to the joint Session of the Parliament of 16th Lok Sabha indicated that "Each drop of water is precious. Government is committed to giving high priority to water security. It will complete the long pending irrigation projects on priority and launch the 'Pradhan Mantri Krishi Sinchayee Yojana' with the motto of 'Har Khet Ko Paani'.

There is a need for seriously considering all options including linking of rivers, where feasible; for ensuring optimal use of our water resources to prevent the recurrence of floods and drought. By harnessing rain water through 'Jal Sanchay' and 'Jal Sinchan', we will nurture water conservation and ground water recharge. Micro irrigation will be to ensure 'Per drop-More crop'. Out of about 141 ml ha of net area sown in the country, about 65 million hectare (or 45%) is presently covered under irrigation. Substantial dependency on rainfall makes cultivation in unirrigated areas a high risk, less productive

profession. Empirical evidences suggest that assured or protective irrigation encourages farmers to invest more in farming technology and inputs leading to productivity enhancement and increased farm income. The over reaching vision of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) will be to ensure access to some means of protective irrigation to all agricultural farms in the country, to produce ‘per drop more crop’, thus bringing much desired rural prosperity.

ii. Vision

To utilize the available water resources in the district to the maximum extent in an efficient way to meet the basic needs of every living being and enhancing the livelihoods of rural population to the maximum extent thus alleviating poverty in a sustainable way without compromising the interests of future generations.

iii. Objective

Following are the objectives:

A. Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (Har Khet ko pani).

B. Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.

C. Improve on-farm water use efficiency to reduce wastage and increase availability both in duration and extent.

D. Enhance the adoption of precision-irrigation and other water saving technologies (More crop per drop).

Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (Har Khet ko pani).

Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.

Improve on-farm water use efficiency to reduce wastage and increase availability both in duration and extent.

- ❑ Enhance the adoption of precision-irrigation and other water saving technologies (More crop per drop).
- ❑ Enhance recharge of aquifers and introduce sustainable water conservation practices.
- ❑ Ensure the integrated development of rain fed areas using the watershed approach towards soil and water conservation, regeneration of ground water and arresting runoff.
- ❑ Promote extension activities relating to water harvesting, water management and crop alignment for farmers and grass root level field functionaries.
- ❑ Explore the feasibility of reusing treated municipal wastewater for peri-urban agriculture.

iii. Strategy /approach

- ❑ Creation of new water sources; repair, restoration and renovation of defunct water sources; construction of water harvesting structures, secondary & micro storage, ground water development
- ❑ Developing/augmenting distribution network where irrigation sources (both assured and protective) are available or created;
- ❑ Promotion of scientific moisture conservation and run off control measures to improve ground water recharge so as to create opportunities for farmer to access recharged water through shallow tube/dug wells;
- ❑ Promoting efficient water conveyance and field application devices within the farm *viz.*, underground piping system, Drip & Sprinklers
- ❑ Encouraging community irrigation through registered user groups.

Farmer oriented activities like capacity building, training and exposure visits, demonstrations, farm schools, skill development in efficient water and crop management practices (crop alignment) including large scale awareness on more crop per drop of water through mass media campaign, exhibitions, field days, and extension activities through short animation films etc.

CHAPTER I
GENERAL INFORMATION OF THE DISTRICT

1.1. District Profile:

Historically Mandya is closely related to the history of the old Mysore State, which included the present district of Mandya and areas around the Cauvery Basin. Ruled successively by the kings of the Ganga dynasty and then the Cholas and the Hoysalas, the area was annexed by the rulers of Vijayanagara in 1346. After the cruel battle of 1565 when the Vijayanagara king was defeated by the combined power of the Sultans of the Deccan, the Vijayanagara Empire began to lose its power and extent. The Wodeyars of Mysore gradually grew in importance. Before long, they had established their own rule over a large part of South India which included all of old Mysore, parts of the present Tamil Nadu and the districts of Dakshina Kannada and Dharwad, with Srirangapatna as their capital.

The power of the Wodeyars was more or less unchallenged till 1761 when Hyder Ali, one of their generals rose to great strength and overcame them. Between then and 1799 when Hyder's son Tipu was defeated by the British, the area was under constant cross fire. Finally, on 30 June 1799, Krishnaraja Wodeyar III, a descendant of the ancient royal house was placed on the throne of Mysore by the British while, Srirangapatna became the property of the victorious East India Company. The dynastic rule of Wodeyars thereafter ended only with the establishment of democracy in free India. The district of Mandya itself constituted in 1939 as an administrative unit with seven taluks and has remained unchanged to this day.

The Mandya district is spread across 4962 sq. km area. The district comprises of 7 taluks surrounded by Ramanagaram district in the east, Mysore

in the west, Hassan and Tumakuru in the north and Chamarajanagar in the south. The district has 1369 inhabited and 110 un-inhabited villages governed by 232 Grama Panchayaths. There are 8 cities/towns/urban agglomerations in Mandya district. The prominent rivers that have influenced the life of the people of Mandya district are Cauvery, Hemavathi, Lokapavani, Simsha and Veera vaishnavi. Branches of river Cauvery descends from the height of 200 feet at Shivanasamudra of Malavally taluk to form beautiful falls by name ‘Gaganachukki’ and ‘Bharachukki’. The famous Krishna Raja Sagara dam is built across the river Cauvery in Srirangapatna taluk and world famous ‘Brindavan garden’ is situated near the dam.

District at a Glance:

Mandya is predominantly an agrarian district located in the south of the state between $76^{\circ} 19'$ and $77^{\circ} 20'$ E longitude and $12^{\circ} 13'$ and $13^{\circ} 04'$ N latitude with an altitude of 2500 – 3000 ft MSL. Mandya district has several tourist and historically important places like Krishnaraja Sagar, Ranganatittu and Kokkare Bellur bird sanctuaries, Srirangapatna Fort, Sri Ranganatha temple, Cheluvanarayana swamy and Yoganarasimha swamy temples with Ramanujacharya Dwaitha Peetha at Melkote. The district’s location in Karnataka and the taluks of Mandya district are shown in Figure 1.1 & 1.2.

Figure-1.1: Mandya District in Karnataka

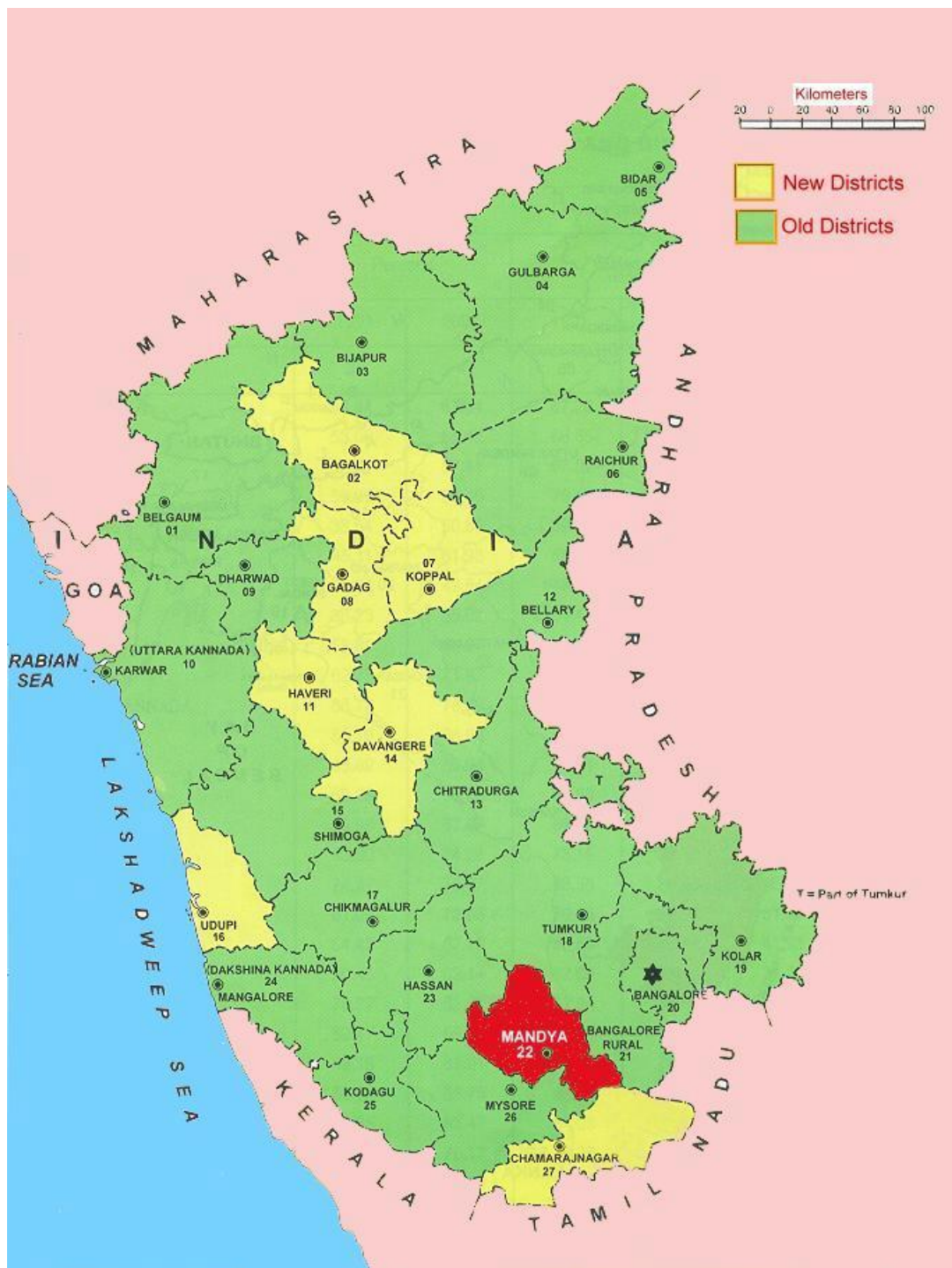


Fig 1.2: Map of Mandya District

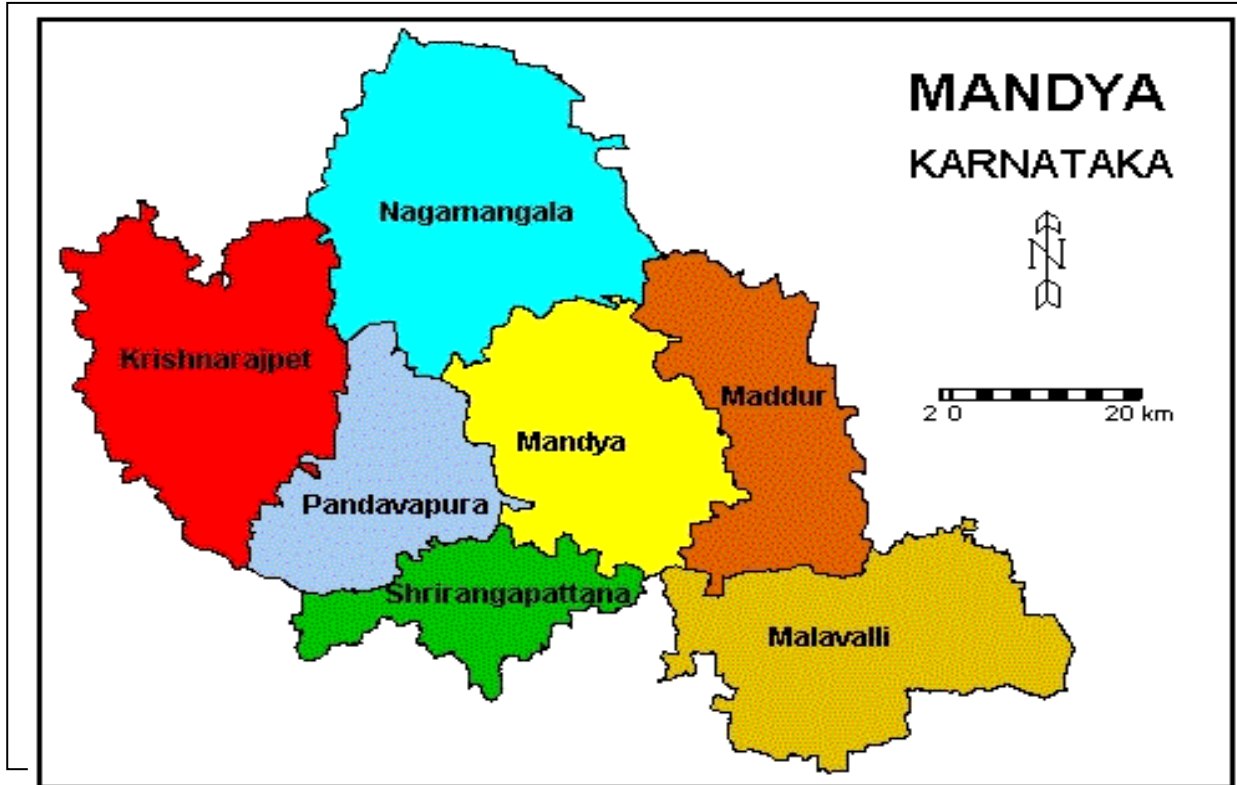


Table 1-1 : District Profile

1.	District Code	573
2.	Latitude and Longitude	76 ⁰ 19' and 77 ⁰ 20'E longitudes and 12 ⁰ 13' and 13 ⁰ 04' N latitude
3.	Total Number of block	7
4.	Total Number of Grama Panchayat	232
5.	Total No. of Hoblies	31
6.	Total Number of Villages	1479
7.	Total Population	1805769
8.	Total Male Population	905085
9.	Total Female Population	900684
10.	Total Rural Population	1497407
11.	Total Urban Population	308362
12.	Total Child population	172685
13.	Total SC Population	265294
14.	Total ST Population	22402
15.	Geographical Area (ha)	498244
16.	Net Sown Area (ha)	189090
17.	Gross Cropped Area (ha)	238761
18.	Net Irrigated Area (ha)	126121
19.	Area under Forest (ha)	24765
20.	Total livestock population (Nos)	1120806
21.	Total poultry (Nos)	1182969

1.2 Demography

1.2.1 Population

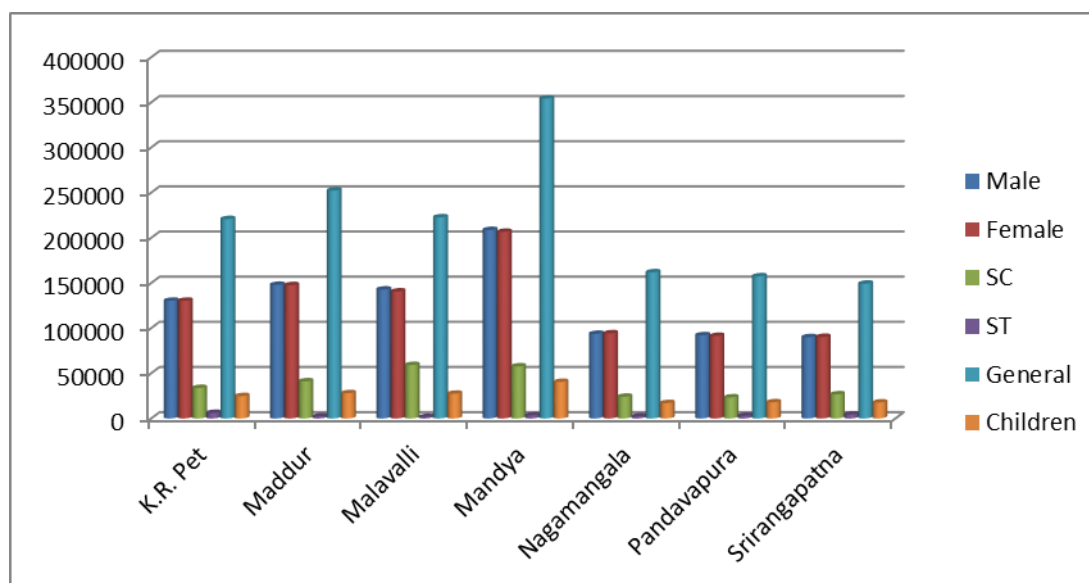
The total population of Mandya district as per the 2011 census is 18.06 lakhs. The male population stands at 9.05 lakh and the female at 9.01 lakh. The Scheduled caste and Scheduled Tribe population accounts for 14.69 and 1.24 per cent of the district population. The male female ratio works out to 995 females per 1000 males. The population density is 364 persons per square km as per the 2011 census. As per 2011 census, 82.92 % population of Mandya district lives in rural areas of villages and 17.08 percent lives in urban regions of district. The female population was slightly more than the male population in Nagamangala and Srirangapatna taluks. The details are given in Table 1.2 1and Fig 1.2.1

Table 1.2.1: Taluk wise population of Mandya district

Sl. No.	Block/Taluk	Population			SC	ST	Gen/Others	Children
		Male	Female	Total				
1	K.R. Pet	130241	130238	260479	33726	6050	220703	24710
2	Maddur	147879	147553	295432	41001	2137	252294	27907
3	Malavalli	142698	140567	283265	59111	1543	222611	27303
4	Mandya	208607	206546	415153	57586	3385	354182	40382
5	Nagamangala	93682	94215	187897	23998	2145	161754	16928
6	Pandavapura	92038	91314	183352	23241	2801	157310	17857
7	Srirangapatna	89940	90251	180191	26631	4341	149219	17598
Total		905085	900684	1805769	265294	22402	1518073	172685

NOTE: As per 2011 Census

Fig 1.2.1: Taluk-wise population of Mandya district



1.2.2: Rural and Urban Population

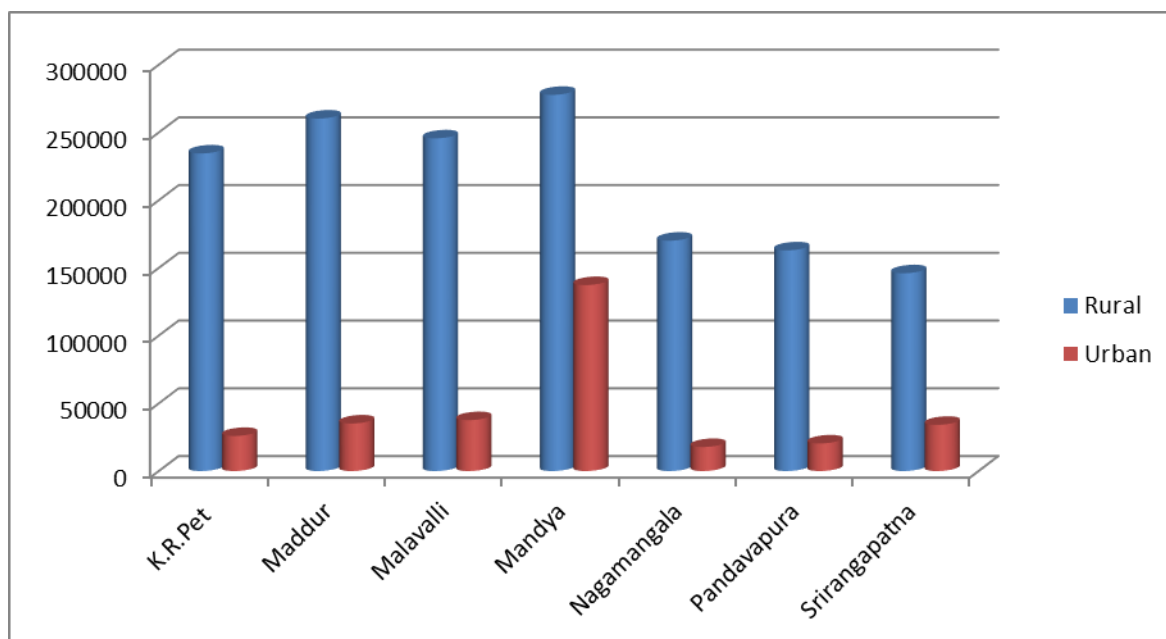
Mandya district is agrarian in nature as 1497,407 (83 per cent) of the district population resides in rural areas of the district and remaining 308,362 (17 per cent) of the population are located in cities and towns. Mandya taluk has the highest rural population (277,795) as well as urban population (137,358) among the taluks of Mandya district. Malavalli taluk has second highest urban population followed by Maddur and Srirangapatna (Table 1.2.2)

Table 1.2.2: Rural and Urban Population

Sl. No.	Block/Taluk	Population		
		Rural	Urban	Total
1	K.R.Pet	234533	25946	260479
2	Maddur	260285	35147	295432
3	Malavalli	245664	37601	283265
4	Mandya	277795	137358	415153
5	Nagamangala	170121	17776	187897
6	Pandavapura	162953	20399	183352
7	Srirangapatna	146056	34135	180191
	Total	1497407	308362	1805769

NOTE: As per 2011 Census

Fig. 1.2.2: Rural and Urban Population by Taluks



1.2.3 Households in Mandya District

As per the 2011 Population Census, Mandya district has 426, 528 households of which 72, 529 resides in urban areas of the district and 3, 54,049 households live in villages of the rural area of the district (Table 1.2.3). Taluk-wise data of entire households is not available.

Table 1.2.3: Number SC and ST Households by Taluks

Sl. No.	Taluk	Total No. of Households			Scheduled Caste Total No. of Households			Scheduled Tribe Total No. of Households		
		Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
1	K.R.Pet	Taluk wise Information not available			668	5822	6490	60	1007	1067
2	Maddur				726	7444	8170	76	277	353
3	Malavalli				1596	10578	12174	25	345	370
4	Mandya				3463	7773	11236	274	336	610
5	Nagamangala				304	4612	4916	13	354	367
6	Pandavapura				493	4045	4538	33	409	442
7	Srirangapatna				706	4812	5518	386	325	711
Total		72529	354049	426578	7956	45086	53042	867	3053	3920

Source: Mandya District at a Glance.

1.3 Biomass and Livestock:

The district is having a forest area of 24765 ha which accounts for just 4.97 percent of the total geographical area of the district. Apart from this area, barren and un-cultivable land is 21519 ha (4.31 percent) which can also be utilized for production of biomass.

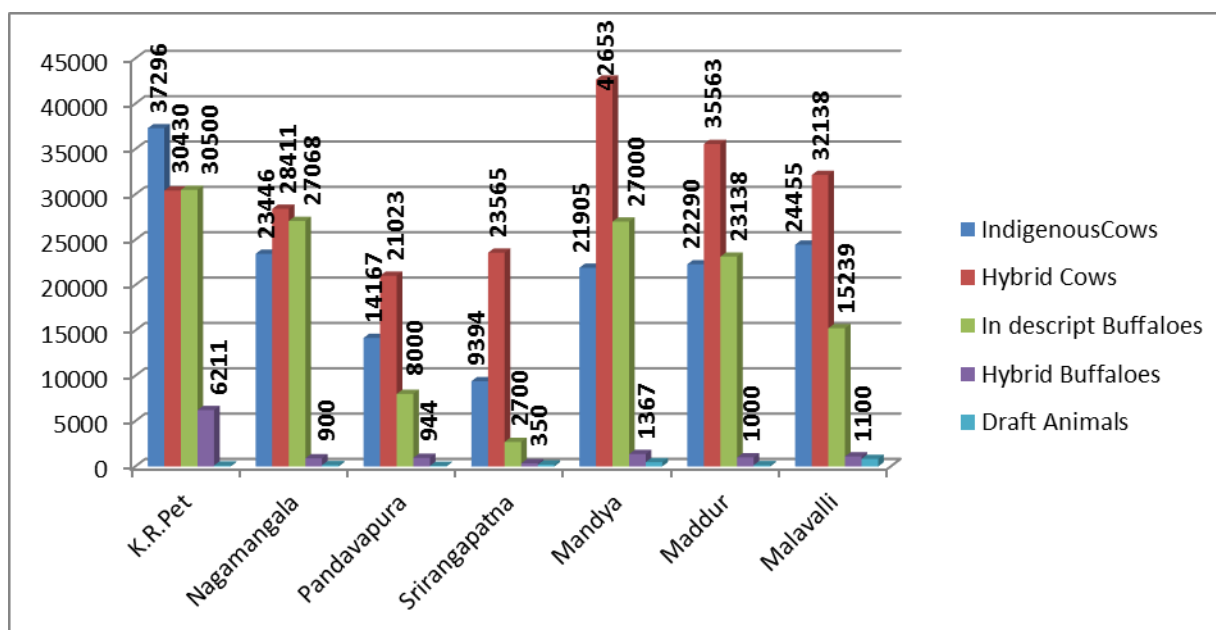
Livestock is an integral part of rural economy by providing constant and assured income to the farmers throughout the year. In addition, this sector also generates gainful employment, apart from providing nutritional security. Increase in the purchasing power and the changing life styles have led to increased demand for animal products as food. Livestock production always acts as a buffer in case of crop failure. The animal population of the district as per 19th Livestock Census (2012) comprises 366,736 cattle consisting of 213,783 cross bred and 152,953 indigeneous cows and 145,517 buffaloes consisting of 133,645 indigenous buffaloes and 11,872 hybrid buffaloes (Table 1.3.1). The total number of draft animals accounts for 1962 only. K.R.Pet has the highest number of large animals and Srirangapatna the least.

Table 1.3.1: Cattle and Buffalo Population

Taluk	Cattle (Nos)			Buffaloes (Nos)			Draft Animals (Nos)	Total Large Animals
	Indigen-ous	Hybrid	Total	In-descript	Hybrid	Total		
K.R.Pet	37296	30430	67726	30500	6211	36711	106	104543
Nagamangala	23446	28411	51857	27068	900	27968	144	79969
Pandavapura	14167	21023	35190	8000	944	8944	68	44202
Srirangapatna	9394	23565	32959	2700	350	3050	205	36214
Mandya	21905	42653	64558	27000	1367	28367	477	93402
Maddur	22290	35563	57853	23138	1000	24138	134	82125
Malavalli	24455	32138	56593	15239	1100	16339	828	73760
Total	152953	213783	366736	133645	11872	145517	1962	514215

Source: Mandya District at a Glance.

Fig. 1.3.1: Population of Large Animals in Mandya District by Taluks



Small ruminants like sheep and goats are another important livestock activity of the district. District has 261,369 goats, 340,355 sheep (Table 1.3.2). Poultry farming is an important activity in the district and 1182,969 poultry birds which includes both layers as well as broilers (fig 1.3.3). Animal population by taluks is appended in Table 1.3.2 and Fig. 1.3.2. The households also rear pigs and these accounts for 4867.

Table 1.3.2: Small Animals in Mandya district (In Nos.)

Taluk	Poultry	Pigs	Goats	Sheep
K.R.Pet	117562	474	28760	44804
Nagamangala	127837	450	47764	69898
Pandavapura	46455	422	20700	29118
Srirangapatna	267027	403	16443	18078
Mandya	333100	2128	44534	81709
Maddur	154191	213	39491	59202
Malavalli	136797	777	63677	37546
Total	1182969	4867	261369	340355

Source: Mandya District at a Glance.

Fig. 1.3.2: Small Animals in Mandya District

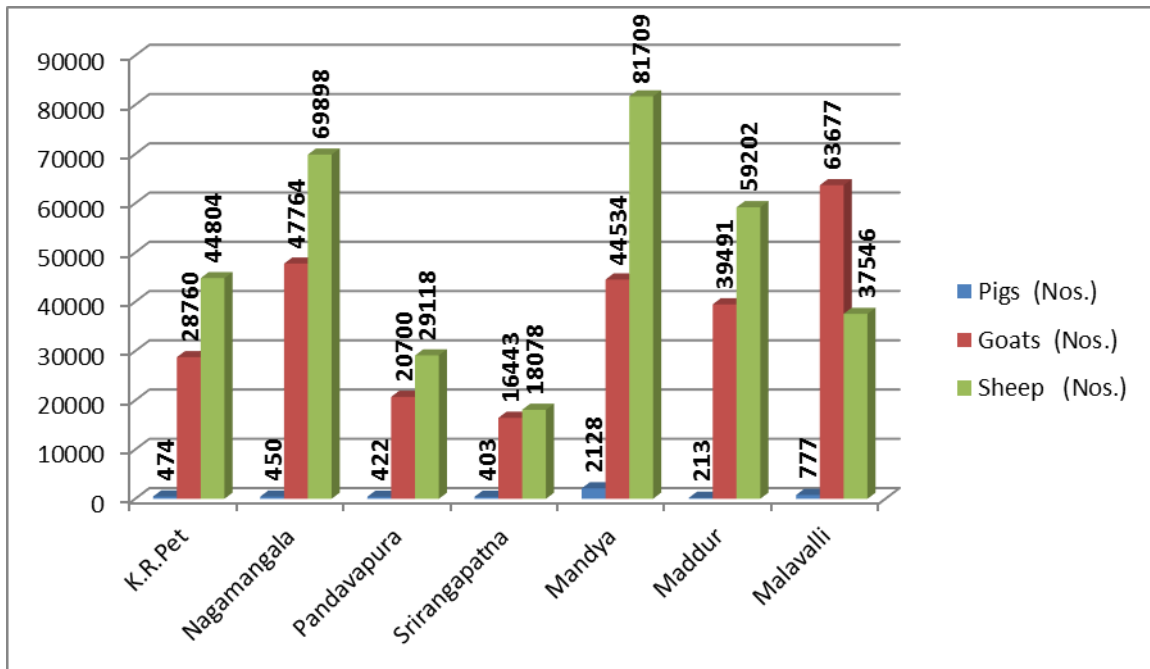
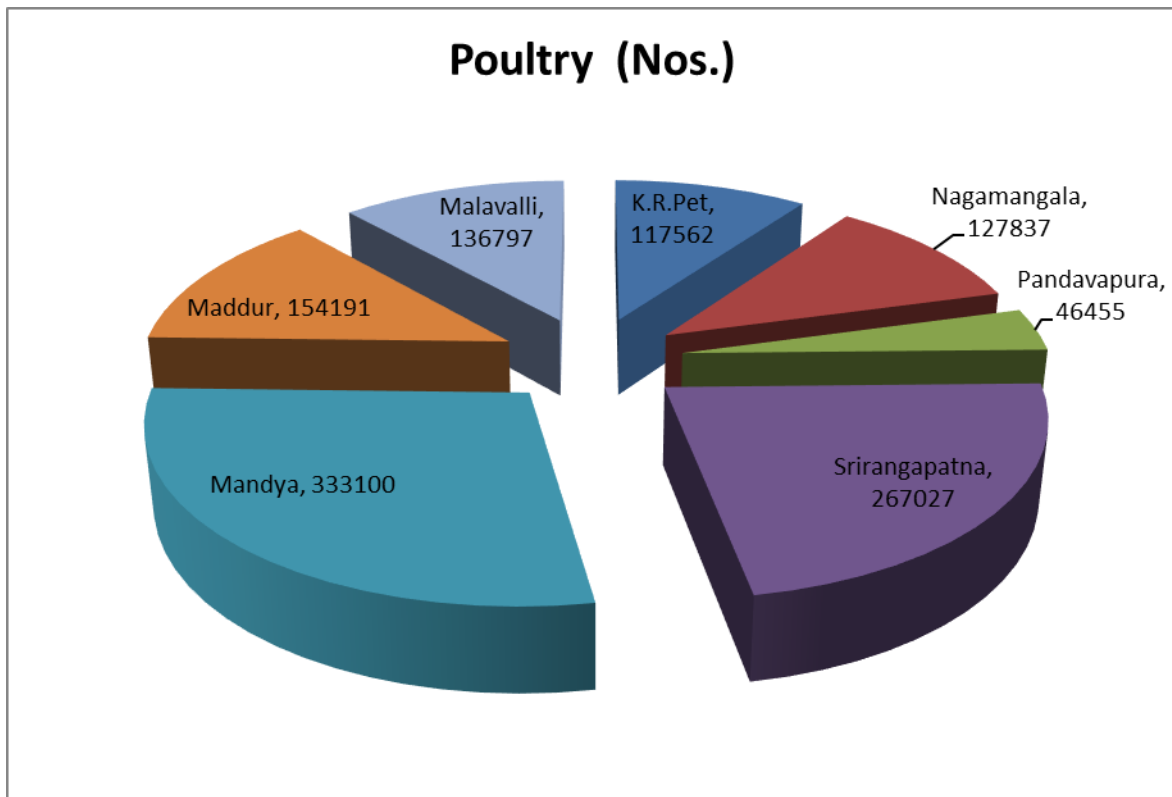


Fig. 1.3.3: Number of Poultry birds in Mandya district



1.4 Agro-Ecology, Climate, Hydrology and Topography:

1.4.1 Agro-ecology

All seven taluks of Mandya district are part of southern dry zone of Karnataka. The average annual rainfall of the district is 720.4 mm of which more than 50 per cent rain is received in Kharif season. The soils are red sandy loams in major areas and red loamy in the remaining areas. The agro-ecological characteristics of the district by taluks are shown in Table 1.4.1.

Table 1.4.1: Agro-Ecological Zones of Mandya District

Name Of Taluk	Agro Ecological Zone Type	Type of Terrain
K.R. Pet	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	The major rock types of the Mandya district belong to Archaean era and consist of a wide variety of granite, gneisses and schist with associated quartzite and crystalline limestone. Mandya district is a part of the southern plateau and largely forms a plain area. There are a few hills dotting the district and are sporadic in nature. On an average, the area is 760 to 920 m MSL. The soil of Mandya district is derived from granites and gneisses with occasional patches of schist in Srirangapattana, Mandya and Pandavapura taluks. The soils range from red sandy loams to red clay loam very thin in ridges and higher elevations and comparatively thick in valley portions. The soils in Mandya, Malavalli, Maddur and Nagamangala taluks are thin gravelly and underlain with a Lateritic zone containing weathered rock. The soils are highly leached and poor in bases. The water holding capacity is low.
Maddur	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	
Malavalli	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	
Mandya	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	
Nagamangala	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	
Pandavapura	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	
Srirangapatna	Hot moist semi-arid ESR with medium to deep Red loamy soils, low AWC and LGP 120- 150 days	

1.4.2 Climate

Mandya district experiences semi-arid type of climate. There are three seasons namely, summer, rainy and winter seasons, respectively. Summer season is hot and dry while, winter is cool and pleasant. From March to May it is summer in Mandya. Availability of canal water makes the district ever green. The district comes under Southern Dry zone (Zone-7) with an annual average rainfall of 863 mm. with bimodal distribution. The maximum rainfall occurs in the months of May, September and October. Kharif season receives 38 per cent rainfall and 36 per cent of rainfall is received during Rabi season. The recent data indicate average annual rainfall of 730 mm for the district as a whole and it varies from 695 mm in Pandavapura taluk to 762 mm in Maddur taluk. The average number of rainy days are 45 (Table 1.4.1).

Table 1.4.2: Taluk-wise Average Rainfall, Number of Rainy Days and Intensity

Taluks	Rainfall		Rainfall Intensity (mm)		
	No of Rainy Days	Rainfall	Up to 15 min	Bet 15 & 30 min	Bet 30 & 60 min
K.R. Pet	64	721.9	102	0	0
Maddur	68	771.0	115	0	0
Malavalli	73	746.3	121	0	0
Mandya	56	795.1	110	0	0
Nagamangala	74	651.9	120	0	0
Pandavapura	63	660.9	105	0	0
Srirangapatna	60	695.7	118	0	0
Average	65.4	720.4			

Source:ksndmc

The minimum and maximum temperature ranges between 18 and 31° C. As expected, evapo-transpiration rate is higher in all the taluks during summer months when compared with winter and rainy seasons. The rainfall, number of rainy days, temperature as well as minimum and maximum elevation varies across the taluks in Mandya district (Table 1.4.3).

Table 1.4.3: Average Normal Climatic Parameters by Taluks

Taluks	Average Weekly Temperature (°C)									Potential Evapo-Transpiration (PET)				Elevation (Metres from MSL)		
	Period									Period			Cumulative Total	Min	Max	Mean
	Summer (April-May)			Winter (Oct-Mar)			Rainy (June-Sep)			Summer	Winter	Rainy				
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean							
K.R. Pet	19.6	32.8	26.2	19.4	29.5	24.4	19.8	30.1	24.9	612	345	658	1615	738	842	790
Maddur	20.1	33.0	26.6	15.3	29.4	22.3	19.2	30.7	25.0	589	352	712	1653	618	662	640
Malavalli	19.8	33.1	26.5	15.0	29.0	22.0	19.2	30.4	24.8	563	348	685	1596	555	665	610
Mandya	19.5	32.5	26.0	14.2	29.0	21.6	18.5	29.6	24.1	552	362	667	1581	732	914	823
Nagamangala	19.8	33.4	26.6	13.7	31.1	22.4	18.4	28.9	23.7	532	342	712	1586	676	772	724
Pandavapura	19.3	33.0	26.2	17.6	33.5	25.5	19.1	30.2	24.7	578	347	674	1599	686	750	718
Srirangapatna	19.5	32.7	26.1	17.5	29.6	23.6	19.5	30.8	25.2	601	355	682	1638	652	692	672

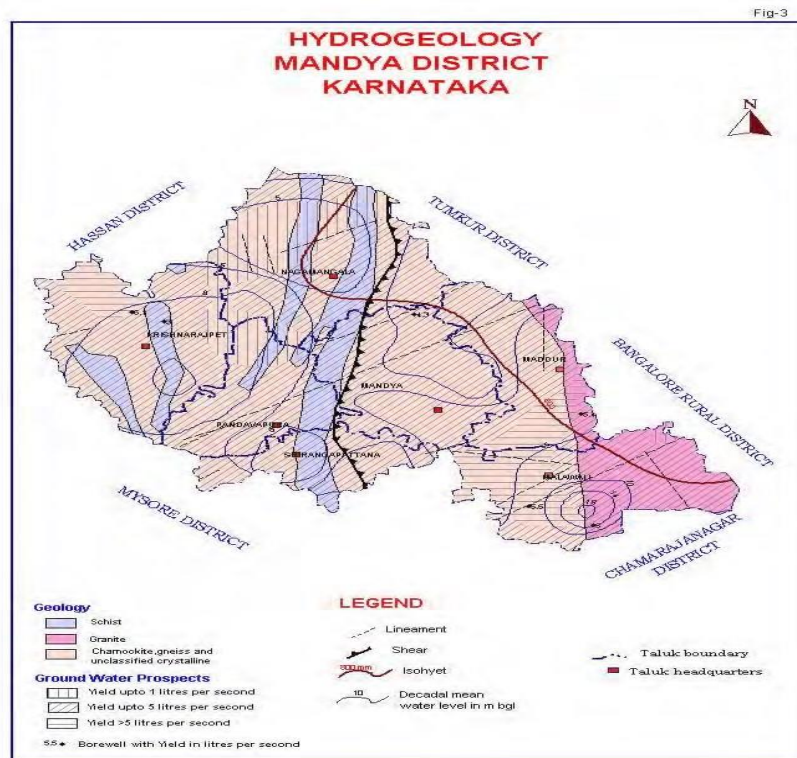
Source:ksndmc

1.4.3 Hydrology

(Adopted from Ground Water Handbook, Mandya, Government of India, Ministry of Water Resources, Central Ground Water Board)

Mandya district is covered by the geological formations ranging in age from Archaean, Granitic gneiss etc., to recent alluvium. Various intrusives later traverse these formations. Based on the hydro- geological conditions in different rock types occurring in the district, the entire district can be categorized under hard rock area except for areas adjacent to the major streams and rivers where alluvium occurs as local pockets. The ground water occurs in the secondary porosity of weathered formations like granitic gneiss, granite and schists etc., under water table conditions at shallow depth up to 25 m and generally under semi-confined to confined conditions in the jointed and fractured portions of the above rocks down to the depth of 200 m bgl. The ground water also occurs in the inter-granular spaces in the alluvial patches along the stream courses under water table conditions at shallow depth (Fig. 1.4.1).

Fig 1.4.1: Hydrogeology of Mandya District



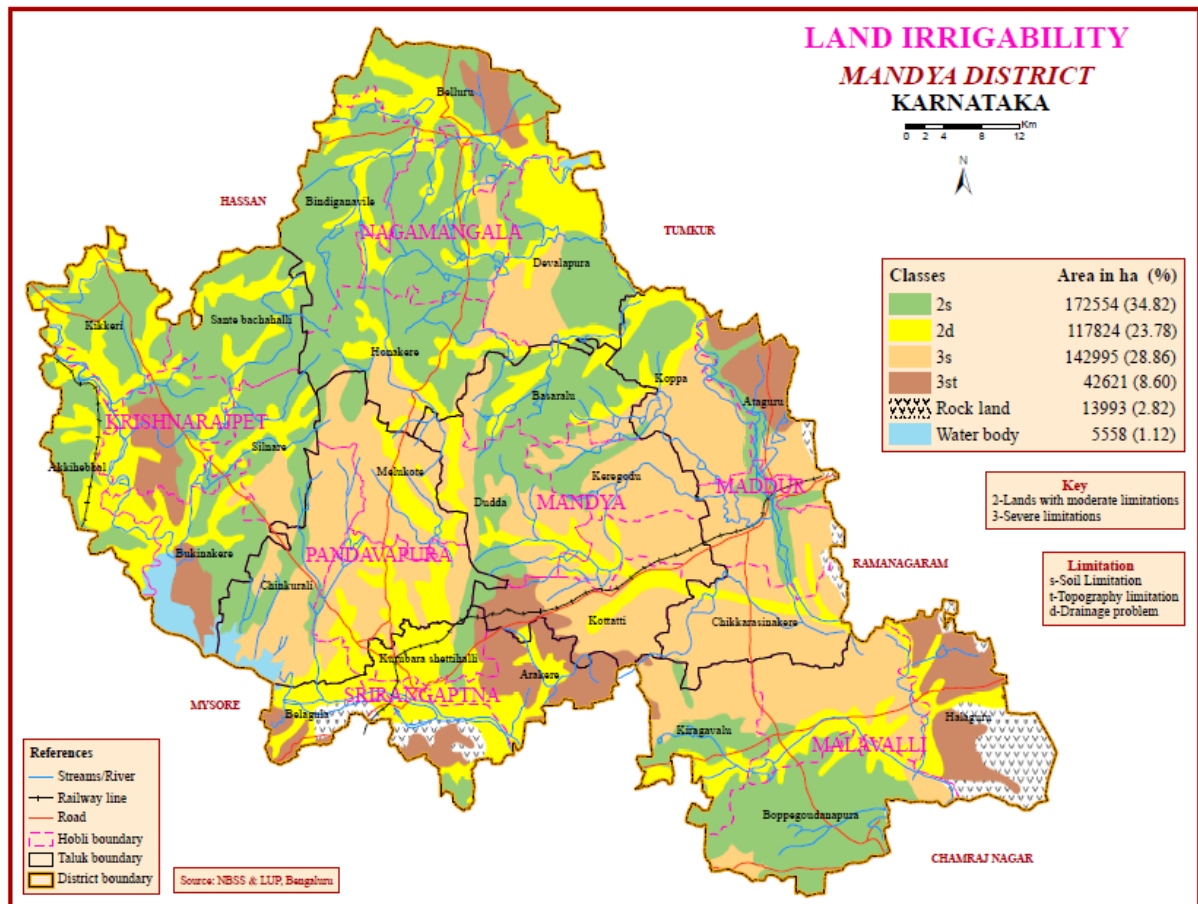
The regional ground water flow systems of Mandya district described under three zones as shallow, moderately deep and deep zone (Fig. 1.4.2).

Shallow zone: The aquifers occurring within the depth of 25 m below ground level are constituted of weathered and fractured granite gneisses, granites and schist. Ground water occurs in the open spaces of weathered and fractured formations under water table conditions. Ground water of this zone is utilized through structures like dug wells, dug cum bore wells and shallow bore wells. In the 12% of the areas of the district, the weathered zone thickness is less than 5 m falling in parts of northeastern K.R.Pet, southwestern Nagamangala and north and western parts of Pandavapura taluks. In 64% areas of the district, the weathered thickness is in the range of 5 to 10 m. In the remaining 24% areas of the district falling in parts of southern K.R.Pet, eastern Maddur, eastern Malavalli, small portion in eastern part of Nagamangala.

Moderately deep zone: The aquifers occurring within the depth of 50 m below ground levels are grouped in this category. The aquifers of this category constituted of weathered and fractured granite gneisses, granites and schist. Ground water occurs in the open spaces of weathered and fractured formations under semi confined conditions.

Deep zone: The aquifers occurring within the depth of 200 m below ground levels are grouped in this category. The aquifers of this category constituted of fractured and jointed granite gneisses, granites and schist. Ground water occurs in the open spaces of fractured and jointed formations under semi-confined to confined conditions.

Fig 1.4.2: Land Irrigability of Mandya District



1.5 Soil Profile

The soils of Mandya district is derived from granites and gneisses interpreted with occasional patches of schist in SR Patna, Mandya and Pandavapura taluks. The soils range from red sandy loams to red clay loam very thin in ridges and higher elevations and comparatively thick in valley portions. Major soils found in the district with area covered are presented in Table 1.5.1, Fig. 1.5.1 and details in Table 1.5.2.

Table 1.5.1: Soils and Area covered by Different Types of Soils in Mandya District

Sl.No.	Taluk	Black soil		Red soil		Sandy soil		Sandy loam	
		Area	%	Area	%	Area	%	Area	%
1	K.R.Pet			21846	59.000	3702	10	11477	31
2	Maddur			20473	62.000	3123	8	11104	30
3	Malavalli			20954	61.000	3438	10	9968	29
4	Mandya			20060	58.000	3740	12	10200	30
5	Nagamangala			19993	61.000	3267	10	9475	29
6	Pandavapura			13766	57.000	2656	11	7728	32
7	Srirangapatna			8352	58.000	1440	10	4608	32
Total		0	0	125444	60	21366	10	64560	30

The soils in Mandya, Malavalli, Maddur and Nagamangala taluks are thin gravelly and underlain with a murrum zone containing weathered rock. The soils are highly leached and poor in bases. The water holding capacity is low. On the other hand the soil under the old channel areas of Malavalli, Pandavapura and S.R. Patna are high in clay. The infiltration rates of red loamy and red soils are 2 to 12 cm/hr and 1 to 3 cm/hr (Fig. 1.5.2).

