

Report

# MONITORING, EVALUATION, LEARNING AND DOCUMENTATION (M,E,L & D) OF JALASIRI SCHEME UNDER SPECIAL DEVELOPMENT PLAN FOR THE YEAR 2010 - 11

Submitted to:  
**The Commissioner,  
Watershed Development Department,  
7<sup>th</sup> Floor, KHB Complex,  
Cauvery Bhavan, K.G. Road,  
Bangalore - 560 009**

By :

**Indian Resources Information & Management Technologies Ltd  
(IN-RIMT)**

**593, 9<sup>th</sup> A Main, 14<sup>th</sup> Cross, ISRO Layout, JP Nagar Post  
Bangalore - 560 078**



March, 2012

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## EXECUTIVE SUMMARY

The Government of Karnataka announced a new scheme called “Jalasiri” under the special development plan for the year 2010-11 and the scheme envisages construction of Water Harvesting Structures in order to increase crop production in rural areas; to be implemented in 114 identified backward, more/ most backward talukas of the state.

The Watershed Development Department have constructed 1514 different water harvesting structures by incurring an expenditure of Rs 27.60 crores in all the 27 districts of the state during the year 2010-11.

With the view to measure the efficiency of Jalasiri scheme, the evaluation work has been assigned to M/s Indian Resources Information & Management Technologies Ltd (IN-RIMT) by the Watershed Development Department, Bangalore vide their office order No. Ja. Aa.E/Ja. Kru. Ni(Aa,U,Cha)/Jalasiri/Mou. Ma/Than-10/2011-12 dt. 01-02-2012. Accordingly, IN-RIMT has verified 234 water harvesting structures as against 231 constructed in Belgaum and Mysore divisions comprising 12 districts (7 & 5 districts respectively). The district wise WHS constructed, to be evaluated and the numbers physically verified is furnished in Annexure. Well experienced field evaluators have visited the sites and has verified 113 No. of Check dams, 37 Nala bunds, 69 Farm Ponds, 1 percolation tank and 14 Vented Dams, totaling to 234 water harvesting structures.

Interactions with the beneficiary farmers have revealed that they are happy with the scheme as these structures have helped in raising the levels of water in bore wells and open wells which in turn could provide protective irrigation at critical stage of the crop resulting in increased production, besides the water stored is used for cattle drinking , domestic purposes etc.

By field verification and ascertaining the views / opinions of the farmers it can be said that construction of water harvesting structures is a boon to there in harvesting run off rain water and use for supplemental irrigation at critical stages of crop growth spraying plant protection chemical, domestic use etc. 75% of the structures verified are found to be good & excellent and 25% as average.

Though the success of the project cannot be enumerated in totality due to scanty rainfall and only one year of completion, it is definitely during the year good rainfall.

## Chapter 1

### 1. Introduction

From time immemorial, man has exhibited the instinct of searching for new methods and activities to conserve and harvest the most precious natural resource – **the water**. A water conservation measure is an action, behavioral change, device, technology, or improved design or process implemented to reduce water loss, waste, or use. *Water efficiency* is a tool of water conservation that results in more efficient water use and thus reduces water demand. Water conservation programs are typically initiated at the local level, by either local governing bodies or regional governments to obtain an objective first hand information on the effectiveness of the project understanding the realistic output anticipated in the project and to know the improvement in terms of increased productivity, groundwater utilization, recharges mechanism and additional employment generation.

The Indian Resources Information & Management Technologies Ltd., (IN-RIMT) was entrusted with the work (vide letter No. WDD/JaKruNi(AaUCha)/Jalasiri Eva/Tech-10/2011-12 dt. 01-02-2012 and an agreement was signed on 02-02-2012. As per the Work Order, IN-RIMT was directed to visit and evaluate a total of 231 structures comprising of 147 (out of the 367 built) structures in Belgaum Division and 84 (out of the 211 built) structures in Mysore Division.

Karnataka State Government in its Budget for 2010-11 mooted a new initiative called “**JALASIRI**” under **Special Development Plan for the year 2010-11**. The scheme envisaging construction of water harvesting structure that in turn will help in increasing crop production in the rural segment has been implemented in 114 taluks of the state.

During the financial year 2010-11 as many as 1514 structures were built.

Having invested huge sums in constructing these structures, the Government of Karnataka considered it appropriate to evaluate the usefulness and establish the fruitful utility of the facilities created during the year 2010 - 11 through an external

agency to evaluate these structures. The Department identified 147 (out of 367 built) and 84 (out of the 211 built) structures in Mysore Division for the conductance of the study. Accordingly, IN-RIMT conducted the evaluation focusing on the points contained in the Terms of Reference (ToR).

### **1.1 Objectives**

The main objective of the scheme is to

1. Improve crop production,
2. Harvesting run-off water,
3. Recharge of groundwater table,
4. Drought proofing,
5. Generation of employment as agricultural labour,
6. Providing irrigation to crops at critical stages and
7. Providing drinking water to cattle

With an expected outcome of

1. Increase in crop production,
2. Increase in groundwater table,
3. Drought proofing and
4. Employment generation.

The present evaluation study was carried to know the overall impact of the structures built and inturn to establish the net impact of the project on socio-economic and environmental indicators, enlist major, technical and other problems observed and to suggest changes required, if any.

## **1.2 Scope of the work**

The scope of the study involves:

1. Ensuring that the works are executed as per approved action plan,
2. Ensuring that the work is executed as per sanctioned estimate,
3. Ensuring technical feasibility and suitability of site selection,
4. Establish number of SC/ST farmers benefitted,
5. To establish the increase in crop production (agricultural/horticultural/forestry),
6. To know additional area brought under irrigation,
7. Establish increase in water level of bore wells, open wells,
8. Measurement of Drought proofing results,
9. Reduction in labour migration,
10. Measure in increase of man days generated and
11. Measure in increase of incremental income.



## Chapter 2

### 2. Methodology

- The scope of study covers a wide gamut of aspects/ tasks to be performed by the evaluators and therefore, a sequence of methodology was put in place for carrying out the study which includes
- Collection and analysis of relevant data from the Watershed Development Department
- A team of experienced evaluators were given orientation training by experts before deputing them to various districts covered in Mysore and Belgaum Divisions
- Field studies and physical verification conducted in all the 12 project districts (7 districts in Belgaum division and 5 districts in Mysore division)
- Discussions / interactions held with district level/ taluk level implementing Officers. Field personnel
- Physical verification covering the technical feasibility and site selection aspects were carried out at individual locations
- Interactions with beneficiaries and local community were held to elicit their opinion

## Chapter 3

### 3. The Findings

All the 231 structures selected by the Department for physical verification and evaluation have been inventoried as mentioned in the Work Order. These structures are spread over 12 districts of the State in two divisions viz., Mysore and Belgaum. While Belgaum division consists of 7 districts, Mysore division has 5 districts. The following table shows the number of structures inventoried in each district.

Sr. No.	Name of the District	Total No. of Structures constructed	No. of Structures evaluated
<b>I</b>	<b>Belgaum Division</b>		
1	Belgaum	47	19
2	Bijapur	94	38
3	Bagalkot	38	16
4	Dharwad	15	8
5	Gadag	21	8
6	Haveri	125	50
7	Uttara Kannada	27	11
	<b>Total</b>	<b>367</b>	<b>150</b>
<b>II</b>	<b>Mysore Division</b>		
1	Chikmagalur	20	8
2	Chamarajanagar	42	17
3	Hassan	50	20
4	Mandya	46	21
5	Mysore	53	21
	<b>Total</b>	<b>211</b>	<b>84</b>
	<b>Grand Total</b>	<b>578</b>	<b>234</b>

The findings of the study are described in the following paragraphs -

#### 1. Execution of work as per action plan:

As per action plan approved by the watershed Development Department, the various water harvesting structures were found executed

## 2. **Execution of work as per plan and estimate:**

The various Water Harvesting Structures such as Check dam, Nala bunding, Farm Ponds, Percolation Tanks and Vented dams were found executed as per the plan and estimate sanctioned by concerned DWDO in general. Estimation of impounding capacity need to be reexamined. District wise water harvesting structures constructed, to be verified and structure wise verified are presented in Annexure – I.

## 3. **Technical feasibility and suitability:**

Some more care/ guidance need to be given in deciding the structure suitable to the gully of halla and deciding the crest height. Also, catchment area need to be appropriately estimated looking to the cumulative catchment.

The nala banks at flank wall portion need to be strengthened. The flank wall end points are to be embedded into the banks, any open will be prone for loosening or likely damage.