Fig. 1.5.1: Major Soil Types found in Mandya district

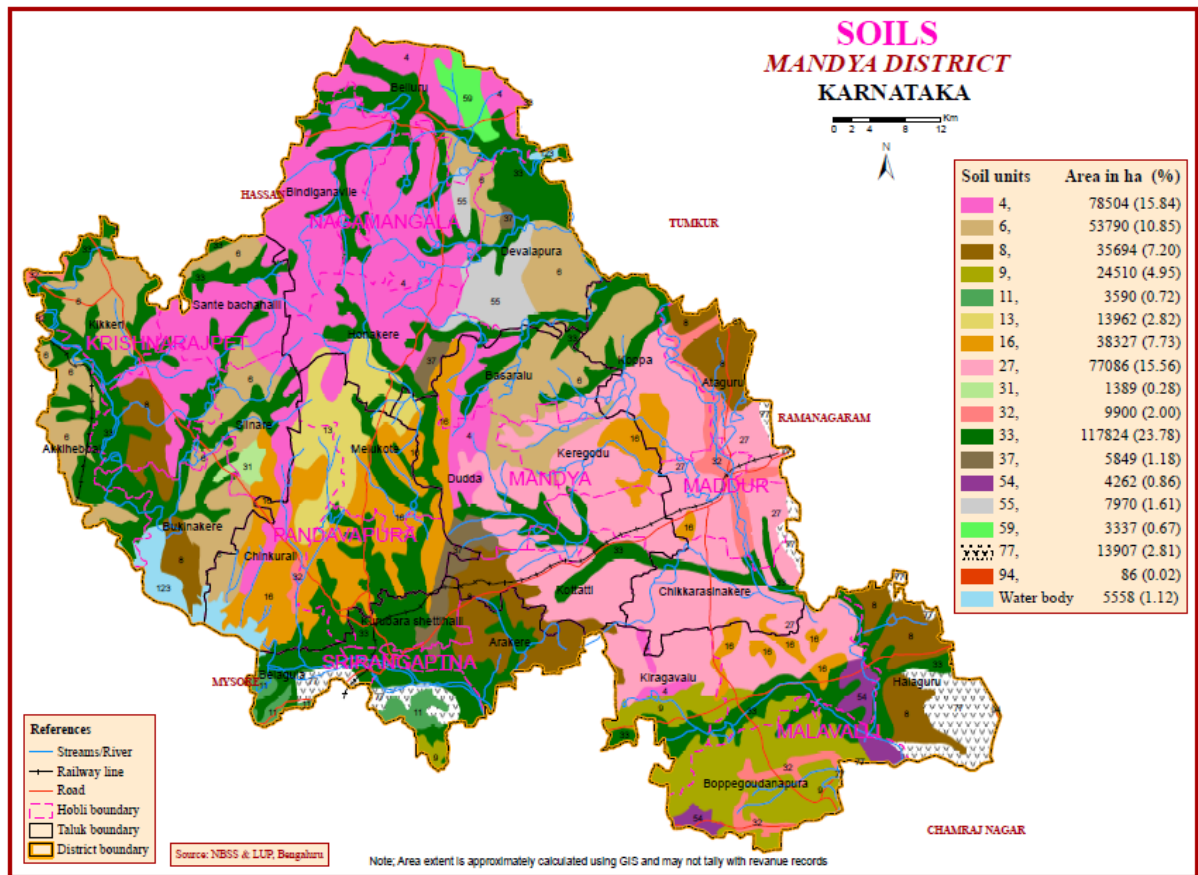


Table: 1.5.2

SOIL LEGEND - MANDYA DISTRICT, KARNATAKA

Map symbol	Description Major soils	Classification		Area	
		Major soils	Inclusions	Ha	%
SOILS OF SOUTH DECCAN PLATEAU					
4	Deep, somewhat excessively drained, gravelly clay soils on gently sloping interfluves, with moderate erosion; Deep, somewhat excessively drained, clayey soils	Fine, kaolinitic, Kandic Paleustalfs Fine, kaolinitic, rhodic kandiustalfs	Loamy-skeletal, mixed, Typic ustropepts Fine, mixed, Typic Rhodustalfs	78503.91	15.84
6	Deep, well-drained, gravelly clay soils on gently sloping interfluves, with slight erosion; Moderately shallow, well-drained, gravelly soils	Clayey-skeletal, mixed, Rhodic Paleustalfs Clayey-skeletal, mixed, Typic Rhodustalfs	Fine, mixed Typic Haplustalfs Clayey-skeletal, mixed, Typic Ustropepts	53790.36	10.85
8	Moderately deep, well-drained, clayey soils on undulating interfluves, with moderate erosion; Moderately deep, well-drained, gravelly clay soils	Fine, mixed, Rhodic Paleustalfs Clayey-skeletal, mixed, Ultic Haplustalfs	Fine, mixed, Typic Ustropepts Fine, mixed, Typic Rhodustalfs	35694.21	7.20

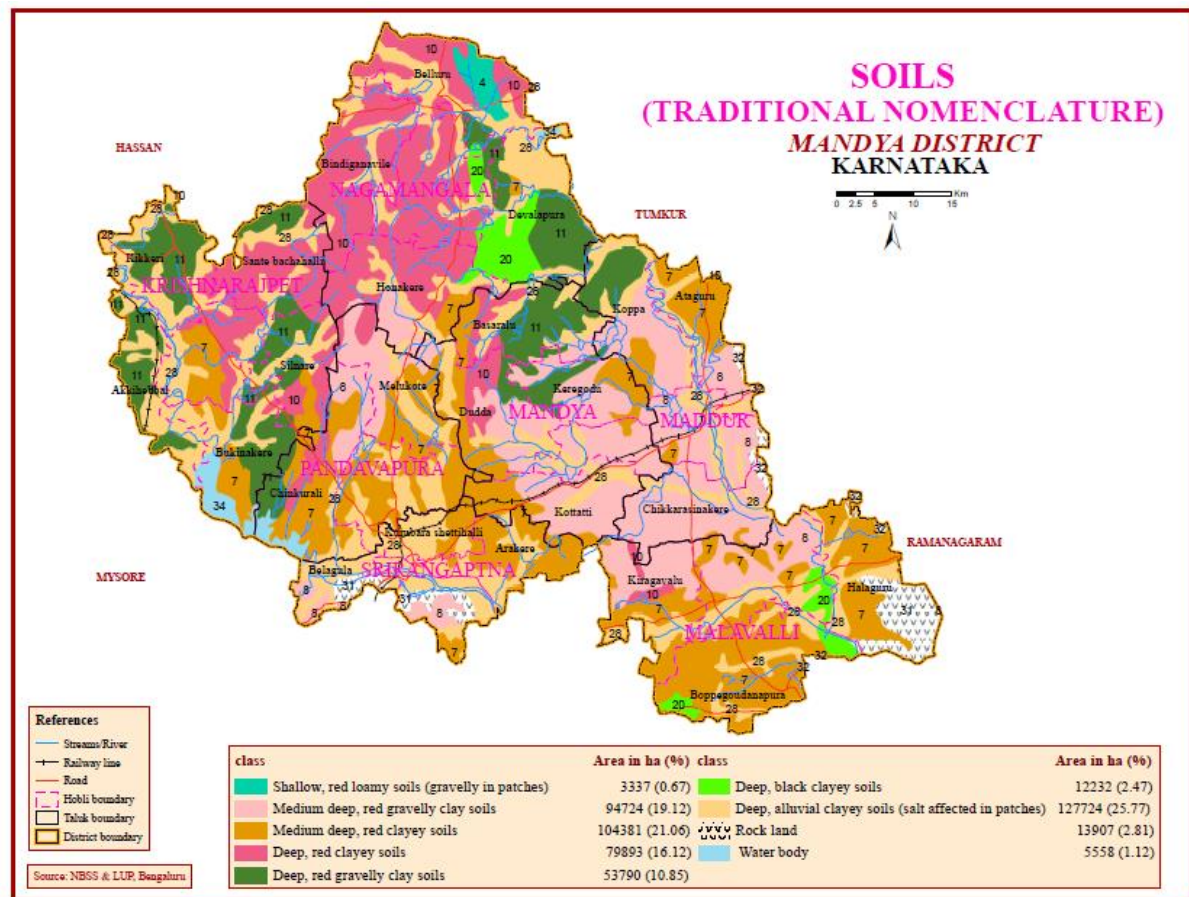
9	Very deep, well-drained, clayey soils on undulating interfluves, with slight erosion; Shallow, somewhat excessively drained, gravelly clay soils, moderately eroded	Fine, mixed, Rhodic Paluustalfs Clayey-skeletal, mixed, Lithic Ustropepts	Clayey-skeletal, mixed, Typic Rhodustalfs Loamy-skeletal, mixed, Typic, Ustropepts	24510.25	4.95
11	Moderately shallow, well-drained, gravelly clay soils with very low AWC on undulating interfluves, with moderate erosion; Moderately deep, well-drained, gravelly clay soils with very low AWC	Clayey-skeletal, mixed, Typic Rhodustalfs Clayey-skeletal, mixed, Typic Haplustalfs	Fine-loamy, mixed, Typic Ustropepts	3590.31	0.72
13	Moderately shallow, well-drained, gravelly clay soils on gently sloping interfluves, with slight erosion; Moderately shallow, well-drained, gravelly clay soils, moderately eroded	Clayey-skeletal, mixed, Typic Rhodustalfs Clayey-skeletal, mixed, Typic Ustropepts	Clayey-skeletal, mixed, Typic Ustorthents Fine, mixed, Rhodic Paluustalfs	13961.74	2.82

32	Very deep, moderately well-drained, clayey soils of valleys, with problems of drainage and slight salinity in patches; Moderately deep, well-drained, loamy soils	Fine, mixed, Typic Ustropepts Clayey, Over loamy, mixed Typic Ustifluvents	Fine, mixed, Aquic Ustropets	9900.00	2.00
33	Deep, moderately well-drained, clayey soils of valleys, with problems of drainage and slight salinity in patches; Deep, imperfectly drained, clayey over sandy soils	Fine, mixed, Typic Ustropets Fine mixed, Typic Ustifluvents	Fine, mixed, Aeric Tropaquepts	117824.39	23.78
37	Moderately deep, well-drained, clayey soils on gently sloping interfluves, with moderate erosion; Very shallow, somewhat excessively drained, loamy soils with low AWC	Fine, mixed, Typic Ustropepts Loamy, mixed, Lithic Ustorthents	Fine, montmorillonitic, Vertic Ustropepts Loamy, mixed, Lithic Ustropepts	5849.15	1.18
54	Very deep, moderately well drained, cracking clay soils of nearly level valleys, with moderate erosion; Moderately deep, well-drained, clayey soils	Very-fine, Montmorillonitic Typic Pellusterts Fine, montmorillonitic, Vertic Ustropepts	Fine, mixed Vertic Ustifluvents Very fine, montmorillonitic Typic Chromusterts	4262.30	0.86
55	Deep, moderately well drained, cracking clay soils on gently sloping interfluves, with moderate erosion; Associated with Very deep, moderately well drained, calcareous, cracking clay soils	Fine, montmorillonitic, Typic Pellusterts Fine, montmorillonitic, Typic Chromusterts	Fine, montmorillonitic Vertic Ustorthents Fine, montmorillonitic, Vertic Ustropepts	7969.56	1.61
59	Shallow, somewhat excessively drained, gravelly loam soils with very low AWC on undulating interfluves, with severe erosion Moderately shallow, well-drained, gravelly clay soils with very low AWC, moderately eroded.	Loamy-skeletal, mixed, Lithic Ustorthents Clayey, skeletal, mixed, Typic Ustropepts	Fine, mixed, Typic Paleustalfs Fine, montmorillonitic, Vertic Ustropepts	3336.62	0.67

77	Rockoutcrops	Rock land		13906.93	2.81
94	Moderately shallow, well drained, gravelly clay soils on hills and ridges, with moderate erosion; Shallow, well drained gravelly clay soils with very low AWC	Clayey skeletal mixed, Typic Ustropepts Clayey skeletal, mixed Lithic Ustropepts	Clayey skeletal, mixed, Typic Rhodustalfs Clayey skeletal, Lithic Ustrothrents	85.72	0.02
123		Water bodies		5557.89	1.12
	Total			495544.65	100.00

Note : 1. Soil map units represent the association of soil families dominant soil (occupy 50% area), subdominant soil (35% area) and inclusion (15% area) in the map unit.
2. The soil temperature regime is isohyperthermic. AWC = available water capacity

Fig 1.5.2: Soils – Traditional Nomenclature –Mandya district



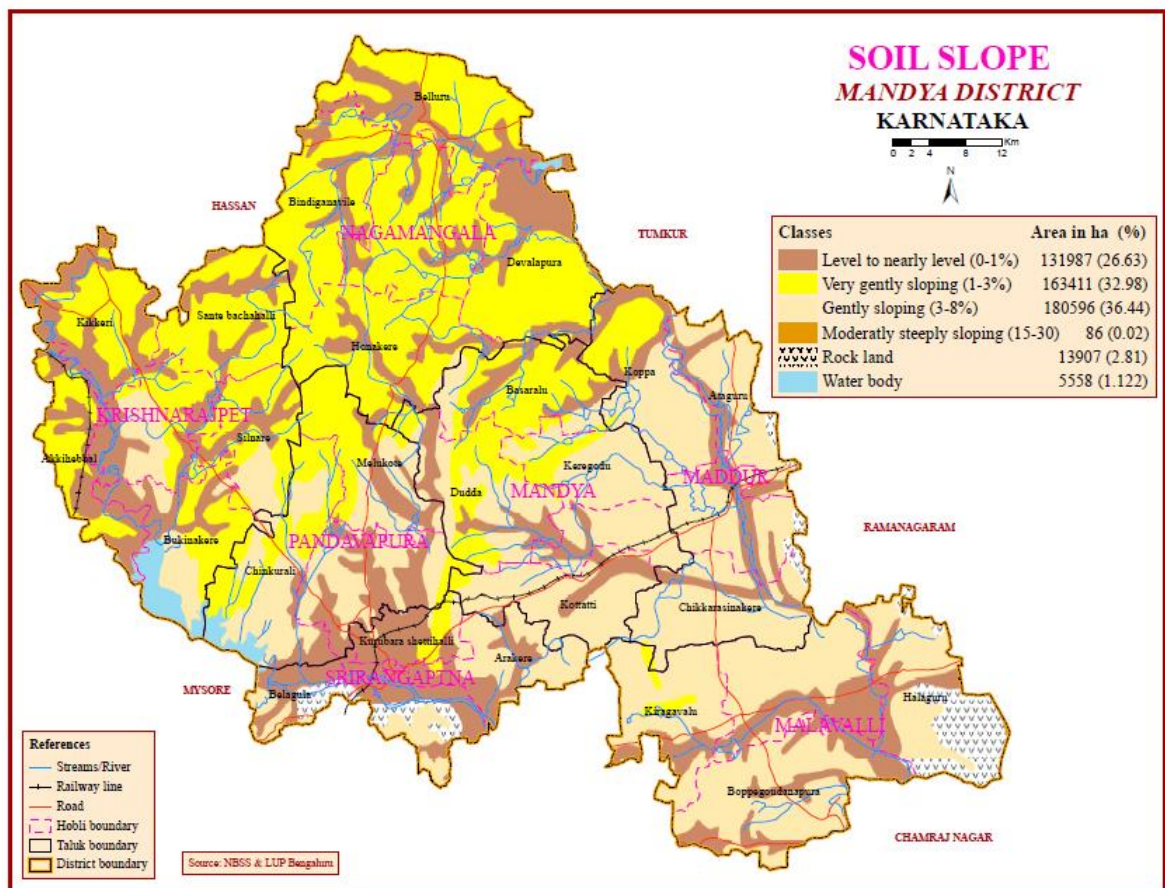
Soil Slope

The area with different having varying proportions of slope is presented in Table 1.5.3 and Fig 1.5.3

Table 1.5.3: Slope of the Soils and Area

Soil Type		Land Slope			
Major Soil Classes	Area (ha)	0-3% (ha)	3-8% (ha)	8-25% (ha)	>25% (ha)
Red Soil, Sandy Soil, Black Soil & Sandy Loam	211370	342069.4	130787.09	13931.504	9496.604

Fig 1.5.3: Soil Slope in Mandya district

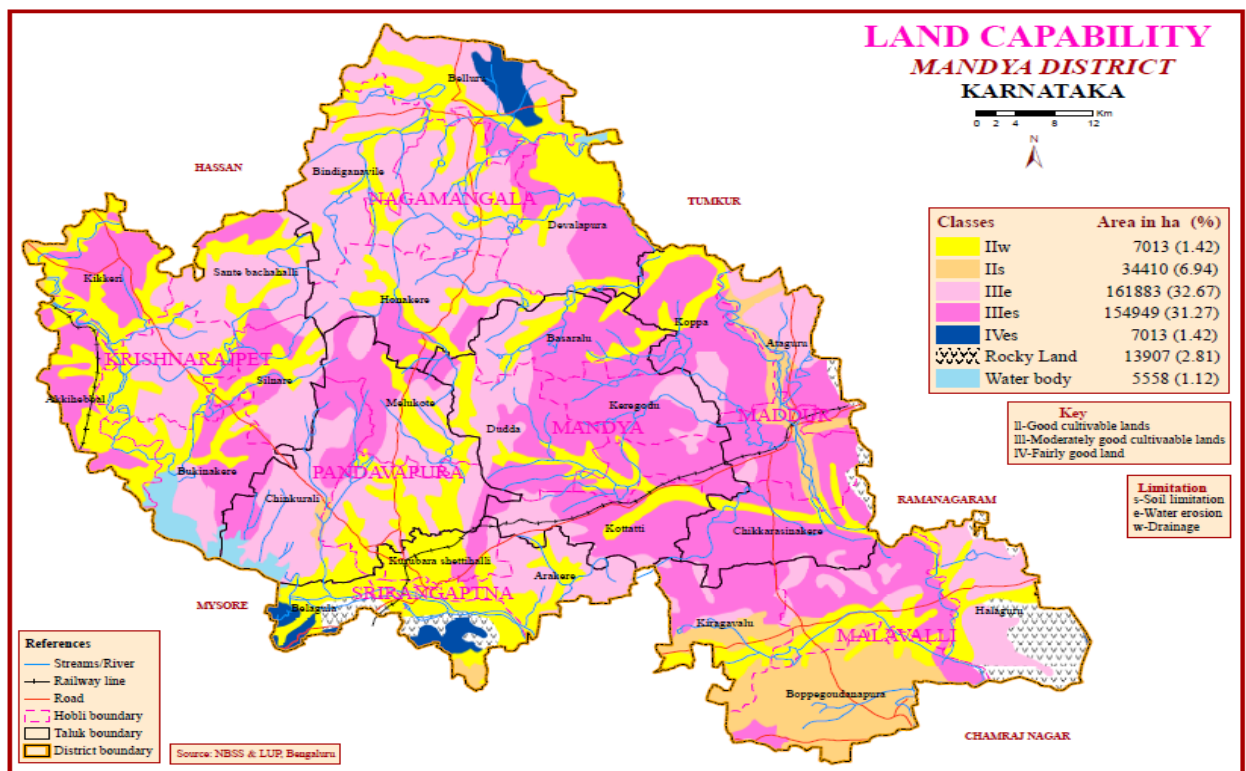


Source: NBSS and LUP, Bangalore

Land Capability:

The Land capability classification is one of many interpretative groupings of soil mapping units mainly based on inherent soil characteristics, external land features and environmental factors that limit the use of land for agriculture, pasture, or other uses on a sustainable basis (IARI, 1971). In other words, land capability classification can be used to evaluate arable and non arable lands for limitations or hazards for producing commodity crops using soil characteristics. Land Capability Classes I, II, and III are considered suitable for croplands and class IV for hay lands. LCC of V, VI, VII, and VIII are not considered arable, but can be used for permanent vegetation unless it is a miscellaneous land type (Fig.1.5.4).

Fig 1.5.4: Land Capability in Mandya district



Sources: NBSS and LUP

Soils and their Fertility Status:

The overall pH in district ranges between 6.5 and 8.5 and is normal similarly EC is < 0.8 dS/m and normal. The organic carbon status in almost entire district is above 0.5%. The Sulphur, Phosphorous and Potash content of the soils in Mandya is sufficient. Most parts of the district is deficient in Zinc (< 0.75 ppm) so also the south-eastern part of the district comprising parts of Mallavali, South Mandya, parts of K R Pet and Pandavapura taluk are deficient in boron (< 0.58 /ppm) (Fig. 1.5.5 to 1.5.12).

Fig. 1.5.5: Status of Available Boron (ppm) in Soils across Taluks of Mandya District

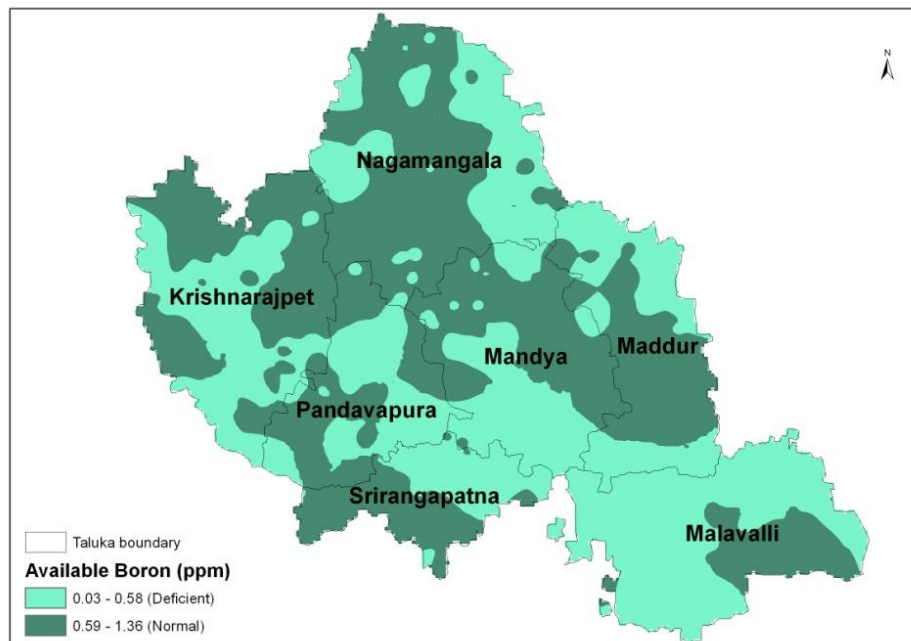


Fig. 1.5.6: Status of Available Zink (ppm) in Soils across Taluks of Mandya District

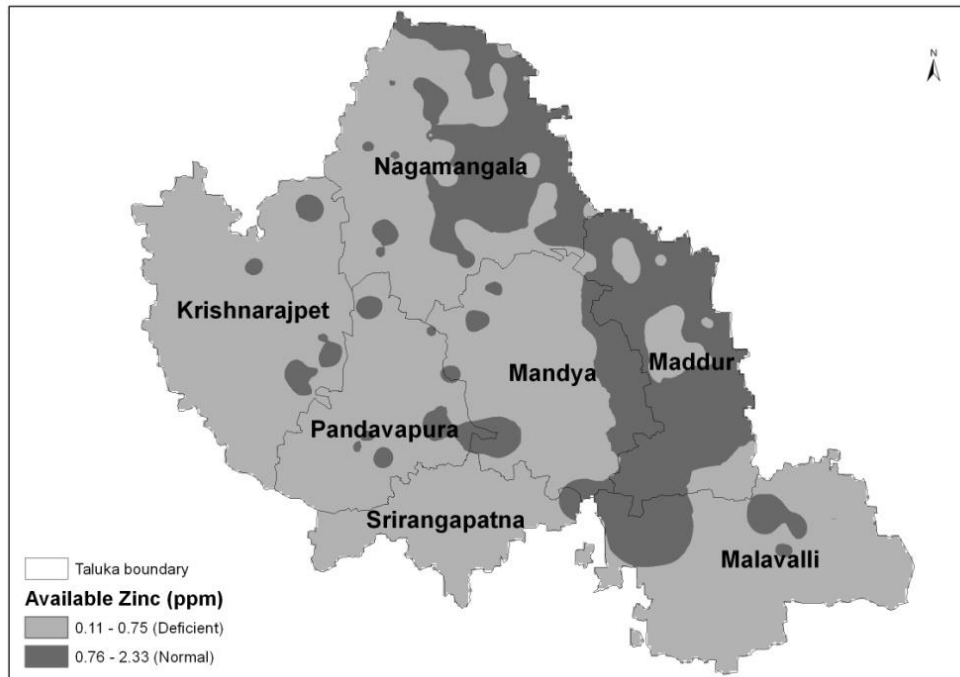


Fig. 1.5.7: Status of Available Sulphur (ppm) in Soils across Taluks of Mandya District



Fig. 1.5.8: Status of Available Phosphorous (ppm) in Soils across Taluks of Mandya District

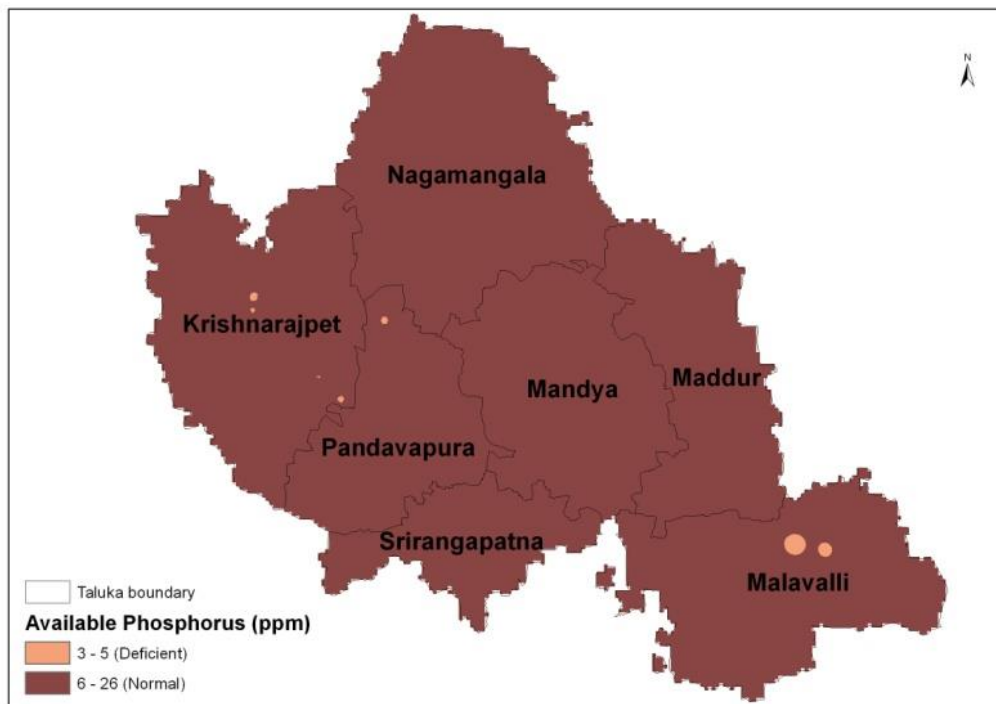


Fig. 1.5.9: Status of Available Potassium (ppm) in Soils across Taluks of Mandya District

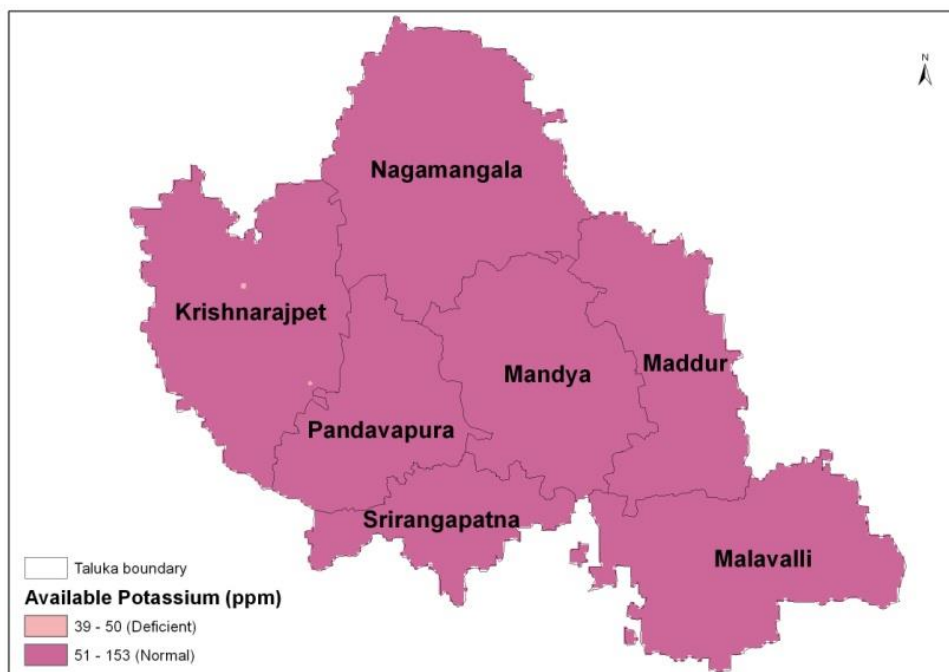


Fig. 1.5.10: Status of Organic Carbon Available (%) in Soils across Taluks of Mandya District

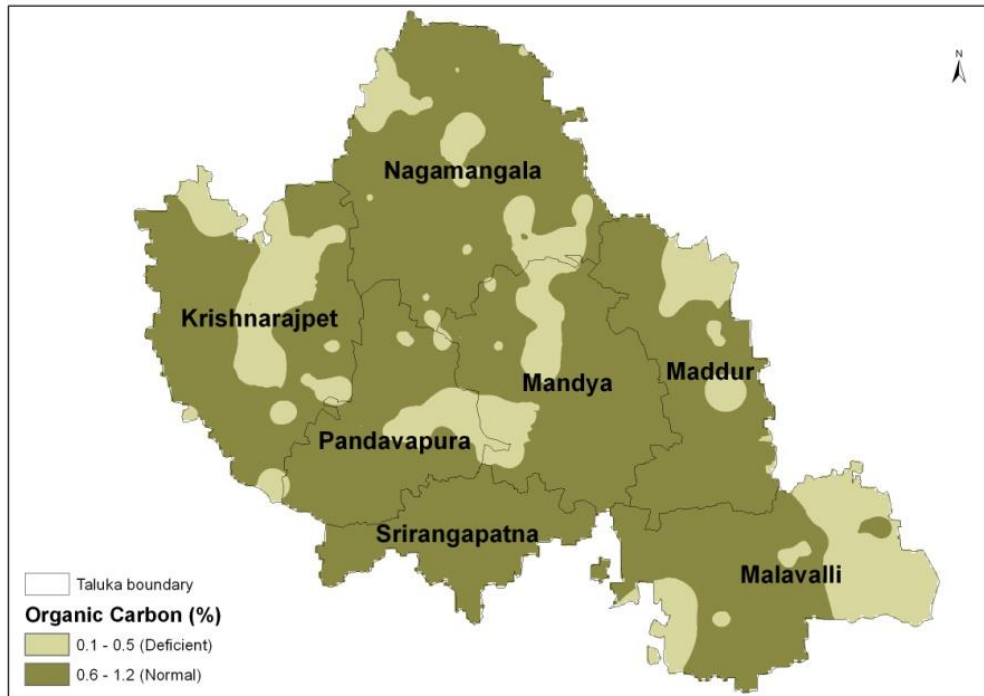


Fig. 1.5.11: Status of Soil pH across Taluks of Mandya District

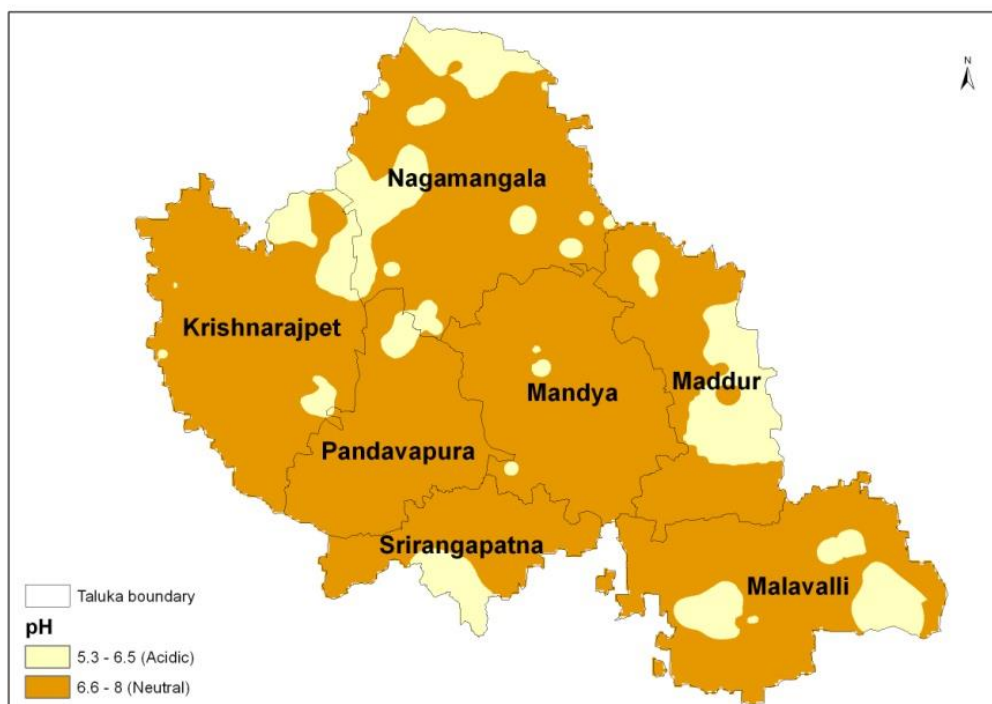
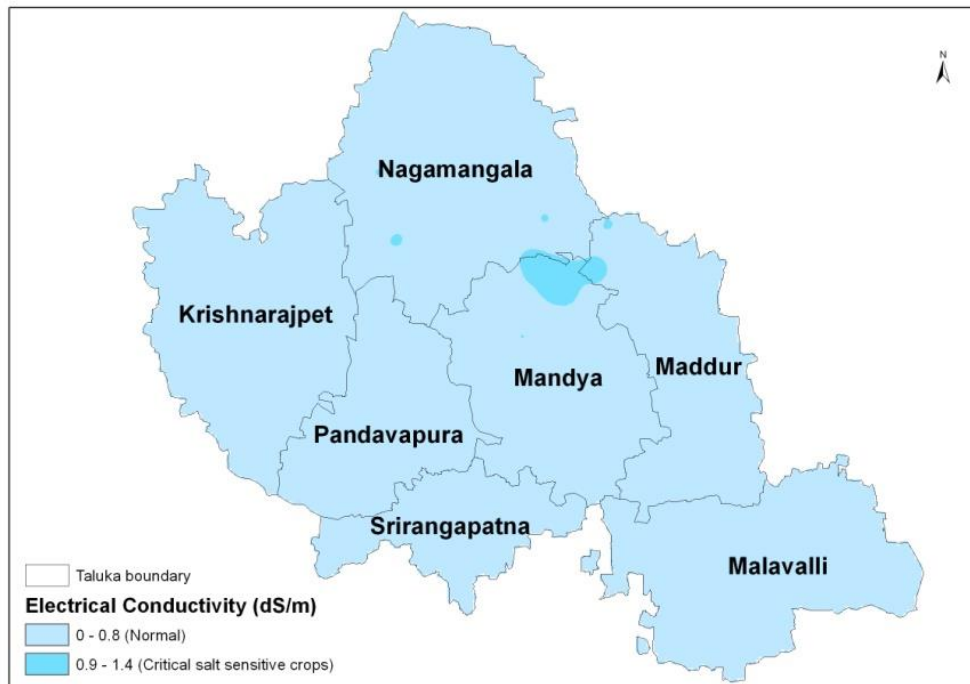


Fig. 1.5.12: Status of Electrical Conductivity (dS/m) of Soils across Taluks of Mandya District



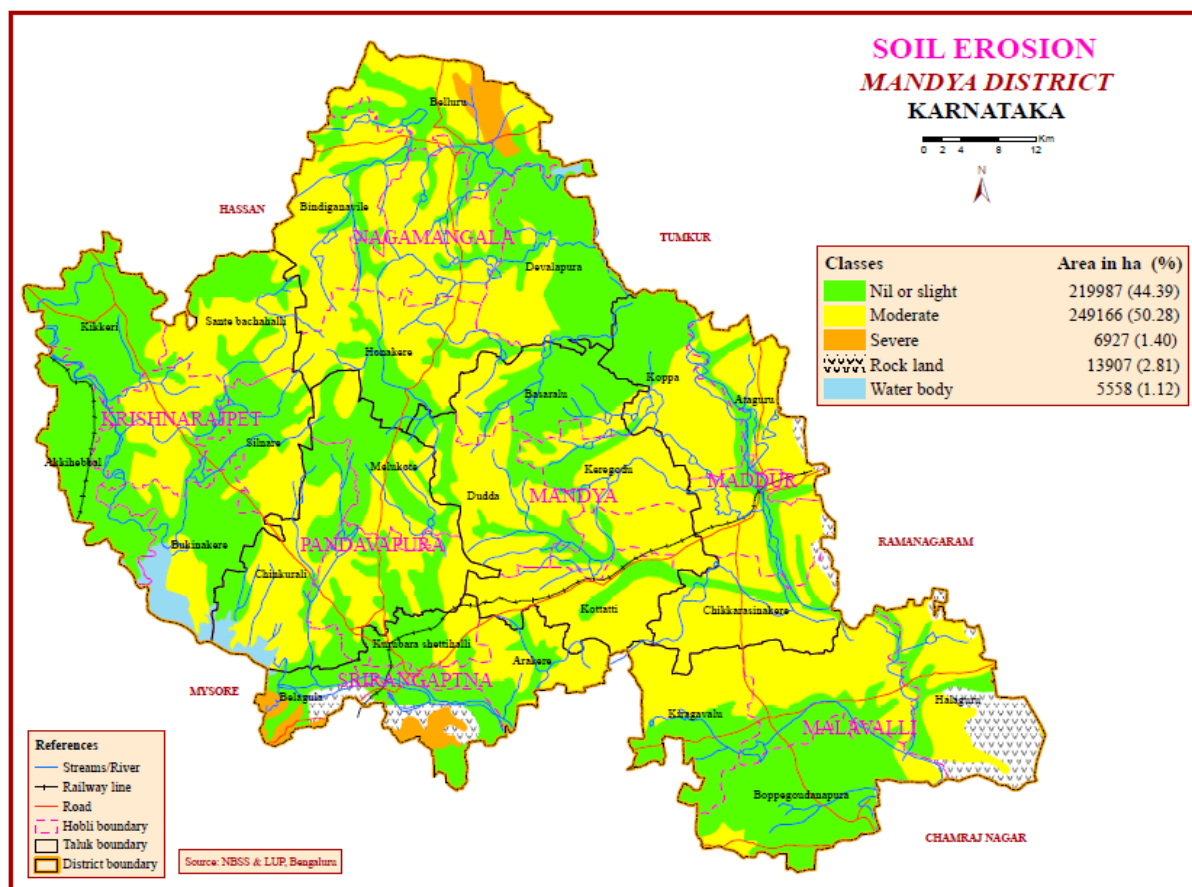
1.6 : Soil Erosion and Runoff Status:

Soil erosion which occurs at varying rates is a widespread threat to sustainable resource management. The average annual soil loss was 27 tons/ha/yr. Major causes of soil erosion are cultivation without proper soil and water conservation measures in area not suitable for crops, denuded areas without vegetation, cultivated fallow on moderate slopes, degraded forests/pastures on steep slopes and poorly managed forest cover. Appropriate soil conservation and land management techniques for the different soil erosion classes were suggested. It is generally associated with agricultural practices, leading to decline in soil fertility, bringing in a series of negative environmental impacts and has become a threat to sustainable agricultural production and water quality.

Soil erosion is one form of soil degradation. Soil erosion is a naturally occurring process on all land. The agents of soil erosion are water and wind, each contributing a significant amount of soil loss each year. Soil erosion may be a slow process that continues relatively unnoticed, or it may occur at an alarming rate causing serious loss of topsoil. The loss of soil from farmland may be reflected in reduced crop production potential, lower surface water quality and damaged drainage networks.

In Mandya district, moderately eroded soils measures 249,166 ha account for about 50.28 per cent of the total geographical area of the district (Fig 1.6). The severely eroded area accounts for about 1.49 Per cent (6927ha), while soils with nil or slight soil erosion accounts for about 44.39 per cent (219987 ha). Necessary water conservation measures are to be taken up to conserve and utilize available water to a maximum extent.

Fig 1.6: Soil Erosion in Mandya district



1.7 Land Use Pattern

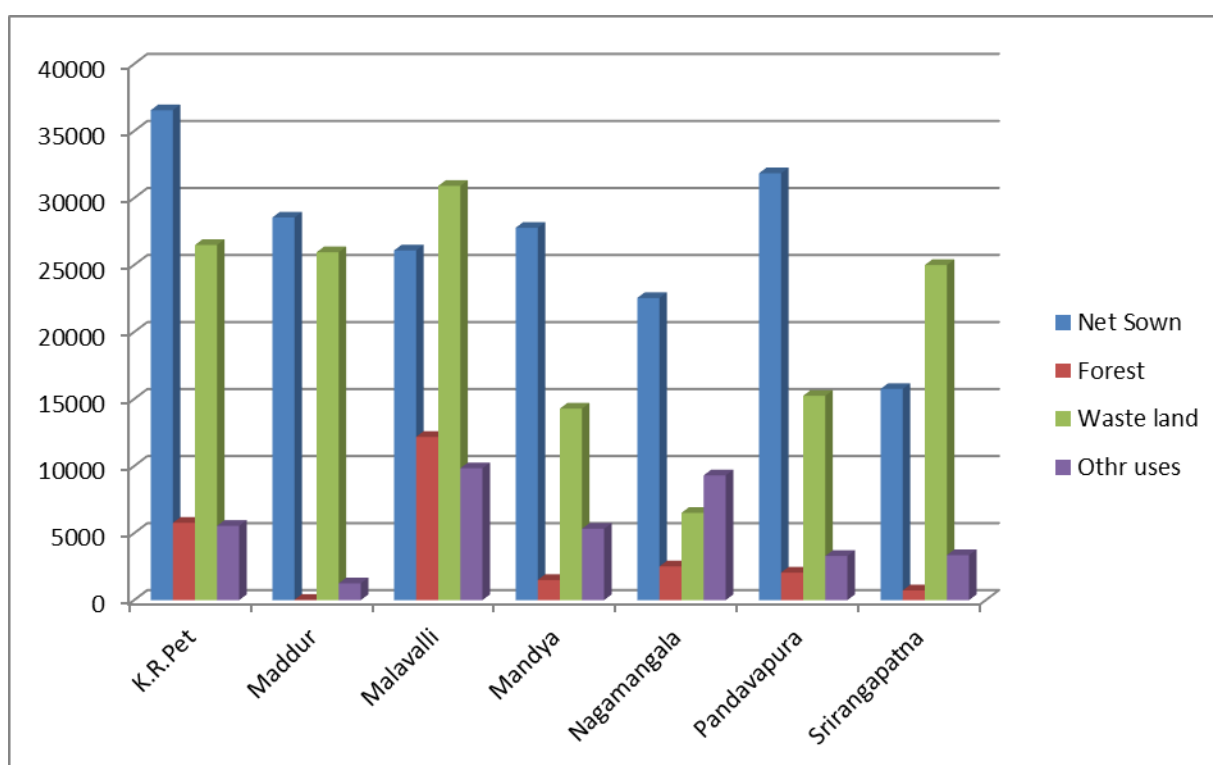
Mandya district has a total 498244 ha of geographical area and it ranges from 35758 ha in Srirangapatna taluk to 103885 ha in Nagamangala taluk. Area under forest ranges from just 20 ha in Maddur taluk to 12,179 ha in Malavalli taluk (Table 1.7 and Fig. 1.7). The area under forests accounts for a mere 5 per cent of the geographical area of the district. Area under waste land in the district is 144395 ha and shared around 29 per cent of the geographical area of the district. Malavalli taluk has the highest area under waste land and Nagamangala taluk the least. The net area sown in the district is 1.89 lakh ha accounting for little less than 38 per cent of the geographical area of the district and it varies from 15,754 ha in Srirangapatna taluk to 36,544 ha in K.R.Pet taluk. The gross

cropped area is 2.38 lakh ha. The cropping intensity is 126 per cent. The district has almost 50 per cent of the cropped area under assured irrigation.

Table 1.7: Land Use Pattern of Mandya District

Sl. No.	Name of the Taluk	Total Geographical Area	Area under Agriculture			Area under Forest	Area under Wasteland	Area under other Uses
			Gross Cropped Area(1)	Net Sown Area (2)	Area sown more than Once (1-2)			
1	K.R.Pet	91551	55710	36544	10303	5767	26493	5547
2	Maddur	61846	30396	28544	6821	20	25955	1251
3	Malavalli	80949	34682	26089	5061	12179	30900	9840
4	Mandya	71512	38670	27772	1085	1507	14292	5325
5	Nagamangala	103885	23332	22542	4573	2516	6512	9305
6	Pandavapura	52743	36430	31845	7228	2051	15242	3296
7	Srirangapatna	35758	19541	15754	5390	725	25001	3359
	Total	498244	238761	189090	49671	24765	144395	37923

Fig. 1.7: Land Use Pattern by Taluks in Mandya District



CHAPTER II
DISTRICT WATER PROFILE

2.1. Area Wise, Crop Wise irrigation status:

Paddy and sugarcane are the important crops grown under irrigation during kharif as well as rabi/summer seasons. Ragi, Maize, Cowpea and Groundnut are grown as rain-fed crops during kharif and to a smaller extent during rabi season also. However, Pigeon pea is grown during kharif season only.

2.1.1 Agriculture Crops

The taluk-wise and crop-wise area under field crops (agriculture crops) by irrigation status during kharif and rabi/ summer is presented in Table 2.1a & b. It can be seen from the table that Paddy is grown under irrigation during Rabi-summer over an area of 20,000 ha and during Kharif on an area of 56700 ha. Ragi is the main staple crop of Mandya and is grown on 56,500 ha during Kharif and on 8,000 ha during rabi season as rainfed crop. Cowpea is an important pulse crop of the district planted sown as rain-fed crop on 3750 ha and 650 ha during kharif and rabi seasons. Area under Pigeon pea is very modest and it occupies only 900 ha area during kharif. Groundnut is grown during kharif on 920 ha of area. Sugarcane occupies 36,660 ha.

**Table 2.1a: Area-wise, Crop-wise Irrigation Status during Kharif Season
(3 years' Average)**

Area in ha					
Sl. No	Taluk	Crop	Irrigated	Rain-fed	Total
1	K.R.PETE	Paddy	11000		11000
2	K.R.PETE	Ragi		8500	8500
3	K.R.PETE	Maize		20	20
4	K.R.PETE	Tur		300	300
5	K.R.PETE	Cowpea		1000	1000

6	K.R.PETE	Groundnut		70	70
7	K.R.PETE	Sugarcane	4500		4500
	Total		15500	9890	25390
1	MADDUR	Paddy	8500		8500
2	MADDUR	Ragi		8500	8500
3	MADDUR	Maize		120	120
4	MADDUR	Tur		50	50
5	MADDUR	Cowpea		500	500
6	MADDUR	Groundnut		50	50
7	MADDUR	Sugarcane	6500		6500
	Total		15000	9220	24220
1	MALAVALLI	Paddy	6500		6500
2	MALAVALLI	Ragi		6000	6000
3	MALAVALLI	Maize		4500	4500
4	MALAVALLI	Tur		50	50
5	MALAVALLI	Cowpea		500	500
6	MALAVALLI	Groundnut		600	600
7	MALAVALLI	Sugarcane	2500		2500
	Total		9000	11650	20650
1	MANDYA	Paddy	14000		14000
2	MANDYA	Ragi		6500	6500
3	MANDYA	Maize		150	150
4	MANDYA	Tur		100	100
5	MANDYA	Cowpea		500	500
6	MANDYA	Groundnut		50	50
7	MANDYA	Sugarcane	7200		7200
	Total		21200	7300	28500
1	NAGAMANGALA	Paddy	2000		2000
2	NAGAMANGALA	Ragi		20000	20000
3	NAGAMANGALA	Maize		0	0
4	NAGAMANGALA	Tur		100	100
5	NAGAMANGALA	Cowpea		250	250
6	NAGAMANGALA	Groundnut		50	50
7	NAGAMANGALA	Sugarcane	100		100
	Total		2100	20400	22500
1	PANDAVAPURA	Paddy	7700		7700
2	PANDAVAPURA	Ragi		5000	5000
3	PANDAVAPURA	Maize		50	50
4	PANDAVAPURA	Tur		250	250

5	PANDAVAPURA	Cowpea		500	500
6	PANDAVAPURA	Groundnut		50	50
7	PANDAVAPURA	Sugarcane	6500		6500
	Total		14200	5850	20050
1	SRIRANGAPATNA	Paddy	7000		7000
2	SRIRANGAPATNA	Ragi		2000	2000
3	SRIRANGAPATNA	Maize		50	50
4	SRIRANGAPATNA	Tur		50	50
5	SRIRANGAPATNA	Cowpea		500	500
6	SRIRANGAPATNA	Groundnut		50	50
7	SRIRANGAPATNA	Sugarcane	4500		4500
	Total		11500	2650	14150

Table 2.1b: Area-wise, Crop-wise Irrigation Status during Rabi/Summer Season (3 years' Average)

Area in ha					
Sl.No.	Taluk	Crops	Irrigated	Rainfed	Total
1	K.R.PETE	Paddy	2000		2000
2	K.R.PETE	Ragi		800	800
3	K.R.PETE	Maize		100	100
4	K.R.PETE	Tur		0	0
5	K.R.PETE	Cowpea		100	100
6	K.R.PETE	Groundnut		0	0
7	K.R.PETE	Sugarcane	700		700
	Total		2700	1000	3700
1	MADDUR	Paddy	3500		3500
2	MADDUR	Ragi		1200	1200
3	MADDUR	Maize		100	100
4	MADDUR	Tur		0	0
5	MADDUR	Cowpea		100	100
6	MADDUR	Groundnut		0	0
7	MADDUR	Sugarcane	500		500
	Total		4000	1400	5400
1	MALAVALLI	Paddy	2000		2000
2	MALAVALLI	Ragi		1500	1500
3	MALAVALLI	Maize		300	300
4	MALAVALLI	Tur		0	0
5	MALAVALLI	Cowpea		100	100
6	MALAVALLI	Groundnut		0	0
7	MALAVALLI	Sugarcane	1060		1060
	Total		3060	1900	4960

1	MANDYA	Paddy	5000		5000
2	MANDYA	Ragi		2250	2250
3	MANDYA	Maize		100	100
4	MANDYA	Tur		0	0
5	MANDYA	Cowpea		100	100
6	MANDYA	Groundnut		0	0
7	MANDYA	Sugarcane	1250		1250
	Total		6250	2450	8700
1	NAGAMANGALA	Paddy	500		500
2	NAGAMANGALA	Ragi		300	300
3	NAGAMANGALA	Maize		0	0
4	NAGAMANGALA	Tur		0	0
5	NAGAMANGALA	Cowpea		50	50
6	NAGAMANGALA	Groundnut		0	0
7	NAGAMANGALA	Sugarcane	100		100
	Total		600	350	950
1	PANDAVAPURA	Paddy	3000		3000
2	PANDAVAPURA	Ragi		1250	1250
3	PANDAVAPURA	Maize		100	100
4	PANDAVAPURA	Tur		0	0
5	PANDAVAPURA	Cowpea		100	100
6	PANDAVAPURA	Groundnut		0	0
7	PANDAVAPURA	Sugarcane	650		650
	Total		3650	1450	5100
1	SRIRANGAPATNA	Paddy	4000		4000
2	SRIRANGAPATNA	Ragi		700	700
3	SRIRANGAPATNA	Maize		50	50
4	SRIRANGAPATNA	Tur		0	0
5	SRIRANGAPATNA	Cowpea		100	100
6	SRIRANGAPATNA	Groundnut		0	0
7	SRIRANGAPATNA	Sugarcane	600		600
	Total		4600	850	5450

2.1.2: Horticulture crops:

Horticulture sector is one of the important sectors in the district. The total area of horticulture crops in the district is around 66,342 ha and the area is increasing due to its high yield potential and higher income. Farmers in the district grow a variety of fruits and vegetable crops. Irrigated horticulture crops occupy 43763.7 ha whereas; rainfed horticulture crops are grown on 22587.8 ha.

Coconut, banana, Mango and Sapota are grown both as rainfed and irrigated crops. The major vegetables grown in the district are Tomato, French beans, Chilli, Onion, and various cucurbits. Commercial cultivation of flowers like Marigold and Chrysanthemum is also taken up on a smaller area under irrigated condition (Table 2.1c to I, Fig. 2.1).