## 4. **No. of SC/ST farmers benefited:**

It has been observed that the weaker sections of the society including SC/ ST farmers were found benefited and have increased their production. They need additional support like desilting of open wells, repair/ provide electrical connection, land development and some more WHS's in the same halla ( after studying the technical feasibility). District wise and taluk wise category of farmers benefited as per field study and type water harvesting structures constructed are furnished in Annexure II.

## 5. **Increase in crop production(Agri-horti-silvi system)**

On account of the construction of WHS's the crop production is found increased to the extent of 5-10% in general, either through direct irrigation, protective irrigation, improvement in soil moisture regime. Besides the cropping intensity has increased making scope for cumulative area under irrigation

The increase in crop production is more in case of vented dams and farm ponds.

There is scope for bringing success stories about the impact of the scheme or individual works.

Visual change observed between treated and untreated locations/ sites. District wise cropping pattern followed and yields are present in Annexure III.

#### **6. Additional area brought under irrigation:**

In some cases additional area is found brought under irrigation especially under nala bunds, vented dams and farm ponds. However, cropping intensity has been found considerably increased (to the extent of 10-25%) especially under Nala bunds and check dams due to increased recharge of bore wells. The vented dams have provided scope for taking up second crop of paddy in high rainfall regions. The farm ponds have benefitted individual farmers to take up vegetable production along with commercial crops.

#### **7. Increase in water levels I borewells and open wells:**

As per opinion survey/ interaction with beneficiaries and farming community, it has been found that there is increase in water levels of bore wells and open wells to some extent only because of scanty rainfall during 2011-12. It is felt that after 2-3 monsoons coupled with normal rainfall, there is all likelihood of increase in water levels of bore wells and open wells.

#### **8. Drought proofing results:**

The WHS constructed under “Jalasiri” are spread across the districts and talukas and even in remote areas. Even during scanty rainfall, the harvested/ impounded rainwater used for giving protective irrigation, spraying of PP chemicals, raising nursery, cattle drinking and other domestic purposes.

#### **9. Reduction of labour migration:**

As per the interaction with field staff, it has been found that skilled and unskilled workers were given employment for 15-20 persons for a period of 20-25 days and thus generated employment to the extent of about 300 man days per structure of normal size. The man days generated is more under nala bund/ percolation tank compared to check dam/ vented dams. The employment generation under Farm

pond is found to be 160 man days. However, labour migration is very little as the works are not continuous.

#### 10. **Incremental income:**

As per interaction with beneficiaries and farmers, the scheme has benefitted considerable number of various sections as they are very happy.

It is early to assess the actual incremental income since only one season has been completed and due to scanty rainfall in majority of the districts, adequate rainfall of sufficient duration is required for effective infiltration into the soils and ground water recharge. At present the scheme has benefitted for providing drinking water for cattle/ sheep to the extent of 5-10 days to 3 months besides helping the farmers for raising nursery and spraying of PP chemicals.

#### **Lessons learnt:**

1. Scheme helped to take up water harvesting structures even in remote and solitary locations.
2. Deprived class of farming community benefitted much.
3. SC/ST farming community exclusively benefitted in some cases, they need additional support like repair of open wells, land development, providing Horticultural & forest grafts/ seedlings.
4. Field functionaries need orientation trainings about designing and estimation of WHS and also calculating the storage capacity and fixing the crest height. They also need to be highlighted about the Do's and Don't's in planning and execution especially for new staff from other schemes.
5. Construction of body wall with two steps need to be avoided as against three steps recommended for easy cross over/ to reach other side.
6. Curing with water for masonry work need to be considered as very important aspect, otherwise longevity of the structure gets reduced.
7. One step on the body wall kept above nala bank level which has no significance.
8. For wider gullies earthen embankments (MPT) are ideal than check dams.
9. Nala bed slope is also an ideal factor for deciding the structure and designing the structure and location of construction.

10. Local flora with young neem trees developed near the WHS due to seed dispersed by the birds was observed. Success story may be brought out (Hunugunda taluk).

### Grading / Performance rating:

This is one of the methods through which the work performance / performance components have been judged in terms of pertinent standard criterion. The ratings are assigned depending on their attained merits. The key parameters used to judge and assign ratings are efficiency, effectiveness, relevance, impact and sustainability of programme activities performed. As per data/ results, the performance of the water harvesting structures is presented as under:

Sl. No	District	Ratings in percentage				
		Grade-I Excellent	Grade-II Good	Grade-III Satisfactory	Grade-IV Average	Grade-V Below average
<b>BELGAUM DIVISION</b>						
1	Belgaum	5	90	-	5	-
2	Bijapur	5	79	13	3	-
3	Bagalkot	-	37	63	-	-
4	Dharwar	-	100	-	-	-
5	Gadag	-	25	75	-	-
6	Haveri	26	40	30	6	-
7	U. Kannada	100	-	-	-	-
	Total for Belgaum Division	19	53	26	2	-

<b>MYSORE DIVISION</b>						
8	Chickmagalur	-	75	25	-	-
9	Chamarajanagar	6	82	12	-	-
10	Hassan	10	75	15	-	-
11	Mandya	5	67	28	-	-
12	Mysore	5	67	38	-	-
	Total for Mysore Division	5	73	22	-	-
	Grand Total	12	63	24	1	

It is observed from the above that 12% of WHS constructed fall under excellent grade 63% under good, 24% under satisfactory and 1% under Average .It is also clean from the statement that Uttara Kannada district with 11 WHS is graded as Excellent (100%) followed by Haveri (26%) and Hassan (10%) Dharwad district with all its 8WHS is graded as good (100%) followed by Belgaum (90%) and Bijapur (79%). In all 75% WHS are graded as good & Excellent and 25% as satisfactory and Average.

Since the rainfall during 2010-11 was below average normal rainfall is most of the taluk, the performance could not be assessed in totality. However it is impertinence that water levels in the bore wells / open wells and recharge of under ground water will be progressing high during good rainfall years. However there is scope for further improvement as elucidated in the earlier paragraphs.

## Chapter 4

### 4 Recommendations

1. Nala banks of the WHS constructed need to be strengthened/ fortified with grasses. Additional funds may be provided for this, otherwise, the flank walls are likely to get damaged in the event occurrence of excess rainfall in a single day.
2. Desilting of silted-up WHS may be taken up either through motivation by providing funds.
3. The head mazadoors, skilled and unskilled workers may be recognized/ encouraged by providing platform to make them understand the aims/ objectives of WHS's/ Department. They may be encouraged / educated about the free insurance coverage for landless households/ works mooted by Govt. of India, LIC, Govt. of Karnataka like Aam Admi Bima Yojane, which is under implementation in the State.
4. Provision need to be made for maintenance of the structures and beneficiaries need to be educated/ motivated.
5. There is a need of a single agency / authority to be assigned with the task of approval of the location of WHS, otherwise there will be chances of deviation / unnecessary expenditure to the Government exchequer.



## Annexure - 1

## District wise different WHS covered during field study

Sl.No.	District	WHS		Different WHS covered					
		Total Constructed	To be covered	CD	NB	FP	PT	VD	Total
1	Belgaum	47	19	13	5	-	-	1	19
2	Bijapur	94	38	12	1	18	7	-	38
3	Bagalkot	38	15	15	1	-	-	-	16
4	Dharwad	15	6	8	-	-	-	-	8
5	Gadag	21	8	8	-	-	-	-	8
6	Haveri	125	50	8	-	42	-	-	50
7	Uttara Kannada	27	11	-	-	-	-	11	11
	<b>Total Belgaum Division</b>	<b>367</b>	<b>147</b>	<b>64</b>	<b>7</b>	<b>60</b>	<b>7</b>	<b>12</b>	<b>150</b>
1	Chikmagalur	20	8	1	7	-	-	-	8
2	Hassan	50	20	-	4	14	-	2	20
3	Mandya	46	18	12	5	1	-	-	18
4	Mysore	53	21	16	5	-	-	-	21
5	Chamarajanagara	42	17	15	2	-	-	-	17
	<b>Total Mysore Division</b>	<b>211</b>	<b>84</b>	<b>44</b>	<b>23</b>	<b>15</b>	<b>-</b>	<b>2</b>	<b>84</b>
	<b>Grand Total</b>	<b>578</b>	<b>231</b>	<b>108</b>	<b>30</b>	<b>75</b>	<b>7</b>	<b>14</b>	<b>234</b>