**Table 2.1c: Area-wise, Crop-wise Irrigation Status (3 years' Average)
Horticulture and Plantation Crops – K.R. Pet Taluk**

Area in ha

Season	Horticulture crops	Rain-fed	Irrigated	Total
		Area (ha)	Area (ha)	Area (ha)
Kharif		75	130	205
Rabi		15	45	60
Summer		0	60	60
Total		90	235	325
Kharif	Banana		60	60
Rabi			15	15
Summer			25	25
Total		0	100	100
Kharif	Mango	15	15	30
Rabi		0	5	5
Summer		0	5	5
Total		15	25	40
Kharif	Sapota	15	15	30
Rabi		0	5	5
Summer		0	5	5
Total		15	25	40
Kharif	Papaya		15	15
Rabi			5	5
Summer			5	5
Total		0	25	25
Kharif	Tomato		399	399
Rabi			49	49
Summer			100	100
Total		0	548	548
Kharif	Beans		75	75
Rabi			37.5	37.5
Summer			37.5	37.5
Total		0	150	150

Kharif	Chilli		150	150
Rabi			25	25
Summer			75	75
Total		0	250	250
Kharif	Onion		50	50
Rabi			10	10
Summer			0	0
Total		0	60	60
Kharif	Cucurbits		1029.5	1029.5
Rabi			411.8	411.8
Summer			617.7	617.7
Total		0	2059	2059
Kharif	Marigold		6.72	6.72
Rabi			1.12	1.12
Summer			3.36	3.36
Total		0	11.2	11.2
Kharif	Chrysanthemum		135	135
Rabi			22.5	22.5
Summer			67.5	67.5
Total		0	225	225
Kharif		90	2065.22	2155.22
Rabi		15	626.92	641.92
Summer		0	996.06	996.06
Grand Total		105	3688.2	3793.2

Table 2.1d: Area-wise, Crop-wise Irrigation Status of Horticulture and Plantation Crops (3 years' Average) – Maddur Taluk

Area in ha

Season	Crops	Rain-fed	Irrigated	Total
		35	200	235
Rabi		20	60	80
Summer			0	0
Total		55	260	315
Kharif	Banana	0	120	120
Rabi			40	40
Summer				20
Total		0	180	180
Kharif	Mango	4	5	9
Rabi			2	2
Summer				0
Total		4	7	11

Kharif	Sapota	21	4	25
Rabi			4	4
Summer			0	0
Total		21	8	29
Kharif	Papaya		35	35
Rabi			20	20
Summer			5	5
Total		0	60	60
Kharif	Tomato		65	65
Rabi			45	45
Summer			25	25
Total		0	135	135
Kharif	Beans		17.5	17.5
Rabi			8.75	8.75
Summer			8.75	8.75
Total		0	35	35
Kharif	Chilli		28.8	28.8
Rabi			4.8	4.8
Summer			14.4	14.4
Total		0	48	48
Kharif	Onion		25	25
Rabi			18	18
Summer			0	0
Total		0	43	43
Kharif	Cucurbits		139.5	139.5
Rabi			55.8	55.8
Summer			83.7	83.7
Total		0	279	279
Kharif	Marigold		5.46	5.46
Rabi			0.91	0.91
Summer			2.73	2.73
Total		0	9.1	9.1
Kharif	Chrysanthemum		13.5	13.5
Rabi			2.25	2.25
Summer			6.75	6.75
Total		0	22.5	22.5
Kharif		39	654.76	693.76
Rabi		20	257.51	277.51
Summer		0	166.33	166.33
Grand Total		59	1078.6	1137.6

**Table 2.1e: Area-wise, Crop-wise Irrigation Status of Horticulture and
Plantation Crops (3 years' Average) – Malavalli Taluk**

Area in ha

Season	Crops	Rain-fed	Irrigated	Total
		35	185	220
Rabi			30	30
Summer			25	25
Total		35	240	275
Kharif	Banana		186	186
Rabi			30	30
Summer			860	860
Total		0	1076	1076
Kharif	Mango	25	3	28
Rabi			0	0
Summer			240	240
Total		25	243	268
Kharif	Sapota	0	5	5
Rabi			0	0
Summer			420	420
Total		0	425	425
Kharif	Papaya		80	80
Rabi			10	10
Summer			50	50
Total		0	140	140
Kharif	Tomato		550	550
Rabi			250	250
Summer			300	300
Total		0	1100	1100
Kharif	Beans		80	80
Rabi			40	40
Summer			40	40
Total		0	160	160
Kharif	Chilli		165	165
Rabi			27.5	27.5
Summer			82.5	82.5
Total		0	275	275
Kharif	Onion		90	90
Rabi			90	90
Summer			0	0
Total		0	180	180

Kharif	Cucurbits		253.5	253.5
Rabi			101.4	101.4
Summer			152.1	152.1
Total		0	507	507
Kharif	Marigold		32.76	32.76
Rabi			5.46	5.46
Summer			16.38	16.38
Total		0	54.6	54.6
Kharif	Chrysanthemum		5.94	5.94
Rabi			0.99	0.99
Summer			2.97	2.97
Total		0	9.9	9.9
Kharif		60	1631.2	1691.2
Rabi		0	585.35	585.35
Summer		0	1768.95	1768.95
Grand Total		60	3985.5	4045.5

Table 2.1f: Area-wise, Crop-wise Irrigation Status of Horticulture and Plantation Crops (3 years' Average) – Mandya Taluk

Area in ha

Season	Crops	Rain-fed	Irrigated	Total
		0	150	150
Rabi			30	30
Summer			0	0
Total		0	180	180
Kharif	Banana		30	30
Rabi			10	10
Summer			10	10
Total		0	50	50
Kharif	Mango	0	8	8
Rabi			0	0
Summer			0	0
Total		0	8	8
Kharif	Sapota	0	20	20
Rabi			0	0
Summer			0	0
Total		0	20	20

Kharif	Papaya		15	15
Rabi			0	0
Summer			0	0
Total		0	15	15
Kharif	Tomato		325	325
Rabi			172	172
Summer			300	300
Total		0	797	797
Kharif	Beans		112.5	112.5
Rabi			56.25	56.25
Summer			56.25	56.25
Total		0	225	225
Kharif	Chilli		30	30
Rabi			5	5
Summer			15	15
Total		0	50	50
Kharif	Onion		82	82
Rabi			65	65
Summer			0	0
Total		0	147	147
Kharif	Cucurbits		154.5	154.5
Rabi			61.8	61.8
Summer			92.7	92.7
Total		0	309	309
Kharif	Marigold		39.9	39.9
Rabi			6.65	6.65
Summer			19.95	19.95
Total		0	66.5	66.5
Kharif	Chrysanthemum		17.28	17.28
Rabi			2.88	2.88
Summer			8.64	8.64
Total		0	28.8	28.8
Kharif		0	964.18	964.18
Rabi		0	409.58	409.58
Summer		0	502.54	502.54
Grand Total		0	1876.3	1876.3

Table 2.1g: Area-wise, Crop-wise Irrigation Status of Horticulture and Plantation Crops (3 years' Average) – Nagamangala Taluk

Area in ha

Season	Crops	Rain-fed	Irrigated	Total
Kharif	Coconut	85	50	135
Rabi		10	8	18
Summer			20	20
Total		95	78	173
Kharif	Banana		35	35
Rabi			12	12
Summer			0	0
Total		0	47	47
Kharif	Mango	30	2	32
Rabi		10	2	12
Summer			0	0
Total		40	4	44
Kharif	Sapota	15	2	17
Rabi		8	2	10
Summer			0	0
Total		23	4	27
Kharif	Papaya		18	18
Rabi			3	3
Summer			0	0
Total		0	21	21
Kharif	Tomato		300	300
Rabi			100	100
Summer			120	120
Total		0	520	520
Kharif	Beans		50	50
Rabi			25	25
Summer			25	25
Total		0	100	100
Kharif	Chilli		63	63
Rabi			10.5	10.5
Summer			31.5	31.5
Total		0	105	105
Kharif	Onion		190	190
Rabi			180	180
Summer			30	30
Total		0	400	400

Kharif	Cucurbits		387	387
Rabi			154.8	154.8
Summer			232.2	232.2
Total		0	774	774
Kharif	Marigold		70.56	70.56
Rabi			11.76	11.76
Summer			35.28	35.28
Total		0	117.6	117.6
Kharif	Chrysanthemum		47.52	47.52
Rabi			7.92	7.92
Summer			23.76	23.76
Total		0	79.2	79.2
Kharif		115	1213.08	1328.08
Rabi		20	514.98	534.98
Summer		0	517.74	517.74
Grand Total		135	2245.8	2380.8

Table 2.1 h: Area-wise, Crop-wise Irrigation Status of Horticulture and Plantation Crops (3 years' Average) – Pandavapura Taluk

Season	Crops	Rain-fed	Irrigated	Total
Kharif	Coconut	20	30	50
Rabi		15	0	15
Summer			0	0
Total		35	30	65
Kharif	Banana	0	35	35
Rabi			5	5
Summer			2	2
Total		0	42	42
Kharif	Mango	30	10	40
Rabi			0	0
Summer			0	0
Total		30	10	40
Kharif	Sapota	30	10	40
Rabi			0	0
Summer			0	0
Total		30	10	40

Kharif	Papaya		20	20
Rabi			0	0
Summer			0	0
Total		0	20	20
Kharif	Tomato		170	170
Rabi			62	62
Summer			100	100
Total		0	332	332
Kharif	Beans		60	60
Rabi			30	30
Summer			30	30
Total		0	120	120
Kharif	Chilli		24	24
Rabi			4	4
Summer			12	12
Total		0	40	40
Kharif	Onion		40	40
Rabi			40	40
Summer			0	0
Total		0	80	80
Kharif	Cucurbits		106.5	106.5
Rabi			42.6	42.6
Summer			63.9	63.9
Total		0	213	213
Kharif	Marigold		8.4	8.4
Rabi			1.4	1.4
Summer			4.2	4.2
Total		0	14	14
Kharif	Chrysanthemum		31.32	31.32
Rabi			5.22	5.22
Summer			15.66	15.66
Total		0	52.2	52.2
Kharif		50	535.22	585.22
Rabi		15	190.22	205.22
Summer		0	227.76	227.76
Grand Total		65	953.2	1018.2

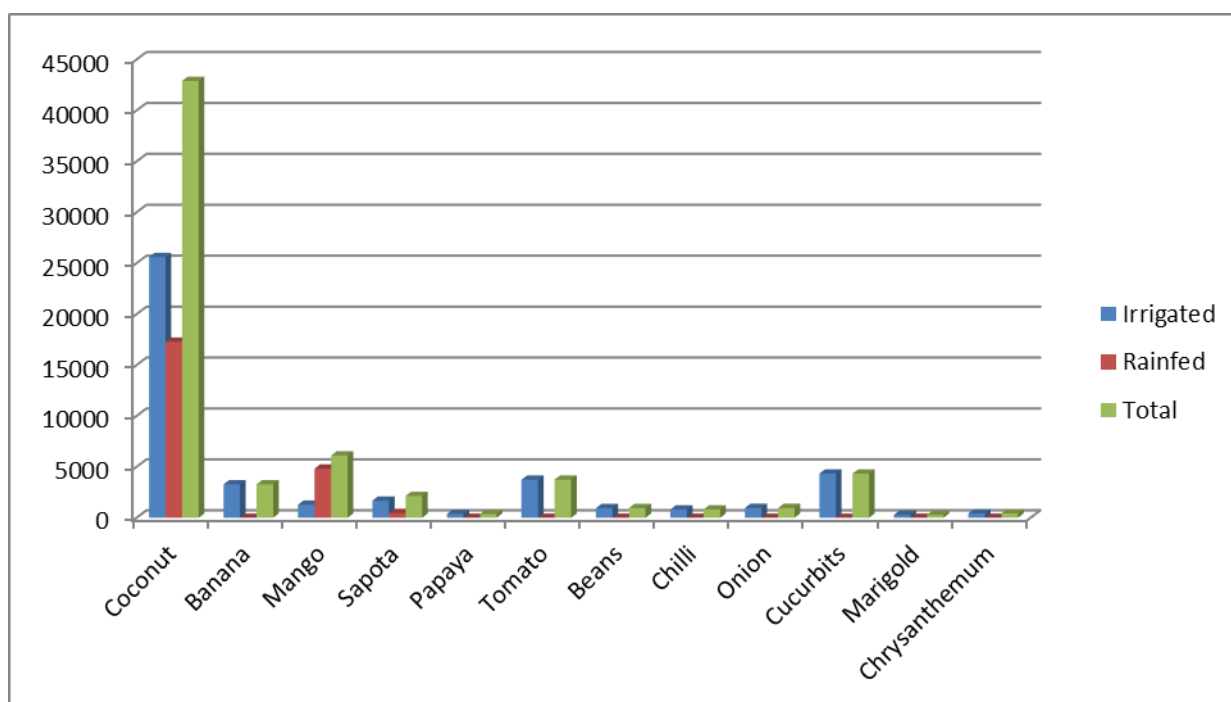
**Table 2.1 i: Area-wise, Crop-wise Irrigation Status of Horticulture and
Plantation Crops (3 years' Average) – Srirangapatna Taluk**

Area in ha

Season	Crops	Rain-fed	Irrigated	Total
Kharif	Coconut	30	130	160
Rabi		1	32	33
Summer			1	1
Total		31	163	194
Kharif	Banana		34	34
Rabi			3	3
Summer			2	2
Total		0	39	39
Kharif	Mango	3	7	10
Rabi			1	1
Summer			0	0
Total		3	8	11
Kharif	Sapota	10	15	25
Rabi			2	2
Summer			0	0
Total		10	17	27
Kharif	Papaya		11	11
Rabi			2	2
Summer			8	8
Total		0	21	21
Kharif	Tomato		180	180
Rabi			91	91
Summer			41	41
Total		0	312	312
Kharif	Beans		82.5	82.5
Rabi			41.25	41.25
Summer			41.25	41.25
Total		0	165	165
Kharif	Chilli		31.2	31.2
Rabi			5.2	5.2
Summer			15.6	15.6
Total		0	52	52
Kharif	Onion		30	30
Rabi			26	26
Summer			0	0
Total		0	56	56

Kharif	Cucurbits		100	100
Rabi			40	40
Summer			60	60
Total		0	200	200
Kharif	Marigold		8.82	8.82
Rabi			1.47	1.47
Summer			4.41	4.41
Total		0	14.7	14.7
Kharif	Chrysanthemum		4.32	4.32
Rabi			0.72	0.72
Summer			2.16	2.16
Total		0	7.2	7.2
Kharif		33	618.84	651.84
Rabi		1	243.64	244.64
Summer		0	175.42	175.42
Grand Total		34	1037.9	1071.9

Fig. 2.1.: Area under Horticulture Crops in Mandya District by Irrigation Status



2.2 Production and Productivity of Major Crops

2.2.1 Production and Productivity of Agriculture Crops

Rice and ragi are the major staples of Mandya district. Paddy is grown under irrigated conditions whereas ragi is cultivated as rain-fed crop. The total production of paddy is 106500 tons with an average yield of 50.59 quintals per ha (Table 2.2.1a & b). Total production of ragi is 17600 tonnes and the productivity is 20.9 quintals per ha. Maize is planted as rainfed crop and total production is 2250 tonnes and average yields are 28.5 quintal per ha. Sugarcane production in Mandya district is estimated at 53.46 lakh tones and the productivity is 104.5 tonnes per ha.

Table 2.2.1a: Production and Productivity of Major Agriculture Crops during Kharif (3 Years' Average)

Sl. No	Taluk	Crops	Area (ha)					Production (qtls)					Yield (q/ha)		
			Irrigated	%	Rainfed	%	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	K.R.PETE	Paddy	11000				11000	564850		0		564850	51.35		51.35
2	K.R.PETE	Ragi			8500		8500	0		187000		187000		22.00	22.00
3	K.R.PETE	Maize			20		20	0		600		600		30.00	30.00
4	K.R.PETE	Tur			300		300	0		1875		1875		6.25	6.25
5	K.R.PETE	Cowpea			1000		1000	0		5000		5000		5.00	50.00
6	K.R.PETE	Groundnut			70		70	0		665		665		9.50	9.50
7	K.R.PETE	Sugarcane	4500				4500	5085000		0		5085000	1130.00		1130.00
	Total		15500		9890		25390	5649850		195140		5844990			
1	MADDUR	Paddy	8500				8500	436475		0		436475	51.35		51.35
2	MADDUR	Ragi			8500		8500	0		170000		170000		20.00	20.00
3	MADDUR	Maize			120		120	0		3600		3600		30.00	30.00
4	MADDUR	Tur			50		50	0		313		313		6.25	6.25
5	MADDUR	Cowpea			500		500	0		2500		2500		5.00	50.00
6	MADDUR	Groundnut			50		50	0		475		475		9.50	9.50
7	MADDUR	Sugarcane	6500				6500	7150000		0		7150000	1100.00		1100.00
	Total		15000		9220		24220	7586475		176888		7763363			
1	MALAVALLI	Paddy	6500				6500	333775		0		333775	51.35		51.35
2	MALAVALLI	Ragi			6000		6000	0		120000		120000		20.00	20.00
3	MALAVALLI	Maize			4500		4500	0		135000		135000		30.00	30.00
4	MALAVALLI	Tur			50		50	0		313		313		6.25	6.25
5	MALAVALLI	Cowpea			500		500	0		2500		2500		5.00	50.00

6	MALAVALLI	Groundnut			600	600	0		5700	5700		9.50	9.50
7	MALAVALLI	Sugarcane	2500			2500	2750000		0	2750000	1100.00		1100.00
	Total		9000		11650	20650	3083775		263513	3347288			
1	MANDYA	Paddy	14000			14000	718900		0	718900	51.35		51.35
2	MANDYA	Ragi			6500	6500	0		130000	130000		20.00	20.00
3	MANDYA	Maize			150	150	0		4500	4500		30.00	30.00
4	MANDYA	Tur			100	100	0		625	625		6.25	6.25
5	MANDYA	Cowpea			500	500	0		2500	2500		5.00	50.00
6	MANDYA	Groundnut			50	50	0		475	475		9.50	9.50
7	MANDYA	Sugarcane	7200			7200	7920000		0	7920000	1100.00		1100.00
	Total		21200		7300	28500	8638900		138100	8777000			
1	NAGAMANGALA	Paddy	2000			2000	102700		0	102700	51.35		51.35
2	NAGAMANGALA	Ragi			20000	20000	0		400000	400000		20.00	20.00
3	NAGAMANGALA	Maize			0	0	0		0	0		30.00	30.00
4	NAGAMANGALA	Tur			100	100	0		625	625		6.25	6.25
5	NAGAMANGALA	Cowpea			250	250	0		1250	1250		5.00	50.00
6	NAGAMANGALA	Groundnut			50	50	0		475	475		9.50	9.50
7	NAGAMANGALA	Sugarcane	100			100	110000		0	110000	1100.00		1100.00
	Total		2100		20400	22500	212700		402350	615050			
1	PANDAVAPURA	Paddy	7700			7700	395395		0	395395	51.35		51.35
2	PANDAVAPURA	Ragi			5000	5000	0		100000	100000		20.00	20.00
3	PANDAVAPURA	Maize			50	50	0		1500	1500		30.00	30.00
4	PANDAVAPURA	Tur			250	250	0		1563	1563		6.25	6.25
5	PANDAVAPURA	Cowpea			500	500	0		2500	2500		5.00	50.00
6	PANDAVAPURA	Groundnut			50	50	0		475	475		9.50	9.50
7	PANDAVAPURA	Sugarcane	6500			6500	7280000		0	7280000	1120.00		1120.00
	Total		14200		5850	20050	7675395		106038	7781433			

1	SRIRANGAPATNA	Paddy	7000			7000	359450		0		359450	51.35		51.35
2	SRIRANGAPATNA	Ragi			2000	2000	0		40000		40000		20.00	20.00
3	SRIRANGAPATNA	Maize			50	50	0		1500		1500		30.00	30.00
4	SRIRANGAPATNA	Tur			50	50	0		313		313		6.25	6.25
5	SRIRANGAPATNA	Cowpea			500	500	0		2500		2500		5.00	50.00
6	SRIRANGAPATNA	Groundnut			50	50	0		475		475		9.50	9.50
7	SRIRANGAPATNA	Sugarcane	4500			4500	4950000		0		4950000	1100.00		1100.00
	Total		11500		2650	14150	5309450		44788		5354238			

Table 2.2.1 b: Production and Productivity of Major Agriculture Crops during Rabi/ summer (3 Years' Average)

Sl.No.	Taluk	Crops	Area (ha)					Production (qtls)					Yield (q/ha)		
			Irrigated	%	Rainfed	%	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	K.R.PETE	Paddy	2000				2000	106500		0		106500	53.25		53.25
2	K.R.PETE	Ragi			800		800	0		17600		17600		22.00	22.00
3	K.R.PETE	Maize			100		100	0		3000		3000		30.00	30.00
4	K.R.PETE	Tur			0		0	0		0		0		0.00	0.00
5	K.R.PETE	Cowpea			100		100	0		0		0		0.00	0.00
6	K.R.PETE	Groundnut			0		0	0		0		0		9.50	9.50
7	K.R.PETE	Sugarcane	700				700	770000		0		770000	1100.00		1100.00
		Total	2700		1000		3700	876500		20600		897100			
1	MADDUR	Paddy	3500				3500	186375		0		186375	53.25		53.25
2	MADDUR	Ragi			1200		1200	0		26400		26400		22.00	22.00
3	MADDUR	Maize			100		100	0		3000		3000		30.00	30.00
4	MADDUR	Tur			0		0	0		0		0		0.00	0.00
5	MADDUR	Cowpea			100		100	0		0		0		0.00	0.00
6	MADDUR	Groundnut			0		0	0		0		0		9.50	9.50
7	MADDUR	Sugarcane	500				500	550000		0		550000	1100.00		1100.00
		Total	4000		1400		5400	736375		29400		765775			
1	MALAVALLI	Paddy	2000				2000	106500		0		106500	53.25		53.25
2	MALAVALLI	Ragi			1500		1500	0		33000		33000		22.00	22.00
3	MALAVALLI	Maize			300		300	0		9000		9000		30.00	30.00
4	MALAVALLI	Tur			0		0	0		0		0		0.00	0.00
5	MALAVALLI	Cowpea			100		100	0		0		0		0.00	0.00
6	MALAVALLI	Groundnut			0		0	0		0		0		9.50	9.50

7	MALAVALLI	Sugarcane	1060			1060	1166000		0		1166000	1100.00		1100.00
	Total		3060		1900	4960	1272500		42000		1314500			
1	MANDYA	Paddy	5000			5000	266250		0		266250	53.25		53.25
2	MANDYA	Ragi			2250	2250	0		49500		49500		22.00	22.00
3	MANDYA	Maize			100	100	0		3000		3000		30.00	30.00
4	MANDYA	Tur			0	0	0		0		0		0.00	0.00
5	MANDYA	Cowpea			100	100	0		0		0		0.00	0.00
6	MANDYA	Groundnut			0	0	0		0		0		9.50	9.50
7	MANDYA	Sugarcane	1250			1250	1375000		0		1375000	1100.00		1100.00
	Total		6250		2450	8700	1641250		52500		1693750			
1	NAGAMANGALA	Paddy	500			500	26625		0		26625	53.25		53.25
2	NAGAMANGALA	Ragi			300	300	0		6600		6600		22.00	22.00
3	NAGAMANGALA	Maize			0	0	0		0		0		30.00	30.00
4	NAGAMANGALA	Tur			0	0	0		0		0		0.00	0.00
5	NAGAMANGALA	Cowpea			50	50	0		0		0		0.00	0.00
6	NAGAMANGALA	Groundnut			0	0	0		0		0		9.50	9.50
7	NAGAMANGALA	Sugarcane	100			100	110000		0		110000	1100.00		1100.00
	Total		600		350	950	136625		6600		143225			
1	PANDAVAPURA	Paddy	3000			3000	159750		0		159750	53.25		53.25
2	PANDAVAPURA	Ragi			1250	1250	0		27500		27500		22.00	22.00
3	PANDAVAPURA	Maize			100	100	0		3000		3000		30.00	30.00
4	PANDAVAPURA	Tur			0	0	0		0		0		0.00	0.00
5	PANDAVAPURA	Cowpea			100	100	0		0		0		0.00	0.00
6	PANDAVAPURA	Groundnut			0	0	0		0		0		9.50	9.50
7	PANDAVAPURA	Sugarcane	650			650	715000		0		715000	1100.00		1100.00
	Total		3650		1450	5100	874750		30500		905250			
1	SRIRANGAPATNA	Paddy	4000			4000	213000		0		213000	53.25		53.25

2	SRIRANGAPATNA	Ragi			700		700	0		15400		15400		22.00	22.00
3	SRIRANGAPATNA	Maize			50		50	0		1500		1500		30.00	30.00
4	SRIRANGAPATNA	Tur			0		0	0		0		0		0.00	0.00
5	SRIRANGAPATNA	Cowpea			100		100	0		0		0		0.00	0.00
6	SRIRANGAPATNA	Groundnut			0		0	0		0		0		9.50	9.50
7	SRIRANGAPATNA	Sugarcane	600				600	660000		0		660000	1100.00		1100.00
	Total		4600		850		5450	873000		16900		889900			

2.2.2 Production and Productivity of Horticulture Crops:

Mandya district has sizable area under horticulture crops and a variety of fruits, vegetable and commercial flowers are grown in the district. The total production of various horticulture crops and yield per hectare by season is given in Table 2.2.2a to h. The details about season-wise area, production and productivity for irrigated and rain-fed crops are provided in Annexure 2

Table 2.2.2 a: Season-wise Production and Productivity of Horticulture crops in K. R. Pet Taluk

Area in hectares
Production in Tonnes
Productivity in Kg/ha
Coconuts Numbers in Lakh
Cost of cultivation Rs./ha

Season	Horticulture crops	K.R. Pet Taluk										
		Rainfed				Irrigated				Total		
		Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield
Kharif	Coconut	75	6	0.08	81208	130	14.3	0.11	81208	205	20.3	0.11
Rabi		15	1.2	0.08	81208	45	4.95	0.11	81208	60	6.15	0.11
Summer		0	0	0.08	81208	60	6.6	0.11	81208	60	6.6	0.11
Total		90	7.2			235	25.85			325	33.05	
Kharif	Banana				182480	60	1680	28	182480	60	1680	28
Rabi					182480	15	420	28	182480	15	420	28
Summer					182480	25	700	28	182480	25	700	28
Total		0	0			100	2800			100	2800	
Kharif	Mango	15	150	10	56508	15	165	11	56508	30	315	11
Rabi		0	0	0	56508	5	55	11	56508	5	55	11
Summer		0	0	0	56508	5	55	11	56508	5	55	11
Total		15	150			25	275			40	425	
Kharif	Sapota	15	240	16	56508	15	255	17	56508	30	495	17
Rabi		0	0	0	56508	5	85	17	56508	5	85	17
Summer		0	0	0	56508	5	85	17	56508	5	85	17
Total		15	240			25	425			40	665	

Kharif	Papaya			160535	15	1050	70	160535	15	1050	70
Rabi				160535	5	350	70	160535	5	350	70
Summer				160535	5	350	70	160535	5	350	70
Total		0	0		25	1750			25	1750	
Kharif	Tomato			68000	399	17157	43	68000	399	17157	43
Rabi				68000	49	2107	43	68000	49	2107	43
Summer				68000	100	4300	43	68000	100	4300	43
Total		0	0		548	23564			548	23564	
Kharif	Beans			60000	75	765	10.2	60000	75	765	10.2
Rabi				60000	37.5	382.5	10.2	60000	37.5	382.5	10.2
Summer				60000	37.5	382.5	10.2	60000	37.5	382.5	10.2
Total		0	0		150	1530			150	1530	
Kharif	Chilli			60000	150	1494	9.96	60000	150	1494	9.96
Rabi				60000	25	249	9.96	60000	25	249	9.96
Summer				60000	75	747	9.96	60000	75	747	9.96
Total		0	0		250	2490			250	2490	
Kharif	Onion			65992	50	750	15	65992	50	750	15
Rabi				65992	10	150	15	65992	10	150	15
Summer				65992	0	0	15	65992	0	0	15
Total		0	0		60	900			60	900	
Kharif	Cucurbits			45000	1029.5	20590	20	45000	1029.5	20590	20
Rabi				45000	411.8	8236	20	45000	411.8	8236	20
Summer				45000	617.7	12354	20	45000	617.7	12354	20
Total		0	0		2059	41180			2059	41180	
Kharif	Marigold			107037	6.72	107.52	16	107037	6.72	107.52	16
Rabi				107037	1.12	17.92	16	107037	1.12	17.92	16

Summer					107037	3.36	53.76	16	107037	3.36	53.76	16
Total		0	0			11.2	179.2			11.2	179.2	
Kharif	Chrysanthem um				98250	135	33750	250	98250	135	33750	250
Rabi					98250	22.5	5625	250	98250	22.5	5625	250
Summer					98250	67.5	16875	250	98250	67.5	16875	250
Total		0	0			225	56250			225	56250	
Kharif		90	156			2065.22	77522.82			2155.22	77678.82	
Rabi		15	1.2			626.92	17597.37			641.92	17598.57	
Summer		0	0			996.06	35823.86			996.06	35823.86	
Grand Total		105	157.2			3688.2	130944			3793.2	131101	

Table 2.2.2 b: Season-wise Production and Productivity of Horticulture crops in Maddur Taluk

Area in hectares
Production in Tonnes
Productivity in Kg/ha
Coconuts Numbers in Lakh
Cost of cultivation Rs./ha

Season	Horticulture crops	Maddur taluk										
		Rainfed				Area	Irrigated			Total		
		Area	Production	Productivity or Yield	Cost of Cultivation		Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield
Kharif	Coconut	35	2.8	0.08	81208	200	22	0.11	81208	235	24.8	0.11
Rabi		20		0.08	81208	60	6.6	0.11	81208	80	6.6	0.11
Summer				0.08	81208	0	0	0.11	81208	0	0	0.11
Total		55	2.8			260	28.6			315	31.4	
Kharif	Banana	0			182480	120	3360	28	182480	120	3360	28
Rabi					182480	40	1120	28	182480	40	1120	28
Summer					182480	20	560	28	182480	20	560	28
Total		0	0			180	5040			180	5040	
Kharif	Mango	4	40	10	56508	5	55	11	56508	9	95	11
Rabi				10	56508	2	22	11	56508	2	22	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		4	40			7	77			11	117	
Kharif	Sapota	21	336	16	56508	4	68	17	56508	25	404	17
Rabi				16	56508	4	68	17	56508	4	68	17

Summer				16	56508	0	0	17	56508	0	0	17
Total		21	336			8	136			29	472	
Kharif	Papaya				160535	35	2450	70	160535	35	2450	70
Rabi					160535	20	1400	70	160535	20	1400	70
Summer					160535	5	350	70	160535	5	350	70
Total		0	0			60	4200			60	4200	
Kharif	Tomato				68000	65	2795	43	68000	65	2795	43
Rabi					68000	45	1935	43	68000	45	1935	43
Summer					68000	25	1075	43	68000	25	1075	43
Total		0	0			135	5805			135	5805	
Kharif	Beans				60000	17.5	178.5	10.2	60000	17.5	178.5	10.2
Rabi					60000	8.75	89.25	10.2	60000	8.75	89.25	10.2
Summer					60000	8.75	89.25	10.2	60000	8.75	89.25	10.2
Total		0	0			35	357			35	357	
Kharif	Chilli				60000	28.8	286.848	9.96	60000	28.8	286.848	9.96
Rabi					60000	4.8	47.808	9.96	60000	4.8	47.808	9.96
Summer					60000	14.4	143.424	9.96	60000	14.4	143.424	9.96
Total		0	0			48	478.08			48	478.08	
Kharif	Onion				65992	25	375	15	65992	25	375	15
Rabi					65992	18	270	15	65992	18	270	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			43	645			43	645	
Kharif	Cucurbits				45000	139.5	2790	20	45000	139.5	2790	20
Rabi					45000	55.8	1116	20	45000	55.8	1116	20
Summer					45000	83.7	1674	20	45000	83.7	1674	20
Total		0	0			279	5580			279	5580	

Kharif	Marigold				107037	5.46	87.36	16	107037	5.46	70.98	13
Rabi					107037	0.91	14.56	16	107037	0.91	11.83	13
Summer					107037	2.73	43.68	16	107037	2.73	35.49	13
Total		0	0			9.1	145.6			9.1	118.3	
Kharif	Chrysanthe mum				98250	13.5	3375	250	98250	13.5	337.5	25
Rabi					98250	2.25	562.5	250	98250	2.25	56.25	25
Summer					98250	6.75	1687.5	250	98250	6.75	168.75	25
Total		0	0			22.5	5625			22.5	562.5	
Kharif		39	42.8			654.76	15774.71			693.76	12763.63	
Rabi		20	0			257.51	6583.718			277.51	6074.738	
Summer		0	0			166.33	5622.854			166.33	4095.914	
Grand Total		59	42.8			1078.6	27981.3			1137.6	22934.3	

Table 2.2.2 c: Season-wise Production and Productivity of Horticulture crops in Malavalli Taluk

Area in hectares
Production in Tonnes
Productivity in Kg/ha
Coconuts Numbers in Lakh
Cost of cultivation Rs./ha

Season	Horticulture crops	Malavalli Taluk										
		Rainfed				Irrigated				Total		
		Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield
Kharif	Coconut	35	2.8	0.08	81208	185	20.35	0.11	81208	220	23.15	0.11
Rabi				0.08	81208	30	3.3	0.11	81208	30	3.3	0.11
Summer				0.08	81208	25	2.75	0.11	81208	25	2.75	0.11
Total		35	2.8			240	26.4			275	29.2	
Kharif	Banana				182480	186	5208	28	182480	186	5208	28
Rabi					182480	30	840	28	182480	30	840	28
Summer					182480	860	24080	28	182480	860	24080	28
Total		0	0			1076	30128			1076	30128	
Kharif	Mango	25	250	10	56508	3	33	11	56508	28	283	11
Rabi				10	56508	0	0	11	56508	0	0	11
Summer				10	56508	240	2640	11	56508	240	2640	11
Total		25	250			243	2673			268	2923	
Kharif	Sapota	0	0	16	56508	5	85	17	56508	5	85	17
Rabi				16	56508	0	0	17	56508	0	0	17
Summer				16	56508	420	7140	17	56508	420	7140	17

Total		0	0			425	7225			425	7225	
Kharif	Papaya			160535	80	5600	70	160535	80	5600	70	
Rabi				160535	10	700	70	160535	10	700	70	
Summer				160535	50	3500	70	160535	50	3500	70	
Total		0	0			140	9800			140	9800	
Kharif	Tomato			68000	550	23650	43	68000	550	23650	43	
Rabi				68000	250	10750	43	68000	250	10750	43	
Summer				68000	300	12900	43	68000	300	12900	43	
Total		0	0			1100	47300			1100	47300	
Kharif	Beans			60000	80	816	10.2	60000	80	816	10.2	
Rabi				60000	40	408	10.2	60000	40	408	10.2	
Summer				60000	40	408	10.2	60000	40	408	10.2	
Total		0	0			160	1632			160	1632	
Kharif	Chilli			60000	165	1643.4	9.96	60000	165	1643.4	9.96	
Rabi				60000	27.5	273.9	9.96	60000	27.5	273.9	9.96	
Summer				60000	82.5	821.7	9.96	60000	82.5	821.7	9.96	
Total		0	0			275	2739			275	2739	
Kharif	Onion			65992	90	1350	15	65992	90	1350	15	
Rabi				65992	90	1350	15	65992	90	1350	15	
Summer				65992	0	0	15	65992	0	0	15	
Total		0	0			180	2700			180	2700	
Kharif	Cucurbits			45000	253.5	5070	20	45000	253.5	5070	20	
Rabi				45000	101.4	2028	20	45000	101.4	2028	20	
Summer				45000	152.1	3042	20	45000	152.1	3042	20	
Total		0	0			507	10140			507	10140	
Kharif	Marigold			107037	32.76	524.16	16	107037	32.76	2555.28	78	

Rabi					107037	5.46	87.36	16	107037	5.46	425.88	78
Summer					107037	16.38	262.08	16	107037	16.38	1277.64	78
Total		0	0			54.6	873.6			54.6	4258.8	
Kharif	Chrysanthe mum				98250	5.94	1485	250	98250	5.94	65.34	11
Rabi					98250	0.99	247.5	250	98250	0.99	10.89	11
Summer					98250	2.97	742.5	250	98250	2.97	32.67	11
Total		0	0			9.9	2475			9.9	108.9	
Kharif		60	252.8			1631.2	45399.9			1691.2	46264.17	
Rabi		0	0			585.35	16688.1			585.35	16789.97	
Summer		0	0			1768.95	48399			1768.95	48704.76	
Grand Total		60	252.8			3985.5	110487			4045.5	111759	

Table 2.2.2 d: Season-wise Production and Productivity of Horticulture crops in Mandya Taluk

Area in hectares
 Production in Tonnes
 Productivity in Kg/ha
 Coconuts Numbers in Lakh
 Cost of cultivation Rs./ha

Season	Horticulture crops	Mandya Taluk											
		Rainfed				Area	Irrigated				Total		
		Area	Production	Productivity or Yield	Cost of Cultivation		Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield	
Kharif	Coconut	0	0	0.08	81208	150	16.5	0.11	81208	150	16.5	0.11	
Rabi				0.08	81208	30	3.3	0.11	81208	30	3.3	0.11	
Summer				0.08	81208	0	0	0.11	81208	0	0	0.11	
Total		0	0			180	19.8			180	19.8		
Kharif	Banana				182480	30	840	28	182480	30	840	28	
Rabi					182480	10	280	28	182480	10	280	28	
Summer					182480	10	280	28	182480	10	280	28	
Total		0	0			50	1400			50	1400		
Kharif	Mango	0	0	10	56508	8	88	11	56508	8	88	11	
Rabi				10	56508	0	0	11	56508	0	0	11	
Summer				10	56508	0	0	11	56508	0	0	11	
Total		0	0			8	88			8	88		
Kharif	Sapota	0	0	16	56508	20	340	17	56508	20	340	17	
Rabi				16	56508	0	0	17	56508	0	0	17	
Summer				16	56508	0	0	17	56508	0	0	17	

Total		0	0			20	340			20	340	
Kharif	Papaya				160535	15	1050	70	160535	15	1050	70
Rabi					160535	0	0	70	160535	0	0	70
Summer					160535	0	0	70	160535	0	0	70
Total		0	0			15	1050			15	1050	
Kharif	Tomato				68000	325	13975	43	68000	325	13975	43
Rabi					68000	172	7396	43	68000	172	7396	43
Summer					68000	300	12900	43	68000	300	12900	43
Total		0	0			797	34271			797	34271	
Kharif	Beans				60000	112.5	1147.5	10.2	60000	112.5	1147.5	10.2
Rabi					60000	56.25	573.75	10.2	60000	56.25	573.75	10.2
Summer					60000	56.25	573.75	10.2	60000	56.25	573.75	10.2
Total		0	0			225	2295			225	2295	
Kharif	Chilli				60000	30	298.8	9.96	60000	30	298.8	9.96
Rabi					60000	5	49.8	9.96	60000	5	49.8	9.96
Summer					60000	15	149.4	9.96	60000	15	149.4	9.96
Total		0	0			50	498			50	498	
Kharif	Onion				65992	82	1230	15	65992	82	1230	15
Rabi					65992	65	975	15	65992	65	975	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			147	2205			147	2205	
Kharif	Cucurbits				45000	154.5	3090	20	45000	154.5	3090	20
Rabi					45000	61.8	1236	20	45000	61.8	1236	20
Summer					45000	92.7	1854	20	45000	92.7	1854	20
Total		0	0			309	6180			309	6180	
Kharif	Marigold				107037	39.9	638.4	16	107037	39.9	3790.5	95

Rabi					107037	6.65	106.4	16	107037	6.65	631.75	95
Summer					107037	19.95	319.2	16	107037	19.95	1895.25	95
Total		0	0			66.5	1064			66.5	6317.5	
Kharif	Chrysanthemum				98250	17.28	4320	250	98250	17.28	552.96	32
Rabi					98250	2.88	720	250	98250	2.88	92.16	32
Summer					98250	8.64	2160	250	98250	8.64	276.48	32
Total		0	0			28.8	7200			28.8	921.6	
Kharif		0	0			964.18	26694.2			964.18	26079.26	
Rabi		0	0			409.58	11340.25			409.58	11237.76	
Summer		0	0			502.54	18236.35			502.54	17928.88	
Grand Total		0	0			1876.3	56270.8			1876.3	55245.9	

Table 2.2.2 e: Season-wise Production and Productivity of Horticulture crops in Nagamangala Taluk

Area in hectares
 Production in Tonnes
 Productivity in Kg/ha
 Coconuts Numbers in Lakh
 Cost of cultivation Rs./ha

Season	Horticulture crops	Nagamangala Taluk										
		Rainfed				Irrigated				Total		
		Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield
Kharif	Coconut	85	6.8	0.08	81208	50	5.5	0.11	81208	135	12.3	0.11
Rabi		10	0.8	0.08	81208	8	0.88	0.11	81208	18	1.68	0.11
Summer				0.08	81208	20	2.2	0.11	81208	20	2.2	0.11
Total		95	7.6			78	8.58			173	16.18	
Kharif	Banana				182480	35	980	28	182480	35	980	28
Rabi					182480	12	336	28	182480	12	336	28
Summer					182480	0	0	28	182480	0	0	28
Total		0	0			47	1316			47	1316	
Kharif	Mango	30	300	10	56508	2	22	11	56508	32	322	11
Rabi		10	100	10	56508	2	22	11	56508	12	122	11
Summer					56508	0	0	11	56508	0	0	11
Total		40	400			4	44			44	444	
Kharif	Sapota	15	240	16	56508	2	34	17	56508	17	274	17
Rabi		8	128	16	56508	2	34	17	56508	10	162	17
Summer					56508	0	0	17	56508	0	0	17

Total		23	368			4	68			27	436	
Kharif	Papaya			160535	18	1260	70	160535	18	1260	70	
Rabi				160535	3	210	70	160535	3	210	70	
Summer				160535	0	0	70	160535	0	0	70	
Total		0	0		21	1470			21	1470		
Kharif	Tomato			68000	300	12900	43	68000	300	12900	43	
Rabi				68000	100	4300	43	68000	100	4300	43	
Summer				68000	120	5160	43	68000	120	5160	43	
Total		0	0		520	22360			520	22360		
Kharif	Beans			60000	50	510	10.2	60000	50	510	10.2	
Rabi				60000	25	255	10.2	60000	25	255	10.2	
Summer				60000	25	255	10.2	60000	25	255	10.2	
Total		0	0		100	1020			100	1020		
Kharif	Chilli			60000	63	627.48	9.96	60000	63	627.48	9.96	
Rabi				60000	10.5	104.58	9.96	60000	10.5	104.58	9.96	
Summer				60000	31.5	313.74	9.96	60000	31.5	313.74	9.96	
Total		0	0		105	1045.8			105	1045.8		
Kharif	Onion			65992	190	2850	15	65992	190	2850	15	
Rabi				65992	180	2700	15	65992	180	2700	15	
Summer				65992	30	450	15	65992	30	450	15	
Total		0	0		400	6000			400	6000		
Kharif	Cucurbits			45000	387	7740	20	45000	387	7740	20	
Rabi				45000	154.8	3096	20	45000	154.8	3096	20	
Summer				45000	232.2	4644	20	45000	232.2	4644	20	
Total		0	0		774	15480			774	15480		
Kharif	Marigold			107037	70.56	1128.96	16	107037	70.56	11854.08	168	

Rabi					107037	11.76	188.16	16	107037	11.76	1975.68	168
Summer					107037	35.28	564.48	16	107037	35.28	5927.04	168
Total		0	0			117.6	1881.6			117.6	19756.8	
Kharif	Chrysanthemum				98250	47.52	11880	250	98250	47.52	4181.76	88
Rabi					98250	7.92	1980	250	98250	7.92	696.96	88
Summer					98250	23.76	5940	250	98250	23.76	2090.88	88
Total		0	0			79.2	19800			79.2	6969.6	
Kharif		115	306.8			1213.08	39903.94			1328.08	43237.62	
Rabi		20	100.8			514.98	13192.62			534.98	13797.9	
Summer		0	0			517.74	17329.42			517.74	18842.86	
Grand Total		135	407.6			2245.8	70425.98			2380.8	75878.4	

Table 2.2.2 f: Season-wise Production and Productivity of Horticulture crops in Pandavapura Taluk

Area in hectares
 Production in Tonnes
 Productivity in Kg/ha
 Coconuts Numbers in Lakh
 Cost of cultivation Rs./ha

Season	Horticulture crops	Pandavapura Taluk										
		Rainfed				Irrigated				Total		
		Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield
Kharif	Coconut	20	1.6	0.08	81208	30	3.3	0.11	81208	50	4.9	0.11
Rabi		15	1.2	0.08	81208	0	0	0.11	81208	15	1.2	0.11
Summer				0.08	81208	0	0	0.11	81208	0	0	0.11
Total		35	2.8			30	3.3			65	6.1	
Kharif	Banana	0			182480	35	980	28	182480	35	980	28
Rabi					182480	5	140	28	182480	5	140	28
Summer					182480	2	56	28	182480	2	56	28
Total		0	0			42	1176			42	1176	
Kharif	Mango	30	300	10	56508	10	110	11	56508	40	410	11
Rabi				10	56508	0	0	11	56508	0	0	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		30	300			10	110			40	410	
Kharif	Sapota	30	480	16	56508	10	170	17	56508	40	650	17
Rabi				16	56508	0	0	17	56508	0	0	17
Summer				16	56508	0	0	17	56508	0	0	17

Total		30	480			10	170			40	650	
Kharif	Papaya				160535	20	1400	70	160535	20	1400	70
Rabi					160535	0	0	70	160535	0	0	70
Summer					160535	0	0	70	160535	0	0	70
Total		0	0			20	1400			20	1400	
Kharif	Tomato				68000	170	7310	43	68000	170	7310	43
Rabi					68000	62	2666	43	68000	62	2666	43
Summer					68000	100	4300	43	68000	100	4300	43
Total		0	0			332	14276			332	14276	
Kharif	Beans				60000	60	612	10.2	60000	60	612	10.2
Rabi					60000	30	306	10.2	60000	30	306	10.2
Summer					60000	30	306	10.2	60000	30	306	10.2
Total		0	0			120	1224			120	1224	
Kharif	Chilli				60000	24	239.04	9.96	60000	24	239.04	9.96
Rabi					60000	4	39.84	9.96	60000	4	39.84	9.96
Summer					60000	12	119.52	9.96	60000	12	119.52	9.96
Total		0	0			40	398.4			40	398.4	
Kharif	Onion				65992	40	600	15	65992	40	600	15
Rabi					65992	40	600	15	65992	40	600	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			80	1200			80	1200	
Kharif	Cucurbits				45000	106.5	2130	20	45000	106.5	2130	20
Rabi					45000	42.6	852	20	45000	42.6	852	20
Summer					45000	63.9	1278	20	45000	63.9	1278	20
Total		0	0			213	4260			213	4260	
Kharif	Marigold				107037	8.4	134.4	16	107037	8.4	168	20

Rabi					107037	1.4	22.4	16	107037	1.4	28	20
Summer					107037	4.2	67.2	16	107037	4.2	84	20
Total		0	0			14	224			14	280	
Kharif	Chrysanthemum				98250	31.32	7830	250	98250	31.32	1816.56	58
Rabi					98250	5.22	1305	250	98250	5.22	302.76	58
Summer					98250	15.66	3915	250	98250	15.66	908.28	58
Total		0	0			52.2	13050			52.2	3027.6	
Kharif		50	301.6			535.22	21348.74			585.22	15670.5	
Rabi		15	1.2			190.22	5931.24			205.22	4935.8	
Summer		0	0			227.76	10041.72			227.76	7051.8	
Grand Total		65	302.8			953.2	37321.7			1018.2	27658.1	

Table 2.2.2 g: Season-wise Production and Productivity of Horticulture crops in Srirangapatana Taluk

Area in hectares
 Production in Tonnes
 Productivity in Kg/ha
 Coconuts Numbers in Lakh
 Cost of cultivation Rs./ha

Season	Horticulture crops	Srirangapatna Taluk										
		Rainfed				Irrigated				Total		
		Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield	Cost of Cultivation	Area	Production	Productivity or Yield
Kharif	Coconut	30	2.4	0.08	81208	130	14.3	0.11	81208	160	16.7	0.11
Rabi		1	0.08	0.08	81208	32	3.52	0.11	81208	33	3.6	0.11
Summer				0.08	81208	1	0.11	0.11	81208	1	0.11	0.11
Total		31	2.48			163	17.93			194	20.41	
Kharif	Banana				182480	34	952	28	182480	34	952	28
Rabi					182480	3	84	28	182480	3	84	28
Summer					182480	2	56	28	182480	2	56	28
Total		0	0			39	1092			39	1092	
Kharif	Mango	3	30	10	56508	7	77	11	56508	10	107	11
Rabi				10	56508	1	11	11	56508	1	11	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		3	30			8	88			11	118	
Kharif	Sapota	10	160	16	56508	15	255	17	56508	25	415	17
Rabi				16	56508	2	34	17	56508	2	34	17

Summer				16	56508	0	0	17	56508	0	0	17
Total		10	160			17	289			27	449	
Kharif	Papaya				160535	11	770	70	160535	11	770	70
Rabi					160535	2	140	70	160535	2	140	70
Summer					160535	8	560	70	160535	8	560	70
Total		0	0			21	1470			21	1470	
Kharif	Tomato				68000	180	7740	43	68000	180	7740	43
Rabi					68000	91	3913	43	68000	91	3913	43
Summer					68000	41	1763	43	68000	41	1763	43
Total		0	0			312	13416			312	13416	
Kharif	Beans				60000	82.5	841.5	10.2	60000	82.5	841.5	10.2
Rabi					60000	41.25	420.75	10.2	60000	41.25	420.75	10.2
Summer					60000	41.25	420.75	10.2	60000	41.25	420.75	10.2
Total		0	0			165	1683			165	1683	
Kharif	Chilli				60000	31.2	310.752	9.96	60000	31.2	310.752	9.96
Rabi					60000	5.2	51.792	9.96	60000	5.2	51.792	9.96
Summer					60000	15.6	155.376	9.96	60000	15.6	155.376	9.96
Total		0	0			52	517.92			52	517.92	
Kharif	Onion				65992	30	450	15	65992	30	450	15
Rabi					65992	26	390	15	65992	26	390	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			56	840			56	840	
Kharif	Cucurbits				45000	100	2000	20	45000	100	2000	20
Rabi					45000	40	800	20	45000	40	800	20
Summer					45000	60	1200	20	45000	60	1200	20
Total		0	0			200	4000			200	4000	

Kharif	Marigold				107037	8.82	185.22	21	107037	8.82	185.22	21
Rabi					107037	1.47	23.52	16	107037	1.47	30.87	21
Summer					107037	4.41	70.56	16	107037	4.41	92.61	21
Total		0	0			14.7	279.3			14.7	308.7	
Kharif	Chrysanthemum				98250	4.32	34.56	8	98250	4.32	34.56	8
Rabi					98250	0.72	180	250	98250	0.72	5.76	8
Summer					98250	2.16	540	250	98250	2.16	17.28	8
Total		0	0			7.2	754.56			7.2	57.6	
Kharif		33	32.4			618.84	13375.332			651.84	13407.732	
Rabi		1	0.08			243.64	6017.582			244.64	5850.772	
Summer		0	0			175.42	4765.796			175.42	4265.126	
Grand Total		34	32.48			1037.9	24158.71			1071.9	23523.63	

Table: 2.2.2 h: Total Production and average productivity of Major Horticulture Crop in Mandya District.

Season	Crops	Rain-fed		Irrigated		Rain-fed+ Irrigated	
		Production (Tons/yr.)	Productivity or Yield (Kgs/ha)	Production (Tons/yr.)	Productivity or Yield (Kgs/ha)	Production (Tons/yr.)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	22.4	0.08	96.25	0.11	118.65	0.11
Rabi		3.28	0.08	22.55	0.11	25.83	0.11
Summer		0	0.08	11.66	0.11	11.66	0.11
Total		25.68	0	130.46	0	156.14	0
Kharif	Banana	0	0	14000	28	14000	28
Rabi		0	0	3220	28	3220	28
Summer		0	0	25732	28	25732	28
Total		0	0	42952	0	42952	0
Kharif	Mango	1070	10	550	11	1620	11
Rabi		100	8.5	110	11	210	11
Summer		0	8.5	2695	11	2695	11
Total		1170	0	3355	0	4525	0

Kharif	Sapota	1456	16	1207	17	2663	17
Rabi		128	13.7	221	17	349	17
Summer		0	13.5	7225	17	7225	17
Total		1584	0	8653	0	10237	0
Kharif	Papaya	0	0	13580	70	13580	70
Rabi		0	0	2800	70	2800	70
Summer		0	0	4760	70	4760	70
Total		0	0	21140	0	21140	0
Kharif	Tomato	0	0	85527	43	85527	43
Rabi		0	0	33067	43	33067	43
Summer		0	0	42398	43	42398	43
Total		0	0	160992	0	160992	0
Kharif	Beans	0	0	4870.5	10.2	4870.5	10.2
Rabi		0	0	2435.25	10.2	2435.25	10.2
Summer		0	0	2435.25	10.2	2435.25	10.2
Total		0	0	9741	0	9741	0
Kharif	Chilli	0	0	4900.32	9.96	4900.32	9.96
Rabi		0	0	816.72	9.96	816.72	9.96
Summer		0	0	2450.16	9.96	2450.16	9.96
Total		0	0	8167.2	0	8167.2	0

Kharif	Onion	0	0	7605	15	7605	15
Rabi		0	0	6435	15	6435	15
Summer		0	0	450	15	450	15
Total		0	0	14490	0	14490	0
Kharif	Cucurbits	0	0	43410	20	43410	20
Rabi		0	0	17364	20	17364	20
Summer		0	0	26046	20	26046	20
Total		0	0	86820	0	86820	0
Kharif	Marigold	0	0	2806.02	16.71	18731.6	58.71
Rabi		0	0	460.32	16	3121.93	58.71
Summer		0	0	1380.96	16	9365.79	58.71
Total		0	0	4647.3	0	31219.3	0
Kharif	Chrysanthemum	0	0	62674.6	215	40738.7	67.43
Rabi		0	0	10620	250	6789.78	67.43
Summer		0	0	31860	250	20369.3	67.43
Total		0	0	105155	0	67897.8	0

2.3. Irrigation based classification:

Net irrigated area in the district is 126121 ha which accounts for 67 per cent of the net sown area. Similarly, gross irrigated area is 141247 ha and accounts for 59 per cent of the gross cropped area in the district. Total un-irrigated area in the district is 62969 ha. The taluk-wise gross irrigated area, net irrigated area as well as un-irrigated area is shown in Table 2.3.

Table 2.3: Irrigation based Classification

Sl. No.	Taluk	Gross Irrigated Area	Net Irrigated area	Un-irrigated or Totally Rainfed
1	K.R.Pete	26854	22140	14404
2	Maddur	25722	22606	5938
3	Malavalli	20511	19631	6458
4	Mandya	26033	24319	3453
5	Nagamangala	9887	8570	13972
6	Pandavapura	21399	18896	12949
7	Srirangapatna	10841	9959	5795
Total		141247	126121	62969

CHAPTER III
WATER AVAILABILITY

3.1. Status of Water availability:

Mandya District is one of the most agriculturally prosperous districts in Karnataka. The total geographical area of the district is 498,244 Hectares, out of which 189,090 hectares forms the sown area. Nearly 38 per cent of the geographical area of the district is put to agricultural use. The district is blessed with irrigation from two major reservoirs- Krishnaraja Sagar and Hemavathi. Besides these, there are number of anecut channels. Anecut is a low level barrage constructed across the river. The Cauvery basin is known for extensive system of low level barrages built during the 19th century and early parts of 20th Century. Hemavathi left bank canal is irrigating parts of K.R.Pete, Nagamangala, Pandavapura and Mandya taluks. The rest of the land is irrigated by other sources like tanks, wells and bore wells (Table 3.1).

Table 3.1: Status of water availability from canals and minor irrigation tanks in Mandya district

Taluks	Canals			Minor irrigation tanks	Total
	Hemavathy	KRS	Total		
Water available in BCM					
KR Pete	0.35112	0	0.35112	0.028	0.37912
Maddur	0	0.39	0.39	0	0.39
Mandya	0.0536	0.41	0.4636	0.02408	0.48768
Malavalli	0	0.30	0.30	0	0.30
Nagamangala	0.12035	0.01	0.13035	0.0283	0.15865
Pandavapura	0.0672	0.06	0.1272	0.0224	0.1496
SR Patna	0	0.11	0.11	0	0.11
Total	0.59227	1.28	1.87227	0.10278	1.97505

Source: SE, Hemavathi Circle, Channarayapatna; SE, KRSM & MIP circle, Mandya, Office records

2	Ground Water	Kharif	Rabi	Summer	Total
		Water available in BCM			
(i)	Open Well	0.01214	0.01821	0.03035	0.06070
(ii)	Deep Tube Well	0.00347	0.00521	0.00868	0.01736
(iii)	Medium Tube Well	0.00694	0.01042	0.01736	0.03472
(iv)	Shallow Tube Wells	0.00695	0.01042	0.01737	0.03474

Mandya district receives surface water through canal from Krishnarajasagar and Hemavathi dams. Water from KRS dam provides water to Maddur, Mandya, Malavalli and Srirangapatna taluks and the total water provided amounts to 1.28 BCM. Whereas, Hemavathi canal provided water to taluks of KR Pete (sizeable amount), Nagamangala, Mandya and Pandavapura taluks (small amounts to fill the tanks for drinking purpose). The water from Hemavathi canal is 0.59227 BCM. The water is also available from minor irrigation tanks in KR Pet, Mandya, Nagamangala and Pandavapura taluks and the total water is 0.10278 BCM. The total surface water available from canals and tanks for the district is 1.97505 BCM, of which major share of water is provided to Mandya, Maddur, KR Pet and Malavalli taluks (Table 3.1).

3.2 Ground Water Resources of the District:

The ground water resources in Mandya indicate that most part of Nagamangala taluk is under critical condition. Whereas, K.R.Pet, parts of Pandavapura, Malavalli, Srirangapatna and Maddur, stand as over-exploited and the rest of the area is in the safe zone (Fig. 3.1a). For the year 2008-09, the unit area annual ground water resource of the taluks of Mandya district is calculated in m. It is calculated to be 0.25 to 0.50 m for Pandavapura taluk, 0.15 to 0.25 m for Srirangapatna and 0.10 to 0.15 m in the remaining taluks. The details about the status of ground water use are presented in Table 3.2 and depicted in Fig. 3.1a and areas classified as critical, semi-critical and safe are shown in Fig. 3.1b.

Table-3.2: Ground water resources of Mandya district as on March 2009

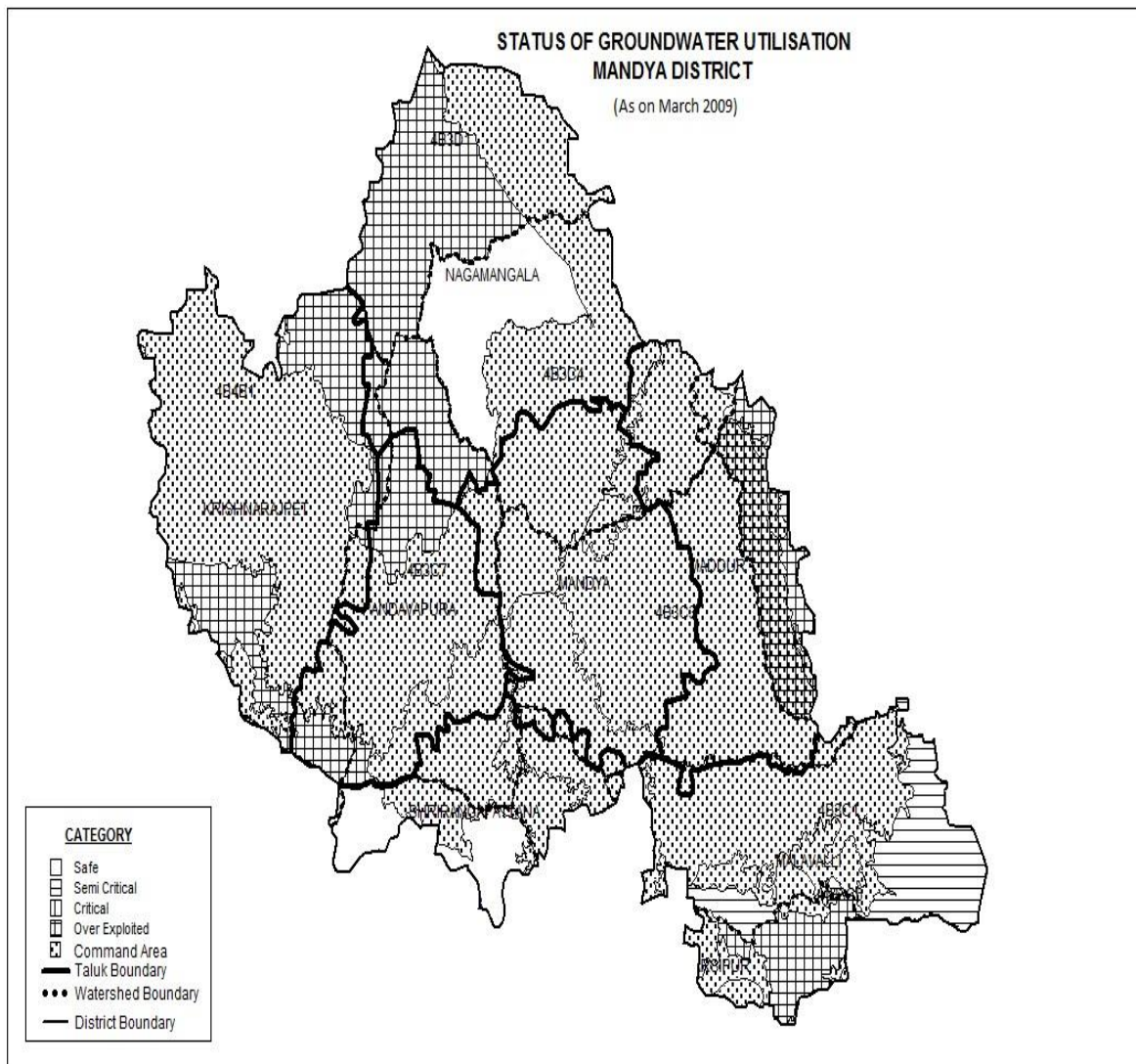
Taluk	Net annual GW availability (HAM)	Existing GW draft for all uses (HAM)	Net GW availability for irri develop (HAM)	Stage of GW develmnt (%)	Categorization of area (in percentage) as on March 2009			
					Safe	Semi-Critical	Critical	Over Extraction
K R Pete	11606	7277	5917	63	79	---	--	21
Maddur	8908	4205	4360	47	70	30	--	---
Malavalli	13521	7852	5421	58	60	25	--	15
Mandya	12641	4051	8165	32	99	--	--	1
Nagamangala	16561	9779	8773	59	50	--	--	50
Pandavapura	20599	5113	15740	25	70	--	---	30
S R Patna	7507	1837	5465	24	99	--	--	1
Total	91343	40114	53841	--	---	--	--	---

Source: Central Ground Water Board Report, 2012; one ha-m = 0.00001 BCM

The taluk wise ground water development stage and percentage in taluk area falling in various categories can be summarized as

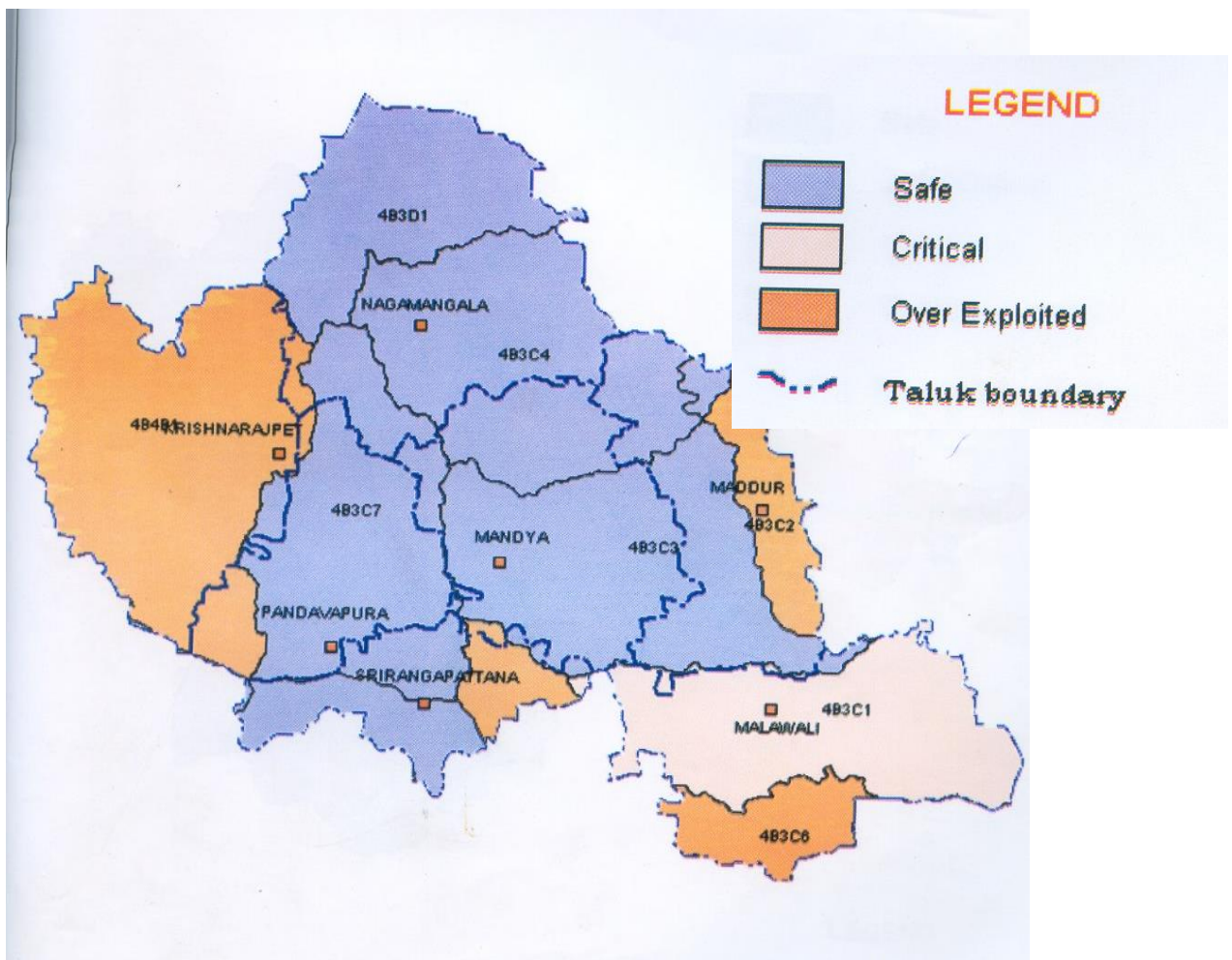
1. K.R. Pete : 63% (In terms of taluk area 79% is safe and 21% is over exploited)
2. Maddur : 47% (In terms of taluk area 70% is safe and 30% is semi critical)
3. Malavalli : 58% (In terms of taluk area 60% is safe, 25% is semi critical and 15% is over exploited.)
4. Mandya : 32% (In terms of taluk area 99% is safe, 1% is over exploited)
5. Nagamangala: 59%, (In terms of taluk area 50% is safe, 50% is over exploited)
6. Pandavapura: 25%, (In terms of taluk area 70% is safe, 30% is over exploited)
7. Srirangapatna: 24% (In terms of taluk area 99% is safe, 1% is over exploited)

Fig. 3.1a: Status of Ground Water Utilization in Mandya District



Source: CGWA report

Fig. 3.1b: Status of Ground Water Resources



Source: CGWA report

3.3 Status of Command Area:

Out of 7 taluks, 4 taluks has access to canal irrigation in Mandya district. These are Maddur, Mandya, Nagamangala and S.R.Patna. Total area of the canal command is 45009 ha and all the command area has been developed and there is no undeveloped area under canal command (Table 3.3). The command area of the canal covers 174, 111, 8 and 7 villages from Mandya, Maddur, S.R.Patna and Nagamangala taluks, respectively. The command area is the highest in Mandya (25573 ha), followed by Maddur (18526 ha), S.R.Patna (468 ha) and Nagamangala (441 ha). The details about the canal command by villages are given in Annexure 3.3.

Table 3.3: Status of Command Area

Name of the Village	Information of Canal Command			Information on the other Services Command			Total Area	
	Total Area	Developed Area	Undeveloped Area	Total Area	Developed Area	Undeveloped Area	Developed Command	Undeveloped Command
K R Pete	29264	29264	0	0	0	0	29264	0.00
Maddur	18526	18526	0.00	0.0	0.00	0.00	18526	0.00
Malavalli								
Mandya	25574	25574	0.00	0.0	0.00	0.00	25574	0.00
Nagamangala	441	441	0.00	0.0	0.00	0.00	441	0.00
Pandavapura	18037	18037	0	0	0	0	18037	0.00
S.R. Patna	468	468	0.00	0.0	0.00	0.00	468	0.00
Total	92310	92310	0.0	0.0	0.0	0.0	92310	0.0

3.4 Existing Type of Irrigation:

Mandya district has the highest area under irrigation. District has a good network of irrigation canals and the net area irrigated through canals accounts for almost 51 percent of the net sown area is irrigated in the district. Minor irrigation tanks, open and bore wells, lift irrigation are the other sources of irrigation.

As can be seen from Table 3.4, canal irrigation is the important source of irrigation and accounts for 36.7 per cent of the net irrigated area in the district, followed by tanks (12.64 per cent), open wells (5.43 per cent) and bore wells (3.95). Lift irrigation and other sources contribute 1.28 per cent to the net irrigated area in the district (Fig. 3.2 a). In all, roughly half of the total area in the district is irrigated from all sources of irrigation. Nagamangala taluk shares 6.80 per cent of the net irrigated area in the district as against 19.28 per cent shared by Mandya taluk (Fig. 3.2 b).

Table 3.4: Net Area Irrigated by Source

(Area in ha)

Name of the Block	Surface Irrigation (1)		Ground Water(2)		Other Sources Including Traditional WHS	Total Irrigation sources
	Canal Based	Tanks / Ponds / Reservoirs	Tube Wells	Bore Well		
	Govt.Canal	Community Ponds Including Small	Govt.	Govt.		
K.R.Pete	16140	5600	2100	2650	150	26640
Maddur	18453	2805	2135	461	284	24138
Malavalli	14792	1036	2079	1170		19077
Mandya	18762	2215	1651	1367	650	24645
Nagamangala	1839	1956	4652	1092	285	9824
Pandavapura	10240	562	1209	867	20	12898
S.R.Patna	11002	60	681	880	8	12631
Total	91228	14234	14507	8487	1397	129853

Fig. 3.2 a: Area Irrigated by Source

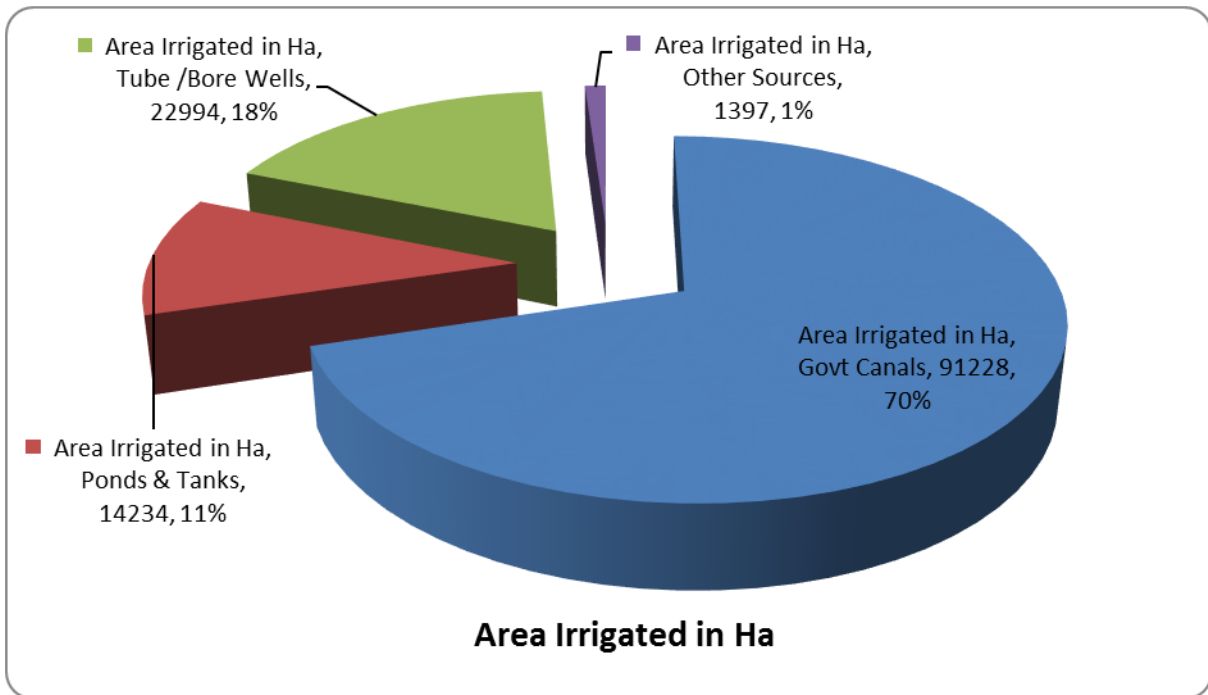
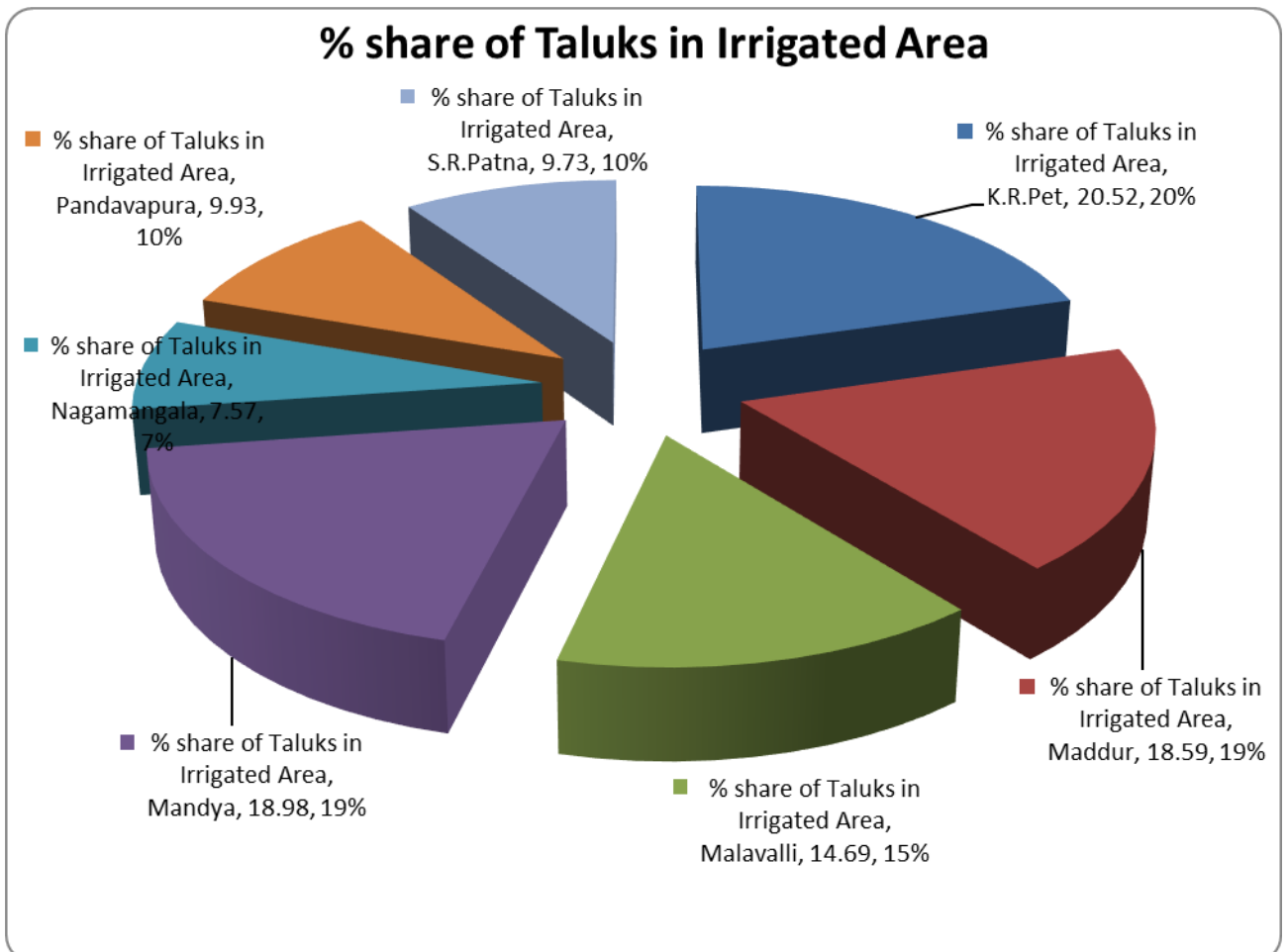


Fig. 3.2 b: Percentage Share of Taluks in Net Irrigated Area of the District



3.5. Water availability from various sources in Mandya district:

Water is available from underground water (as per Central Ground Water Board Booklet, 2012) and surface water through canals (major and medium) and tanks (maintained by Minor Irrigation Department). Total water available for the district from underground tube wells is 0.91343 BCM and these wells are largely safe (except Nagamangala taluk is over exploited due to lack of canal water). There is good scope for further improvement unless proper recharge structures are created. Water from canals (Hemavathi and KRS dams) and irrigation tanks (maintained by Minor Irrigation Departments) is 1.97505 BCM. Here also, efforts are to be made to recharge these tanks for utilization – mostly for drinking, industrial or other purposes (Table 3.5). Further, canal water is providing drinking water facility to various taluks. The surface water availability is more in taluks of Mandya, Maddur, KR Pet and Malavalli.

The total water available from various sources for Mandya district is 2.88848 BCM. Malavalli, KR Pet, Maddur and Mandya taluks possess higher water availability, followed by Nagamangala and Pandavapura, while it lower in SR Patna taluk (Table 3.5, Fig. 3.3, 3.4).

Table 3.5: Water available from various sources in Mandya district

Taluks	Net underground water available, BCM (CGWB)#	Surface water available from various sources##	Total water available, BCM - 2015 (Col. 1+2)
	1	2	3
KR Pete	0.11606	0.37912	0.49518
Maddur	0.08908	0.39	0.47908
Malavalli	0.13521	0.30	0.43521
Mandya	0.12641	0.48768	0.61409
Nagamangala	0.16561	0.15865	0.32426
Pandavapura	0.20599	0.1496	0.35559
Srirangapatna	0.07507	0.11	0.18507
Total	0.91343	1.97505	2.88848

- Central groundwater Board, Mandya district – 2012; ## - Water from canals and minor irrigation tanks- for details refer Table 3.1

Fig. 3.3. Water available source wise in Mandya district

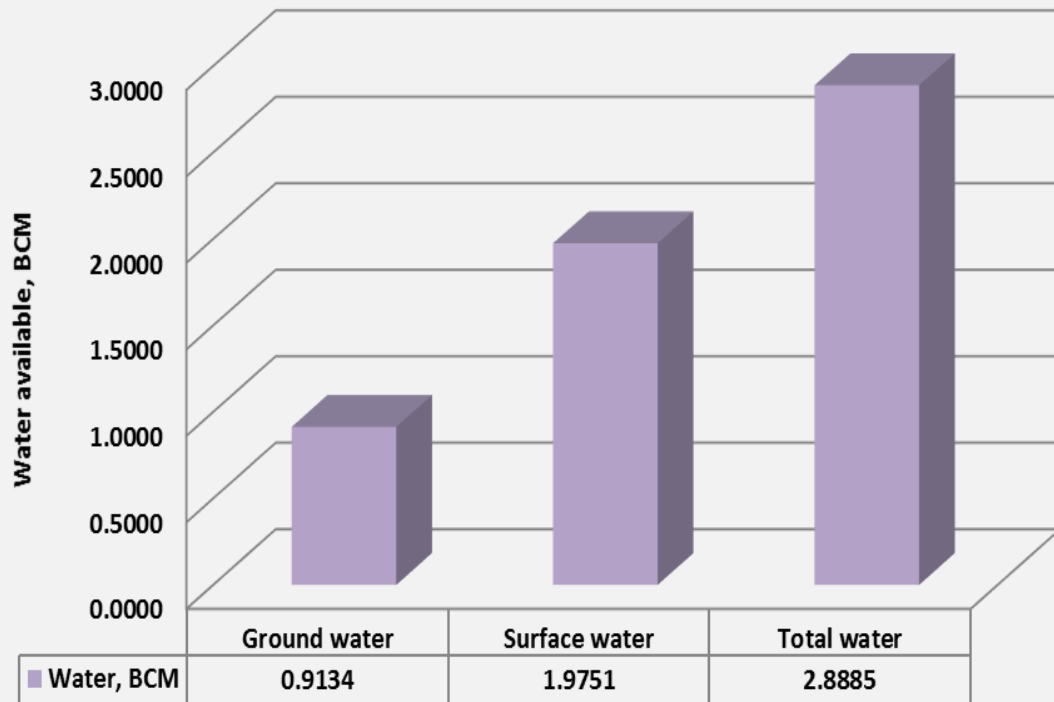
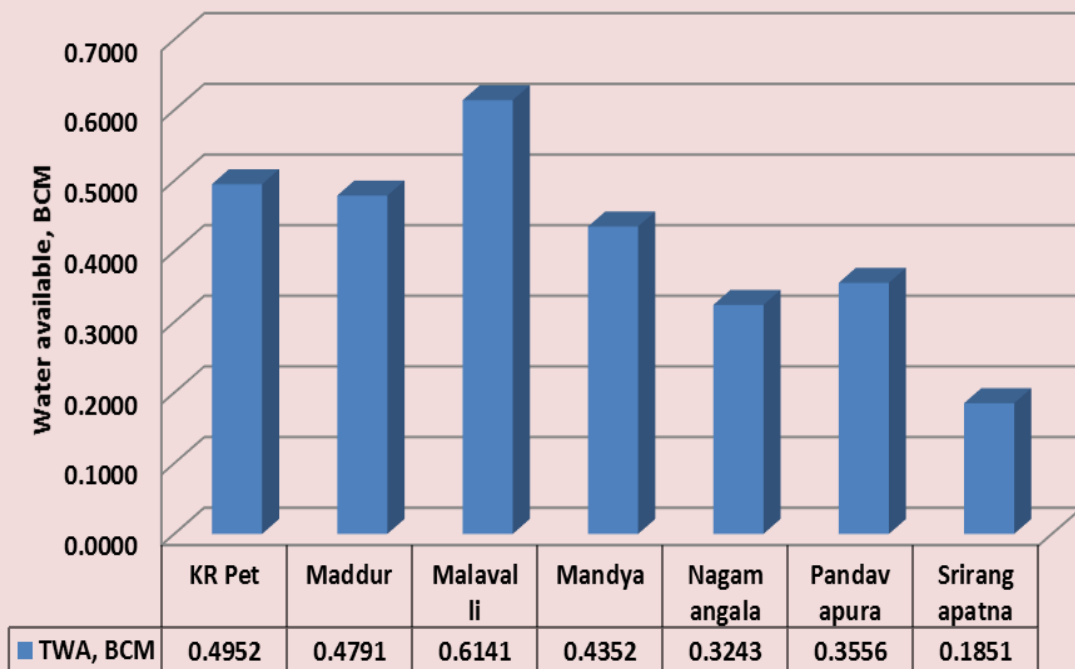


Fig. 3.4. Total water available from all sources taluk wise in Mandya district



CHAPTER IV

WATER REQUIREMENT/ DEMAND - MANDYA DISTRICT

Water is a precious natural resource provided by nature to mankind for usage in various activities. Life does not exist without water. All living organisms depend on water for performing various vital functions for survival. Major portion of water is used for agriculture all over India and that too in Karnataka. Although water is a renewable resource, it is quite dynamic and becoming scarce due to spatial and temporal variation in rainfall. Water is needed to ensure food security, feed livestock, maintain organic life (sustain lifestyle of human beings, living creatures, conserve biodiversity and environment), industrial use, etc. However, with reckless abuse and increasing demand due to growing population and undesirable lifestyle, many states are facing severe water crisis. It is not only due to rapid population growth alone, but also on account of many other factors such as rise in per capita water demand arising out of continuous upward movement of living standards, increased reliance on irrigated agriculture, massive urbanization and industrialization etc. The available utilizable water resource of the country is considered insufficient to meet all future needs. Under such a situation, in order to face the challenge of water deficit, apart from accelerating pace of development of available utilizable water resources, all out efforts, on the part of people from every walk of life, would need to be made to conserve every drop of water and improve efficiency in all areas of water use.

The National Commission on Agriculture in 1976 estimated water resources in the country for 1974 and projected for 2000 and 2025 based on certain empirical formulae and assumptions related to runoff characteristics of soil, rainfall events and vegetation cover. India is a vast country with a geographical area of 328 Mha and receiving annual precipitation of 1194 mm.

This amounts to availability of 400 Mha-m (million hectare meter) of water to India. Out of this, 17.5% goes as immediate evaporation (70 Mha-m), 53.8% as precipitation into soil (215 Mha-m) and 28.7% as surface runoff (115 Mha-m, which includes 10 Mha-m as snowfall). Further, total precipitation received on the soil is further divided into 41.3% (165 Mha-m) as soil moisture available for crops and 12.5% as ground water (50 Mha-m). Water is lost through evaporation to an extent of 20% in medium and major reservoirs and 40% in tanks. This assumption is followed for Karnataka (Bhaskar *et al.*, 2016).

Karnataka has total geographical area of 19.05 million ha receiving an annual precipitation of 1133.3 mm (average of 55 years from 1960 to 2014). About 71% of rainfall is received during south west monsoon (June to September), while north monsoon contributes 17% (October to December) and early showers by 12%. The south west monsoon sustains agricultural activity in most parts of the state, as large proportion of agriculture is rainfed farming. Taking geographical area and rainfall into consideration, available water due to precipitation is 21.76 Mha-m to Karnataka (215.2864 BCM or 7688.8 TMC). Following NCA 1976 recommendation, out of 215.2864 BCM (7688.8 TMC) of water, 53.8% percolates into soil (115.822 BCM or 4136.57 TMC), 17.5% as immediate evaporation loss (37.674 BCM or 1345.54 TMC), and 28.7% as surface water runoff (61.7876 BCM or 2206.69 TMC).

The average annual rainfall in Karnataka is 1133.3 mm. The state is divided into four meteorological zones viz. North Interior Karnataka, South Interior Karnataka, Malnad and Coastal Karnataka. Coastal Karnataka with an average annual rainfall of 3456 mm is one of the rainiest regions in the country. Contrasting this, the region of South Interior Karnataka and North Interior Karnataka receive only 1286 and 731 mm of average annual rainfall. (https://en.wikipedia.org/wiki/Rainfall_in_Karnataka).

Karnataka accounts for about six percent of the country's surface water resources. Around 60% of this is provided by the west flowing rivers, while the remaining comes from the east flowing rivers. There are seven river basins in all formed by the Godavari, Cauvery, Krishna, the west-flowing rivers, North Pennar River, South Pennar, and Palar.

(http://waterresources.kar.nic.in/river_systems.htm);

https://en.wikipedia.org/wiki/Geography_of_Karnataka).

Mandya district has a total geographical area of 498244 ha receiving an annual precipitation of 72.0 cm. Mandya and Malavalli taluks receive higher rainfall of 77.1 to 79.5 cm, followed by other taluks, while the rainfall is relatively lower in Nagamangala taluk (65.2 cm). Most of the rain (42.1%) is received during south west monsoon (June to September), followed by rains during October to January (Rabi rains - 32.6%). The south west monsoon sustains agricultural activity in most parts of the state, as large proportion of agriculture is rainfed farming. Taking geographical area and rainfall into consideration, available water due to precipitation is 3.585027 BCM to Mandya. Following NCA 1976 recommendation, out of 3.585027 BCM of water, 53.8% percolates into soil (1.92874 BCM), 17.5% as immediate evaporation loss (0.627380 BCM), 28.7% as surface water runoff (1.02890 BCM) and 12.5% as underground water (0.44813 BCM).

4.1. Water Demand for domestic need:

A number of factors like climate, culture, food habits, work and working conditions, level and type of development and physiology determine the requirement of water. The per capita water requirement in urban areas is more than that in the rural areas. As per the Bureau of Indian Standards, IS:1172-1993, a minimum water supply of 200 liters per capita per day (lpcd) should be provided for domestic consumption in cities with full flushing systems.

IS:1172-1993 also mentions that the amount of water supply may be reduced to 135 lpcd for the LIG and the economically weaker sections (EWS) of the society and in small towns [Modi, 1998]. However, in the Tenth Plan (2002-07), the cities with planned sewerage systems are classified into two groups based on population, i.e, metropolitan or megacities (minimum water supply level is 150 lpcd) and non-metropolitan cities (135 lpcd) [Government of India 1997, 2002]. Over and above the aforesaid demand, 15% losses may be allowed for determining the quantity of raw water required.

During 2015, water requirements for domestic use in Mandya, Maddur and Malavalli taluks are relatively higher (0.0141948 to 0.0207991BCM), while it is lower in taluk of Nagamangala (0.0093168 BCM). The water requirements in these taluks correspond to the prevalent population. For district as whole, water demand is 0.0900468 BCM in 2015 (Table 4.3). With projected growth of population of 2.5% during 2011 to 2020, the domestic water requirements in the taluks of Mandya district followed the same trend (Table 4.1, Fig. 4.1).

Thus, domestic water requirement is projected at 0.091234 BCM in 2020 from the present consumption level of 0.0900468 BCM during 2015 (Table 4.1, Fig. 4.1).

Table 4.1: Domestic water demand (BCM) of Mandya district - present and projected 2020

Blocks/ Taluks	Population in 2011	Water demand, BCM	Population in 2015	Water demand in 2015, BCM	Projected population, 2020	Projected water demand by 2020, BCM
KR Pet	260479	0.012835	263781	0.012998	266502	0.013132
Maddur	295432	0.014557	298398	0.014704	301718	0.014867
Malavalli	283265	0.013958	288072	0.014195	291419	0.014360
Mandya	415153	0.020457	422102	0.020800	430356	0.021206
Nagamangala	187897	0.009259	189078	0.009317	190995	0.009411
Pandavapura	183352	0.009035	184042	0.009069	186035	0.009167
Srirangapatna	180191	0.008879	181961	0.0089661	184500	0.009091
Total	1,805,769	0.088979	1827434	0.0900468	1851525	0.091234

Water requirement for human being - 135 liters/head/day, lphd;

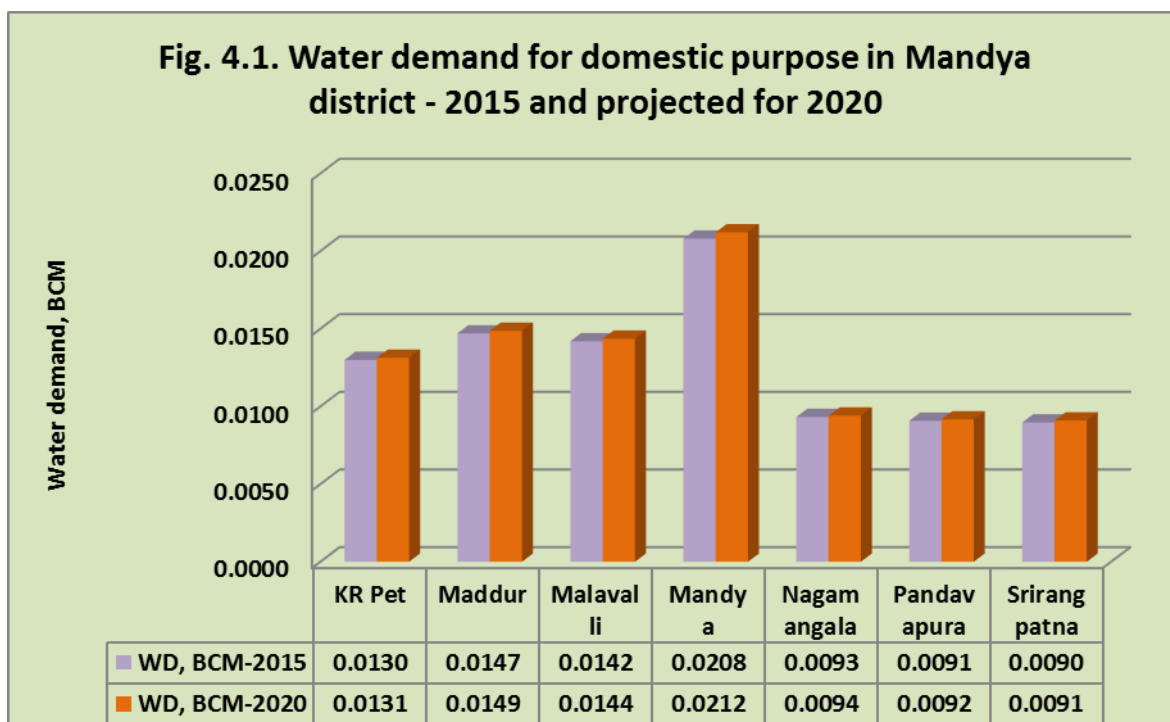
Domestic Water requirement/Demand in Billion cubic meter, BCM

= (Population X Water requirement, 135 lphd X 365 days)/ (1000 liters X 1,000,000,000)

Assumption: Increase in population during 2011 - 2021 is 2.53% similar to as that of decadal growth rate of population of 2.38% observed during 2001-2011.

{Source: Mandya district at a glance 2013-14, Zilla Panchayat, Mandya}

<http://www.census2011.co.in/census/district/262-mandya.html#>



4.2. Water requirement for crops:

Field/horticultural/plantation crops grown in Mandya district are paddy, maize, groundnut, ragi (both in Kharif & rabi), jowar, bajra, Tur, black gram, green gram, cowpea, avare, horse gram, sesamum (in Kharif only), Bengal gram (rabi only) (under agriculture), fruit crops, and vegetable crops. For calculation of water requirement of irrigated crops, following methodology and some assumptions have been used based on the recommendations of the NCA, 1976 and methodology suggested by Bhaskar et al. (2016).

Irrigation water requirement considered for calculation purpose for various crops are paddy (150 cm in rabi/summer, 100 cm in Kharif), maize - 60 cm, bajra/jowar/ragi - 45 cm, red gram - 70 cm, groundnut - 45 cm, other oilseeds - 40 cm, cowpea/green gram/other pulses - 40 cm, vegetable crops - 50 cm, and fruit crops - 60 cm. From this water requirement of various crops and the area of the crops grown under irrigation, irrigation water requirement for crops has been worked out.

Assumption - Rain water accounted for crop use is 30% of total rainfall occurring during the cropping season in Mandya district, considering the soil type (sandy loam, red soils, sandy clay loam soils) and the intensity of rain. Rain water used for rainfed crops' growth is used for calculating the water requirement of rainfed crops.

Net water requirement of irrigated crops is relatively higher in KR Pete, Maddur and Mandya (0.40559 to 0.50933 BCM) in view of large area of irrigated crops (rice, groundnut, sugarcane, maize, ragi, vegetables and fruit crops). Whereas, total water requirement of rainfed crops is 0.064807 BCM in view of large area under crops (jowar, pulses - cowpea, avare, black gram, green gram, oilseeds - sunflower, sesamum, castor, niger) in taluks of Nagamangala and KR Pete. The water demand of irrigated field crops is 1.90911 BCM for the district, being more in taluks of Mandya, Maddur and KR Pete. The water demand for total horticultural crops is 0.243774 BCM for Mandya district, of which major share goes to plantation and fruit crops (0.113354 and 0.06873 BCM, respectively). Further, water demand of total horticulture crops is more in Pandavapura, Malavalli, Nagamangala and KR Pet taluks as compared to other taluks. The total water requirement of total crops for the district is 2.21769 BCM.

The projected water demand for total crops is also worked out for 2020, keeping 10% increase in irrigated area due to efficient rain water use, more area under microirrigation and other means. For Mandya district, the projected total water demand for crops is 2.43946 BCM by 2020 as compared to the present demand of 2.21769 BCM), which amounts to 10% increase (Table 4.2, Fig. 4.2, 4.2a).