ID	Name	Age	Gender	Occupation	Education	Marital Status	Income	Assets	Liabilities	Health	Mental	Social	Environment	Detailed Metrics																																																																																											
														M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20																																																																								
1	John Doe	35	Male	Software Engineer	Bachelor's	Married	\$80,000	\$150,000	\$50,000	Good	Stable	Active	Urban	1.2	2.5	3.8	4.1	5.2	6.3	7.4	8.5	9.6	10.7	11.8	12.9	14.0	15.1	16.2	17.3	18.4	19.5	20.6	21.7	22.8	23.9	25.0	26.1	27.2	28.3	29.4	30.5	31.6	32.7	33.8	34.9	36.0	37.1	38.2	39.3	40.4	41.5	42.6	43.7	44.8	45.9	47.0	48.1	49.2	50.3	51.4	52.5	53.6	54.7	55.8	56.9	58.0	59.1	60.2	61.3	62.4	63.5	64.6	65.7	66.8	67.9	69.0	70.1	71.2	72.3	73.4	74.5	75.6	76.7	77.8	78.9	80.0	81.1	82.2	83.3	84.4	85.5	86.6	87.7	88.8	89.9	91.0	92.1	93.2	94.3	95.4	96.5	97.6	98.7	99.8	100.9
2	Jane Smith	28	Female	Marketing Specialist	Bachelor's	Single	\$60,000	\$80,000	\$20,000	Fair	Stable	Active	Suburban	1.5	2.8	4.1	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.3	15.4	16.5	17.6	18.7	19.8	20.9	22.0	23.1	24.2	25.3	26.4	27.5	28.6	29.7	30.8	31.9	33.0	34.1	35.2	36.3	37.4	38.5	39.6	40.7	41.8	42.9	44.0	45.1	46.2	47.3	48.4	49.5	50.6	51.7	52.8	53.9	55.0	56.1	57.2	58.3	59.4	60.5	61.6	62.7	63.8	64.9	66.0	67.1	68.2	69.3	70.4	71.5	72.6	73.7	74.8	75.9	77.0	78.1	79.2	80.3	81.4	82.5	83.6	84.7	85.8	86.9	88.0	89.1	90.2	91.3	92.4	93.5	94.6	95.7	96.8	97.9	99.0	100.1	
3	Michael Johnson	45	Male	Business Analyst	Master's	Married	\$120,000	\$200,000	\$80,000	Excellent	Stable	Active	Urban	1.8	3.1	4.4	4.7	5.8	6.9	8.0	9.1	10.2	11.3	12.4	13.5	14.6	15.7	16.8	17.9	19.0	20.1	21.2	22.3	23.4	24.5	25.6	26.7	27.8	28.9	30.0	31.1	32.2	33.3	34.4	35.5	36.6	37.7	38.8	39.9	41.0	42.1	43.2	44.3	45.4	46.5	47.6	48.7	49.8	50.9	52.0	53.1	54.2	55.3	56.4	57.5	58.6	59.7	60.8	61.9	63.0	64.1	65.2	66.3	67.4	68.5	69.6	70.7	71.8	72.9	74.0	75.1	76.2	77.3	78.4	79.5	80.6	81.7	82.8	83.9	85.0	86.1	87.2	88.3	89.4	90.5	91.6	92.7	93.8	94.9	96.0	97.1	98.2	99.3	100.4	
4	Emily White	30	Female	Product Designer	Bachelor's	Single	\$70,000	\$100,000	\$30,000	Good	Stable	Active	Suburban	1.6	2.9	4.2	4.5	5.6	6.7	7.8	8.9	10.0	11.1	12.2	13.3	14.4	15.5	16.6	17.7	18.8	19.9	21.0	22.1	23.2	24.3	25.4	26.5	27.6	28.7	29.8	30.9	32.0	33.1	34.2	35.3	36.4	37.5	38.6	39.7	40.8	41.9	43.0	44.1	45.2	46.3	47.4	48.5	49.6	50.7	51.8	52.9	54.0	55.1	56.2	57.3	58.4	59.5	60.6	61.7	62.8	63.9	65.0	66.1	67.2	68.3	69.4	70.5	71.6	72.7	73.8	74.9	76.0	77.1	78.2	79.3	80.4	81.5	82.6	83.7	84.8	85.9	87.0	88.1	89.2	90.3	91.4	92.5	93.6	94.7	95.8	96.9	98.0	99.1	100.2	
5	David Brown	50	Male	Finance Manager	Master's	Married	\$150,000	\$250,000	\$100,000	Excellent	Stable	Active	Urban	2.0	3.3	4.6	4.9	6.0	7.1	8.2	9.3	10.4	11.5	12.6	13.7	14.8	15.9	17.0	18.1	19.2	20.3	21.4	22.5	23.6	24.7	25.8	26.9	28.0	29.1	30.2	31.3	32.4	33.5	34.6	35.7	36.8	37.9	39.0	40.1	41.2	42.3	43.4	44.5	45.6	46.7	47.8	48.9	50.0	51.1	52.2	53.3	54.4	55.5	56.6	57.7	58.8	59.9	61.0	62.1	63.2	64.3	65.4	66.5	67.6	68.7	69.8	70.9	72.0	73.1	74.2	75.3	76.4	77.5	78.6	79.7	80.8	81.9	83.0	84.1	85.2	86.3	87.4	88.5	89.6	90.7	91.8	92.9	94.0	95.1	96.2	97.3	98.4	99.5	100.6	