Table 4.2: Water requirement of horticulture and agricultural crops (BCM) in Mandya district - 2014-15

Taluks	Plantation crops	Vegetables & Fruits	Total - Horticulture crops#	Rainfed field crops	Irrigated field crops	Agriculture crops (Irrigated + Rainfed)	Total crops	
							2015	2020
							Water requirement, BCM	
KR Pet	0.032905	0.025829	0.059678	0.010649	0.33526	0.345909	0.40559	0.446149
Maddur	0.018034	0.009944	0.028105	0.005887	0.40241	0.408297	0.43640	0.48004
Malavalli	0.011843	0.029052	0.041153	0.005604	0.26861	0.274214	0.31537	0.346907
Mandya	0.012518	0.019922	0.032821	0.004365	0.47214	0.476505	0.50933	0.560263
Nagamangala	0.022666	0.020957	0.044410	0.026728	0.04355	0.070278	0.11469	0.126159
Pandavapura	0.005809	0.009158	0.015231	0.008183	0.23256	0.240743	0.25597	0.281567
S.R.Patna	0.009579	0.012708	0.022375	0.003390	0.15457	0.15796	0.18034	0.198374
Total	0.113354	0.12757	0.243774	0.064807	1.90911	1.973917	2.21769	2.439459
Projected for 2020 - 10% increase	0.1246894	0.140327	0.2681514	0.0712877	2.100021	2.171309	2.439459	

Water requirement for crops: Fruit crops - 60 cm, Vegetable crops - 50 cm, Maize - 60 cm, Pulses - 40 cm, Oilseeds - 40 cm, Groundnut - 45 cm, Tur - 70 cm, Jowar - 55 cm, Ragi - 45 cm; Rice - 150 cm during rabi/summer, 100 cm in Kharif, Sugarcane - 200 cm, Banana - 120 cm, Flowers - 40 cm, Tomato/Onion - 60 cm

Here 30% of rainfall is accounted as water available for crop use on cultivable land, considering the intensity of rain and soil type- sandy loam, sandy and sandy clay loam soils. Irrigation water requirement, ha - cm = Area of the crop, ha X Water requirement of the crop, cm; One ha-cm = 1,00,000 liters or 100 cubic meters;

Source: Mandya district at a glance 2014-15; # - Includes flowers also;

Irrigation water requirement in BCM = {(Irrigation water requirement, ha-cm X 100)/100,000}

Fig. 4.2. Water demand of various crops in Mandya district - 2015 and 2020

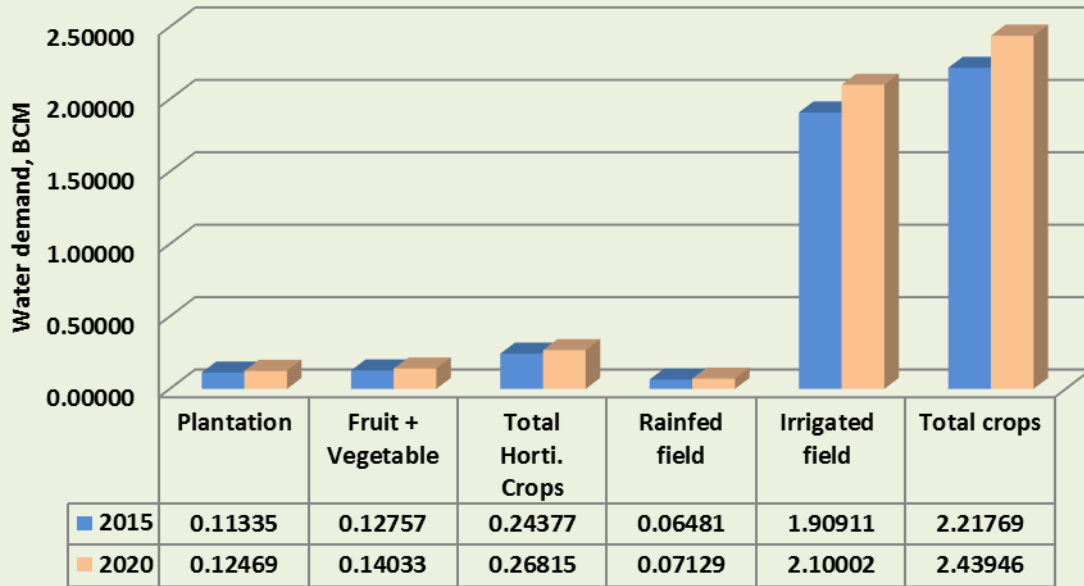
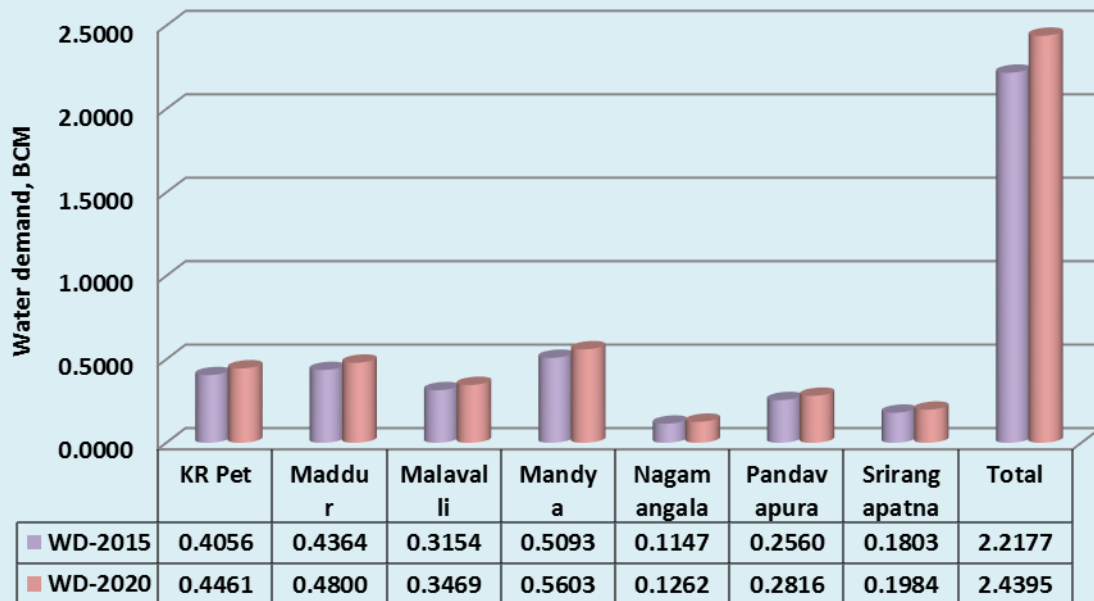


Fig. 4.2a. Water demand of various crops taluk wise in Mandya district - 2015 and 2020



4.3. Water requirement of Livestock:

Livestock sector plays a significant role in rural economy of India. It contributes to 5% of total domestic gross product (DGP) and one fourth of total agricultural GDP (AgGDP). Livestock sector is unique in terms of providing employment opportunity particularly to two third of women workforce in India towards animal rearing. Livestock is an integral part of mixed farming of Indian agriculture. Both indigenous cattle and buffalo population registered an annual decline of 4.5 per cent and 4.3 per cent, respectively between 2007 and 2012 census periods, while that of crossbred cattle increased by 5.8 per cent

(<https://www.Uttara%20Kannada/Livestock%20census%20Karnataka.pdf>).

Besides, contributing food and inputs (draught energy and manure) for crop production, livestock are important as savings or investments for the poor household and provide food security or insurance through various ways in different production systems. Rainfed regions support the highest number of livestock units. Except buffalo and pigs, more than half of all livestock species (52.3 to 60.1%) are concentrated in the rainfed region. Even 43.1% of the total buffalo and 44.7% of pigs are reared in rainfed region. Irrigated region accounts for higher proportion of buffalo (43.1%) and except sheep it accounts for second highest population of all major livestock species, although the resource degradation in rainfed areas has been observed, various support programmes of the government are encouraging mixed farming to stabilize the income of the resource poor farmers of arid and semi-arid regions of the state. Considering these facts, increase in total population of the livestock has been maintained at 5-10% in 2020 as compared to earlier census of 2012 (Anjani Kumar and Singh, 2008).

Water requirement for livestock and other animals namely - indigenous cattle, cross bred cattle, draft animals/bulls/others, sheep, goats, pigs, duck and poultry, have been calculated separately with the corresponding population for 2012. The projected water requirement for livestock population at 2020 has also been calculated separately for all live stock. The total water requirement for live stock for 2012 and projected for 2020 is provided taluk wise in Table 4.3.

Total population of livestock and other animals in Mandya district is 2438,078 during 2012 and their water requirement is 0.0101566 BCM. Considering the increase in the population of livestock at 5% from 2012 to 2020, their water demand would be 0.0110934 BCM with corresponding population of 2559,982 (Table 4.3, Fig. 4.3). Water demand of livestock is more in KR Pete and Mandya taluks, followed by Maddur, Nagamangala and Malavalli taluks, as reflection of corresponding livestock population in these taluks.

Table 4.3: Water requirement of livestock and other animals in Mandya district in 2012 and projected for 2020

Taluks	Water requirement of livestock, Billion cubic meters (BCM)			
	Population, 2012	Present Water requirement for 2012, BCM	Projected Population, 2020	Water requirement for 2020, BCM
KR Pet	295803	0.0019455	310593	0.0021039
Maddur	340909	0.0016413	357954	0.0017948
Malavalli	329889	0.0014454	346383	0.0015822
Mandya	561907	0.0019249	590002	0.0021070
Nagamangala	328837	0.0016088	345279	0.0017465
Pandavapura	143401	0.0008581	150571	0.0009432
Srirangapatna	437332	0.000733	459199	0.0008156
Total	2438078	0.0101566	2559982	0.0110934

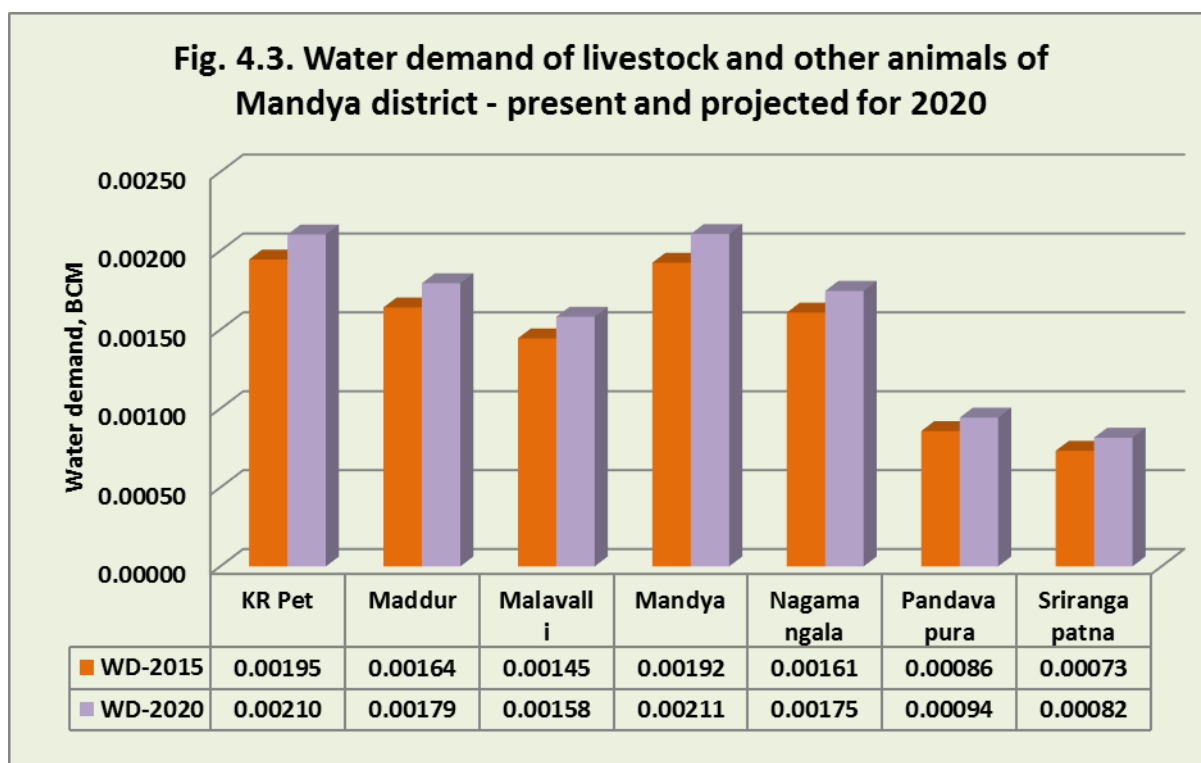
Water requirement for various livestock: liters/head/day, lphd: Indigenous cattle - 36 lit; Cross bred cattle/Buffalo - 55 lit; Sheep/Goat - 3.5 lit; Pigs - 6.3 lit; Poultry - 0.3 lit; Dog - 1.8 lit; Duck - 1.0 lit; Others (Bull/He Buffalo/Others) - 55 lit

Water requirement is calculated based on water requirement for various livestock(s), BCM = {(Population of livestock * Water requirement for various livestock, lphd X 365 days)/1000*1000,000,000}

Livestock population is projected to be increased by 10% between 2012 to 2020 census, due to encouragement in the government policies and more support for integrated farming systems. Though cattle population has decreased particularly in favour of indigenous cattle, this reduction is compensated with increase in the density of cross bred animals and other animals due to economic considerations.

(Anjani Kumar and Singh, D.K. 2008. Livestock production systems in India: An appraisal across agro-ecological regions. Indian Journal of Agricultural Economics, 63(4): 577-597)

Source: Deputy Director, Department of Animal Husbandry and Veterinary Services, Mandya, Mandya District at a glance - 2014-15



4.4. Water demand for Industry

Surface water is the major source of water for the industries in India (41%) followed by groundwater (35%) and municipal water (24%). With greater demand for water, water availability to Industries is becoming scarce and has to invest more for getting water. In addition, industries have to adopt

conservation measures and reuse of water after treatment. The water available from waste water treatment is being used for gardening.

While inadequate availability of water is the major risk facing the industries (37%), others agree that poor water quality is another major risk in the running of business (14%). Sectors like pharmaceuticals, power, food processing and agriculture feel the brunt of poor water quality. High costs for obtaining water are hindering the business interest of smaller industries and the ones which are located in the drier regions of the country. Around 14 per cent of the respondents also feel that environmental changes over the past few decades have had an impact on freshwater availability. A realization is gradually emerging that rectifying measures needs to be taken by industries to augment freshwater through rainwater harvesting and wastewater treatment and reuse.

Indian industry is becoming responsive to the fact that it should be the role of every user to undertake measures for water conservation. It is desirable that the shared responsibility of companies across sectors is to join hands with communities and governments to work on programmes for water conservation, recharge and wastewater treatment (FICCI, 2011).

In Mandya district, sugar factories namely Mysugar Ltd. is located in Mandya taluk; SLN sugar in Koppa, Chamundeswari Sugar Limited, Bharathinagar, Maddur taluk; and PSSK Sugar Limited, Pandavapura Taluk, whereas in Srirangapatna, Habeeb Refined Oil Industries is located. Similarly, various large scale and small scale industrial units located in the district are also provided taluk wise. There are about 12 large scale industries and 3925 small scale industrial units, at present. Considering all these factories (sugar, large scale and small scale industries), the total water demand at present (2015) is put at 0.000117 BCM during 2015. Whereas, by 2020 considering 25% to 100%

increase in the demand, the projected water demand would be 0.0001602 BCM by 2020, keeping provision for 25% to existing factories and for some 100% increase in view of likely establishment of new factories in the taluks – Srirangapatna, Maddur and KR Pet (Table 4.4, Fig. 4.4).

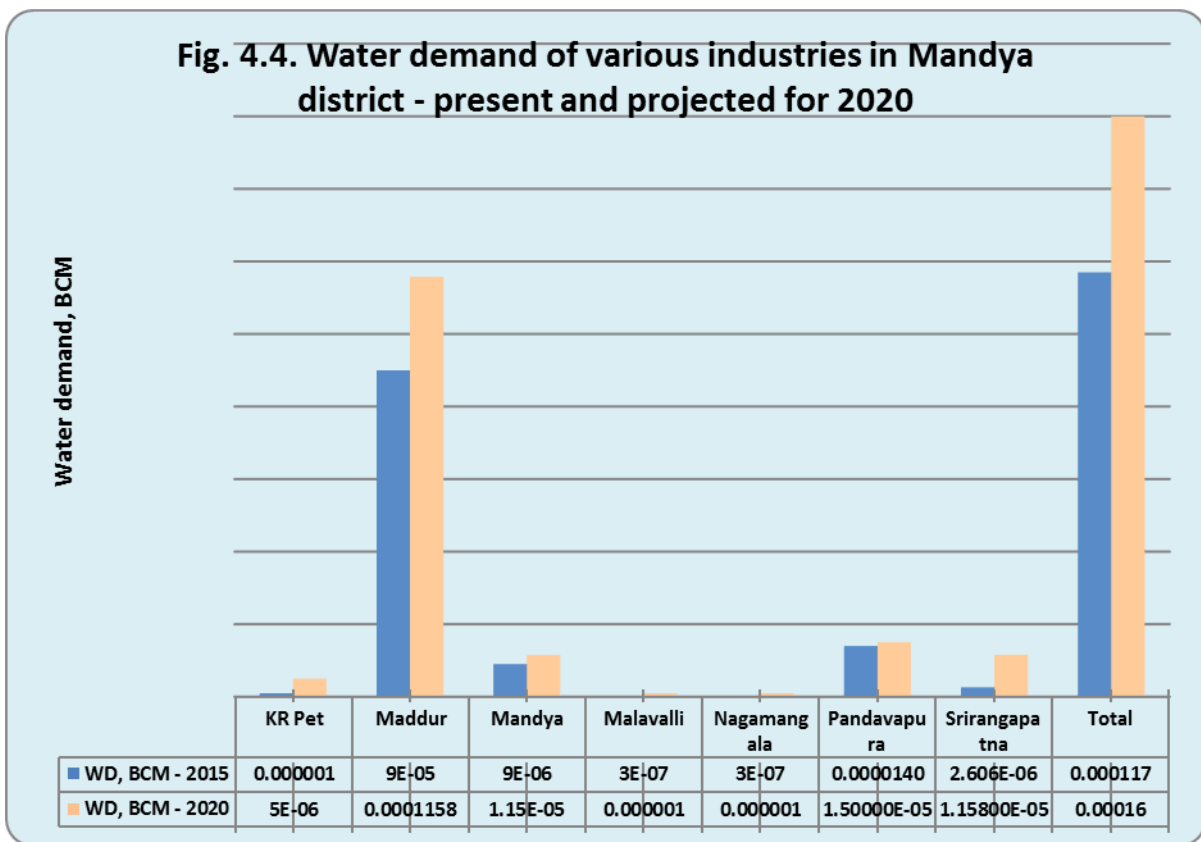
It is necessary to augment the requirement of fresh water by undertaking wastewater treatment and using it for horticulture, gardening, ash handling, washing of ore, flushing toilets, cleaning, fire-fighting and dust suppression activities. The industries must see a merit and an economically value in reusing wastewater for purposes where water quality is not an important criterion. There is need to take up water auditing to understand the complete water use pattern in their operations and look for water saving measures.

Table 4.4: Water demand of Industries (category wise) in Mandya district - Present and future demand by 2020

	Name of the Industry (No. of industries- large/ small scale industrial units- SCIU)	Water demand, BCM	
		2015	2020
	K.R. Pet Taluk		
1	Large (1) and SCIU (443) industries	0.0000008	0.000005
	Maddur Taluk		
2	Large (8) and SCIU (619) industries	0.000007	0.000012
3	Chamundeshwari Sugar Limited, Bharathinagar	0.000063	0.00007875
4	M/S SLN Sugar, Koppa	0.00002	0.000025
	Mandya Taluk		
5	M/S Mysugar Ltd., Mandya	0.0000072	0.000009
6	Large (1) and SCIU (1055) industries	0.0000018	0.0000025
	Malavalli Taluk		
7	Large (0) and SCIU (426) industries	0.0000003	0.0000006
	Nagamangala Taluk		
8	Large (0) and SCIU (420) industries	0.0000003	0.0000006
	Pandavapura Taluk		
9	M/S PSSK Sugar Limited	0.000013505	0.00001688
10	Large (1) and SCIU (407) industries	0.0000005	0.000001

Srirangapatna Taluk			
11	M/S Habeeb Refined Oil Industries	6.06E-07	7.58E-06
12	Large (1) and SCIU (555) industries	0.000002	0.000004
	Grand Total	0.000117011	0.000160205

Source: Joint Director, District Industries Centre, Mandya; Superintending Engineer, KRSM & MIP Centre, Mandya; Assumed, there will be 25% to 100% increase in the water demand by the existing industries and proposed during 2020; Here rain water harvesting measures are to be created in the premises of the industries to augment the water demand and also to recharge the bore well.



4.5. Water demand for power generation: In Mandya district, there is no proposal for power generation for 2015 as well as in future (Table 4.5).

Table 4.5: Water demand for power generation in Mandya district

Block	Name of the power generating unit/ Power requirement	Present Water demand, BCM	Proposed for new power generating unit	Water demand at 2020, BCM
	No requirement		None	

4.6. Water demand for other public purposes:

Water is also required to be provided in public places like schools, colleges, offices, public toilets, bus station, railway stations, theaters, hostels, hotels, restaurants, hospitals, nursing homes and medical quarters, community hall and all other public places. Here, it is very difficult to work out the water demand for all these places, which require many parameters - number of persons involved in each activity, type facility available, etc. It is assumed that 10% of domestic requirement is considered as water demand for these public places. The water demand for these public places amounted to 0.0090047 BCM in 2015, whereas, the water demand would be 0.009123389 BCM by 2020 (Table 4.6, Fig. 4.5a).

4.7. Total water demand of the district for various sectors:

At present, water demand for all purposes in Mandya district is 2.3270157 BCM, of which major share goes to crops' demand of 2.21769 BCM (95.3%). The next share of water demand is for domestic purposes amounting to 0.0900468 BCM (3.9%). The water demand of livestock, industries and other purposes is around 0.8% of the total (Table 4.6, Fig. 4.5, 4.5a). The total water demand of various sectors is more in taluks of Mandya, Maddur and KR Pet, while it is relatively lower in Nagamangala taluk. The projected water demand of various sectors for 2020 followed the same trend of 2015 and would be to the tune of 2.5510697 BCM.

Fig. 4.5. Total water demand of various sectors - taluk wise in Mandya district - 2015 and projected for 2020

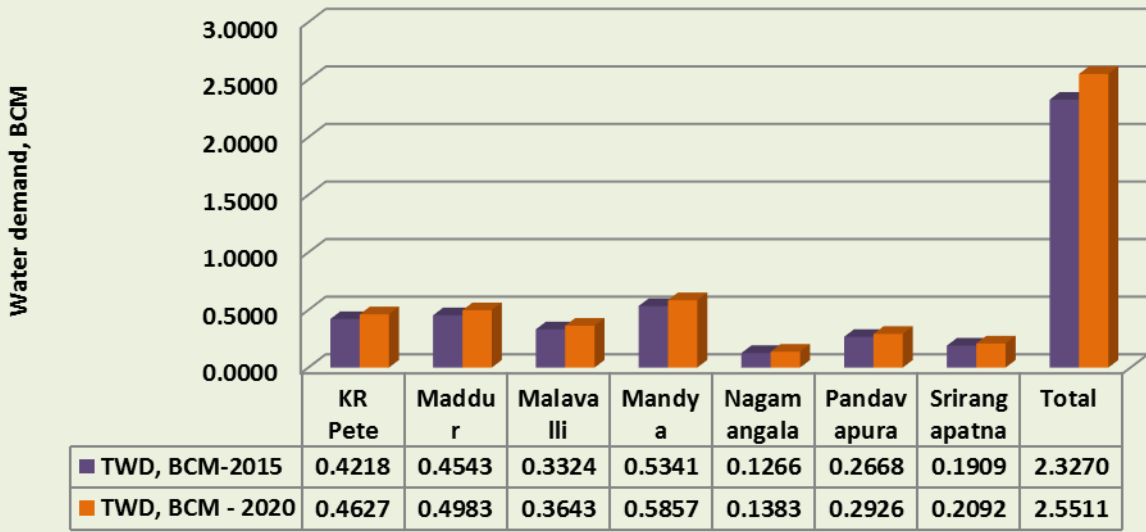


Fig. 4.5a. Total water demand - sector wise in Mandya district - 2015 and projected for 2020

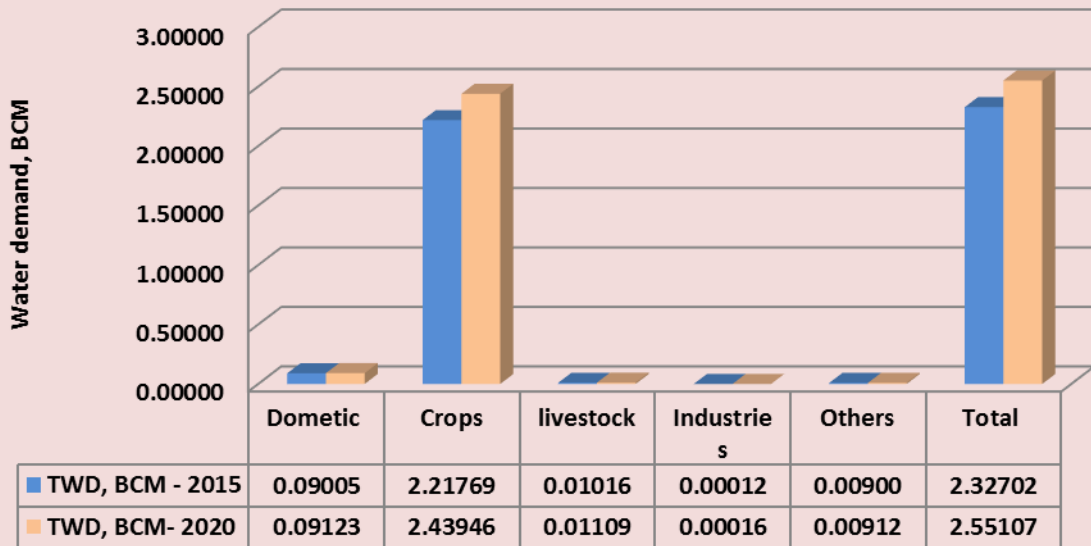


Table 4.6: Total water demand for various sectors in Mandya district - present (2015) and projected demand for 2020

Taluks	Water demand at present (2015), BCM						
	Domestic	Crops (Hort. + Field)	Livestock	Industries	Power generation	Other public places	Total water demand, BCM
KR Pete	0.0129978	0.40559	0.0019455	0.0000008	0	0.0012999	0.421834
Maddur	0.0147036	0.43640	0.0016413	0.000009	0	0.0014704	0.4543053
Malavalli	0.0141947	0.31537	0.0014454	0.0000003	0	0.0014195	0.3324299
Mandya	0.0207991	0.50933	0.0019249	0.000009	0	0.0020799	0.5341429
Nagamangala	0.0093168	0.11469	0.0016088	0.0000003	0	0.0009317	0.1265476
Pandavapura	0.009069	0.25597	0.0008581	0.0000140	0	0.000907	0.2668181
S.R.Patna	0.008966	0.18034	0.0007326	0.0000026	0	0.000897	0.1909382
Total	0.090047	2.21769	0.0101567	0.000117	0	0.009005	2.3270157
Taluks	Water demand for 2020, BCM						
KR Pete	0.0131319	0.446149	0.0021039	0.000005	0	0.00131319	0.4627030
Maddur	0.0148671	0.48004	0.0017945	0.0001158	0	0.00148671	0.4983041
Malavalli	0.0143597	0.346907	0.0015822	0.0000006	0	0.00143597	0.3642855
Mandya	0.0212058	0.560263	0.0021070	0.0000115	0	0.00212058	0.5857079
Nagamangala	0.0094113	0.126159	0.0017465	0.0000006	0	0.000941128	0.1382585
Pandavapura	0.0091669	0.281567	0.0009432	0.0000152	0	0.00091669	0.2926090
Srirangapatna	0.0090912	0.198374	0.0008157	0.0000116	0	0.00090912	0.2092016
Total	0.0912339	2.439459	0.0110934	0.000160	0	0.00912339	2.5510697

Assumption - Increase in population is 20%, crops by 10% between 2011 to 2020, livestock by 5% between 2012 to 2020, Industrial uses - 25% to 100% during 2015 to 2020, Power generation - Not proposed

4.8. Water budgeting:

Total water available from surface water provided by the canal (Cauvery water – both KRS and Hemavathi dam waters) is 1.97505 BCM (68.4%) and available underground water is 0.91343 BCM (31.6%) (Table 4.7). Thus, total water availability for the district from all sources at present is 2.88848 BCM, which is more than the present requirement (2015) of 2.327016 BCM (Table 4.7, Fig. 4.6). There is positive balance of water, amounting to 0.561464 BCM. This positive balance has been observed in all taluks of Mandya district except SR Patna. This positive trend has been observed during 2020 in all taluks (except SR Patna and Maddur taluk), even after meeting all water demands of various sectors in Mandya district (Table 4.7, Fig. 4.6). This is mainly due to surface water being available for growing of crops in one season in major parts of Mandya district. The balance of water available in Mandya district is 0.33741 BCM by 2020 (Fig. 4.7).

The effort should be made to encourage water conservation structures to enhance the underground recharge and more impounding water in tanks/lakes, etc.

Fig. 4.6. Water budgeting along with demand and balance in Mandya district - 2015

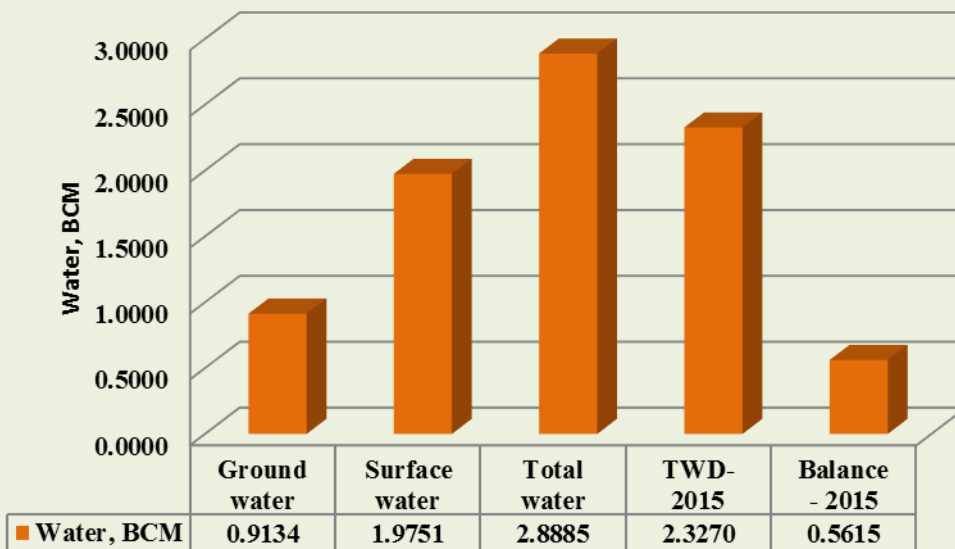


Fig. 4.7. Water budgeting along with demand and balance in Mandya district - 2020

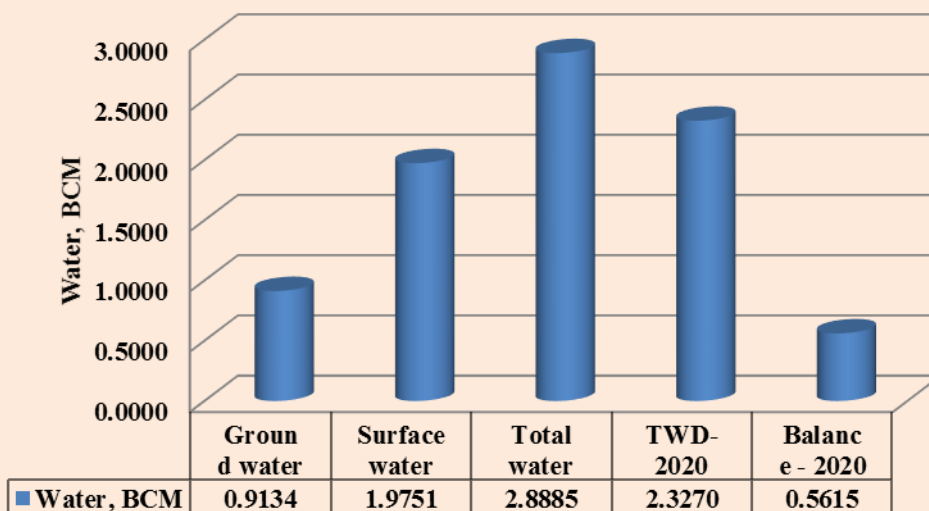


Table 4.7: Water budgeting for Mandya district - available, demand and water balance – 2015 and projected for 2020

Taluks	Net underground water available, BCM (CGWB)#	Surface water available from various sources##		Total water available, BCM - 2015 (Col. 1+2)
	1	2	3	3
KR Pete	0.11606	0.37912		0.49518
Maddur	0.08908	0.39		0.47908
Malavalli	0.13521	0.30		0.43521
Mandya	0.12641	0.48768		0.61409
Nagamangala	0.16561	0.15865		0.32426
Pandavapura	0.20599	0.1496		0.35559
Srirangapatna	0.07507	0.11		0.18507
Total	0.91343	1.97505		2.88848
Taluks	Total water demand for various sectors, BCM - 2015	Water balance available after meeting all demands, 2015, BCM	Projected demand, BCM - 2020	Water balance after meeting all demands, 2020, BCM
	4	5	6	7
KR Pete	0.421834	0.073346	0.462703	0.032477
Maddur	0.454305	0.024775	0.498304	-0.019224
Malavalli	0.332430	0.10278	0.364285	0.070925
Mandya	0.534143	0.079947	0.585708	0.028382
Nagamangala	0.126548	0.197712	0.138259	0.186001
Pandavapura	0.266818	0.088772	0.292609	0.062981
Srirangapatna	0.190938	-0.005868	0.209202	-0.024132
Total	2.327016	0.561464	2.551070	0.33741

#CGWB - Central Ground Water Board, 2008 for Mandya district - Net underground water available;
##-Water available from other sources includes water available from Major, Medium irrigation – canal & minor irrigation - tanks (Source: Superintending Engineer, Hemavathi Circle, Channarayapatna & Superintending Engineer, KRSM & MIP Circle, Mandya)

CHAPTER V
STRATEGIC ACTION PLAN FOR IRRIGATION IN MANDYA
DISTRICT

5.1 Introduction

Mandya district is located in southern dry zone of Karnataka state with advantage of being irrigated by two major commands namely KRS dam situated in Mysore district and Hemavathy Irrigation Project located in Hassan district. Prior to construction of KRS dam, Mandya district was a typical dry land with agriculture dependent on unpredictable rains. However, presently, 0.78 lakh ha area of Mandya district is irrigated by canals out of 2.72 lakh ha cultivated area. The district has advantage of adequate water for two seasons through old achcuts during good monsoon years in some taluks. KR Pete, Mandya and Malavalli taluks have cropping intensity ranging from 132 to 152 %, indicating the crop production in two seasons in more than 30-50% of their respective areas. However, in the taluks of Nagamangala and Malavalli cropping intensity ranges from 103-109 %.

Despite being irrigated by two commands, Mandya district has 1.46 lakh ha fully dependent on rainfall. The crop productivity in such areas is limited to dry crops like ragi, horsegram, avare, maize, groundnut etc. Irrigated area predominantly grows paddy and sugarcane. Irrigated farmers invariably record higher incomes, while farmers from dry areas continue to reel under poverty. The inequality of growth rate in income of these two distinctly different areas has not been able to be neutralised by any other sources of irrigation, including well irrigation. Mandya district has only 5000 ha under bore well irrigation, while open wells irrigate around 6800 ha.

However, there is excellent scope to harvest rain water in smaller structures like farm ponds, check dams, nala bunds and other water shed structures in un irrigated areas. The present district irrigation plan focuses on use of rain water more efficiently by various water shed structures for protective irrigation as a measure of drought mitigation. Further, nearly 630 tanks are available in Mandya district. They have created irrigation potentiality of around 16000 ha. But, there is need to utilise this tank irrigated area, by effective measures like tank desilting, renovation or filling tanks with canal/lift irrigation schemes.

There is general lacuna in utilizing the canal water, in terms of efficiency. Most distributaries/ field channels unlined and there is vast scope to improve the irrigation efficiency by proper lining to these structures, and attending to other canal maintenance works timely. This way, the created potential can be utilized fully. All these aspects are considered, while Mandya district Irrigation Plan is developed- with the ultimate objective of utilizing the created potential with expansion, wherever possible irrigated area and drought mitigation in non- command areas. A new cropping pattern involving regulated sugarcane cultivation and reducing other water intensive crops can save large quantity of water and this can ensure water availability to tail end areas.

Table 5.1 STRATEGIC ACTION PLAN FOR MANDYA TALUK

Concerned Ministry / Dept.	Component	Activity	Total number /capacity (cum)	Command Area/ Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)					
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total
AIBP			-	-	0	0	0	0	0	0
MoWR	Har Khet ko panni	Repair, Restoration & Renovation of water bodies (CNL-KRS)	40	3500	1000.00	1000.00	1000.00	1000.00	1000.00	5000
		Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNL-KRS)	500 KM		1600.00	1600.00	1600.00	1600.00	1600.00	8000
		Improvement of existing tanks (MI sub division)	2	320	100	100	100	100	100	500
		Land reclamation (CADA)	1405		140.60	140.60	140.60	140.60	140.60	703
		Command area development: strengthening of VC Canal distribution network (CNL-KRS)	200 KM	10520	4000.00	4000.00	4000.00	4000.00	4000.00	20000

		Remodelling of distributaries under H.L.B.C	30Km	9500	400.00	400.00	400.00	400.00	400.00	2000
		Renovation of existing water bodies / MI tank (H L B C)	24	520	600.00	600.00	600.00	600.00	600.00	3000
		RR fishery ponds / cattle ponds (Fishery Dept)	107	-	43.20	43.20	43.20	43.20	43.20	216
MOA&F WDAC & FW	PDM C (MI)	NON DPAP DRIP (Agri Dept.)	0.305*0.6	9000	2131	2131	2131	2131	2131	10655
		Non DPAP drip (Horti Dept.)	-	7373	617.60	617.60	617.60	617.60	617.60	3088
		NON-DPAP drip (Seri dept.)	296	2042	358.60	358.60	358.60	358.60	358.60	1793
		NON DPAP sprinkler (Agri Dept.)	11.179 mm	4250	172.60	172.60	172.60	172.60	172.60	863
		Non DPAP – dripresearch on sub surface drip irrigation in sugarcane & maize (ZARS/ KVK)	0	-	20	20	20	20	20	100
		Non DPAP – drip research on agronomic management practices	0	-	20	20	20	20	20	100

		(ZARS/KVK)								
		Demonstration on subsurface irrigation in sugarcane (ZARS/KVK)	0	350	70	70	70	70	70	350
		demonstration on reclamation of problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50
		Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	100
		Hobli level training on water use efficiency (Agri Dept.)	2	-	2.60	2.60	2.60	2.60	2.60	13
		Exposer visits (Agri Dept.)	-	-	5	5	5	5	5	25
		Publications (Agri Dept.)	-	-	1	1	1	1	1	5

MOA&F W DAC&F W	PMK SY Water shed		824	1650	69.20	69.20	69.20	69.20	69.20	346
		Farm pond	25	238	25	25	25	25	25	125
		Check Dams	43	710	43	43	43	43	43	215
		Nallah Bunds								

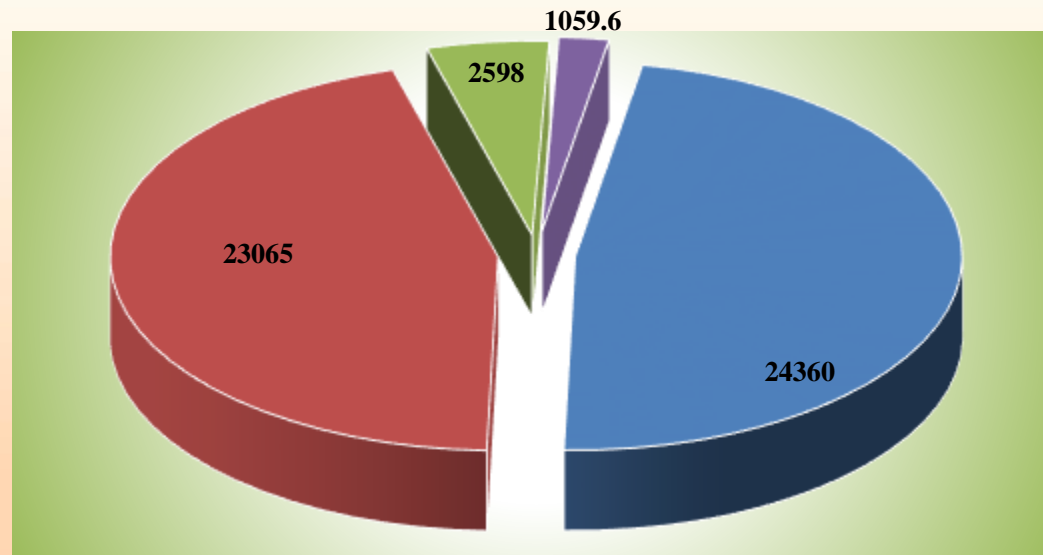
	Gokatte	10	-	10	10	10	10	10	50
	Kalyani	3	-	3	3	3	3	3	15
	Recharging pits	18	-	1.80	1.80	1.80	1.80	1.80	9
	Trench cum bund	1150	-	13.80	13.80	13.80	13.80	13.80	69
Renovated WHS									
	Gokatte	6	-	4.80	4.80	4.80	4.80	4.80	24

		Newly created								
RD- MORD	Conve rgenc e with MGN REG A	Ground water recharge and other storage structures (PRED)	875	-	122.60	122.60	122.60	122.60	122.60	613
		Farm ponds (Agri Dept)	10	20	0.80	0.80	0.80	0.80	0.80	4
		Check dams (Agri Dept)	10	95	10	10	10	10	10	50
		Gokatte (Agri Dept)	13	-	13	13	13	13	13	65
		Kalyani (Agri Dept)	10	-	10	10	10	10	10	50
		Recharge pits (Agri Dept)	50	-	5	5	5	5	5	25
		Land leveling/bunding (Agri Dept)		50	2.60	2.60	2.60	2.60	2.60	13

Renovation of Water bodies								
Renovation of waterbodies including desilting	75	865.60	460.92	460.92	460.92	460.92	460.92	2305
Check dams	3	29	3	3	3	3	3	15
Gokatte	13	-	13	13	13	13	13	65
Kalyani	5	-	5	5	5	5	5	25
TOTAL		51082.6	12128.72	12128.72	12128.72	12128.72	12128.72	60643.6

Fig 5.1: Irrigation Potential proposed to be Created in Mandya taluk

Area in Ha.



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

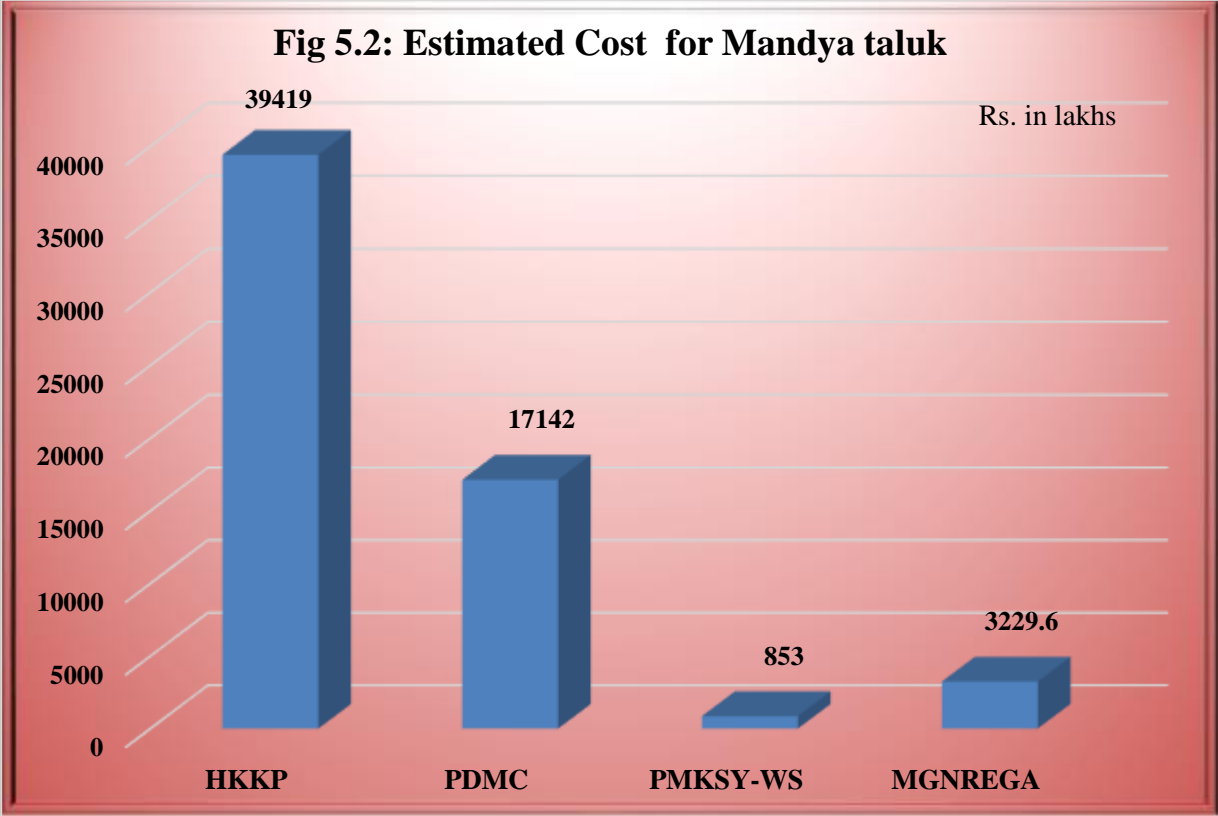


Table 5.2 STRATEGIC ACTION PLAN FOR MADDUR TALUK

Concerned Ministry / Dept.	Component	Activity	Total number /capacity (cum)	Command Area/ Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)					
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total
	AIBP				0	0	0	0	0	0
MoWR	Har Khet ko pani	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	25	600	500.0	500.0	500.0	500.0	500.0	2500
		Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNNL-KRS)	500 KM	-	1600.0	1600.0	1600.0	1600.0	1600.0	8000
		Command area development: strengthening of VC Canal distribution network (CNNL-KRS)	530 KM	25194	4600.0	4600.0	4600.0	4600.0	4600.0	23000
		Diversion of water from	11 Nos./60	-	3600.0	3600.0	3600.0	3600.0	3600.0	18000

		source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	Tanks							
		Improvement of LIS and pickups (MI Sub division)	9	-	275.0	275.0	275.0	275.0	275.0	1375
		Barrage construction (MI Sub division)	1	1868	100.0	100.0	100.0	100.0	100.0	500
		Tank development (MI Sub division)	10	500	312.0	312.0	312.0	312.0	312.0	1560
		Land reclamation (CADA)	1448		144.8	144.8	144.8	144.8	144.8	724
		RR fishery ponds / cattle ponds (Fishery dept.)	172		57.6	57.6	57.6	57.6	57.6	288
MOA&FWDAC &		Promoting efficient water conveyance and	2	3000	1500.0	1500.0	1500.0	1500.0	1500.0	7500

FW PDMC (MI)	precision water application devices Drip/ Sprinkler (Sugarcane) (CNNL-KRS)								
	Improved/ innovative distribution system like pipe and box outlet system with controlled outlet for pickup canal (CNNL-KRS)	100 Kms		1000.0	1000.0	1000.0	1000.0	1000.0	5000
	NON DPAP DRIP (Agri dept.)		10000	2367.8	2367.8	2367.8	2367.8	2367.8	11839
	Non DPAP drip (Horti dept.)	-	8284	448.80	448.80	448.80	448.80	448.80	2244
	NON-DPAP drip (Seri Dept.)	453	5548	974.60	974.60	974.60	974.60	974.60	4873
	NON DPAP sprinkler (Agri Dept.)	9.73	3700	150.40	150.40	150.40	150.40	150.40	752

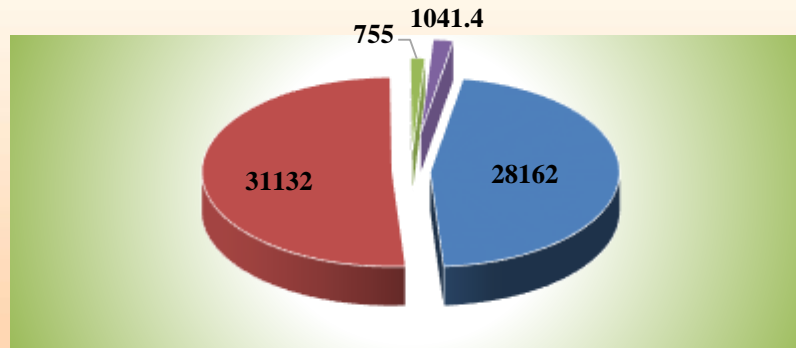
	Micro irrigation (CADA)	200	200	200	200	200	200	200	1000
	Demonstration on subsurface irrigation in sugarcane (ZARS/ KVK)	0	350	70	70	70	70	70	350
	demonstration on reclamation of problematic soils (ZARS/ KVK)	0	50	10	10	10	10	10	50
	Ttraining programme on micro irrigation (ZARS/ KVK)	0	-	20	20	20	20	20	100
	Hobli level training on water use efficiency (Agri Dept.)	2	-	2	2	2	2	2	10
	Exposer visits (Agri Dept.)	-	-	5	5	5	5	5	25
	Publications (Agri Dept.)	-	-	1	1	1	1	1	5

MOA&FW DAC&FW	PMKSY Watershed	Farm pond (Agri Dept)	200	400	24	24	24	24	24	120
		Check dams (CNNL-KRS)	2		400.0	400.0	400.0	400.0	400.0	2000
		Check Dams (Agri Dept)	20	190	20	20	20	20	20	100
		Nallah Bunds (Agri Dept)	43	165	10	10	10	10	10	50
		Gokatte (Agri Dept)	40	-	40	40	40	40	40	200
		Kalyani (Agri Dept)	10	-	10	10	10	10	10	50
		Recharging pits (Agri Dept)	200		24	24	24	24	24	120
DORD- MORD	Converg ence of MGNRE GA	Newly created								
		Ground water recharge and other storage structures (PRED)	850	-	119	119	119	119	119	595
		Check dams	10	48	10	10	10	10	10	50
		Gokatte	10	-	20	20	20	20	20	100
		Rechargepits	100	-	15	15	15	15	15	75

	Convergence of MGNRE GA	Renovation of water bodies							
		Renovation of water bodies including desilting (PRED)	81	993.44	1072.14	1072.14	1072.14	1072.14	1072.14
	Gokatte	20		12	12	12	12	12	60
TOTAL			61090.44	19715.14	19715.14	19715.14	19715.14	19715.14	98575.7