# **BELGAUM DIVISION**

<b>Belgaum</b>
<b>Bijapur</b>
<b>Bagalkot</b>
<b>Dharwad</b>
<b>Gadag</b>
<b>Haveri</b>
<b>Uttara Kannada</b>

**PLATE 1**

**B**

**A**

**G**

**A**

**L**

**K**

**O**

**T**

**D**

**I**

**S**

**T**

**R**

**I**

**C**

**T**

1. CD1 Kundargi

2. CD2 Arakere

3. CD1 Ramthal

4. CD1 Inam Budihalhal



5. CD1 Aihole

6. CD1 Sanklapur



7. CD1 Hireotigere

8. CD1 Kandagal

**PLATE 2**



9. CD1 Nandawadagi



11. CD1 Bedarabudihal  
SP

13. NB1 Inchinawadi



15. CD2 Halakurki

**B**

**A**

**G**

**A**

**L**

**K**

**O**

**T**

**D**

**I**

**S**

**T**

**R**

**I**

**C**

**T**

10. CD1 Hamsanur



12. CD1 Allur



14. CD1 Muttalageri



16. CD1 Halakurki

# PLATE 1



1. CD3 Kulamanatti



2. FP,CD1,NB1 & GK Doddavad



3. CD1 Yeragatti



4. CD1 Tadasalore

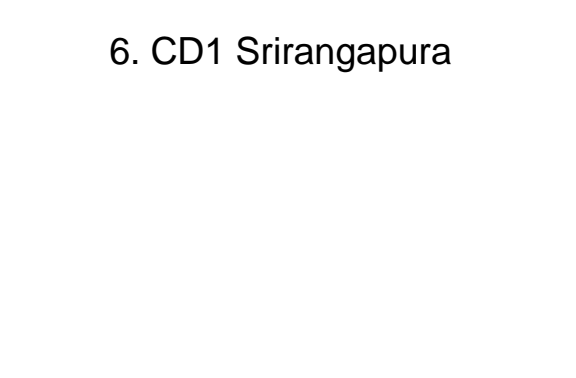


5. CD1 Harigoppa



6. CD1 Srirangapura

7. NB1 Kodliwad



8. NB1 Gulumkeri

B  
E  
L  
G  
A  
U  
M  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 2**



9. CD2 Ullagaddi Khanapur



10. CD1 Solapur



11. CD3 Kochari



12. CD1



Kochari

13. CD2 Kochari



14. CD1 Hukkeri Rural



15. NB2 Gosawal



16. NB1 Gosawal

**B  
E  
L  
G  
A  
U  
M  
D  
I  
S  
T  
R  
I  
C  
T**



**PLATE 3**



**17. CD1 Kulgod**



**18. VD3 Raddaratti**



**19. NB3 Mammikeri**

**B  
E  
L  
G  
A  
U  
M  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 1**

**B**

**I**

**J**

**A**

**P**

**U**

**R**

**D**

**I**

**S**

**T**

**R**

**I**

**C**

**T**

1. FP1 Mukihal

2. FP1 Bavooru



3. FP1 Hallur

4. FP1 Hirur



5. CD1 Nerabenchi

6. FP1 Khyatanal



7. CD1 B.Salawadagi

8. PT1 Hagaragund

**PLATE 2**



9. FP1 Dhavalagi



10. FP1 Gundakarajagi



11. CD1 Gundakarajagi



12. CD1



13. CD2 Balaganur



14. PT Tarnal



15. CD1 Bommanahalli



16. PT Pettepur

**B  
I  
J  
A  
P  
U  
R  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 3**



17. CD1 Maileshwara



18. CD1 Geddalamani



19. FP1 Devoor



20. PT



21. PT Hanchali



22. PT Khanapui



23. FP1 Kannaguddihal



24. CD2 Kakkalmeli

**B  
I  
J  
A  
P  
U  
R  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 4**



25. CD2 Ashaki



26. CD1 Ashiak



27. NB Kerotagi



28. CD2  
Kokatnoor



29. CD1 Kokatnoor



30. PT Kannolli



31. CD1 Kannolli



32. CD1 Harnal

**B  
I  
J  
A  
P  
U  
R  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 5**



33. CD2 Hitnalli



34. CD1 Hitnal



35. PT Devanoor

**B  
I  
J  
A  
P  
U  
R  
D  
I  
S  
T  
R  
I  
C  
T**

36. FP Ganihar

37. FP Bandal

38. FP Budihal

**PLATE 1**



1. CD2 Neerasagar



2. CD1 Neerasagar



3. CD2 Koorvinakoppa  
Koorvinakoppa



4. CD1



5. CD4 Neerasagar



6. CD3 Neerasagar



7. CD1 Harlapur



8. CD1 Kalas

D  
H  
A  
R  
W  
A  
D  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 1**



1. CD3 Govinakoppa



2. CD3 Dhoni



3. CD2 Dhoni



4. CD4 Dhoni



5. CD1 Attikatte



6. CD3 Kadakol



7. CD2 Kadakol



8. CD1 Kadakol

**G  
A  
D  
A  
G  
D  
tanda  
S  
T  
R  
I  
C  
T**



**PLATE 1**



1. FP2 Allapur



2. FP3 Allapur



3. FP4 Allapur



4. FP1



5. FP3 Kalavarakoppa



6. FP4 Kalavarakoppa



7. FP2 Kalavarakoppa



8. FP1 Kalavarakoppa

**Kudala**

**H  
A  
V  
E  
R  
I  
D  
S  
T  
R  
I  
C  
T**

**PLATE 2**



9. FP1 Domanal



10. FP2 Domanal



11. FP Allapur



12. FP1 Haranagiri



13. FP1 Byagawadi



14. FP3 Byagawadi



15. FP2 Byagawadi



16. FP3 Domanal

H  
A  
V  
E  
R  
I  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 3**



17. CD4 Melmuri



18. FP6 Huvinasigli



19. FP1 Huvinasigli  
Huvinasigli



20. FP5



21. FP3 Huvinasigli



22. FP7 Huvinasigli



23. FP2 Huvinasigli



24. FP4 Huvinasigli

H  
A  
V  
E  
R  
I  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 4**



25. FP4 Bairapura



26. FP7 Bairapur



27. FP12 Bairapur



28. FP13



29. FP6 Bairapura



30. FP1 Jallapur



31. FP5 Jallapur



32. FP3 Jallapur

H  
A  
V  
E  
R  
I  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 5**



33. FP2 Jallapur



35. FP3 Hattimattur  
Jallapur



37. CD2 Kyalakonda



39. CD1 Kengapur



34. FP4 Hattimattur



36. FP4



38. CD1 Kyalakonda



40. FP1 Kengapur

H  
A  
V  
E  
R  
I  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 6**



41. FP2 Kengapur



42. CD1 Bannikoppa



43. FP1 Mugali



44. FP2



Chikkamanikatti

45. FP1 Chikkamanikatti



46. FP3 Kabanur



47. FP1 Kabanur



48. CD1 Kundur

H  
A  
V  
E  
R  
I  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 7**



49. CD1 Bhadrapur



50. CD2 Bhadrapur

**H  
A  
V  
E  
R  
I  
D  
I  
S  
T  
R  
I  
C  
T**

# PLATE 1



1. VD1 Hasaragodu(Hittalakeri)



2. VD1 Hegge(Bennali)



3. VD1  
Ullane(Siddapur)



4. VD1  
Bappanakodlu



5. VD1 Nooz 1



6. VD1 Bexi



7. VD1 Korandoor



8. VD1 Hallorimane

U  
T  
T  
A  
R  
A  
  
K  
A  
N  
N  
A  
D  
A  
  
D  
I  
S  
T  
R  
I  
C  
T



**PLATE 2**



**9. VD2 Yellovadikoor**



**10. VD1 Yellovadikoor**



**11. VD1 Girigaddi  
(Iragoppa)**

**U  
T  
T  
A  
R  
A  
  
K  
A  
N  
N  
A  
D  
A  
  
D  
I  
S  
T  
R  
I  
C  
T**

# **MYSORE DIVISION**

<b>Chikmagalur</b>
<b>Chamarajanagar</b>
<b>Hassan</b>
<b>Mandya</b>
<b>Mysore</b>