Fig 5.3: Irrigation Potential proposed to be Created in Maddur taluk

Area in



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

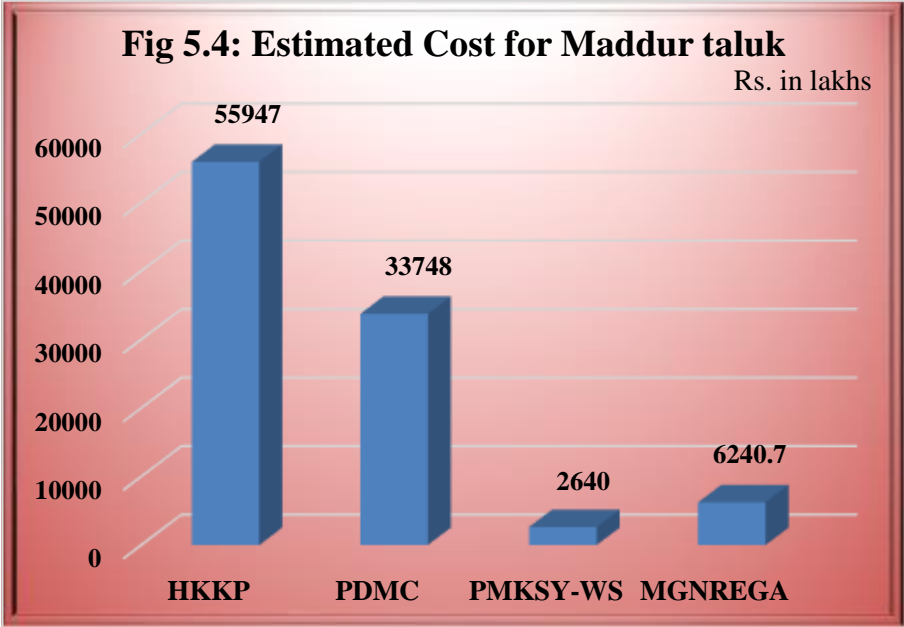


Table 5.3 STRATEGIC ACTION PLAN FOR MALAVALLI TALUK

Concerned Ministry / Dept.	Component	Activity	Total number /capacity (cum)	Command Area/ Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)						Table No in district plan	
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total		
	AIBP			0	0	0	0	0	0	0		
MoWR	Har Khet ko pani	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	43	600	600.0	600.0	600.0	600.0	600.0	600.0	3000	
		Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNNL-KRS)	200 KM	-	800.0	800.0	800.0	800.0	800.0	800.0	800.0	4000
		Command area development: strengthening of VC Canal	200 KMs	24120	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	3000.0	15000

		distribution network (CNNL-KRS)								
		Diversion of water from source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	60 Nos	-	300.0	300.0	300.0	300.0	300.0	1500
		Improvement of LIS (MI Sub division)	10	3195	360.0	360.0	360.0	360.0	360.0	1800
		Improvement to tanks, pickups, feeder nala & canal (MI Sub division)	9	-	320.0	320.0	320.0	320.0	320.0	1600
		Land reclamation (CADA)	-	-	89	89	89	89	89	445
		RR fishery ponds / cattle ponds	105	-	44.80	44.80	44.80	44.80	44.80	224

Table 5.9

		(Fishery Dept.)									
MOA&FWDAC & FW PDMC (MI)		Promoting efficient water conveyance and precision water application devices Drip/ Sprinkler under HBC & NBC (CNL-KRS)	3 Nos	10000	6000.0	6000.0	6000.0	6000.0	6000.0	30000	
		Improved/ innovative distribution system like pipe and box outlet system with controlled outlet for pickup canal (CNL-KRS)	150 Kms	1023	1000.0	1000.0	1000.0	1000.0	1000.0	5000	
		NON DPAP DRIP (Agri Dept.)	0.085*0.6	2500	592	592	592	592	592	2960	
		Non DPAP drip (Horti Dept.)	-	9796	817.4	817.4	817.4	817.4	817.4	4087	Table 5.10
		NON-DPAP drip (Seri Dept.)	648	5141	903.2	903.2	903.2	903.2	903.2	4516	

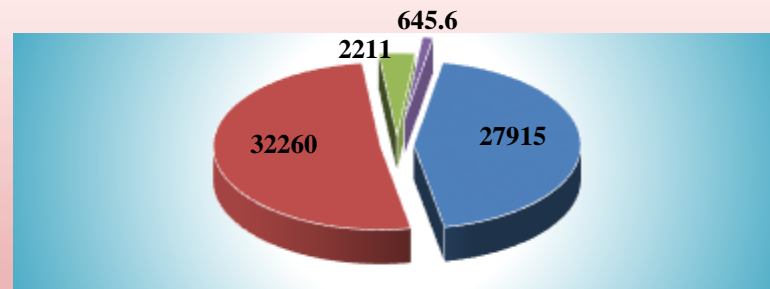
NON DPAP sprinkler (Agri Dept.)	9.7 mm	3700	150.2	150.2	150.2	150.2	150.2	150.2	751	
Demonstration on subsurface irrigation in sugarcane (ZARS/KVK)	0	50	10	10	10	10	10	10	50	
demonstration on reclamation of problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	10	50	
Training programme on micro irrigation (ZARS/KVK)	0	-	10	10	10	10	10	10	50	
Hobli level training on water use efficiency (Agri Dept.)	2	-	2	2	2	2	2	2	10	Table 5.10

		Exposer visits (Agri Dept.)	-	-	5	5	5	5	5	25		
		Publications (Agri Dept.)	-	-	1	1	1	1	1	5		
MOA&F W DAC&F W	PMKS Y Waters hed	Farm pond (Agri Dept.)	525	1050	44	44	44	44	44	220		
		Check Dams (CNL-KRS)	1 No.	-							1000	
		Check Dams (Agri Dept.)	44	418	44	44	44	44	44	44	220	
		Nallah Bunds (Agri Dept.)	45	743	45	45	45	45	45	45	225	
		Gokatte (Agri Dept.)	14	-	14	14	14	14	14	14	70	
		Percolation tank (Agri Dept.)	2	-	4	4	4	4	4	4	20	
		Renovated WHS										
		Gokatte (Agri Dept.)	8	-	6.4	6.4	6.4	6.4	6.4	32	Table 5.11	
DORD- MORD	Conver gence with MGNR EGA	Newly created										
		Ground water recharge and other storage structures (PRED)	900	-	126	126	126	126	126	126	630	

Farm ponds (Agri Dept.)	10	20	0.80	0.80	0.80	0.80	0.80	4	
Check dams (Agri Dept.)	10	95	10	10	10	10	10	50	
Gokatte (Agri Dept.)	13	-	13	13	13	13	13	65	
Kalyani (Agri Dept.)	10	-	10	10	10	10	10	50	
Recharge pit (Agri Dept.)	50	-	5	5	5	5	5	25	
Renovation of water bodies									
Check dams (Agri Drept.)	3	29	3	3	3	3	3	15	Table 5.12
Gokatte (Agri Drept.)	13	-	13	13	13	13	13	65	
Kalyani	5	-	5	5	5	5	5	25	
(Agri Drept.)	27	501.56	286	286	286	285	285	1428	
TOTAL		63031.56	15843.40	15843.40	15843.40	15843.40	15843.40	79217	

Fig 5.5: Irrigation Potential proposed to be Created in Malavalli taluk

Area in



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

Fig 5.6: Estimated Cost for Malavalli taluk

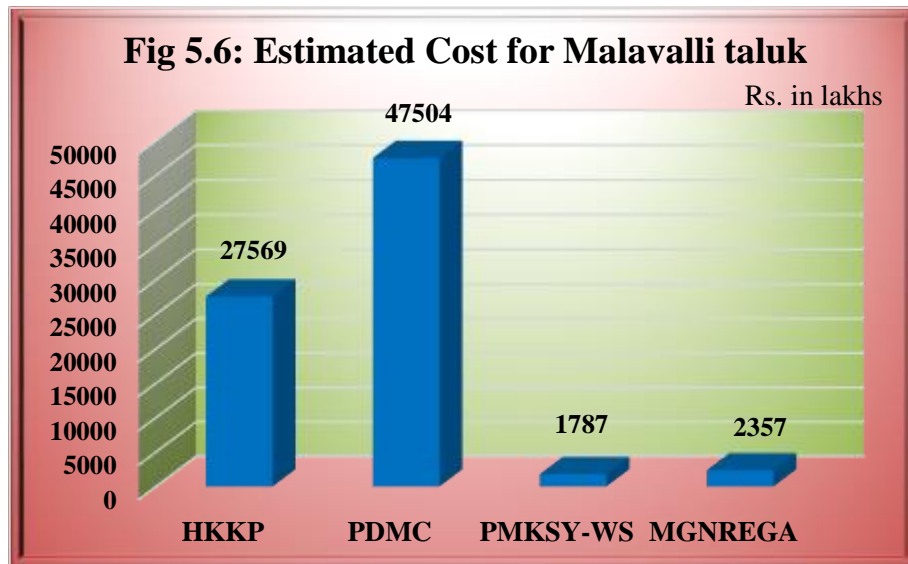


Table 5.4 STRATEGIC ACTION PLAN FOR S.R.PATNA TALUK

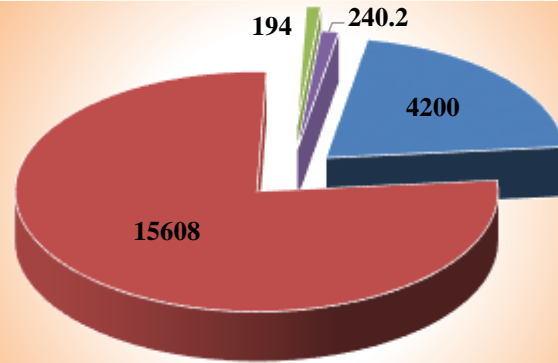
Concer ned Minist ry / Dept.	Compon ent	Activity	Total number /capacity (cum)	Command Area/ Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)						Table No in district plan	
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total		
	AIBP		0	0	0	0	0	0	0	0	0	
MoWR	Har Khet ko pani	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	8	200	200.0	200.0	200.0	200.0	200.0	1000		
		Command area development: strengthening of Aneikut Canal distribution network (CNNL-KRS)	300 Kms	4000	5200.0	5200.0	5200.0	5200.0	5200.0	5200.0	26000	
		Seepage drain (CADA)	-	-	5	5	5	5	5	5	25	
		Land reclamation (CADA)	1463	-	146.4	146.4	146.4	146.4	146.4	146.4	732	Table 5.9
		RR fishery ponds / cattle ponds (Fishery dept.)	62	-	213.60	213.60	213.60	213.60	213.60	213.60	1068	
MOA&FWDAC & FW PDMC (MI)		Improved/ innovative distribution system like pipe and box outlet system with controlled outlet for pickup canal (CNNL-KRS)	180 Kms	3500	2100.0	2100.0	2100.0	2100.0	2100.0	10500		

		NON DPAP DRIP (Agri Dept.)	0.102*0.6	3000	710.4	710.4	710.4	710.4	710.4	3552	Table 5.10
		Non DPAP drip (Horti Dept.)	-	5749	386.4	386.4	386.4	386.4	386.4	1932	
		NON-DPAP drip (Seri Dept.)	78	1009	177.2	177.2	177.2	177.2	177.2	886	
		NON DPAP sprinkler (Agri Dept.)	5.261	2000	81.2	81.2	81.2	81.2	81.2	406	
		Demonstration on subsurface irrigation in sugarcane (ZARS/KVK)	300	300	60	60	60	60	60	300	
		demonstration on reclamation of problematic soils (ZARS/KVK)	50	50	10	10	10	10	10	50	
		Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	100	
		Hobli level training on water use efficiency (Agri Dept.)	2	-	2	2	2	2	2	10	
		Exposer visits (Agri Dept.)	-	-	5	5	5	5	5	25	
		Publications (Agri Dept.)	-	-	1	1	1	1	1	5	
MOA& FW	PMKSY Watershe	Farm pond (Agri Dept.)	50	100	4.22	4.22	4.22	4.22	4.22	21.1	

DAC& FW	d	Check Dams (Agri Dept.)	3	28	3	3	3	3	3	15		
		Nallah Bunds (Agri Dept.)	4	66	4	4	4	4	4	4	20	
		Gokatte (Agri Dept.)	10	-	10	10	10	10	10	10	50	
		Kalyani (Agri Dept.)	3	-	3	3	3	3	3	3	15	
DORD- MORD	Converge nce with MGNRE GA	Newly created										
		Ground water recharge and other storage structures (PRED)	300	-	42	42	42	42	42	42	210	
		Farm ponds (Agri Dept.)	5	15	0.40	0.40	0.40	0.40	0.40	0.40	2	
		Nala bund (Agri Dept.)	1	16	1	1	1	1	1	1	5	
		Check dams (Agri Dept.)	2	19	2	2	2	2	2	10		
		Gokatte (Agri Dept.)	5	-	5	5	5	5	5	25		
		Kalyani (Agri Dept.)	1	-	1	1	1	1	1	5		
		Renovation of water bodies										
		Renovation of water bodies including desilting (PRED)	45	190.19	204.74	204.74	204.74	204.74	204.74	1023.7		
Total				20242.19	9598.56	9598.56	9598.56	9598.56	9598.56	47992.8		

Fig 5.7: Irrigation Potential proposed to be Created in Srirangapatna taluk

Area



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

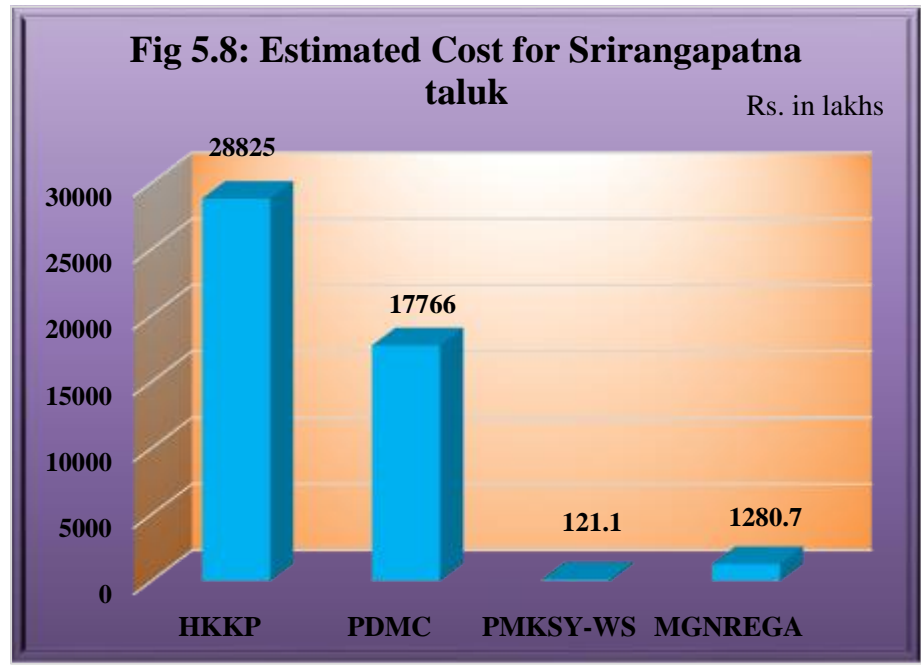


Table 5.5 STRATEGIC ACTION PLAN FOR PANADAVAPURA TALUK

Concer ned Ministr y / Dept.	Compo nent	Activity	Total number /capacity (cum)	Comman d Area/ Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)						Table No in district plan
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total	
	AIBP				0			0		0	
MoWR	Har Khet ko pani	Improvement of existing tanks, pickups, feeder nala (MI Sub Division)	5	431	260	260	260	260	260	1300	
		Repair, Restoration & Renovation of water bodies (CNNL-KRS)	9 Nos	350	300.0	300.0	300.0	300.0	300.0	1500	
		Command area development: strengthening of VC Canal distribution network (CNNL-KRS)	45 Kms	5340	4800.0	4800.0	4800.0	4800.0	4800.0	24000	
		Diversion of water from source of different location where it is plenty	1 Nos / 22 Tanks	-	1000.0	1000.0	1000.0	1000.0	1000.0	5000	

		nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)									
		New LIS to feed tanks (MI Sub Division)	2	-	280	280	280	280	280	1400	
		Land reclamation	711	-	71.2	71.2	71.2	71.2	71.2	356	Table 5.9
		Remodelling of distributaries under H.L.B.C	83Km	18037	360	360	360	360	360	1800	
		Renovation of existing water bodies / MI tank (Hemavathy)	72	1892	300	300	300	300	300	1500	
		RR fishery ponds / cattle ponds (Fishery Dept.)	100	-	13.20	13.20	13.20	13.20	13.20	66	
	PDMC	Improved/ innovative distribution system like pipe and box outlet system with controlled outlet for pickup canal (CNNL-KRS)	50 Kms	180	500.0	500.0	500.0	500.0	500.0	2500	
MOA&FWDAC & FW		NON DPAP DRIP (Agri Dept.)	0.271*0.6	8000	1894.2	1894.2	1894.2	1894.2	1894.2	9471	Table 5.10

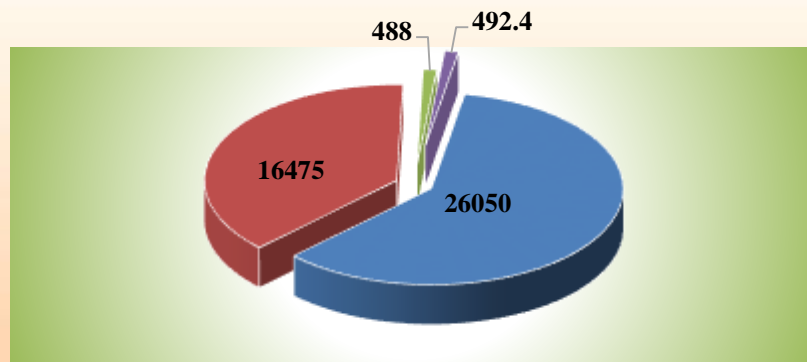
PDMC (MI)	Non DPAP drip (Horti Dept.)	-	3947	309.4	309.4	309.4	309.4	309.4	1547	Table 5.10
	NON-DPAP drip (Seri Dept.)	56	298	52.4	52.4	52.4	52.4	52.4	262	
	NON DPAP sprinkler (Agri Drept.)	9.996 mm	3800	154.4	154.4	154.4	154.4	154.4	772	
	Demonstration on subsurface irrigation in sugarcane (ZARS/KVK)	0	200	40	40	40	40	40	200	
	Demonstration on reclamation of problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50	
	Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	100	
	Hobli level training on water use efficiency (Agri Drept.)	2	-	2	2	2	1	1	8	
	Exposer visits (Agri Drept.)	-	-	5	5	5	5	5	25	
	Publications (Agri Drept.)	-	-	1	1	1	1	1	5	

MOA& FW DAC&F W	PMKS Y Watershed	Farm pond (Agri Dept.)	140	280	11.8	11.8	11.8	11.8	11.8	59		
		Check Dams (Agri Dept.)	15	142	15	15	15	15	15	15	75	
		Nala Bunds (Agri Dept.)	4	66	4	4	4	4	4	4	20	
		Gokatte (Agri Dept.)	12	-	12	12	12	12	12	12	60	
		Trench Cum Bund (Agri Dept.)	115	-	38.4	38.4	38.4	38.4	38.4	38.4	192	
DORD- MORD	Convergence with MGNR EGA	Newly created										
		Ground water recharge and other storage structures (PRED)	450	-	63	63	63	63	63	63	315	
		Trench cum bund (Agri Dept.)	145	-	4	4	4	3	3	3	18	
		Farm ponds (Agri Dept.)	18	90	2	2	2	1	1	1	8	
		Check dams (Agri Dept.)	6	57	6	6	6	6	6	6	30	
		Gokatte (Agri Dept.)	6	-	6	6	6	6	6	6	30	
		Nala bund (Agri Dept.)	2	33	2	2	2	2	2	2	10	
		Recharge pits (Agri Dept.)	80	-	8	8	8	8	8	8	40	

		Renovation of water bodies								
	Renovation Of Waterbodies including desilting (PRED)	82	312.36	377.80	377.80	377.80	377.80	377.80	1889	
Total			43505.36	10921.6	10921.6	10921.6	10921.6	10921.6	54608	

Fig 5.9: Irrigation Potential proposed to be Created in Pandavapura taluk

Area in



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

Fig 5.10: Estimated Cost for Pandavapura taluk

Rs. in lakhs

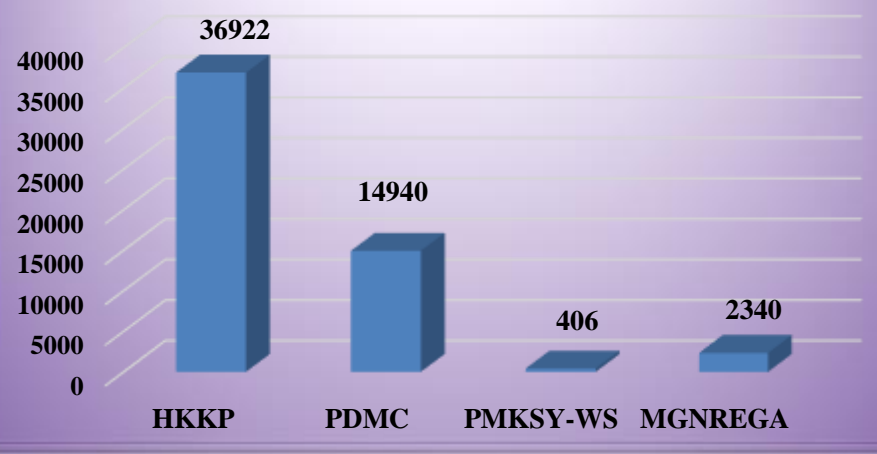


Table 5.6 STRATEGIC ACTION PLAN FOR K.R.PET TALUK

Concerned Ministry / Dept.	Component	Activity	Total number /capacity (cum)	Command Area/ Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)						Table No in district plan
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total	
	AIBP		0		0	0			0	0	
MoWR	Har Khet ko pani	Improvement of LIS (MI Sub Division)	8	2517	310	310	310	310	310	1550	Table 5.9
		New LIS to feed tanks (MI Sub Division)	4	-	500	500	500	500	500	2500	
		Barrage construction (MI Sub Division)	3	50	300	300	300	300	300	1500	
		MI tank development (MI Sub Division)	8	-	256	256	256	256	256	1280	
		Land reclamation (CADA)	690	-	69	69	69	69	69	345	
		Remodelling of distributaries under H.L.B.C	204 Km	21586	1700	1700	1700	1700	1700	8500	
		Renovation of existing water bodies / MI tank (Hemavathy)	95	1730	300	300	300	300	300	1500	

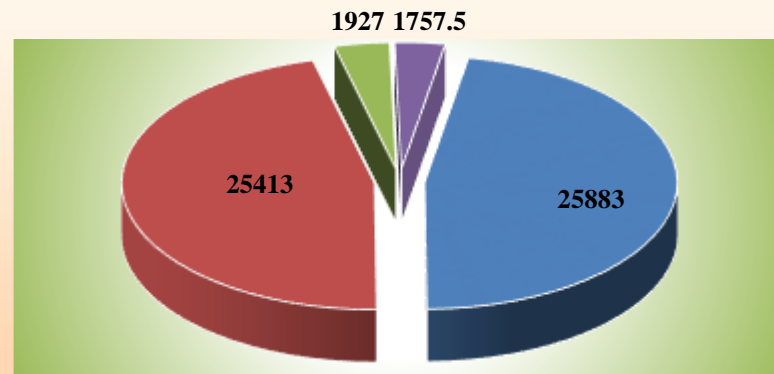
		RR fishery ponds / cattle ponds (Fishery Dept.)	158	-	32	32	32	32	32	32	160	
MOA&FWDAC & FW PDMC (MI)		NON DPAP DRIP (Agri Dept.)	0.095*0.6	2800	663	663	663	663	663	663	3315	Table 5.10
		Non DPAP drip (Horti Dept.)	-	17279	1192	1192	1192	1192	1192	1192	5960	
		NON-DPAP drip (Seri Dept.)	112	234	41.20	41.20	41.20	41.20	41.20	41.20	206	
		NON DPAP sprinkler (Agri Dept.)	11.837 mm	4500	182.80	182.80	182.80	182.80	182.80	182.80	914	
MOA&FWDAC & FW PDMC (MI)		Micro irrigation (CADA)	200	200	200	200	200	200	200	200	1000	
		Demonstration on subsurface irrigation in sugarcane (ZARS /KVK)	0	350	70	70	70	70	70	70	350	Table 5.10
		Demonstration on reclamation of problematic soils (ZARS /KVK)	0	50	10	10	10	10	10	10	50	
		Training programme on micro irrigation (ZARS /KVK)	0	-	20	20	20	20	20	20	100	
		Hobli level training on water use efficiency (Agri Dept.)	2	-	3	3	3	3	3	3	15	

		Exposer visits (Agri Dept.)	-	-	5	5	5	5	5	25	
		Publications (Agri Dept.)	-	-	1	1	1	1	1	5	
DORD- MORD	PMKSY- WS										Table 5.11
		Farm pond (Agri Dept.)	600	1200	50.40	50.40	50.40	50.40	50.40	252	
		Check Dams (Agri Dept.)	50	475	50	50	50	50	50	250	
		Nallah Bunds (Agri Dept.)	5	83	5	5	5	5	5	25	
		Gokatte (Agri Dept.)	15	-	15	15	15	15	15	75	
		Trench cum bund (Agri Dept.)	100	-	2	1	1	1	1	6	
		Construction of pickups (CADA)	13	169	33.80	33.80	33.80	33.80	33.80	169	
DORD- MORD	Converge nce with MGNRE GA	Newly created									
		Ground water recharge and other storage structures (PRED)	800	-	112	112	112	112	112	112	560
		Trench cum bund (Agri Dept.)	250	-	6	6	6	6	6	6	30
		Check dams (Agri Dept.)	10	95	10	10	10	10	10	10	50
		Recharge pits (Agri Dept.)	310	-	31	31	31	31	31	31	155

		Renovation of water bodies								
	Renovation Of water bodies including desilting (PRED)	169	1343	1436.6	1436.6	1436.6	1436.6	1436.6	7183	
	Check dams (Agri Dept.)	25	237	25	25	25	25	25	125	Table 5.12
	Nala Bund (Agri Dept.)	5	82.5	5	5	5	5	5	25	
Total			54980.5	7636.0	7636.0	7636.0	7636.0	7636.0	38180	

Fig 5.11: Irrigation Potential proposed to be Created in K.R.Pet taluk

Area in



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

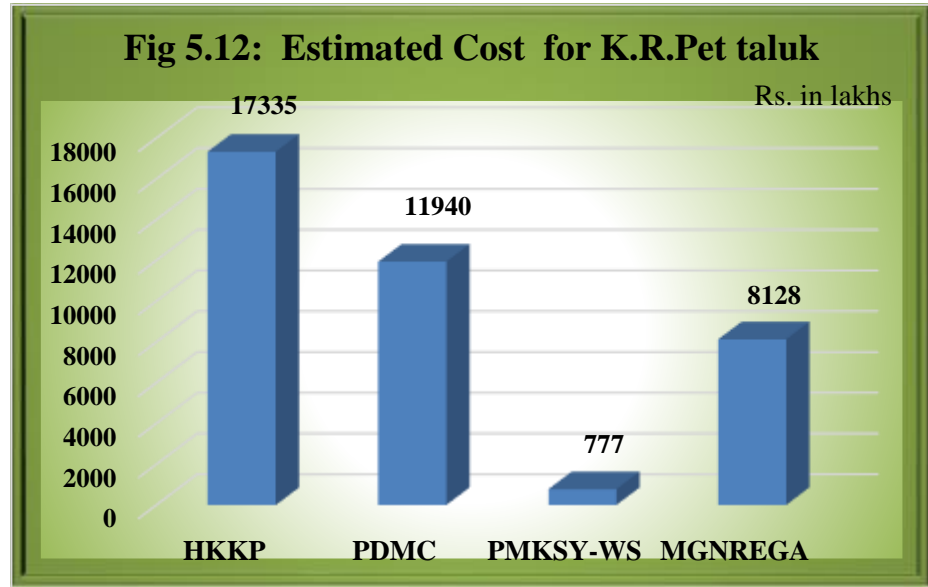


Table 5.7 STRATEGIC ACTION PLAN FOR NAGAMANGALA TALUK

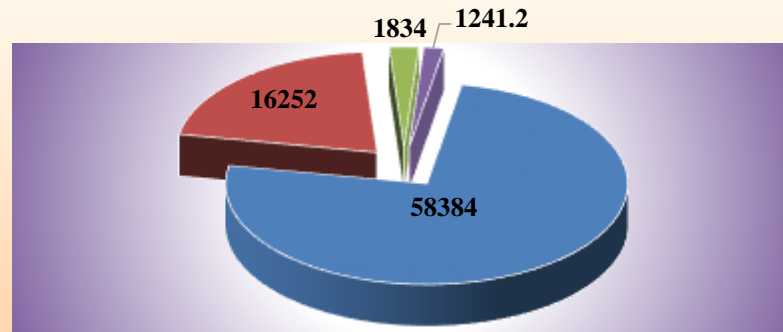
Concer ned Ministr y/ Dept.	Compon ent	Activity	Total number /capacity (cum)	Comm and Area/ Irrigati on Potenti al (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)						Table No in district plan	
					I Yr	II Yr	III Yr	IV Yr	V Yr	Total		
	AIBP					0			0			
MoWR	Har Khet ko pani	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	6	150	200.0	200.0	200.0	200.0	200.0	1000		
		Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNNL-KRS)	100 Km		800.0	800.0	800.0	800.0	800.0	800.0	4000	
		Command area development: strengthening of VC Canal distribution network (CNNL-KRS)	50 Km	200	400.0	400.0	400.0	400.0	400.0	400.0	2000	
		Diversion of water from source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	1 No.		300.0	300.0	300.0	300.0	300.0	300.0	1500	

		Improvement of existing tanks, feeder nala & canal (MI Subdivision)	23	1540	1040	1040	1040	1040	1040	5200	
		Land reclamation (CADA)	217	-	21.6	21.6	21.6	21.6	21.6	108	Table 5.9
		Remodelling of distributaries under H.L.B.C	198Km	38499	1000.0	1000.0	1000.0	1000.0	1000.0	5000	
		Renovation of existing water bodies / MI tank (Hemavathy)	84	2954	2000.0	2000.0	2000.0	2000.0	2000.0	10000	
		Field irrigation channel (CADA)	-	15041	225.6	225.6	225.6	225.6	225.6	1128	
		RR fishery ponds / cattle ponds (Fishery Dept.)	187	-	54.40	54.40	54.40	54.40	54.40	272	
	PDMC	Secondary storage structure at tail end of canal system to store water when available in abundance- High level flood canal from KRS to Markonahalli	90 Kms		2000.0	2000.0	2000.0	2000.0	2000.0	10000	
MOA&FWDAC & FW PDMC (MI)		NON DPAP DRIP (Agri.Dept.)	0.003*0.6	100	23.8	23.8	23.8	23.8	23.8	119	Table 5.10
		Non DPAP drip (Horti Dept.)	-	13912	917.4	917.4	917.4	917.4	917.4	4587	
		NON-DPAP drip (Seri Dept.)	46	140	24.6	24.6	24.6	24.6	24.6	123	

		NON DPAP sprinkler (Agri Dept.)	5.261	2000	81.2	81.2	81.2	81.2	81.2	406	Table 5.10
		Demonstration on subsurface irrigation in sugarcane (ZARS/KVK)	0	50	10	10	10	10	10	50	
		demonstration on reclamation of problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50	
		Training programme on micro irrigation (ZARS/KVK)	0	-	5	5	5	5	5	25	
		Hobli level training on water use efficiency (Agri Dept.)	2	-	2.6	2.6	2.6	2.6	2.6	13	
		Exposer visits (Agri Dept.)	-	-	5	5	5	5	5	25	
		Publications (Agri Dept.)	-	-	1	1	1	1	1	5	
MOA& FW DAC& FW	PMKSY Watershed										Table 5.11
		Farm pond (Agri Dept.)	450	900	37.8	37.8	37.8	37.8	37.8	189	
		Check Dams (Agri Dept.)	55	522	55	55	55	55	55	275	
		Nallah Bunds (Agri Dept.)	25	412	25	25	25	25	25	125	
		Gokatte (Agri Dept.)	25	-	25	25	25	25	25	125	
		Kalyani (Agri Dept.)	20	-	20	20	20	20	20	100	
		Recharging pits (Agri Dept.)	35	-	3.4	3.4	3.4	3.4	3.4	17	

DORD-MORD	Convergence with MGNREGA	Newly created									
		Ground water recharge and other storage structures	900	-	126	126	126	126	126	630	
		Check dams (Agri Dept.)	9	86	9	9	9	9	9	45	Table 5.12
		Gokatte (Agri Dept.)	20	-	20	20	20	20	20	100	
		Recharge pits (Agri Dept.)	50	-	5	5	5	5	5	25	
		Renovation of water bodies									
		Renovation of water bodies including desilting	104	800.19	665.8	665.8	665.8	665.8	665.8	3329	
		Check dams (Agri Dept.)	20	190	20	20	20	20	20	100	Table 5.12
		Nala bund (Agri Dept.)	10	165	10	10	10	10	10	50	
		Gokatte (Agri Dept.)	10	-	10	10	10	10	10	50	
		Recharge pit (Agri Dept.)	30	-	3	3	3	3	3	15	
Total			77711.19	10157.2	10157.2	10157.2	10157.2	10157.2	50786		

Fig 5.13: Irrigation Potential proposed to be Created in Nagamangala taluk Area in



■ HKKP ■ PDMC ■ PMKSY-WS ■ MGNREGA

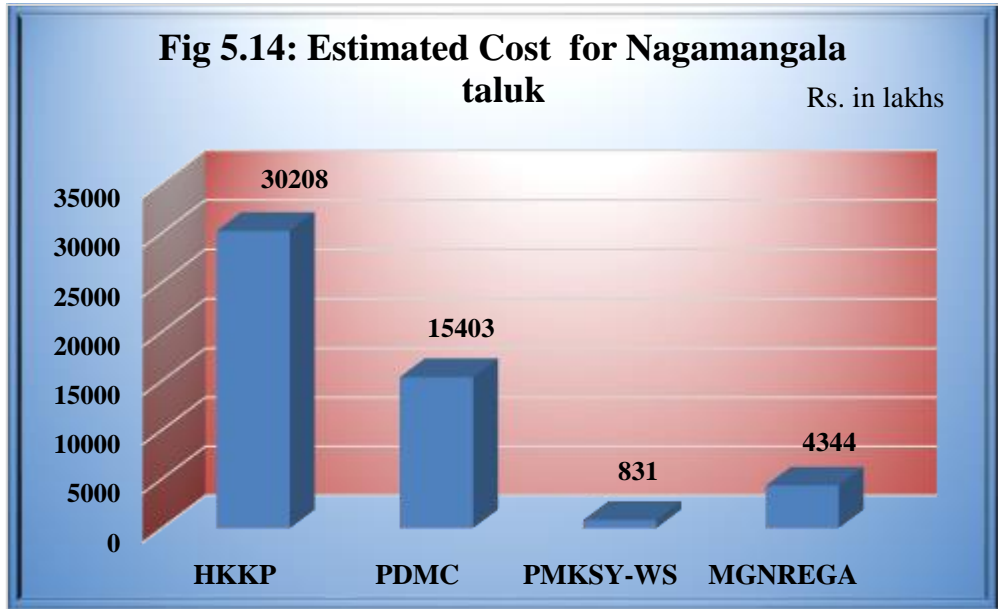


TABLE 5.8 DISTRICT IRRIGATION PLAN - AIBP

SL. No	Name of the Taluk	Component	Activity	Total Number/Capacity (cum)	Command Area/Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)					
						I Yr	II Yr	III Yr	IV Yr	V Yr	Total
1	Mandya	AIBP		-	-	0	0	0	0	0	0

TABLE 5.9 DISTRICT IRRIGATION PLAN - HAR KHET KO PANI

SL. No	Name of the Taluk	Component	Activity	Total Number/Capacity (cum)	Command Area/Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)					
						I Yr	II Yr	III Yr	IV Yr	V Yr	Total
1	Mandya	Har Khet Ko panni	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	40	3500	1000.0	1000.0	1000.0	1000.0	1000.0	5000
			Strengthening carrying capacity of traditional water ways (interlinking of tanks)(CNNL-KRS)	500 kms	-	1600.0	1600.0	1600.0	1600.0	1600.0	8000
			Improvement of existing tanks(MI sub division)	2	320	100.0	100.0	100.0	100.0	100.0	500

			Land reclamation (CADA)	1405		140.6	140.6	140.6	140.6	140.6	703
			Command area development: strengthening of VC Canal distribution network (CNL-KRS)	200 kms	10520	4000.0	4000.0	4000.0	4000.0	4000.0	20000
			Remodeling of distributaries under H.L.B.C	30Km	9500	400.0	400.0	400.0	400.0	400.0	2000
			Renovation of existing water bodies / MI tank (H L B C)	24	520	600.0	600.0	600.0	600.0	600.0	3000
			R R Fishery ponds/cattle ponds	107	-	43.2	43.2	43.2	43.2	43.2	216
2	Maddur	Har Khet Ko panni	Repair, Restoration & Renovation of water bodies (CNL-KRS)	25	600	500.0	500.0	500.0	500.0	500.0	2500
			Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNL-KRS)	500 kms	-	1600.0	1600.0	1600.0	1600.0	1600.0	8000
			Command area development: strengthening of	530 kms	25194	4600.0	4600.0	4600.0	4600.0	4600.0	23000

			VC Canal distribution network (CNNL-KRS)								
			Diversion of water from source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	11 No.s/ 60 tanks	-	3600.0	3600.0	3600.0	3600.0	3600.0	18000
			Improvement of LIS and pickups (MI Sub division)	9	-	275.0	275.0	275.0	275.0	275.0	1375
			Barrage construction (MI Sub division)	1	1868	100.0	100.0	100.0	100.0	100.0	500
			Tank development (MI Sub division)	10	500	312.0	312.0	312.0	312.0	312.0	1560
			Land reclamation (CADA)	1448		144.8	144.8	144.8	144.8	144.8	724
			RR Fishery ponds /cattle ponds	172	-	57.6	57.6	57.6	57.6	57.6	288
3	Malavalli	Har Khet Ko	Repair, Restoration & Renovation of water bodies	43	600	600.0	600.0	600.0	600.0	600.0	3000

		panni	(CNNL-KRS)								
			Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNNL-KRS)	200 kms	-	800.0	800.0	800.0	800.0	800.0	4000
			Command area development: strengthening of VC Canal distribution network (CNNL-KRS)	200 kms	24120	3000.0	3000.0	3000.0	3000.0	3000.0	15000
			Diversion of water from source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	60 Nos	-	300.0	300.0	300.0	300.0	300.0	1500
			Improvement of LIS (MI Sub division)	10	3195	360.0	360.0	360.0	360.0	360.0	1800
			Improvement to tanks, pickups, feeder nala & canal (MI Sub division)	9	-	320.0	320.0	320.0	320.0	320.0	1600
			Land reclamation (CADA)	-	-	89.0	89.0	89.0	89.0	89.0	445

			RR fishery ponds / cattle ponds (Fishery Dept.)	105	-	44.80	44.80	44.80	44.80	44.80	224
4	S.R.Patna	Har Khet Ko panni	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	8	200	200.0	200.0	200.0	200.0	200.0	1000
			Command area development: strengthening of Anekut Canal distribution network (CNNL-KRS)	300 kms	4000	5200.0	5200.0	5200.0	5200.0	5200.0	26000
			Seepage drain (CADA)	-	-	5.0	5.0	5.0	5.0	5.0	25
			Land reclamation (CADA)	1463	-	146.4	146.4	146.4	146.4	146.4	732
			RR fishery ponds / cattle ponds (Fishery dept.)	62	-	213.60	213.60	213.60	213.60	213.60	1068
5	Pandavapura	Har Khet Ko panni	Improvement of existing tanks, pickups, feeder nala (MI Sub Division)	5	431	260.0	260.0	260.0	260.0	260.0	1300
			Repair, Restoration & Renovation of water bodies (CNNL-KRS)	9 Nos	350	300.0	300.0	300.0	300.0	300.0	1500
			Command area development: strengthening of	45 kms	5340	4800.0	4800.0	4800.0	4800.0	4800.0	24000

			VC Canal distribution network (CNNL-KRS)								
			Diversion of water from source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	1 No / 22 tanks	-	1000.0	1000.0	1000.0	1000.0	1000.0	5000
			New LIS to feed tanks (MI Sub Division)	2	-	280.0	280.0	280.0	280.0	280.0	1400
			Land reclamation	711	-	71.2	71.2	71.2	71.2	71.2	356
		HKK P	Remodelling of distributaries under H.L.B.C	83Km	18037	360.0	360.0	360.0	360.0	360.0	1800
			Renovation of existing water bodies / MI tank (Hemavathy)	72	1892	300.0	300.0	300.0	300.0	300.0	1500
			RR fishery ponds / cattle ponds (Fishery Dept.)	100	-	13.20	13.20	13.20	13.20	13.20	66
6	K.R.Pet	Khet Ko panni	Improvement of LIS	8	2517	310	310	310	310	310	1550
			New LIS to feed tanks	4	-	500	500	500	500	500	2500
			Barrage	3	50	300	300	300	300	300	1500

			construction								
			MI Tank development	8	-	256	256	256	256	256	1280
			Land reclamation	690	-	69	69	69	69	69	345
			Remodeling of distributories under H L B C	204 kms	21586	1700	1700	1700	1700	1700	8500
			Renovation of existing water bodies / MI tank	95	1730	300	300	300	300	300	1500
			RR Fishery ponds / cattle ponds	158	-	32	32	32	32	32	160
7	Nagamangala	Khet Ko panni	Repair, Restoration & Renovation of water bodies (CNNL-KRS)	6	150	200.0	200.0	200.0	200.0	200.0	1000
			Strengthening carrying capacity of traditional water ways (interlinking of tanks) (CNNL-KRS)	100 kms	-	800.0	800.0	800.0	800.0	800.0	4000
			Command area development: strengthening of VC Canal distribution network (CNNL-KRS)	50 kms	200	400.0	400.0	400.0	400.0	400.0	2000

			Diversion of water from source of different location where it is plenty nearby water scarce area. Filling of tanks by lift schemes (CNNL-KRS)	1 No	-	300.0	300.0	300.0	300.0	300.0	1500
			Improvement of existing tanks, feder nala & canal (MI Subdivision)	23	1540	1040.0	1040.0	1040.0	1040.0	1040.0	5200
			Land reclamation (CADA)	217	-	21.6	21.6	21.6	21.6	21.6	108
			Remodelling of distributaries under H.L.B.C	198 KMS	38499	1000.0	1000.0	1000.0	1000.0	1000.0	5000
			Renovation of existing water bodies / MI tank (Hemavathy)	84	2954	2000.0	2000.0	2000.0	2000.0	2000.0	10000
			Field irrigation channel (CADA)	-	15041	225.6	225.6	225.6	225.6	225.6	1128
			RR fishery ponds / cattle ponds (Fishery Dept.)	187	-	54.4	54.4	54.4	54.4	54.4	272
TOTAL					194954	47245	47245	47245	47245	47245	236225

Table 5.10 DISTRICT IRRIGATION PLAN – PER DROP MORE CROP-MICRO IRRIGATION

SL. No	Name of the Taluk	Component	Activity	Total Number/Capacity (cum)	Command Area/Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)					
						I Yr	II Yr	III Yr	IV Yr	V Yr	Total
1	Mandya	PDMC	NON DPAP DRIP	0.305*0.6	9000	2131	2131	2131	2131	2131	10655
			NON DPAP Drip (Horti)	-	7373	617.6	617.6	617.6	617.6	617.6	3088
			NON DPAP Drip (Seri)	296	2042	358.6	358.6	358.6	358.6	358.6	1793
			Non DPAP Sprinkler	11.179m	4250	172.6	172.6	172.6	172.6	172.6	863
			NON DPAP Drip research on sub surface drip irrigation in sugarcane and maize	0	-	20	20	20	20	20	100
			NON DPAP-Drip research on agronomic management practices	0	-	20	20	20	20	20	100
			Demonstration on subsurface irrigation in sugarcane	0	350	70	70	70	70	70	350

			Demonstration on reclamation of problematic soils	0	50	10	10	10	10	10	50
			Training programme on micro irrigation	0	-	20	20	20	20	20	100
			Hobli level training on water user efficiency	2	-	2.6	2.6	2.6	2.6	2.6	13
			Exposer visit	-	-	5	5	5	5	5	25
			Publications	-	-	1	1	1	1	1	5
2	Maddur	PDMC	Promoting efficient water conveyance and precision water application devices Drip/ Sprinkler (Sugarcane) (CNL-KRS)	2	3000	1500.0	1500.0	1500.0	1500.0	1500.0	7500
			Improved/ innovative distribution system like pipe and box outlet system with controlled outlet for pickup canal (CNL-KRS)	100 kms	-	1000.0	1000.0	1000.0	1000.0	1000.0	5000
			NON DPAP DRIP (Agri)	-	10000	2367.8	2367.8	2367.8	2367.8	2367.8	11839
			NON DPAP Drip (Horti)	-	8284	448.8	448.8	448.8	448.8	448.8	2244
			NON DPAP Drip (Seri)	453	5548	974.6	974.6	974.6	974.6	974.6	4873
			Non DPAP Sprinkler	9.73	3700	150.4	150.4	150.4	150.4	150.4	752

			Micro irrigation (CADA)	200	200	200	200	200	200	200	200	1000
			Demonstration on subsurface irrigation in sugarcane (ZARS/KVK)	0	350	70	70	70	70	70	70	350
			Demonstration on reclamation of problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	10	50
			Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	20	100
			Hobli level training on water user efficiency (Agri)	2	-	2	2	2	2	2	2	10
			Exposer visit (Agri)	-	-	5	5	5	5	5	5	25
			Publications (Agri)	-	7	1	1	1	1	1	1	5
3	Malavalli	PDMC	Promoting efficient water conveyance and precision water application devices Drip/ Sprinkler under HBC & NBC (CNL-KRS)	3 Nos	10000	6000.0	6000.0	6000.0	6000.0	6000.0	6000.0	30000
			Improved/ innovative distribution system like pipe and box outlet system with controlled outlet for pickup canal	150 kms	1023	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	5000

			(CNL-KRS)								
			NON DPAP DRIP (Agri)	0.085*0.6	2500	592	592	592	592	592	2960
			NON DPAP Drip (Horti)	-	9796	817.4	817.4	817.4	817.4	817.4	4087
			NON DPAP Drip (Seri)	648	5141	903.2	903.2	903.2	903.2	903.2	4516
			Non DPAP Sprinkler	9.7mm	3700	150.2	150.2	150.2	150.2	150.2	751
			Demonstration on surface irrigation in sugarcane (ZARS/KVK)	0	50	10	10	10	10	10	50
			Demonstration on reclamation on problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50
			Training programme on micro irrigation (ZARS/KVK)	0	-	10	10	10	10	10	50
			Hobli level training on water use efficiency (Agri)	2	-	2	2	2	2	2	10
			Exposure visits (Agri)	-	-	5	5	5	5	5	25
			Publications (Agri)	-	-	1	1	1	1	1	5
4	S.R.Patna	PDMC	Improved/innovative distribution system like pipe and box outlet system with	180 kms	3500	2100.0	2100.0	2100.0	2100.0	2100.0	10500

			controlled outlet for pickup canal (CNNL-KRS)								
			NON DPAP DRIP (Agri)	0.102*0.6	3000	710.4	710.4	710.4	710.4	710.4	3552
			NON DPAP Drip (Horti)	-	5749	386.4	386.4	386.4	386.4	386.4	1932
			NON DPAP Drip (Seri)	78	1009	177.2	177.2	177.2	177.2	177.2	886
			Non DPAP Sprinkler (Agri)	5.261	2000	81.2	81.2	81.2	81.2	81.2	406
			Demonstration on surface irrigation in sugarcane (ZARS/KVK)	300	300	60	60	60	60	60	300
			Demonstration on reclamation on problematic soils (ZARS/KVK)	50	50	10	10	10	10	10	50
			Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	100
			Hobli level training on water use efficiency (Agri)	2	-	2	2	2	2	2	10
			Exposure visits (Agri)	-	-	5	5	5	5	5	25
			Publications (Agri)	-	-	1	1	1	1	1	5
5	Pandava pura	PDMC	Improved/ innovative distribution system like pipe and box outlet system with	50 kms	180	500.0	500.0	500.0	500.0	500.0	2500

			controlled outlet for pickup canal (CNNL-KRS)								
			NON DPAP DRIP (Agri)	0.271*0.6	8000	1894.2	1894.2	1894.2	1894.2	1894.2	9471
			NON DPAP Drip (Horti)	-	3947	309.4	309.4	309.4	309.4	309.4	1547
			NON DPAP Drip (Seri)	56	298	52.4	52.4	52.4	52.4	52.4	262
			Non DPAP Sprinkler	9.996m m	3800	154.4	154.4	154.4	154.4	154.4	772
			Demonstration on surface irrigation in sugarcane (ZARS/KVK)	0	200	40	40	40	40	40	200
			Demonstration on reclamation on problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50
			Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	100
			Hobli level training on water use efficiency (Agri)	2	-	1.6	1.6	1.6	1.6	1.6	8
			Exposure visits (Agri)	-	-	5	5	5	5	5	25
			Publications (Agri)	-	-	1	1	1	1	1	5
6	K.R.Pet	PDMC	NON DPAP DRIP (Agri)	0.095*0.6	2800	663	663	663	663	663	3315
			NON DPAP Drip (-	17279	1192.0	1192.0	1192.0	1192.0	1192.0	5960

			Horti)									
			NON DPAP Drip (Seri)	112	234	41.2	41.2	41.2	41.2	41.2	206	
			Non DPAP Sprinkler	11.837m m	4500	182.8	182.8	182.8	182.8	182.8	914	
			Micro irrigation	200	200	200	200	200	200	200	1000	
			Demonstration on surface irrigation in sugarcane (ZARS/KVK)	0	350	70	70	70	70	70	350	
			Demonstration on reclamation on problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50	
			Training programme on micro irrigation (ZARS/KVK)	0	-	20	20	20	20	20	100	
			Hobli level training on water use efficiency (Agri)	2	-	3	3	3	3	3	15	
			Exposure visits (Agri)	-	-	5	5	5	5	5	25	
			Publications(Agri)	-	-	1	1	1	1	1	5	
7	Nagama ngala	PDMC	Secondary storage structure at tail end of canal system to store water when available in abundance- High level flood canal from KRS to Markonahalli	90 kms	-		2000.0	2000.0	2000.0	2000.0	2000.0	10000

		NON DPAP DRIP (Agri)	0.003*0.6	100	23.8	23.8	23.8	23.8	23.8	119
		NON DPAP Drip (Horti)	-	13912	917.4	917.4	917.4	917.4	917.4	4587
		NON DPAP Drip (Seri)	46	140	24.6	24.6	24.6	24.6	24.6	123
		Non DPAP Sprinkler	5.261	2000	81.2	81.2	81.2	81.2	81.2	406
		Demonstration on surface irrigation in sugarcane (ZARS/KVK)	0	50	10	10	10	10	10	50
		Demonstration on reclamation on problematic soils (ZARS/KVK)	0	50	10	10	10	10	10	50
		Training programme on micro irrigation (ZARS/KVK)	0	-	5	5	5	5	5	25
		Hobli level training on water use efficiency (Agri)	2	-	2.6	2.6	2.6	2.6	2.6	13
		Exposure visits (Agri)	-	-	5	5	5	5	5	25
		Publications (Agri)	-	-	1	1	1	1	1	5
TOTAL				160205	31688.6	31688.6	31688.6	31688.6	31688.6	158443

Table 5.11 DISTRICT IRRIGATION PLAN- PMKSY WATER SHED

SL. No	Name of the Taluk	Component	Activity	Total Number/Capacity (cum)	Command Area/Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)							
						I Yr	II Yr	III Yr	IV Yr	V Yr	Total		
1	Mandya	PMKSY-Watershed	Farm Pond	824	1650	69.2	69.2	69.2	69.2	69.2	346		
			Check Dams	25	238	25	25	25	25	25	125		
			Nallah Bunds	43	710	43	43	43	43	43	215		
			Gokatte	10	-	10	10	10	10	10	50		
			Kalyani	3	-	3	3	3	3	3	15		
			Recharging pits	18	-	1.8	1.8	1.8	1.8	1.8	9		
			Trench cum bund	1150	-	13.8	13.8	13.8	13.8	13.8	69		
			Renovated WHS										
			Gokatte	6	-	4.8	4.8	4.8	4.8	4.8	24		
2	Maddur	PMKSY-Watershed	Farm Pond	200	400	24	24	24	24	24	120		
			Check dams (CNNL-KRS)	2		400.0	400.0	400.0	400.0	400.0	2000		
			Check Dams	20	190	20	20	20	20	20	100		
			Nallah Bunds	43	165	10	10	10	10	10	50		
			Gokatte	40	-	40	40	40	40	40	200		
			Kalyani	10	-	10	10	10	10	10	50		
			Recharging pits	200	-	24	24	24	24	24	120		

3	Malavalli	PMKSY- Watershed	Farm Pond	525	1050	44	44	44	44	44	220
			Check Dams (CNNL-KRS)	1 No.		200.0	200.0	200.0	200.0	200.0	1000
			Check Dams	44	418	44	44	44	44	44	220
			Nallah Bunds	45	743	45	45	45	45	45	225
			Gokatte	14	-	14	14	14	14	14	70
			Percolation tank	2	-	4	4	4	4	4	20
			Renovated WHS								
Gokatte	8	-	6.4	6.4	6.4	6.4	6.4	6.4	32		
4	S.R.Patna	PMKSY- Watershed	Farm Pond	50	100	4.22	4.22	4.22	4.22	4.22	21.1
			Check Dams	3	28	3	3	3	3	3	15
			Nallah Bunds	4	66	4	4	4	4	4	20
			Gokatte	10	-	10	10	10	10	10	50
			Kalyani	3	-	3	3	3	3	3	15
5	Pandavapuru	PMKSY- Watershed	Farm Pond	140	280	11.8	11.8	11.8	11.8	11.8	59
			Check Dams	15	142	15	15	15	15	15	75
			Nallah Bunds	4	66	4	4	4	4	4	20
			Gokatte	12	-	12	12	12	12	12	60
			Trench cum bund	115	-	38.4	38.4	38.4	38.4	38.4	192
6	K.R.Pet	PMKSY- Watershed	Farm Pond	600	1200	50.4	50.4	50.4	50.4	50.4	252
			Check Dams	50	475	50	50	50	50	50	250
			Nallah Bunds	5	83	5	5	5	5	5	25
			Gokatte	15	-	15	15	15	15	15	75

			Trench cum bund	100	-	1.20	1.20	1.20	1.20	1.20	6
			Construction of Pick ups	13	169	33.80	33.80	33.80	33.80	33.80	169
7	Nagaman gala	PMKSY-Watershed	Farm Pond	450	900	37.8	37.8	37.8	37.8	37.8	189
			Check Dams	55	522	55	55	55	55	55	275
			Nallah Bunds	25	412	25	25	25	25	25	125
			Gokatte	25	-	25	25	25	25	25	125
			Kalyani	20	-	20	20	20	20	20	100
			Recharging pits	35	-	3.4	3.4	3.4	3.4	3.4	17
TOTAL					10007	1483.02	1483.02	1483.02	1483.02	1483.02	7415.1

Table 5.12. DISTRICT IRRIGATION PLAN: CONVERGENCE WITH MGNREGA

SL. No	Name of the Taluk	Component	Activity	Total Number /Capacity (cum)	Command Area/Irrigation Potential (Ha)	Estimated cost/Year wise funds required (Rs. In Lakhs)					
						I Yr	II Yr	III Yr	IV Yr	V Yr	Total
1	Mandya	Convergence with MGNREGA	Ground Water Recharge and Other storage structures	875	-	122.60	122.60	122.60	122.60	122.60	613
			Farm Pond	10	20	0.80	0.80	0.80	0.80	0.80	4
			Check dams	10	95	10	10	10	10	10	50
			Gokatte	13	-	13	13	13	13	13	65
			Kalyani	10	-	10	10	10	10	10	50
			Recharge pits	50	-	5	5	5	5	5	25
			Land leveling /bunding		50	2.60	2.60	2.60	2.60	2.60	13
			Renovation of water bodies								
			Renovation of waterbodies including desilting	75	865.60	460.92	460.92	460.92	460.92	460.92	2304.6
			Check dams	3	29	3	3	3	3	3	15
			Gokatte	13	-	13	13	13	13	13	65
			Kalyani	5	-	5	5	5	5	5	25
2	Maddur	PMK SY-Water shed	Ground Water Recharge and Other storage structures	850	-	119	119	119	119	119	595
			Check dams	10	48	10	10	10	10	10	50

			Recharge pits	100	-	15	15	15	15	15	75
			Gokatte	10	-	20	20	20	20	20	100
			Renovation of water bodies								
			Renovation of waterbodies including desilting	81	993.44	1072.14	1072.14	1072.14	1072.14	1072.14	5360.7
			Gokatte	20	-	12	12	12	12	12	60
3	Malavalli	PMK SY- Water shed	Ground Water Recharge and Other storage structures	900	-	126	126	126	126	126	630
			Farm Pond	10	20	0.8	0.8	0.8	0.8	0.8	4
			Check dams	10	95	10	10	10	10	10	50
			Gokatte	13	-	13	13	13	13	13	65
			Kalyani	10	-	10	10	10	10	10	50
			Recharge pits	50	-	5	5	5	5	5	25
			Renovated WHS								
			Check dams	3	29	3	3	3	3	3	15
			Gokatte	13	-	13	13	13	13	13	65
			Kalyani	5	-	5	5	5	5	5	25
			Renovation of waterbodies including desilting	27	501.56	285.60	285.60	285.60	285.60	285.60	1428
4	S.R.Patna	PMK SY- Water shed	Ground Water Recharge and Other storage structures	300	-	42	42	42	42	42	210
			Farm Pond	5	15	0.40	0.40	0.40	0.40	0.40	2
			Nala bund	1	16	1	1	1	1	1	5

			Check dams	2	19	2	2	2	2	2	2	10
			Gokatte	5	-	5	5	5	5	5	5	25
			Kalyani	1	-	1	1	1	1	1	1	5
			Renovated Water bodies									
			Renovation of water bodies including desilting	45	190.19	204.74	204.74	204.74	204.74	204.74	204.74	1023.71
5	Pandavapura	PMK SY-Water shed	Ground Water Recharge and Other storage structures	450	-	63	63	63	63	63	63	315
			Trench cum bund	145	-	3.60	3.60	3.60	3.60	3.60	3.60	18
			Farm pond	18	90	1.60	1.60	1.60	1.60	1.60	1.60	8
			Check dams	6	57	6	6	6	6	6	6	30
			Gokatte	6	-	6	6	6	6	6	6	30
			Nala bund	2	33	25	2	2	2	2	2	10
			Recharge pits	80	-	8	8	8	8	8	8	40
			Renovated waterbodies									
			Renovation of waterbodies including desilting	82	312.36	377.8	377.8	377.8	377.8	377.8	377.8	1889
6	K.R.Pet	PMK SY-Water shed	Ground Water Recharge and Other storage structures	800	-	112	112	112	112	112	112	560
			Trench cum bund	250	-	6	6	6	6	6	6	30
			Check dams	10	95	10	10	10	10	10	10	50
			Recharge Pits	310	-	31	31	31	31	31	31	155
			Renovation of water bodies									
			Renovation of	169	1343	1436.6	1436.60	1436.60	1436.60	1436.60	1436.60	7183

			water bodies including desilting			0						
			Check dams	25	237	25	25	25	25	25	125	
			Nala bund	5	82.5	5	5	5	5	5	25	
7	Nagamangala	PMK SY-Water shed	Ground Water Recharge and Other storage structures	900	-	126	126	126	126	126	630	
			Check dams	9	86	9	9	9	9	9	45	
			Gokatte	20	-	20	20	20	20	20	100	
			Recharge pits	35	-	5	5	5	5	5	25	
Renovation of water bodies												
			Renovation of water bodies including desilting	104	800.19	665.80	665.80	665.80	665.80	665.80	665.80	3329
			Check dams	20	190	20	20	20	20	20	20	100
			Nala buind	10	165	10	10	10	10	10	10	50
			Gokatte	10	-	10	10	10	10	10	10	50
			Recharge pit	30	-	3	3	3	3	3	3	15
TOTAL					6477.84	5584.0	5584.0	5584.0	5584.0	5584.0	27920	

FINAL ABSTRACT OF MANDYA DISTRICT IRRIGATION PLAN

**Table 5.13 COMPONENT WISE ADDITIONAL IRRIGATION POTENTIAL TO BE CREATED
(in hectares)**

Taluks	Mandya	Maddur	Malavalli	SRPatna	Pandavapur	KR pet	Nagamangala	Total
AIBP								0
HKKP	24360	28162	27915	4200	26050	25883	58384	194954
PDMC	23065	31132	32260	15608	16475	25413	16252	160205
PMKSY-WS	2598	755	2211	194	488	1927	1834	10007
MGNREGA	1059.6	1041.44	645.56	240.19	492.36	1757.5	1241.19	6478
TOTAL	51082.6	61090.44	63031.56	20242.19	43505.36	54980.5	77711.19	371644

Fig.5.15: COMPONENT WISE ADDITIONAL IRRIGATION POTENTIAL PROPOSED TO BE CREATED

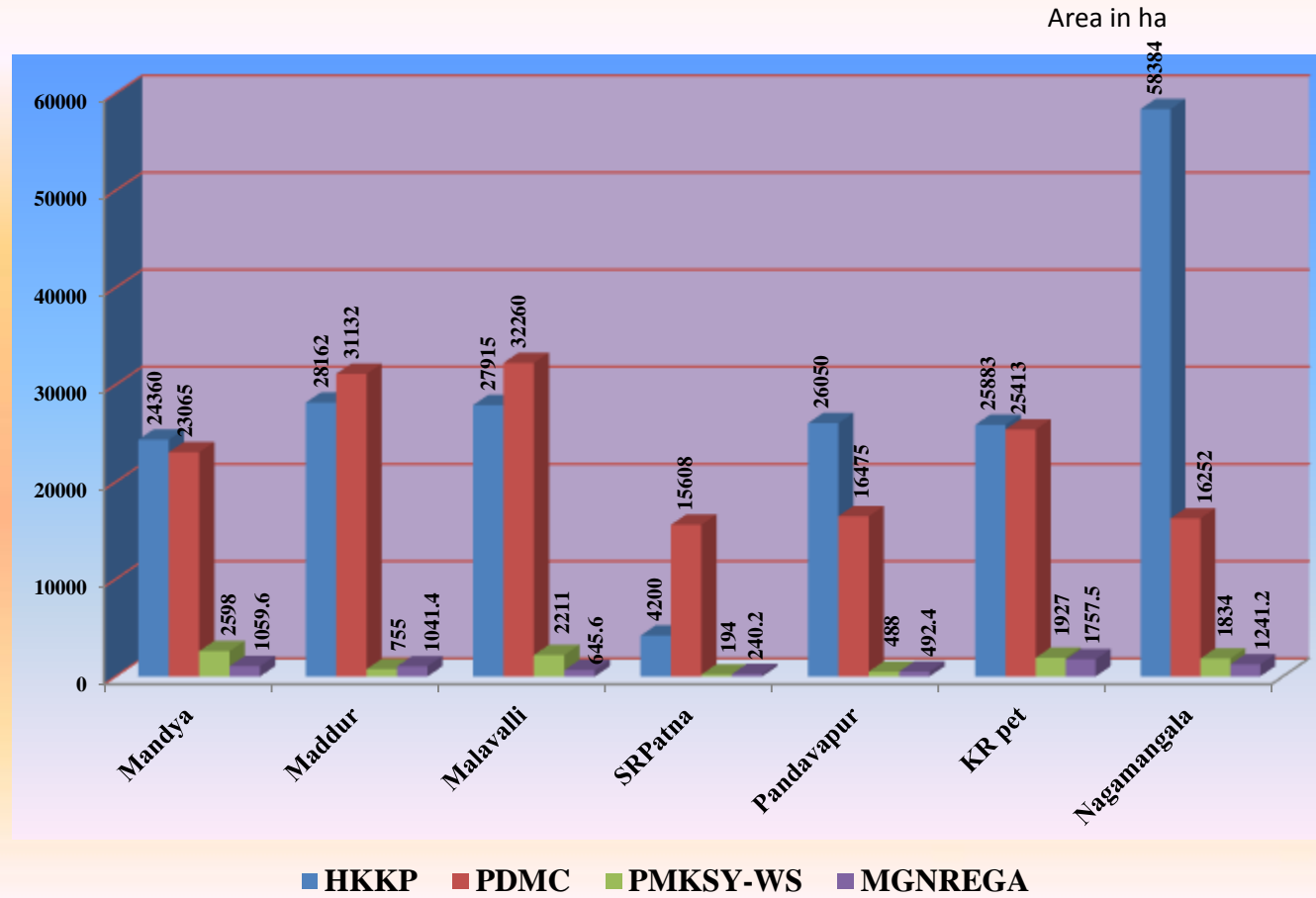


Table 5.14 Component wise Taluk wise proposed budget (Rs in lakhs)

Taluks	Mandya	Maddur	Malavalli	SRPatna	Pandavapura	KR pet	Nagama ngala	Total
AIBP	0	0	0	0	0	0	0	0
HKKP	39419	55947	27569	28825	36922	17335	30208	236225
PDMC	17142	33748	47504	17766	14940	11940	15403	158443
PMKSY-WS	853	2640	1787	121.1	406	777	831	7415.1
MGNREGA	3229.6	6240.7	2357	1280.7	2340	8128	4344	27920
TOTAL	60643.6	98575.7	79217	47992.8	54608	38180	50786	430003.1

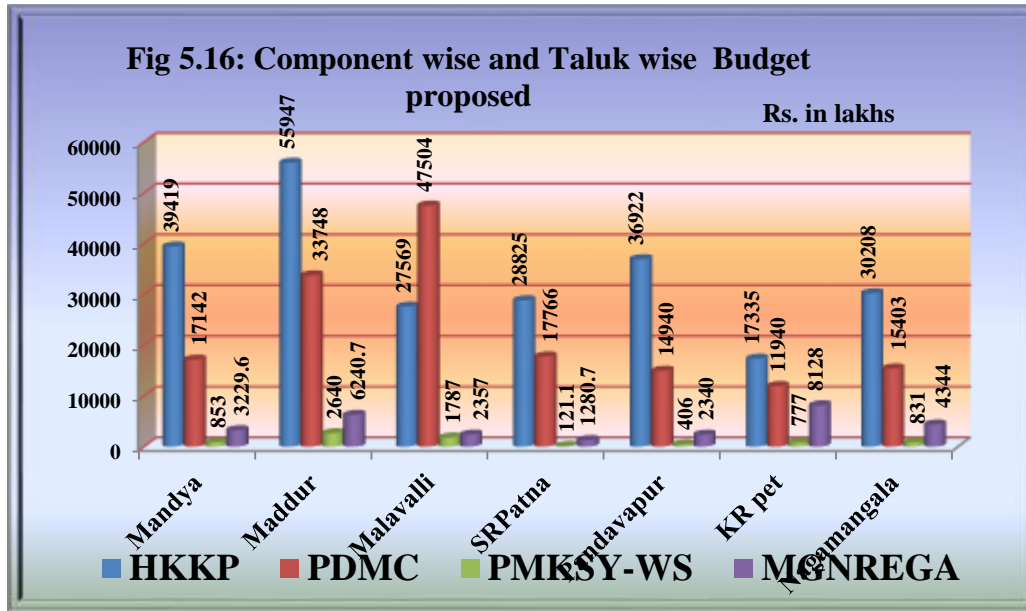


Table 5.15: Year wise and Taluk wise proposed budget (Rs in lakhs)

Component	Irri. Potential to be created (Ha)	I Year	II Year	III Year	IV Year	V Year	Total
HKKP	194954	47245.00	47245.00	47245.00	47245.00	47245.00	236225.00
MGNREGA	6477.84	5584.00	5584.00	5584.00	5584.00	5584.00	27920.00
PDMC	160205	31688.60	31688.60	31688.60	31688.60	31688.60	158443.00
PMKSY	10007	1483.02	1483.02	1483.02	1483.02	1483.02	7415.10
TOTAL	371644	86000.62	86000.62	86000.62	86000.62	86000.62	430003.1

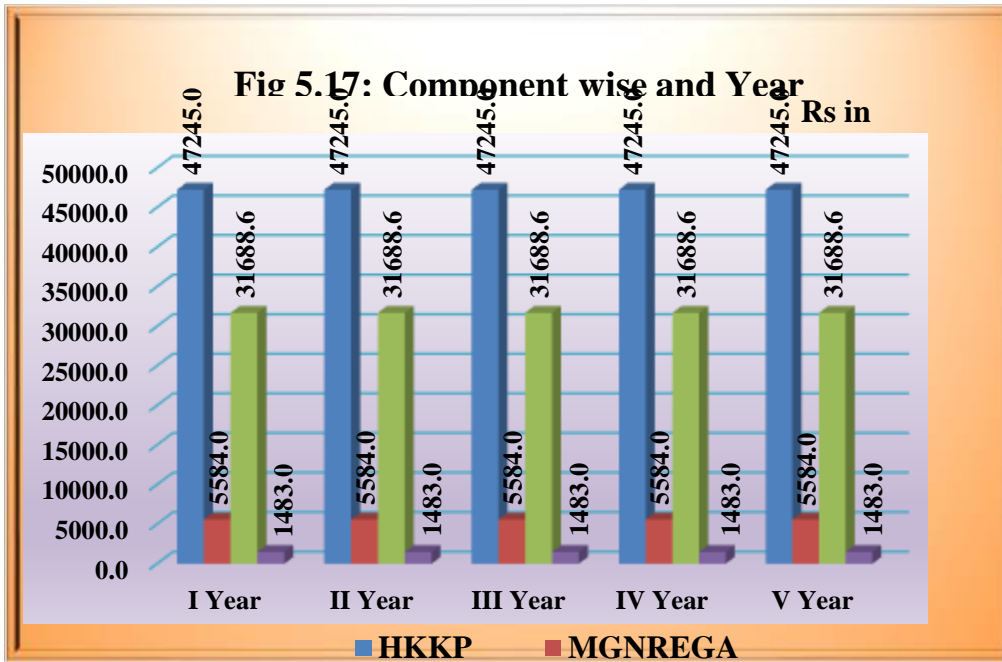
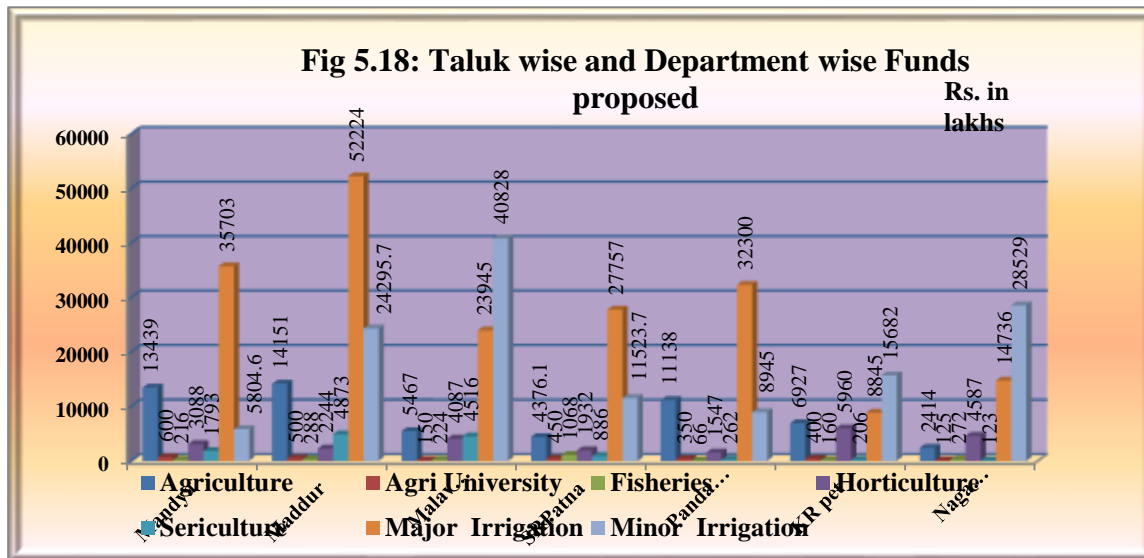


Table 5.16 Taluk wise and Department wise proposed budget (Rs in lakhs)

Department	Mandya	Maddur	Malavalli	SRPatna	Pandavapur	KR pet	Nagamangala	Total
Agriculture	13439	14151	5467	4376.1	11138	6927	2414	57912.1
Agri University	600	500	150	450	350	400	125	2575
Fisheries	216	288	224	1068	66	160	272	2294
Horticulture	3088	2244	4087	1932	1547	5960	4587	23445
Sericulture	1793	4873	4516	886	262	206	123	12659
Major Irrigation	35703	52224	23945	27757	32300	8845	14736	195510
Minor Irrigation	5804.6	24295.7	40828	11523.7	8945	15682	28529	135608.0
Total	60643.6	98575.7	79217	47992.8	54608	38180	50786	430003.1



Abbreviations used:

MDY-Mandya

MDR- Maddur

MVL- Malavalli

SRP- Srirangapatna

PVP- Pandavapura

KRP- K RPete

NGM- Nagamangala

AIBP- Accelerated Irrigation Benefit Programme of GoI

HKKP- Har Khet Ko Pani, which was envisaged to bring in more irrigated area

PDMC-MI: Per Drop More Crops- Micro irrigation

PMKSY- WS: Pradhan Mantra Krishi Sinchai Yojana- water shed

CMNREGA: Convergence of funds with Mahatma Gandhi NREGA

CONCLUSIONS

- Mandya district has an advantage of command area of two reservoirs namely KRS dam across river Cauvery and Gorur dam across river Hemavathy. The present irrigated area is around 1.89 lakh ha, out of which major irrigation dams irrigate net area of around 97000ha. Irrigation through bore wells or tanks is not popular in major parts of district. The area under all other sources of irrigation is restricted to 29000 ha. Despite being irrigated by two commands, the district has 1.46 lakh ha, out of net cultivated area of 1.89 lakh ha, depends on rainfall alone for crop production.
- Such a contrasting situation has clearly halved the district' agricultural area with one half with having irrigated area dominantly grows paddy and sugarcane and farmers being financially well placed. In other half, where the farmers depend on rain fall alone, will have to grow dry land/low income crops like ragi, horsegram, maize etc. Their income is relatively low.
- Although the district has more than 600 tanks, the area irrigated by tanks is substantially less (16000 ha). Even irrigation through bore wells is restricted to around 6000 ha, while irrigated through open wells is substantial.
- There is an excellent scope to strengthen the irrigation through tanks, bore wells as well as through other water harvesting structures like farm ponds, check dams etc.in all areas not provided with canal irrigation. This alone can improve the agricultural growth in the district. The district irrigation plan focuses on strengthening the infrastructure required to improve irrigation scenario from all sources other than canals, besides of course maintenance/ repairs to existing canals.
- It is contemplated in the district irrigation plan, that a new irrigation potential of around 371644 ha will be created by various components facilitating establishment or renovation of water harvesting structures like tanks, farm ponds, check dams etc as well as inducing the farmers to adopt micro irrigation to save water – which further facilitates to expand the irrigated area.
- Major irrigation potential (133502 ha) will be created through expansion of micro irrigation in all the taluks, area ranging from

12108 to 27932 ha for horticultural, agricultural and sericultural activities

- Among other components, an area of 194954 ha is being created through 'Har Khet Ko Pani' component by activities such as remodeling of canal infrastructure, improvement to field / feeder channels and improvements to tanks. Remaining area will be created through various water harvesting structures.
- The benefit of additional irrigated area is spread to all taluks, major area being added to Nagamangala (77711 ha), Malavalli taluk (63031 ha) and Maddur (61090.44 ha)
- The overall budget required to achieve this improvement over 5 years period will be around Rs. 4300.03 crores. Major budget requirement will be from Har Khet Ko Pani (Rs.2362.25 crores), followed by PDMC (Rs.1584.43 crores), Convergence with MGNREGA (Rs.279.20 crores) and Watershed activities (Rs.74.15 crores) activities.
- Major investment for irrigation is expected in Maddur taluk (Rs.985.76 crores) and Malavalli taluk (Rs.792.17crores)
- It is expected that new irrigation plan will bring substantial change in cropping pattern by supporting protective irrigation in the presently unirrigated areas as well as in improving the crop productivity in the entire district.

APPENDICES

2.1.1: Area under Agriculture Crops by Season and Irrigation status

Sl. No.	Taluk	Crops	Area (ha)					Production (qtls)					Yield (q/ha)		
			Irrigated	%	Rainfed	%	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	K.R.PETE	Paddy	2000				2000	106500		0		106500	53.25		53.25
2	K.R.PETE	Ragi			800		800	0		17600		17600		22.00	22.00
3	K.R.PETE	Maize			100		100	0		3000		3000		30.00	30.00
4	K.R.PETE	Tur			0		0	0		0		0		0.00	0.00
5	K.R.PETE	Cowpea			100		100	0		0		0		0.00	0.00
6	K.R.PETE	Groundnut			0		0	0		0		0		9.50	9.50
7	K.R.PETE	Sugarcane	700				700	770000		0		770000	1100.00		1100.00
	Total		2700		1000		3700	876500		20600		897100			
1	MADDUR	Paddy	3500				3500	186375		0		186375	53.25		53.25
2	MADDUR	Ragi			1200		1200	0		26400		26400		22.00	22.00
3	MADDUR	Maize			100		100	0		3000		3000		30.00	30.00
4	MADDUR	Tur			0		0	0		0		0		0.00	0.00
5	MADDUR	Cowpea			100		100	0		0		0		0.00	0.00
6	MADDUR	Groundnut			0		0	0		0		0		9.50	9.50
7	MADDUR	Sugarcane	500				500	550000		0		550000	1100.00		1100.00
	Total		4000		1400		5400	736375		29400		765775			
1	MALAVALLI	Paddy	2000				2000	106500		0		106500	53.25		53.25
2	MALAVALLI	Ragi			1500		1500	0		33000		33000		22.00	22.00

3	MALAVALLI	Maize			300		300	0		9000		9000		30.00	30.00
4	MALAVALLI	Tur			0		0	0		0		0		0.00	0.00
5	MALAVALLI	Cowpea			100		100	0		0		0		0.00	0.00
6	MALAVALLI	Groundnut			0		0	0		0		0		9.50	9.50
7	MALAVALLI	Sugarcane	1060				1060	1166000		0		1166000	1100.00		1100.00
	Total		3060		1900		4960	1272500		42000		1314500			
1	MANDYA	Paddy	5000				5000	266250		0		266250	53.25		53.25
2	MANDYA	Ragi			2250		2250	0		49500		49500		22.00	22.00
3	MANDYA	Maize			100		100	0		3000		3000		30.00	30.00
4	MANDYA	Tur			0		0	0		0		0		0.00	0.00
5	MANDYA	Cowpea			100		100	0		0		0		0.00	0.00
6	MANDYA	Groundnut			0		0	0		0		0		9.50	9.50
7	MANDYA	Sugarcane	1250				1250	1375000		0		1375000	1100.00		1100.00
	Total		6250		2450		8700	1641250		52500		1693750			
1	NAGAMANGALA	Paddy	500				500	26625		0		26625	53.25		53.25
2	NAGAMANGALA	Ragi			300		300	0		6600		6600		22.00	22.00
3	NAGAMANGALA	Maize			0		0	0		0		0		30.00	30.00
4	NAGAMANGALA	Tur			0		0	0		0		0		0.00	0.00
5	NAGAMANGALA	Cowpea			50		50	0		0		0		0.00	0.00
6	NAGAMANGALA	Groundnut			0		0	0		0		0		9.50	9.50
7	NAGAMANGALA	Sugarcane	100				100	110000		0		110000	1100.00		1100.00
	Total		600		350		950	136625		6600		143225			
1	PANDAVAPURA	Paddy	3000				3000	159750		0		159750	53.25		53.25
2	PANDAVAPURA	Ragi			1250		1250	0		27500		27500		22.00	22.00
3	PANDAVAPURA	Maize			100		100	0		3000		3000		30.00	30.00

4	PANDAVAPURA	Tur			0		0	0		0		0		0.00	0.00
5	PANDAVAPURA	Cowpea			100		100	0		0		0		0.00	0.00
6	PANDAVAPURA	Groundnut			0		0	0		0		0		9.50	9.50
7	PANDAVAPURA	Sugarcane	650				650	715000		0		715000	1100.00		1100.00
	Total		3650		1450		5100	874750		30500		905250			
1	SRIRANGAPATNA	Paddy	4000				4000	213000		0		213000	53.25		53.25
2	SRIRANGAPATNA	Ragi			700		700	0		15400		15400		22.00	22.00
3	SRIRANGAPATNA	Maize			50		50	0		1500		1500		30.00	30.00
4	SRIRANGAPATNA	Tur			0		0	0		0		0		0.00	0.00
5	SRIRANGAPATNA	Cowpea			100		100	0		0		0		0.00	0.00
6	SRIRANGAPATNA	Groundnut			0		0	0		0		0		9.50	9.50
7	SRIRANGAPATNA	Sugarcane	600				600	660000		0		660000	1100.00		1100.00
	Total		4600		850		5450	873000		16900		889900			

2.1.2: Area under Horticulture Crops by Taluks and Irrigation Status

Crop Type	K.R. Pet			Madduru			Malavalli			Mandya		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
Coconut	7405	4936	12341.0	5040	1260	6300.0	1440	3360	4800.0	3834	426	4260.0
Banana	512		512.0	225		225.0	860		860.0	690		690.0
Mango	175.2	700.8	876.0	288	672	960.0	240	960	1200.0	117	388	505.0
Sapota	200	22	222.0	189	21	210.0	420	180	600.0	158	17	175.0
Papaya	25		25.0	18		18.0	50		50.0	120		120.0
Tomato	548		548.0	135		135.0	1100		1100.0	797		797.0
Beans	150		150.0	35		35.0	160		160.0	225		225.0
Chilli	250		250.0	48		48.0	275		275.0	50		50.0
Onion	60		60.0	43		43.0	180		180.0	147		147.0
Cucurbits	2059		2059.0	279		279.0	507		507.0	309		309.0
Marigold	11.2		11.2	9.1		9.1	54.6		54.6	66.5		66.5
Chrysanthemum	225		225.0	22.5		22.5	9.9		9.9	28.8		28.8
Total	11620.4	5658.8	17279.2	6331.6	1953.0	6331.6	5296.5	4500.0	9796.5	6542.3	831.0	7373.3

Crop Type	Nagamangala			Pandavapura			Srirangapatna		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
Coconut	3820	5730	9550.0	1344	896	2240.0	2720	680	3400.0
Banana	450		450.0	234		234.0	315		315.0
Mango	130	1170	1300.0	96.4	385.6	482.0	237.6	554.4	792.0
Sapota	254	168	422.0	88	10	98.0	373	42	415.0
Papaya	95		95.0	42		42.0	20		20.0
Tomato	520		520.0	332		332.0	312		312.0
Beans	100		100.0	120		120.0	165		165.0
Chilli	105		105.0	40		40.0	52		52.0
Onion	400		400.0	80		80.0	56		56.0
Cucurbits	774		774.0	213		213.0	200		200.0
Marigold	117.6		117.6	14		14.0	14.7		14.7
Chrysanthemum	79.2		79.2	52.2		52.2	7.2		7.2
Total	6844.80	7068.00	13912.80	2655.60	1291.60	3947.20	4472.50	1276.40	5748.90

2.2.1: Season-wise, Taluk-wise Area, Production of Horticulture Crops by Irrigation Status

Season	Horticulture crops	K.R. Pet Taluk										
		Rainfed				Irrigated				Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (tons/yr)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	75	6	0.08	81208	130	14.3	0.11	81208	205	20.3	0.11
Rabi		15	1.2	0.08	81208	45	4.95	0.11	81208	60	6.15	0.11
Summer		0	0	0.08	81208	60	6.6	0.11	81208	60	6.6	0.11
Total		90	7.2			235	25.85			325	33.05	
Kharif	Banana				182480	60	1680	28	182480	60	1680	28
Rabi					182480	15	420	28	182480	15	420	28
Summer					182480	25	700	28	182480	25	700	28
Total		0	0			100	2800			100	2800	
Kharif	Mango	15	150	10	56508	15	165	11	56508	30	315	11
Rabi		0	0	0	56508	5	55	11	56508	5	55	11
Summer		0	0	0	56508	5	55	11	56508	5	55	11
Total		15	150			25	275			40	425	
Kharif	Sapota	15	240	16	56508	15	255	17	56508	30	495	17
Rabi		0	0	0	56508	5	85	17	56508	5	85	17
Summer		0	0	0	56508	5	85	17	56508	5	85	17
Total		15	240			25	425			40	665	
Kharif	Papaya				160535	15	1050	70	160535	15	1050	70
Rabi					160535	5	350	70	160535	5	350	70
Summer					160535	5	350	70	160535	5	350	70
Total		0	0			25	1750			25	1750	

Kharif	Tomato				68000	399	17157	43	68000	399	17157	43
Rabi					68000	49	2107	43	68000	49	2107	43
Summer					68000	100	4300	43	68000	100	4300	43
Total		0	0			548	23564			548	23564	
Kharif	Beans				60000	75	765	10.2	60000	75	765	10.2
Rabi					60000	37.5	382.5	10.2	60000	37.5	382.5	10.2
Summer					60000	37.5	382.5	10.2	60000	37.5	382.5	10.2
Total		0	0			150	1530			150	1530	
Kharif	Chilli				60000	150	1494	9.96	60000	150	1494	9.96
Rabi					60000	25	249	9.96	60000	25	249	9.96
Summer					60000	75	747	9.96	60000	75	747	9.96
Total		0	0			250	2490			250	2490	
Kharif	Onion				65992	50	750	15	65992	50	750	15
Rabi					65992	10	150	15	65992	10	150	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			60	900			60	900	
Kharif	Cucurbits				45000	1029.5	20590	20	45000	1029.5	20590	20
Rabi					45000	411.8	8236	20	45000	411.8	8236	20
Summer					45000	617.7	12354	20	45000	617.7	12354	20
Total		0	0			2059	41180			2059	41180	
Kharif	Marigold				107037	6.72	107.52	16	107037	6.72	107.52	16
Rabi					107037	1.12	17.92	16	107037	1.12	17.92	16
Summer					107037	3.36	53.76	16	107037	3.36	53.76	16
Total		0	0			11.2	179.2			11.2	179.2	
Kharif	Chrysanthem				98250	135	33750	250	98250	135	33750	250

Rabi	um				98250	22.5	5625	250	98250	22.5	5625	250
Summer					98250	67.5	16875	250	98250	67.5	16875	250
Total		0	0			225	56250			225	56250	
Kharif		90	156			2065.2	77522.82			2155.2	77678.82	
Rabi		15	1.2			626.92	17597.37			641.92	17598.57	
Summer		0	0			996.06	35823.86			996.06	35823.86	
Grand Total		105	157.2			3688.2	130944			3793.2	131101	

Season	Horticulture crops	Madduru taluk										
		Rainfed				Area (ha)	Irrigated			Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)		Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	35	2.8	0.08	81208	200	22	0.11	81208	235	24.8	0.11
Rabi		20		0.08	81208	60	6.6	0.11	81208	80	6.6	0.11
Summer				0.08	81208	0	0	0.11	81208	0	0	0.11
Total		55	2.8			260	28.6			315	31.4	
Kharif	Banana	0			182480	120	3360	28	182480	120	3360	28
Rabi					182480	40	1120	28	182480	40	1120	28
Summer					182480	20	560	28	182480	20	560	28
Total		0	0			180	5040			180	5040	
Kharif	Mango	4	40	10	56508	5	55	11	56508	9	95	11
Rabi				10	56508	2	22	11	56508	2	22	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		4	40			7	77			11	117	
Kharif	Sapota	21	336	16	56508	4	68	17	56508	25	404	17
Rabi				16	56508	4	68	17	56508	4	68	17
Summer				16	56508	0	0	17	56508	0	0	17
Total		21	336			8	136			29	472	
Kharif	Papaya				160535	35	2450	70	160535	35	2450	70
Rabi					160535	20	1400	70	160535	20	1400	70
Summer					160535	5	350	70	160535	5	350	70
Total		0	0			60	4200			60	4200	

Kharif	Tomato				68000	65	2795	43	68000	65	2795	43
Rabi					68000	45	1935	43	68000	45	1935	43
Summer					68000	25	1075	43	68000	25	1075	43
Total		0	0			135	5805			135	5805	
Kharif	Beans				60000	17.5	178.5	10.2	60000	17.5	178.5	10.2
Rabi					60000	8.75	89.25	10.2	60000	8.75	89.25	10.2
Summer					60000	8.75	89.25	10.2	60000	8.75	89.25	10.2
Total		0	0			35	357			35	357	
Kharif	Chilli				60000	28.8	286.848	9.96	60000	28.8	286.848	9.96
Rabi					60000	4.8	47.808	9.96	60000	4.8	47.808	9.96
Summer					60000	14.4	143.424	9.96	60000	14.4	143.424	9.96
Total		0	0			48	478.08			48	478.08	
Kharif	Onion				65992	25	375	15	65992	25	375	15
Rabi					65992	18	270	15	65992	18	270	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			43	645			43	645	
Kharif	Cucurbits				45000	139.5	2790	20	45000	139.5	2790	20
Rabi					45000	55.8	1116	20	45000	55.8	1116	20
Summer					45000	83.7	1674	20	45000	83.7	1674	20
Total		0	0			279	5580			279	5580	
Kharif	Marigold				107037	5.46	87.36	16	107037	5.46	70.98	13
Rabi					107037	0.91	14.56	16	107037	0.91	11.83	13
Summer					107037	2.73	43.68	16	107037	2.73	35.49	13
Total		0	0			9.1	145.6			9.1	118.3	
Kharif	Chrysanthemum				98250	13.5	3375	250	98250	13.5	337.5	25
Rabi					98250	2.25	562.5	250	98250	2.25	56.25	25

Summer					98250	6.75	1687.5	250	98250	6.75	168.75	25
	Total	0	0			22.5	5625			22.5	562.5	
	Kharif	39	42.8			654.76	15774.71			693.76	12763.63	
	Rabi	20	0			257.51	6583.718			277.51	6074.738	
	Summer	0	0			166.33	5622.854			166.33	4095.914	
	Grand Total	59	42.8			1078.6	27981.3			1137.6	22934.3	

Season	Horticulture crops	Malavally Taluk										
		Rainfed				Irrigated				Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	35	2.8	0.08	81208	185	20.35	0.11	81208	220	23.15	0.11
Rabi				0.08	81208	30	3.3	0.11	81208	30	3.3	0.11
Summer				0.08	81208	25	2.75	0.11	81208	25	2.75	0.11
Total		35	2.8			240	26.4			275	29.2	
Kharif	Banana				182480	186	5208	28	182480	186	5208	28
Rabi					182480	30	840	28	182480	30	840	28
Summer					182480	860	24080	28	182480	860	24080	28
Total		0	0			1076	30128			1076	30128	
Kharif	Mango	25	250	10	56508	3	33	11	56508	28	283	11
Rabi				10	56508	0	0	11	56508	0	0	11
Summer				10	56508	240	2640	11	56508	240	2640	11
Total		25	250			243	2673			268	2923	
Kharif	Sapota	0	0	16	56508	5	85	17	56508	5	85	17
Rabi				16	56508	0	0	17	56508	0	0	17
Summer				16	56508	420	7140	17	56508	420	7140	17
Total		0	0			425	7225			425	7225	
Kharif	Papaya				160535	80	5600	70	160535	80	5600	70
Rabi					160535	10	700	70	160535	10	700	70
Summer					160535	50	3500	70	160535	50	3500	70

Total		0	0			140	9800			140	9800	
Kharif	Tomato				68000	550	23650	43	68000	550	23650	43
Rabi					68000	250	10750	43	68000	250	10750	43
Summer					68000	300	12900	43	68000	300	12900	43
Total		0	0			1100	47300			1100	47300	
Kharif	Beans				60000	80	816	10.2	60000	80	816	10.2
Rabi					60000	40	408	10.2	60000	40	408	10.2
Summer					60000	40	408	10.2	60000	40	408	10.2
Total		0	0			160	1632			160	1632	
Kharif	Chilli				60000	165	1643.4	9.96	60000	165	1643.4	9.96
Rabi					60000	27.5	273.9	9.96	60000	27.5	273.9	9.96
Summer					60000	82.5	821.7	9.96	60000	82.5	821.7	9.96
Total		0	0			275	2739			275	2739	
Kharif	Onion				65992	90	1350	15	65992	90	1350	15
Rabi					65992	90	1350	15	65992	90	1350	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			180	2700			180	2700	
Kharif	Cucurbits				45000	253.5	5070	20	45000	253.5	5070	20
Rabi					45000	101.4	2028	20	45000	101.4	2028	20
Summer					45000	152.1	3042	20	45000	152.1	3042	20
Total		0	0			507	10140			507	10140	
Kharif	Marigold				107037	32.76	524.16	16	107037	32.76	2555.28	78
Rabi					107037	5.46	87.36	16	107037	5.46	425.88	78
Summer					107037	16.38	262.08	16	107037	16.38	1277.64	78
Total		0	0			54.6	873.6			54.6	4258.8	

Kharif	Chrysanthe mum				98250	5.94	1485	250	98250	5.94	65.34	11
Rabi					98250	0.99	247.5	250	98250	0.99	10.89	11
Summer					98250	2.97	742.5	250	98250	2.97	32.67	11
Total		0	0			9.9	2475			9.9	108.9	
Kharif		60	252.8			1631.2	45399.9			1691.2	46264.17	
Rabi		0	0			585.35	16688.1			585.35	16789.97	
Summer		0	0			1768.95	48399			1768.95	48704.76	
Grand Total		60	252.8			3985.5	110487			4045.5	111759	

Season	Horticulture crops	Mandya Taluk										
		Rainfed				Irrigated				Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	0	0	0.08	81208	150	16.5	0.11	81208	150	16.5	0.11
Rabi				0.08	81208	30	3.3	0.11	81208	30	3.3	0.11
Summer				0.08	81208	0	0	0.11	81208	0	0	0.11
Total		0	0			180	19.8			180	19.8	
Kharif	Banana				182480	30	840	28	182480	30	840	28
Rabi					182480	10	280	28	182480	10	280	28
Summer					182480	10	280	28	182480	10	280	28
Total		0	0			50	1400			50	1400	
Kharif	Mango	0	0	10	56508	8	88	11	56508	8	88	11
Rabi				10	56508	0	0	11	56508	0	0	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		0	0			8	88			8	88	
Kharif	Sapota	0	0	16	56508	20	340	17	56508	20	340	17
Rabi				16	56508	0	0	17	56508	0	0	17
Summer				16	56508	0	0	17	56508	0	0	17
Total		0	0			20	340			20	340	
Kharif	Papaya				160535	15	1050	70	160535	15	1050	70
Rabi					160535	0	0	70	160535	0	0	70
Summer					160535	0	0	70	160535	0	0	70
Total		0	0			15	1050			15	1050	

Kharif	Tomato				68000	325	13975	43	68000	325	13975	43
Rabi					68000	172	7396	43	68000	172	7396	43
Summer					68000	300	12900	43	68000	300	12900	43
Total		0	0			797	34271			797	34271	
Kharif	Beans				60000	112. 5	1147.5	10.2	60000	112. 5	1147.5	10.2
Rabi					60000	56.2 5	573.75	10.2	60000	56.2 5	573.75	10.2
Summer					60000	56.2 5	573.75	10.2	60000	56.2 5	573.75	10.2
Total		0	0			225	2295			225	2295	
Kharif	Chilli				60000	30	298.8	9.96	60000	30	298.8	9.96
Rabi					60000	5	49.8	9.96	60000	5	49.8	9.96
Summer					60000	15	149.4	9.96	60000	15	149.4	9.96
Total		0	0			50	498			50	498	
Kharif	Onion				65992	82	1230	15	65992	82	1230	15
Rabi					65992	65	975	15	65992	65	975	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			147	2205			147	2205	
Kharif	Cucurbits				45000	154. 5	3090	20	45000	154. 5	3090	20
Rabi					45000	61.8	1236	20	45000	61.8	1236	20
Summer					45000	92.7	1854	20	45000	92.7	1854	20
Total		0	0			309	6180			309	6180	
Kharif	Marigold				107037	39.9	638.4	16	107037	39.9	3790.5	95
Rabi					107037	6.65	106.4	16	107037	6.65	631.75	95
Summer					107037	19.9	319.2	16	107037	19.9	1895.25	95

						5				5		
Total		0	0			66.5	1064			66.5	6317.5	
Kharif	Chrysanthemum				98250	17.28	4320	250	98250	17.28	552.96	32
Rabi					98250	2.88	720	250	98250	2.88	92.16	32
Summer					98250	8.64	2160	250	98250	8.64	276.48	32
Total		0	0			28.8	7200			28.8	921.6	
Kharif		0	0			964.18	26694.2			964.18	26079.26	
Rabi		0	0			409.58	11340.25			409.58	11237.76	
Summer		0	0			502.54	18236.35			502.54	17928.88	
Grand Total		0	0			1876.3	56270.8			1876.3	55245.9	

Season	Horticulture crops	Nagamangala Taluk										
		Rainfed				Irrigated				Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	85	6.8	0.08	81208	50	5.5	0.11	81208	135	12.3	0.11
Rabi		10	0.8	0.08	81208	8	0.88	0.11	81208	18	1.68	0.11
Summer				0.08	81208	20	2.2	0.11	81208	20	2.2	0.11
Total		95	7.6			78	8.58			173	16.18	
Kharif	Banana				182480	35	980	28	182480	35	980	28
Rabi					182480	12	336	28	182480	12	336	28
Summer					182480	0	0	28	182480	0	0	28
Total		0	0			47	1316			47	1316	
Kharif	Mango	30	300	10	56508	2	22	11	56508	32	322	11
Rabi		10	100	10	56508	2	22	11	56508	12	122	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		40	400			4	44			44	444	
Kharif	Sapota	15	240	16	56508	2	34	17	56508	17	274	17
Rabi		8	128	16	56508	2	34	17	56508	10	162	17
Summer				16	56508	0	0	17	56508	0	0	17
Total		23	368			4	68			27	436	
Kharif	Papaya				160535	18	1260	70	160535	18	1260	70
Rabi					160535	3	210	70	160535	3	210	70