**PLATE 1**



1. CD4 Madehalli



2. CD3 Madehalli



3. CD1  
Madehalli



4. CD2 Madehalli



5. CD1 Kelasur



6. CD4 Kaggala



7. CD3 Kaggala



8. CD2 Kaggala

**C  
H  
A  
M  
A  
R  
A  
J  
A  
N  
A  
G  
A  
R  
  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 2**



9. CD1 Kaggala



10. CD2 Kelasur



11. CD1  
Yadapura



12. CD1  
Veeranapura



13. CD1 Sagade



14. CD1 Malayur



15. NB1 Badagalapura



16. CD1 Yalachagere

**C  
H  
A  
M  
A  
R  
A  
J  
A  
N  
A  
G  
A  
R  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 3**



17. CD1 Chungadipura

**C  
H  
A  
M  
A  
R  
A  
J  
A  
N  
A  
G  
A  
R  
  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 1**



1. CD1 Maravanje



2. NB1 Kunkanadu



3. NB1 Yeradakere



4. NB1 Banajenhalli



5. CD1 Nidughatta



6. CD2 Nidughatta



7. CD1 Karehalli



8. CD1 Channapura

**C  
H  
I  
K  
K  
A  
M  
A  
G  
A  
L  
U  
R  
  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 1**



1. Gokatte, Mallapur



2. Desilting of Tank at Bitravalli



3. NB1 Hakkihalli



4. NB1 Dootanur Kaval



5. NB1 Rayasamudra Kaval



6. NB2 Rayasamudra Kava



7. FP1 Mullukere



8. FP1 Mootikere

**H  
A  
S  
S  
A  
N  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 2**



9. FP8 DMKurke



10. FP13 DMKurke



11. FP4 DMKurke



12. FP7 DMKurke



13. FP6 DMKurke



14. FP2 DMKurke



15. FP1 DMKurke



16. FP3 DMKurke

**H  
A  
S  
S  
A  
N  
D  
I  
S  
T  
R  
I  
C  
T**



**PLATE 3**



**17. FP9 DMKurke**



**19. FP11 DMKurke  
Holalkere**



**18. FP10 DMKurke**



**20. FP5**

**H  
A  
S  
S  
A  
N  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 1**



1. CD1 Balehonniga



2. CD1 Deveerahalli



3. CD1 Gundapura  
Juganahalli



4. NB1



5. FP1 Juganahalli



6. FP2 Juganahalli



7. CD1 Konnapura



8. CD1 BGPura

**M  
A  
N  
D  
Y  
A  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 2**



**9. CD1 Vakrahalli**



**10. CD1 Soorakahalli**



**11. CD2 Soorakahalli  
Nalkundi**



**12. CD1**



**13. NB1 Gollarahatti**



**14. NB2 Anchebuvanahalli**



**15. CD1 Halladahosahalli**



**16. NB1 Gangasamudra**

**M  
A  
N  
D  
Y  
A  
D  
I  
S  
T  
R  
I  
C  
T**

**PLATE 3**



17. NB1 Vuyyanahalli



18. NB2 Vuyyanahalli

**M  
A  
N  
D  
Y  
A  
D  
I  
S  
T  
R  
I  
C  
T**

# PLATE 1



1. CD1 Tagadoor



2. CD1 Chikkakalavande 1



3. CD1 Chikkakalavande 2



4. CD1 Doddakavalande



5. CD2 Chikkahomma



6. CD1 Chikkahomma



7. CD1 Kittur



8. CD2 Kittur

M  
Y  
S  
O  
R  
E  
D  
I  
S  
T  
R  
I  
C  
T

**PLATE 2**



9. CD3 Kittur



11. CD2 Kenchanahalli  
**Kenchanahalli**



13. NB1 Hosaagrahara



15. NB1 Sambravalli

**M  
Y  
S  
O  
R  
E  
D  
I  
S  
T  
R  
I  
C  
T**

10. CD1 Sagare



12. CD1



14. NB2 Sambravalli



16. NB1 Jabagere

**PLATE 3**



17. NB1 Bharatavadi



18. CD2 Bharatavadi



19. CD1 Doddahejjur



20. NB1



21. CD1 Handanahalli

**M  
Y  
S  
O  
R  
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I  
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T  
R  
I  
C  
T**