Summ er					160535	0	0	70	160535	0	0	70
Total		0	0			21	1470			21	1470	
Kharif	Tomato				68000	300	12900	43	68000	300	12900	43
Rabi					68000	100	4300	43	68000	100	4300	43
Summ er					68000	120	5160	43	68000	120	5160	43
Total		0	0			520	22360			520	22360	
Kharif	Beans				60000	50	510	10.2	60000	50	510	10.2
Rabi					60000	25	255	10.2	60000	25	255	10.2
Summ er					60000	25	255	10.2	60000	25	255	10.2
Total		0	0			100	1020			100	1020	
Kharif	Chilli				60000	63	627.48	9.96	60000	63	627.48	9.96
Rabi					60000	10.5	104.58	9.96	60000	10.5	104.58	9.96
Summ er					60000	31.5	313.74	9.96	60000	31.5	313.74	9.96
Total		0	0			105	1045.8			105	1045.8	
Kharif	Onion				65992	190	2850	15	65992	190	2850	15
Rabi					65992	180	2700	15	65992	180	2700	15
Summ er					65992	30	450	15	65992	30	450	15
Total		0	0			400	6000			400	6000	
Kharif	Cucurbits				45000	387	7740	20	45000	387	7740	20
Rabi					45000	154.8	3096	20	45000	154.8	3096	20
Summ er					45000	232.2	4644	20	45000	232.2	4644	20
Total		0	0			774	15480			774	15480	

Kharif	Marigold				107037	70.56	1128.96	16	107037	70.56	11854.08	168
Rabi					107037	11.76	188.16	16	107037	11.76	1975.68	168
Summer					107037	35.28	564.48	16	107037	35.28	5927.04	168
Total		0	0			117.6	1881.6			117.6	19756.8	
Kharif	Chrysanthe mum				98250	47.52	11880	250	98250	47.52	4181.76	88
Rabi					98250	7.92	1980	250	98250	7.92	696.96	88
Summer					98250	23.76	5940	250	98250	23.76	2090.88	88
Total		0	0			79.2	19800			79.2	6969.6	
Kharif		115	306.8			1213.0 8	39903.94			1328.0 8	43237.62	
Rabi		20	100.8			514.98	13192.62			534.98	13797.9	
Summer		0	0			517.74	17329.42			517.74	18842.86	
Grand Total		135	407.6			2245.8	70425.98			2380.8	75878.4	

Season	Horticulture crops	Pandavapura Taluk										
		Rainfed				Irrigated				Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons /yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons /yr)	Productivity or Yield (Kgs /ha)
Kharif	Coconut	20	1.6	0.08	81208	30	3.3	0.11	81208	50	4.9	0.11
Rabi		15	1.2	0.08	81208	0	0	0.11	81208	15	1.2	0.11
Summer				0.08	81208	0	0	0.11	81208	0	0	0.11
Total		35	2.8			30	3.3			65	6.1	
Kharif	Banana	0			182480	35	980	28	182480	35	980	28
Rabi					182480	5	140	28	182480	5	140	28
Summer					182480	2	56	28	182480	2	56	28
Total		0	0			42	1176			42	1176	
Kharif	Mango	30	300	10	56508	10	110	11	56508	40	410	11
Rabi				10	56508	0	0	11	56508	0	0	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		30	300			10	110			40	410	
Kharif	Sapota	30	480	16	56508	10	170	17	56508	40	650	17
Rabi				16	56508	0	0	17	56508	0	0	17
Summer				16	56508	0	0	17	56508	0	0	17
Total		30	480			10	170			40	650	

Kharif	Papaya				160535	20	1400	70	160535	20	1400	70
Rabi					160535	0	0	70	160535	0	0	70
Summer					160535	0	0	70	160535	0	0	70
Total		0	0			20	1400			20	1400	
Kharif	Tomato				68000	170	7310	43	68000	170	7310	43
Rabi					68000	62	2666	43	68000	62	2666	43
Summer					68000	100	4300	43	68000	100	4300	43
Total		0	0			332	14276			332	14276	
Kharif	Beans				60000	60	612	10.2	60000	60	612	10.2
Rabi					60000	30	306	10.2	60000	30	306	10.2
Summer					60000	30	306	10.2	60000	30	306	10.2
Total		0	0			120	1224			120	1224	
Kharif	Chilli				60000	24	239.04	9.96	60000	24	239.04	9.96
Rabi					60000	4	39.84	9.96	60000	4	39.84	9.96
Summer					60000	12	119.52	9.96	60000	12	119.52	9.96
Total		0	0			40	398.4			40	398.4	
Kharif	Onion				65992	40	600	15	65992	40	600	15
Rabi					65992	40	600	15	65992	40	600	15
Summer					65992	0	0	15	65992	0	0	15

Total		0	0			80	1200			80	1200	
Kharif	Cucurbits				45000	106.5	2130	20	45000	106.5	2130	20
Rabi					45000	42.6	852	20	45000	42.6	852	20
Summer					45000	63.9	1278	20	45000	63.9	1278	20
Total		0	0			213	4260			213	4260	
Kharif	Marigold				107037	8.4	134.4	16	107037	8.4	168	20
Rabi					107037	1.4	22.4	16	107037	1.4	28	20
Summer					107037	4.2	67.2	16	107037	4.2	84	20
Total		0	0			14	224			14	280	
Kharif	Chrysanthemum				98250	31.32	7830	250	98250	31.32	1816.56	58
Rabi					98250	5.22	1305	250	98250	5.22	302.76	58
Summer					98250	15.66	3915	250	98250	15.66	908.28	58
Total		0	0			52.2	13050			52.2	3027.6	
Kharif		50	301.6			535.22	21348.74			585.22	15670.5	
Rabi		15	1.2			190.22	5931.24			205.22	4935.8	
Summer		0	0			227.76	10041.72			227.76	7051.8	
Grand Total		65	302.8			953.2	37321.7			1018.2	27658.1	

Season	Horticulture crops	Srirangapatna Taluk										
		Rainfed				Irrigated				Total		
		Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)	Cost of Cultivation (Rs./ha)	Area (ha)	Production (Tons/yr)	Productivity or Yield (Kgs/ha)
Kharif	Coconut	30	2.4	0.08	81208	130	14.3	0.11	81208	160	16.7	0.11
Rabi		1	0.08	0.08	81208	32	3.52	0.11	81208	33	3.6	0.11
Summer				0.08	81208	1	0.11	0.11	81208	1	0.11	0.11
Total		31	2.48			163	17.93			194	20.41	
Kharif	Banana				182480	34	952	28	182480	34	952	28
Rabi					182480	3	84	28	182480	3	84	28
Summer					182480	2	56	28	182480	2	56	28
Total		0	0			39	1092			39	1092	
Kharif	Mango	3	30	10	56508	7	77	11	56508	10	107	11
Rabi				10	56508	1	11	11	56508	1	11	11
Summer				10	56508	0	0	11	56508	0	0	11
Total		3	30			8	88			11	118	
Kharif	Sapota	10	160	16	56508	15	255	17	56508	25	415	17
Rabi				16	56508	2	34	17	56508	2	34	17
Summer				16	56508	0	0	17	56508	0	0	17
Total		10	160			17	289			27	449	
Kharif	Papaya				160535	11	770	70	16053	11	770	70

									5			
Rabi					160535	2	140	70	160535	2	140	70
Summer					160535	8	560	70	160535	8	560	70
Total		0	0			21	1470			21	1470	
Kharif	Tomato				68000	180	7740	43	68000	180	7740	43
Rabi					68000	91	3913	43	68000	91	3913	43
Summer					68000	41	1763	43	68000	41	1763	43
Total		0	0			312	13416			312	13416	
Kharif	Beans				60000	82.5	841.5	10.2	60000	82.5	841.5	10.2
Rabi					60000	41.25	420.75	10.2	60000	41.25	420.75	10.2
Summer					60000	41.25	420.75	10.2	60000	41.25	420.75	10.2
Total		0	0			165	1683			165	1683	
Kharif	Chilli				60000	31.2	310.752	9.96	60000	31.2	310.752	9.96
Rabi					60000	5.2	51.792	9.96	60000	5.2	51.792	9.96
Summer					60000	15.6	155.376	9.96	60000	15.6	155.376	9.96
Total		0	0			52	517.92			52	517.92	
Kharif	Onion				65992	30	450	15	65992	30	450	15
Rabi					65992	26	390	15	65992	26	390	15
Summer					65992	0	0	15	65992	0	0	15
Total		0	0			56	840			56	840	
Kharif	Cucurbits				45000	100	2000	20	45000	100	2000	20
Rabi					45000	40	800	20	45000	40	800	20
Summer					45000	60	1200	20	45000	60	1200	20
Total		0	0			200	4000			200	4000	

Kharif	Marigold				107037	8.82	185.22	21	107037	8.82	185.22	21
Rabi					107037	1.47	23.52	16	107037	1.47	30.87	21
Summer					107037	4.41	70.56	16	107037	4.41	92.61	21
Total		0	0			14.7	279.3			14.7	308.7	
Kharif	Chrysanthemum				98250	4.32	34.56	8	98250	4.32	34.56	8
Rabi					98250	0.72	180	250	98250	0.72	5.76	8
Summer					98250	2.16	540	250	98250	2.16	17.28	8
Total		0	0			7.2	754.56			7.2	57.6	
Kharif		33	32.4			618.84	13375.332			651.84	13407.732	
Rabi		1	0.08			243.64	6017.582			244.64	5850.772	
Summer		0	0			175.42	4765.796			175.42	4265.126	
Grand Total		34	32.48			1037.9	24158.71			1071.9	23523.63	

3.3: Status of Command Area

(Area in Hectare)

Sl. No.	Name of the Village	Information of Canal Command			Information on the other Services Command			Total Area	
		Total Area	Developed Area	Undeveloped Area	Total Area	Developed Area	Undeveloped Area	Developed Command	Undeveloped Command
1	2	3	4	5	6	7	8	4+7	5+8
1	Mallanayakanakatte	125.05	125.05					125.05	0
2	Hadya	30.35	30.35					30.35	0
3	Hallenahalli	47.35	47.35					47.35	0
4	Ganadalu	197.09	197.09					197.09	0
5	Modachakanhalli	177.66	177.66					177.66	0
6	T.Malligere	39.26	39.26					39.26	0
7	Bilaguli	139.21	139.21					139.21	0
8	Holalu	647.51	647.51					647.51	0
9	Chikkathammanahalli	137.60	137.60					137.60	0
10	Chandagaalu	299.47	299.47					299.47	0
11	Tandasanhalli	347.23	347.23					347.23	0
12	Indavalu	297.05	297.05					297.05	0
13	Pankanahalli	172.00	172.00					172.00	0
14	Sundahalli	174.42	174.42					174.42	0
15	Yaliyuru	1218.94	1218.94					1218.94	0
16	Yarahalli	84.99	84.99					84.99	0
17	Sundahalli	105.22	105.22					105.22	0
18	Managanahalli	135.17	135.17					135.17	0

19	Santhegasalagere	156.62	156.62					156.62	0
20	Santhegasalagere	129.50	129.50					129.50	0
21	Kyathamgere	99.15	99.15					99.15	0
22	Kiranganduru	207.20	207.20					207.20	0
23	Indavalu	134.76	134.76					134.76	0
24	Kothathi	119.38	119.38					119.38	0
25	Hulkere	117.36	117.36					117.36	0
26	Bevinahalli	299.07	299.07					299.07	0
27	Halahalli	19.43	19.43					19.43	0
28	chikkamandya	214.49	214.49					214.49	0
29	Guthalu	485.63	485.63					485.63	0
30	Kothathi	331.85	331.85					331.85	0
31	Motthahalli	230.68	230.68					230.68	0
32	Lalanakere	74.87	74.87					74.87	0
33	Marasinganahalli	106.84	106.84					106.84	0
34	Lokasara	105.22	105.22					105.22	0
35	Mangala	107.24	107.24					107.24	0
36	Santhegasalagere	485.63	485.63					485.63	0
37	Hebbakavadi	70.82	70.82					70.82	0
38	Thimmanahosuru	129.50	129.50					129.50	0
39	Mangala	377.18	377.18					377.18	0
40	Lokasara	155.40	155.40					155.40	0
41	Santhegasalagere	27.52	27.52					27.52	0
42	Hebbakavadi	17.40	17.40					17.40	0
43	Thimmanahosuru	34.80	34.80					34.80	0
44	Marasinganahalli	9.31	9.31					9.31	0

45	Pura	215.30	215.30					215.30	0
46	Thaggahalli	130.72	130.72					130.72	0
47	Huluvadi	190.61	190.61					190.61	0
48	Kammanayakanahalli	93.48	93.48					93.48	0
49	Chirannahalli	459.73	459.73					459.73	0
50	Kabbanahalli	97.53	97.53					97.53	0
51	Buthanahosuru	112.51	112.51					112.51	0
52	T.Malligere	225.41	225.41					225.41	0
53	Sunganahalli	285.31	285.31					285.31	0
54	Hemmege	67.58	67.58					67.58	0
55	Jayapura	70.82	70.82					70.82	0
56	Hullenahalli	157.83	157.83					157.83	0
57	Hadya	129.50	129.50					129.50	0
58	Devarayapatna	129.50	129.50					129.50	0
59	Narasipuradakoppalu	42.09	42.09					42.09	0
60	Shivalli	324.97	324.97					324.97	0
61	Gunnanayakanahalli	49.78	49.78					49.78	0
62	Goravale	141.64	141.64					141.64	0
63	M.Kebballi	68.80	68.80					68.80	0
64	Madala	109.27	109.27					109.27	0
65	Maradipura	131.53	131.53					131.53	0
66	Shamboonahalli	105.22	105.22					105.22	0
67	Shamboonahalli	52.61	52.61					52.61	0
68	Holalu	48.56	48.56					48.56	0
69	Beeragowdanahalli	109.27	109.27					109.27	0
70	chikkamandya	45.33	45.33					45.33	0

71	Goravale	58.68	58.68					58.68	0
72	Mahadevarahalli	43.71	43.71					43.71	0
73	Hulivana	95.10	95.10					95.10	0
74	Mallanayakanakatte	21.04	21.04					21.04	0
75	Sathanuru	45.73	45.73					45.73	0
76	Honaganahalli	170.78	170.78					170.78	0
77	H.Kodihalli	283.29	283.29					283.29	0
78	B.Hosahalli	132.34	132.34					132.34	0
79	Kommerahalli	211.66	211.66					211.66	0
80	Sundahalli	178.07	178.07					178.07	0
81	Gopalapura	103.20	103.20					103.20	0
82	H.Malligere	234.72	234.72					234.72	0
83	Jigundipatna	124.65	124.65					124.65	0
84	K.Gowdagere	103.20	103.20					103.20	0
85	Chamalapura	149.33	149.33					149.33	0
86	Honnanayakanahalli	89.84	89.84					89.84	0
87	Chikkabanasavadi	152.97	152.97					152.97	0
88	Keragodu	61.51	61.51					61.51	0
89	Honaganahalli	47.75	47.75					47.75	0
90	B.Hosuru	9.31	9.31					9.31	0
91	Jigundipatna	27.52	27.52					27.52	0
92	Bellundagere	33.99	33.99					33.99	0
93	Kommerahalli	45.33	45.33					45.33	0
94	Doddabanasavadi	217.73	217.73					217.73	0
95	Keelara	190.21	190.21					190.21	0
96	S.I.Kodihalli	153.78	153.78					153.78	0

97	Hulivana	303.52	303.52					303.52	0
98	Ummadahalli	228.65	228.65					228.65	0
99	Bhudanuru	163.90	163.90					163.90	0
100	Beluru	67.18	67.18					67.18	0
101	Bellundagere	105.22	105.22					105.22	0
102	Guthalu	178.07	178.07					178.07	0
103	Sathanuru	230.68	230.68					230.68	0
104	Honaganahalli	4.86	4.86					4.86	0
105	Kommerahalli	45.73	45.73					45.73	0
106	Kannali	267.91	267.91					267.91	0
107	Hyadarahalli	161.07	161.07					161.07	0
108	Thumbkere	144.48	144.48					144.48	0
109	Hanakere	58.68	58.68					58.68	0
110	Kacchigere	47.35	47.35					47.35	0
111	Bellundagere	147.31	147.31					147.31	0
112	Halasagere	20.64	20.64					20.64	0
113	Sunaganahalli	22.26	22.26					22.26	0
114	Beluru	204.37	204.37					204.37	0
115	B.Gowdagere	194.66	194.66					194.66	0
116	Bhudanuru	333.87	333.87					333.87	0
117	Honaganahalli Mata	283.29	283.29					283.29	0
118	Alakere	230.68	230.68					230.68	0
119	Muddamgere	80.94	80.94					80.94	0
120	Keelara	182.11	182.11					182.11	0
121	Hanakere	202.35	202.35					202.35	0
122	Kacchigere	72.85	72.85					72.85	0

123	Thumbkere	40.47	40.47					40.47	0
124	B.Gowdagere	101.17	101.17					101.17	0
125	Halasagere	68.80	68.80					68.80	0
126	Kannali	40.47	40.47					40.47	0
127	B.Hosuru	93.08	93.08					93.08	0
128	Bilidegalu	101.17	101.17					101.17	0
129	Hanchahalli	131.53	131.53					131.53	0
130	J.Kebbahalli	303.52	303.52					303.52	0
131	Gantegowdanahalli	101.17	101.17					101.17	0
132	Chikkaballi	323.76	323.76					323.76	0
133	Hallegere	165.92	165.92					165.92	0
134	Thangalgera	38.45	38.45					38.45	0
135	Keragodu .A	40.47	40.47					40.47	0
136	Keragodu .B	323.76	323.76					323.76	0
137	Keragodu .A	161.88	161.88					161.88	0
138	Keragodu .B	113.31	113.31					113.31	0
139	Maragowdanahalli	250.91	250.91					250.91	0
140	Nallahalli	263.05	263.05					263.05	0
141	Hodaghatta	48.56	48.56					48.56	0
142	Eachagere	254.96	254.96					254.96	0
143	Keelara	72.85	72.85					72.85	0
144	Honnanayakanahalli	8.09	8.09					8.09	0
145	Eachagere	182.11	182.11					182.11	0
146	Hodaghatta	242.82	242.82					242.82	0
147	Dananayakanapura	283.29	283.29					283.29	0
148	Shivara	263.05	263.05					263.05	0

149	Maragowdanahalli	161.88	161.88					161.88	0
150	Maragowdanahalli	202.35	202.35					202.35	0
151	Gudigenahalli	149.74	149.74					149.74	0
152	Upparakanahalli	105.22	105.22					105.22	0
153	Chokanahalli	40.47	40.47					40.47	0
154	Gantegowdanahalli	42.49	42.49					42.49	0
155	Doddagarudanahalli	24.28	24.28					24.28	0
156	Mayappanhalli	101.17	101.17					101.17	0
157	Thangalgere	182.11	182.11					182.11	0
158	Hallegera	4.05	4.05					4.05	0
159	Guthaganahalli	149.74	149.74					149.74	0
160	Karekappa	4.05	4.05					4.05	0
161	Chakanahalli	80.94	80.94					80.94	0
162	Doddakothagere	109.27	109.27					109.27	0
163	Chikkakothagere	16.19	16.19					16.19	0
164	Chikkupparakanahalli	16.19	16.19					16.19	0
165	Challanayakanahalli	56.66	56.66					56.66	0
166	Chandagaalu	69.20	69.20					69.20	0
167	J.Hosahalli	141.64	141.64					141.64	0
168	Shivapura	161.88	161.88					161.88	0
169	Challanayakanahalli	68.80	68.80					68.80	0
170	Ganiga	64.75	64.75					64.75	0
171	Rayashettipura	161.88	161.88					161.88	0
172	J.Hosahalli	80.94	80.94					80.94	0
173	Chandagaalu	84.99	84.99					84.99	0
174	Thriyambakapura	89.03	89.03					89.03	0

	Mandya Total	25573.92	25573.92	0.00	0.00	0.00	0.00	25573.92	0.00
1	Sabbanahalli	206.39	206.39					206.39	0
2	Kadilavagilu	271.15	271.15					271.15	0
3	Yadaganahalli	222.58	222.58					222.58	0
4	Gopannahalli	16.19	16.19					16.19	0
5	Kadukothanahalli	145.69	145.69					145.69	0
6	K.Shettihalli	252.93	252.93					252.93	0
7	Haralahalli	129.50	129.50					129.50	0
8	Madarahalli	230.68	230.68					230.68	0
9	Singatakere	202.35	202.35					202.35	0
10	Karadakere	307.57	307.57					307.57	0
11	Arechakanahalli	169.97	169.97					169.97	0
12	Devarahalli	157.83	157.83					157.83	0
13	Doddarasinakere	101.17	101.17					101.17	0
14	Muttanahalli	20.23	20.23					20.23	0
15	Gudigere	20.23	20.23					20.23	0
16	B.Hosahalli	505.06	505.06					505.06	0
17	Holagerehalli	288.14	288.14					288.14	0
18	Mobbalagere	560.10	560.10					560.10	0
19	Maddur	41.68	41.68					41.68	0
20	Gejjlagere	169.97	169.97					169.97	0
21	Kudaragundi	315.66	315.66					315.66	0
22	Sadolalu	190.21	190.21					190.21	0
23	Goravanahalli	204.37	204.37					204.37	0
24	Channasandara	84.99	84.99					84.99	0
25	Nagarakere	65.97	65.97					65.97	0

26	Sompura	41.28	41.28					41.28	0
27	Malagaranahalli	40.47	40.47					40.47	0
28	Aajjahalli	97.13	97.13					97.13	0
29	Huligerepura	323.76	323.76					323.76	0
30	Uppinakere	101.17	101.17					101.17	0
31	Borapura	72.85	72.85					72.85	0
32	Chatradahosahalli	206.39	206.39					206.39	0
33	Chikkarasinakere	121.41	121.41					121.41	0
34	Desahalli	152.57	152.57					152.57	0
35	Chamnahalli	319.71	319.71					319.71	0
36	Shiavapura	56.66	56.66					56.66	0
37	Maddur	40.47	40.47					40.47	0
38	Vydyanathapura	121.41	121.41					121.41	0
39	Aajjahalli	40.47	40.47					40.47	0
40	Malagaranahalli	230.68	230.68					230.68	0
41	Torechakanahalli	48.56	48.56					48.56	0
42	Sompura	73.65	73.65					73.65	0
43	Uppinakere	8.09	8.09					8.09	0
44	Nagarakere	202.35	202.35					202.35	0
45	Goravanahalli	28.33	28.33					28.33	0
46	Sollepura	80.94	80.94					80.94	0
47	Valagerehalli	242.82	242.82					242.82	0
48	B.Hosahalli	161.88	161.88					161.88	0
49	Lakkasandra	80.94	80.94					80.94	0
50	Kudaragundi	161.88	161.88					161.88	0
51	Sadolalu	182.11	182.11					182.11	0

52	Gejlagere	151.76	151.76					151.76	0
53	Guluru	392.55	392.55					392.55	0
54	Bidarakote	392.55	392.55					392.55	0
55	V.Ballekere	242.82	242.82					242.82	0
56	Hunaganapura	145.69	145.69					145.69	0
57	Rampura	93.08	93.08					93.08	0
58	Chottanahalli	153.78	153.78					153.78	0
59	Haralahalli	174.02	174.02					174.02	0
60	Konasale	279.24	279.24					279.24	0
61	Besagarahalli	226.63	226.63					226.63	0
62	Hosakere	348.04	348.04					348.04	0
63	Belthuru	275.19	275.19					275.19	0
64	Mullahalli	60.70	60.70					60.70	0
65	Maraliga	445.16	445.16					445.16	0
66	Koppa	339.94	339.94					339.94	0
67	Thaggahalli	202.35	202.35					202.35	0
68	Hurugalavadi	182.11	182.11					182.11	0
69	T.Ballekere	141.64	141.64					141.64	0
70	Ankushapura	40.47	40.47					40.47	0
71	Chikkonahalli	109.27	109.27					109.27	0
72	Hosagavi	485.65	485.65					485.65	0
73	D.Malligere	101.17	101.17					101.17	0
74	Nambinayakanahalli	60.70	60.70					60.70	0
75	Bidarakote	20.23	20.23					20.23	0
76	Kowdle	485.63	485.63					485.63	0
77	Bekkalale	404.69	404.69					404.69	0

78	Mudya	182.11	182.11					182.11	0
79	Haralakere	214.49	214.49					214.49	0
80	Halehalli	202.35	202.35					202.35	0
81	Somanahalli	89.03	89.03					89.03	0
82	Maramgere	129.50	129.50					129.50	0
83	Avverahalli	80.94	80.94					80.94	0
84	Yadavanahalli	259.00	259.00					259.00	0
85	Abalavadi	194.24	194.24					194.24	0
86	Bolare	190.21	190.21					190.21	0
87	Tarikere	214.49	214.49					214.49	0
88	Kiranguru	174.02	174.02					174.02	0
89	Dodda Aankanahalli	8.09	8.09					8.09	0
90	Chikkankanahalli	28.33	28.33					28.33	0
91	Aadaganahalli	84.99	84.99					84.99	0
92	Kesthru	101.17	101.17					101.17	0
93	Thubinakere	48.56	48.56					48.56	0
94	Toreshettihalli	101.17	101.17					101.17	0
95	Hanumanthapura	24.28	24.28					24.28	0
96	Yaraganahalli	145.69	145.69					145.69	0
97	Kadalipura	56.66	56.66					56.66	0
98	Hulaganahalli	93.08	93.08					93.08	0
99	Hemmanahalli	169.97	169.97					169.97	0
100	Somanahalli Nale	97.13	97.13					97.13	0
101	K.Kodihalli	72.85	72.85					72.85	0
102	Tyluru	53.42	53.42					53.42	0
103	Somanahalli Kere	84.99	84.99					84.99	0

104	Kilaghatta	28.33	28.33					28.33	0
105	N.Kodihalli	161.88	161.88					161.88	0
106	Niluvagilu	206.39	206.39					206.39	0
107	Mudigere	153.78	153.78					153.78	0
108	Marasinganahalli	210.44	210.44					210.44	0
109	Hosakere	315.66	315.66					315.66	0
110	Kotthanahalli	153.78	153.78					153.78	0
111	Chamanahalli	121.41	121.41					121.41	0
	Maddur Total	18526.08	18526.08	0.00	0.00	0.00	0.00	18526.08	0.00
1	Aaladahalli	84.99	84.99					84.99	0
2	Hunasanahalli	30.35	30.35					30.35	0
3	Peehalli	76.08	76.08					76.08	0
4	Gamanahalli	23.07	23.07					23.07	0
5	Bettahalli	48.56	48.56					48.56	0
6	Chikkaharohalli	89.03	89.03					89.03	0
7	Doddaharohalli	45.33	45.33					45.33	0
8	Talagavadi	70.82	70.82					70.82	0
	S.R.patna Total	468.23	468.23	0.00	0.00	0.00	0.00	468.23	0.00

1	G.Bomnahalli	68.80	68.80					68.80	0
2	Mavinakere	105.22	105.22					105.22	0
3	Somanahalli	40.47	40.47					40.47	0
4	Anchipura	32.38	32.38					32.38	0
5	Kudugabalu	72.85	72.85					72.85	0
6	Sampanahalli	52.61	52.61					52.61	0
7	Muddenhatti	68.80	68.80					68.80	0
	Nagamangala Total	441.13	441.13	0.00	0.00	0.00	0.00	441.13	0.00
	Gross Total	45009.36	45009.36	0.00	0.00	0.00	0.00	45009.36	0.00

SL No	Taluk	Hobli	Name of the Village	Information of Canal command			Information on the other services command			Total Area	
				Total Area	Developed Area	Undeveloped Area	Total Area	Developed Area	Undeveloped Area	Developed Area	Undeveloped Area
1	Krishnarajapet	Kikkeri		5074.55	5074.55	-	-	-	-	5074.55	-
		Kasaba		8456.49	8456.49	-	-	-	-	8456.49	-
		Santhebachahalli		1012.72	1012.72	-	-	-	-	1012.72	-
		Seelanere		2668.00	2668.00	-	-	-	-	2668.00	-
		Bookinakere		7660.69	7660.69	-	-	-	-	7660.69	-
		Akkihebbalu		4392.00	4392.00	-	-	-	-	4392.00	-
Total				29264.45	29264.45	0.00	0.00	0.00	0.00	29264.45	0.00
2	Pandavapura	Chinakurali		7243.39	7243.39	-	-	-	-	7243.39	-
		Kasaba		5796.55	5796.55	-	-	-	-	5796.55	-
		Melukote		4996.90	4996.90	-	-	-	-	4996.90	-
Total				18036.84	18036.84	0.00	0.00	0.00	0.00	18036.84	0.00
3	Mandya	Dudda		4101.63	4101.63	-	-	-	-	4101.63	-
		Basaralu		8736.63	8736.63	-	-	-	-	8736.63	-
Total				12838.26	12838.26	0.00	0.00	0.00	0.00	12838.26	0.00
4	Nagamangala	Honakere		5609.22	5609.22	-	-	-	-	5609.22	-
		Kasaba		375.00	375.00	-	-	-	-	375.10	-
		Devalapura		7038.90	7038.90	-	-	-	-	7038.90	-
Total				13023.12	13023.12	0.00	0.00	0.00	0.00	13023.22	0.00
Grand Total				73162.67	73162.67	0.00	0.00	0.00	0.00	73162.77	0.00

5 .1: Strategic Action Plan for Irrigation in District under PMKSY-Horticulture Department

District : Mandya

TABLE -1

(Area in Hectare)

(Amount in Rs lakhs)

Sl. No	Component	Activity	Period of Implementation (2016-17)																		
			Crop	K R PET		MANDYA		MADDUR		MALAVALLI		NAGAMANGAL A		PANDUPURA		SRIRANAGAPAT NA		Grand total			
				Area	Esitmated amount	Area	Esitmat ed amount	Area	Esitma ted amou nt	Area	Esitm ated amou nt	Area	Esitma ted amou nt	Area	Esitma ted amou nt	Area	Esitma ted amou nt	Area	Esitmat ed amoun t		
10	Per drop more crop (Micro Irrigation)	Non - DPA P Drip	Coconut	35.00	8.19	22.65	5.43	34.00	7.54	15.00	3.84	74.40	15.74	16.00	3.38	7.50	1.62	204.55	45.74		
			Banana	61.81	49.96	50.00	38.43	80.00	61.49	120.00	92.23	25.00	19.31	32.00	24.99	20.00	15.37	388.81	301.79		
			Mango	3.00	0.63		0.00		0.00	10.00	2.12	7.00	1.48				0.00		20.00	4.23	
			Sapota	3.00	0.63		0.00		0.00	0.00	0.00	3.00	0.63				0.00	1.00	0.21	7.00	1.48
			Papaya	10.00	7.69	5.00	3.84	4.00	3.07	25.00	19.22	6.00	4.61	2.00	1.54	4.00	3.07		56.00	43.04	
			Tomato	9.00	8.10	38.00	34.20	16.30	14.67	197.00	177.30	47.00	42.30	80.00	72.00	26.00	23.40		413.30	371.97	
			Beans	2.09	1.88	1.00	0.90	0.00	0.00	43.90	39.51		0.00	24.50	22.05	22.00	19.80		93.49	84.14	

			Chilly	2.00	1.80	3.00	2.70	0.00	0.00	45.00	40.50	2.27	2.04	7.00	6.30	2.50	2.25	61.77	55.59
			Onion	0.00	0.00	0.00	0.00	0.00	0.00	4.00	3.60	26.00	23.40	0.00	0.00	0.00	0.00	30.00	27.00
			Cucurbits	6.00	4.61	3.25	2.50	1.60	1.23	10.00	7.69	21.00	16.14	7.00	5.38	1.00	0.77	49.85	38.31
			Marigold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Chrysant hemum	5.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	4.50
Total				136.9	88.00	122.9	88.00	135.9	88.00	469.9	386.0	211.67	125.66	168.5	135.64	84.00	66.50	1329.77	977.80

5.2 : Strategic Action Plan for Irrigation in District under PMKSY

District : Mandya

TABLE -2

(Area in Hectare)

(Amount in Rs lakhs)

Sl. No.	Com ponent	Acti vity	Period of Implementation (2017-18)																
			K R PET		MANDYA		MADDUR		MALAVALLI		NAGAMANGALA		PANDUPURA		SRIRANAGAPATNA		Grand total		
			Crop	Estim ated amou nt	Area	Estimat ed d amount	Area	Estima ted amou nt	Area	Estima ted amou nt	Area	Estima ted amou nt	Area	Estima ted amou nt	Area	Estima ted amou nt	Area	Estimat ed amoun t	
10	Per drop more crop (Micro Irrigation)	Non - DPA P Drip	Coconut	3076.50	650.68	1059.34	224.05	1566.50	331.31	1196.25	253.01	2368.90	501.02	556.00	117.59	848.13	179.38	10671.61	2257.05
			Banana	112.55	86.50	160.00	122.98	36.25	27.86	185.00	142.19	106.25	81.66	50.50	38.81	73.75	56.68	724.30	556.70
			Mango	218.25	46.16	126.25	26.70	240.00	50.76	297.50	62.92	323.25	68.37	120.50	25.49	198.00	41.88	1523.75	322.27
			Sapota	54.75	11.58	43.75	9.25	52.50	11.10	150.00	31.73	104.75	22.15	24.50	5.18	103.50	21.89	533.75	112.89
			Papaya	3.75	2.88	28.75	22.10	3.50	2.69	6.25	4.80	22.25	17.10	10.00	7.69	4.00	3.07	78.50	60.34
			Tomato	138.50	124.65	189.75	170.78	29.68	26.71	225.75	203.18	118.25	106.43	63.00	56.70	71.50	64.35	836.43	752.78

			Beans	36.98	33.28	56.00	50.40	8.75	7.88	29.03	26.12	25.00	22.50	23.88	21.49	35.75	32.18	215.38	193.84
			Chilly	62.00	55.80	11.75	10.58	12.00	10.80	57.50	51.75	25.68	23.11	8.25	7.43	12.38	11.14	189.56	170.60
			Onion	15.00	13.50	36.75	33.08	10.75	9.68	44.00	39.60	93.50	84.15	20.00	18.00	14.00	12.60	234.00	210.60
			Cucurbits	513.25	394.48	76.44	58.75	69.35	53.30	124.25	95.50	188.25	144.69	51.50	39.58	49.75	38.24	1072.79	824.54
			Marigold	2.80	2.52	16.63	14.96	2.28	2.05	13.65	12.29	29.40	26.46	3.50	3.15	3.68	3.31	71.93	64.73
			Chrysant hemum	51.25	46.13	7.20	6.48	5.63	5.06	2.48	2.23	19.80	17.82	13.05	11.75	1.80	1.62	101.20	91.08
Total				4285.58	1468.16	1812.60	750.10	2037.18	539.20	2331.65	925.31	3425.28	1115.47	944.68	352.85	1416.23	466.33	16253.18	5617.42

Annexure 5.3 : Strategic Action Plan for Irrigation in District under PMKSY

District : Mandya

TABLE -3

(Area in Hectare)

(Amount in Rs lakhs)

Sl. No.	Component	Activity	Period of Implementation (2018-19)																
			K R PET		MANDYA		MADDUR		MALAVALLI		NAGAMANGAL A		PANDUPURA		SRIRANAGAPAT NA		Grand total		
			Crop	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount		
10	Per dro p more crop (Micro Irrigation)	Non-DPAP Drip	Coconut	3076.50	650.68	1059.34	224.05	1566.50	331.31	1196.25	253.01	2368.90	501.02	556.00	117.59	848.13	179.38	10671.61	2257.05
			Banana	112.55	86.50	160.00	122.98	36.25	27.86	185.00	142.19	106.25	81.66	50.50	38.81	73.75	56.68	724.30	556.70
			Mango	218.25	46.16	126.25	26.70	240.00	50.76	297.50	62.92	323.25	68.37	120.50	25.49	198.00	41.88	1523.75	322.27
			Sapota	54.75	11.58	43.75	9.25	52.50	11.10	150.00	31.73	104.75	22.15	24.50	5.18	103.50	21.89	533.75	112.89
			Papaya	3.75	2.88	28.75	22.10	3.50	2.69	6.25	4.80	22.25	17.10	10.00	7.69	4.00	3.07	78.50	60.34
			Tomato	133.50	120.15	189.75	170.78	29.68	26.71	225.75	203.18	118.25	106.43	63.00	56.70	71.50	64.35	831.43	748.28
			Beans	36.98	33.28	56.00	50.40	8.75	7.88	29.03	26.12	25.00	22.50	23.88	21.49	35.75	32.18	215.38	193.84

			Chilly	62.00	55.80	11.75	10.58	12.00	10.80	57.50	51.75	25.68	23.11	8.25	7.43	12.38	11.14	189.56	170.60
			Onion	15.00	13.50	36.75	33.08	10.75	9.68	44.00	39.60	93.50	84.15	20.00	18.00	14.00	12.60	234.00	210.60
			Cucurbits	513.25	394.48	76.44	58.75	69.35	53.30	124.25	95.50	188.25	144.69	51.50	39.58	49.75	38.24	1072.79	824.54
			Marigold	2.80	2.52	16.63	14.96	2.28	2.05	13.65	12.29	29.40	26.46	3.50	3.15	3.68	3.31	71.93	64.73
			Chrysanthemum	56.25	50.63	7.20	6.48	5.63	5.06	2.48	2.23	19.80	17.82	13.05	11.75	1.80	1.62	106.20	95.58
Total				4285.58	1468.16	1812.60	750.10	2037.18	539.20	2331.65	925.31	3425.28	1115.47	944.68	352.85	1416.23	466.33	16253.18	5617.42

Annexure 5.4: Strategic Action Plan for Irrigation in District under PMKSY

District : Mandya

TABLE -4

(Area in Hectare)

(Amount in Rs lakhs)

Sl. No.	Component	Activity	Period of Implementation (2019-20)																
			K R PET		MANDYA		MADDUR		MALAVALLI		NAGAMANGALA		PANDUPURA		SRIRANAGAPAT NA		Grand total		
			Crop	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount	Area	Esitmat ed amount		
10	Per drop more crop (Micro Irrigation)	Non-DPAP Drip	Coconut	3076.50	650.68	1059.34	224.05	1566.50	331.31	1196.25	253.01	2368.90	501.02	556.00	117.59	848.13	179.38	10671.61	2257.05
			Banana	112.55	86.50	160.00	122.98	36.25	27.86	185.00	142.19	106.25	81.66	50.50	38.81	73.75	56.68	724.30	556.70
			Mango	218.25	46.16	126.25	26.70	240.00	50.76	297.50	62.92	323.25	68.37	120.50	25.49	198.00	41.88	1523.75	322.27
			Sapota	54.75	11.58	43.75	9.25	52.50	11.10	150.00	31.73	104.75	22.15	24.50	5.18	103.50	21.89	533.75	112.89
			Papaya	3.75	2.88	28.75	22.10	3.50	2.69	6.25	4.80	22.25	17.10	10.00	7.69	4.00	3.07	78.50	60.34
			Tomato	133.50	120.15	189.75	170.78	29.68	26.71	225.75	203.18	118.25	106.43	63.00	56.70	71.50	64.35	831.43	748.28

			Beans	36.98	33.28	56.00	50.40	8.75	7.88	29.03	26.12	25.00	22.50	23.88	21.49	35.75	32.18	215.38	193.84
			Chilly	62.00	55.80	11.75	10.58	12.00	10.80	57.50	51.75	25.68	23.11	8.25	7.43	12.38	11.14	189.56	170.60
			Onion	15.00	13.50	36.75	33.08	10.75	9.68	44.00	39.60	93.50	84.15	20.00	18.00	14.00	12.60	234.00	210.60
			Cucurbits	513.25	394.48	76.44	58.75	69.35	53.30	124.25	95.50	188.25	144.69	51.50	39.58	49.75	38.24	1072.79	824.54
			Marigold	2.80	2.52	16.63	14.96	2.28	2.05	13.65	12.29	29.40	26.46	3.50	3.15	3.68	3.31	71.93	64.73
			Chrysant hemum	56.25	50.63	7.20	6.48	5.63	5.06	2.48	2.23	19.80	17.82	13.05	11.75	1.80	1.62	106.20	95.58
Total				4285.58	1468.16	1812.60	750.10	2037.18	539.20	2331.65	925.31	3425.28	1115.47	944.68	352.85	1416.23	466.33	16253.18	5617.42

Annexure 5.5: Strategic Action Plan for Irrigation in District under PMKSY

District : Mandya

TABLE -5

(Area in Hectare)

(Amount in Rs lakhs)

Sl. No.	Component	Activity	Period of Implementation (2020-21)																
			Crop	K R PET		MANDYA		MADDUR		MALAVALLI		NAGAMANGALA		PANDUPURA		SRIRANAGAPATA		Grand total	
			Area	Esitmated amount	Area	Esitmated amount	Area	Esitma ted amount	Area	Esit mated amount	Area	Esitmated amount	Area	Esitma ted amount	Area	Esitma ted amount	Area	Esitmated amount	
10	Per drop more crop (Micro Irrigation)	Non-DPAP Drip	Coconut	3076.50	650.68	1059.34	224.05	1566.50	331.31	1196.25	253.01	2368.90	501.02	556.00	117.59	848.13	179.38	10671.61	2257.05
			Banana	112.55	86.50	160.00	122.98	36.25	27.86	185.00	142.19	106.25	81.66	50.50	38.81	73.75	56.68	724.30	556.70
			Mango	218.25	46.16	126.25	26.70	240.00	50.76	297.50	62.92	323.25	68.37	120.50	25.49	198.00	41.88	1523.75	322.27
			Sapota	54.75	11.58	43.75	9.25	52.50	11.10	150.00	31.73	104.75	22.15	24.50	5.18	103.50	21.89	533.75	112.89
			Papaya	3.75	2.88	28.75	22.10	3.50	2.69	6.25	4.80	22.25	17.10	10.00	7.69	4.00	3.07	78.50	60.34

			Tomato	133.50	120.15	189.75	170.78	29.68	26.71	225.75	203.18	118.25	106.43	63.00	56.70	71.50	64.35	831.43	748.28
			Beans	36.98	33.28	56.00	50.40	8.75	7.88	29.03	26.12	25.00	22.50	23.88	21.49	35.75	32.18	215.38	193.84
			Chilly	62.00	55.80	11.75	10.58	12.00	10.80	57.50	51.75	25.68	23.11	8.25	7.43	12.38	11.14	189.56	170.60
			Onion	15.00	13.50	36.75	33.08	10.75	9.68	44.00	39.60	93.50	84.15	20.00	18.00	14.00	12.60	234.00	210.60
			Cucurbits	513.25	394.48	76.44	58.75	69.35	53.30	124.25	95.50	188.25	144.69	51.50	39.58	49.75	38.24	1072.79	824.54
			Marigold	2.80	2.52	16.63	14.96	2.28	2.05	13.65	12.29	29.40	26.46	3.50	3.15	3.68	3.31	71.93	64.73
			Chrysanthemum	56.25	50.63	7.20	6.48	5.63	5.06	2.48	2.23	19.80	17.82	13.05	11.75	1.80	1.62	106.20	95.58
Total				4285.58	1468.16	1812.60	750.10	2037.18	539.20	2331.65	925.31	3425.28	1115.47	944.68	352.85	1416.23	466.33	16253.18	5617.42

5.6

Strategic Action Plan for PMKSY-DIP for Sericulture Taluk-wise / Year-wise

Chapter V: Strategic Action Plan For Irrigation in District under PMKSY														
5. Strategic Action Plan For Irrigation in District under PMKSY:														
S. No	Name of the Blocks/Sub Districts	Concerned Ministry/Department	Component	Activity	Total Number/Capacity (Cum)	Command Area/Irrigation Potential (Ha)	Period of Implementation (S/ 7 Yrs)						Estimated Cost (in Rs.)Lakh	
							2014-15	2015-16	2016-17	2017-18	2018-19	2019-20		2020-21
1	Mandya	Sericulture		Drip Irrigation	296	2042.00	4.90	18.00	350.00	375.00	400.00	417.00	477.00	1793.60
2	Maddur				453	5548.00	5.94	15.20	800.00	1050.00	1150.00	1250.00	1277.00	4873.25
3	Malavalli				648	5141.00	6.30	34.98	700.00	950.00	1000.00	1200.00	1250.00	4515.75
4	Srirangapatna				78	1009.00	0	3.99	100.00	150.00	200.00	250.00	305.00	886.28
5	Pandavapura				56	298.00	0	5.59	45.00	55.00	60.00	65.00	68.00	261.75
6	Nagamangala				46	140.00	0	3.18	20.00	25.00	28.00	30.00	34.00	122.97
7	K R Pete				112	234.00	1.84	13.40	29.00	40.00	45.00	50.00	54.00	205.54
TOTAL					1689	14412.00	18.98	94.34	2044.00	2645.00	2883.00	3262.00	3465.00	12659.14

Deputy Director of Sericulture,
Zilla Panchayath, Mandya

5.7

Strategic Action Plan for PMKSY-DIP Hemavathy Watershed Ground water recharge and Other Storage Structures Taluk-wise / Year-wise

Chapter 5: Strategic Action Plan for Irrigation in District under PMKSY

5.Strategic Action Plan for Irrigation in District under PMKSY								
Sl.No.	Name of the Blocks/ Sub Districts	Concerned Ministry/ Department	Component	Activity	Total Number/ Capacity (Cum)	Command Area/ Irrigation Potential (Ha)	Period Implementati on (5/7 years)	Estimated Cost(Rs.)
18.5	K.R.Pet	MoRD	PMKSY waterShed	Other Ground Water Recharge Structure	800		5 years	56000000.00
	Madduru				850		5 years	59500000.00
	Malavalli				900		5 years	63000000.00
	Mandya				875		5 years	61250000.00
	Nagamangala				900		5 years	63000000.00
	Pandavapura				450		5 years	31500000.00
	Srirangapatna				300		5 years	21000000.00
	Total							

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Action Plan of Soil and Moisture Conservation works proposed

Scheme: Pradhanamantri Krishi Sinchayee Yojana

Sl. NO	Name of the Range	water shed area Proposed for treatment (Extent in Ha)	Desilting of Tank (Nos)	Fin. Unit cost @ Rs. 5.00 lakh	Check dam/nala bund (Nos.)	Fin. Unit cost @ Rs. 5.00 lakh	Gully Check/boulder bund (Nos.)	Fin. Unit cost @ Rs. 10,000/-	Bigger sized check dams at lower reaches (Nos.)	Fin. Unit cost @ Rs. 20.00 lakh	Digging contour/staggered trenches 5mX1m X1m @ 30trs./Ha.	Fin. Unit cost @ Rs. 13,500/-	Percolation Trs/Percolation Pit (Nos.)	Fin. Unit cost @ Rs. 3000/-	Total Amount Required
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Mandya	1500	10	50.00	37	185.00	2800	280.00	6	120.00	380	51.300	980	29.400	715.700
2	Maddur	500	5	25.00	22	110.00	1600	160.00	2	40.00	220	29.700	510	15.300	380.000
3	Malavalli	500	5	25.00	20	100.00	1200	120.00	3	60.00	180	24.300	380	11.400	340.700
4	S.R.Patna	1500	7	35.00	30	150.00	2200	220.00	3	60.00	290	39.150	750	22.500	526.650
5	Nagamangala	2000	10	50.00	60	300.00	4000	400.00	6	120.00	450	60.750	1200	36.000	966.750
6	Pandavapura	500	7	35.00	26	130.00	2200	220.00	4	80.00	350	47.250	750	22.500	534.750
7	K.R.Pet	1000	7	35.00	26	130.00	2207	220.70	4	80.00	350	47.250	750	22.500	535.45
Total		7500	51	255.00	221	1105.00	16207	1620.70	28	560.00	2220	299.70	5320	159.60	4000.00

Deputy Conservator of Forests
Mandya Division, Mandya

5.9

Strategic Action Plan for Irrigation in District Irrigation Plan for 5/7 Years Component: Convergence with MGNREGA

WHS to be created							
Sl. No.	Activity	Total No.s	Total Capacity (cum)	Command Area/ Irrigation Potential (Ha)	Period of Implementation (5 / 7Years)	Estimated Cost (Rs. In Lakhs)	Remarks
I	Water Conservation						
1	Trench Cum Bund	395	80975	0	5 Years	47.4	
II	Water Harvesting	0	0	0	0	0	
1	Farm Ponds	33	14190	24.75	5 Years	13.9	
2	Check Dam	51	78700	484.5	5 Years	280	
3	Nala Bund	3	8250	49.5	5 Years	15	
4	Percolation Tank	0	0	0	0	0	
5	Cattle Pond (Gokatte)	64	120200	846	5 Years	370	
6	Kalyani	11	12100	0	5 Years	55	
7	RCP	748	74840	0	5 Years	399	

III	Land Development	0	0	0	0	0	
		0	0	50	5 Years	12.5	
	Total	1305	389255	1454.75		1192.8	
WHS to be Renovated							
1	Check Dam	48	69600	456	5 Years	240	
2	Nala Bund	15	41250	247.5	5 Years	75	
3	Percolation Tank	0	0	0	0	0	
4	Cattle Pond (Gokatte)	67	101100	770.5	5 Years	295	
5	Kalyani	5	5500	0	5 Years	25	
6	Recharge pit	30	2400	0	5 Years	15	
	Total	165	219850	1474		650	