

**Government of Karnataka  
Public Works, Ports & Inland Water  
Transport Department  
(PWP&IWTD)**

**Management Information System**

**MARCH 2013**

## **FOREWORD**

The Public Works, Ports & Inland Water Transport Department is publishing the Management Information System (MIS) report every year. It contains a wealth of information regarding roads, bridges and buildings constructed and maintained by the Department as well as the administrative setup of the Department. This report is a valuable reference material for effective management. MIS 2013 has been updated as on 31<sup>st</sup> March 2013.

All the officers who have contributed to this report and the Statistics Unit in the office of the Chief Engineer, C & B (South), Bangalore who have compiled this report are here by complimented for their efforts in bringing out this useful publication.

I hope that the information contained in this Publication will be helpful to the various officers within the Government and also the citizens.

Any suggestions to improve this publication are most welcome.

Date:  
Bangalore.

**(Sadashiva Reddy B. Patil)**  
Secretary to Government,  
Public Works, Ports & Inland  
Water Transport Department

## PREFACE

Roads and buildings have been constructed in India since ancient times. This tradition is reflected in the Grand Trunk Road stretching today from Kolkatta to the Pakistan border and passing through New Delhi. Karnataka is no exception to this tradition of road building. Roads existed connecting the Vijaynagar empire to the west coast of Karnataka whose ports served the Empire. In the then Mysore State by 1856 all the districts were connected to Bangalore by road. Between 1834 and 1861 the roads in the then Mysore state were classified into Imperial, Provincial & Village roads. At the time of re-organization of the State in 1956, the National Highways length was 864 Kms, State Highways length was 5983 Kms and Major District Roads length was 7006 Kms.

In Karnataka (the then Mysore State) prior to 1834, Revenue Officers were in charge of Public Works. In 1834, a Superintendent of Maramat was in charge under the Revenue Department for public works. A separate Public Works Department was created in 1856 with a Chief Engineer, an Assistant Chief Engineer, four Assistant Engineers, eleven Upper Subordinates and nineteen Lower Subordinates. The first Chief Engineer was Col.C. Bowen R.E. and the first Chief Engineer from Mysore State was Mr. Y. Srinivasa Rao B.A. in 1909. In 1922 the salary of Engineers in Mysore was Rs. 500 for a Chief Engineer, Rs. 250 for an Assistant Chief Engineer and Rs. 80 for an Upper Subordinate. During 1856-1876, the PWD expenditure was Rs. 99 lakhs on original works and Rs. 89 lakhs on repair works, in other words, the Plan and Non-Plan expenditures were almost equal. In 1897, two Circles, the Western and Eastern were created each with a Superintending Engineer.

Some of the earliest buildings still in use and their cost of construction; in 1867 the Bangalore Central Jail built at a cost of Rs. 46,047 in 1868 the Bowring Hospital, Bangalore built at a cost of Rs. 2,16,454 and in 1879 the Government Museum built at a cost of Rs. 48, 335. The tradition of constructing monumental public buildings has continued in Karnataka as a testimony of which stands the magnificent “Vidhana Soudha” constructed in 1956. This tradition is kept alive by the imposing “Vikas Soudha” standing next to the Vidhana Soudha and completed in the year 2006.

In the modern management, timely information flow has assumed a great importance. In this direction and in keeping with the Management Information

System introduced by the Office of the Chief Minister of Karnataka, the Public Works Department with its commitment towards a transparent administration and an easy flow of information brought out the first Management Information System publication for the year 1999-2000. Thereafter the Department has regularly published the Management Information System every year. The present Publication is thus the 14<sup>th</sup> in this series providing information for the financial year 2012-13.

Smt M. R. Padmaja, Joint Director (Statistics) was the Nodal Officer who expeditiously collected the information pertaining to the Communication & Buildings South and North zones, National Highways, KRDC, KSHIP, PRAMC, SHDP, Architecture & the Directorate of Ports and processed the same to bring out the present Publication with the help of Sri. K. Avinash Ganeshkar, Assistant Statistical Officer.

The Publication is presented as a reference document for the activities of PWP&IWTD.

Date:  
Bangalore

**(A.N Thyagaraja)**  
Chief Engineer,  
Communication & Buildings (South)  
Bangalore

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## **PWP&IWTD's Mission**

**Plan, Design, Construct and Maintain a safe and cost effective core road network, Public Buildings, Ports and Other Public Infrastructure in Karnataka.**

## **Functions of PWP&IWTD**

- Evolving standards and specification for safe, efficient and economic roads and buildings.
- Serving as a repository of knowledge and expertise on roads, bridges and other structures.
- Formulating policies for road transport sector and other infrastructures.
- Adopting information technology for planning, designing, execution and maintenance work.
- Incorporating professional management techniques in project implementation.
- Evincing public participation at all stages.
- Promoting Public Private Partnership.
- Acting as a custodian of all Government properties.
- Providing an effective public grievances redressal system.



## **CHAPTER- 1**

### **ADMINISTRATIVE SET UP**

**1.1** Public Works Ports and Inland Water Transport Department is responsible for the development and maintenance of National Highways, State Highways, and Major District Roads and construction and maintenance of Government Buildings. The Department also undertakes construction on behalf of other department on Deposit Contribution. At the Secretariat the Department is headed by a Principal Secretary and a Secretary.

At field level the Department has three Zones namely, Communication and Buildings(C&B) South Zone, (C&B) North Zone and National Highways. Each Zone is headed by a Chief Engineer. The Zones consist of ‘Circles’ and ‘Divisions’. The Divisions are under the control of Circles, and Circles are under the control of Zones. Each Circle is headed by a Superintending Engineer. The Divisions are headed by Executive Engineers. The Communication & Buildings South Zone consists of 7 Circles and 24 Divisions including 1 Quality Control Circle and 2 Quality Control Divisions. The Communication & Buildings North Zone consists of 5 Circles and 19 Divisions including 1 Quality Control Circle and 2 Quality Control Divisions

The Chief Engineer, National Highway is primarily responsible for the development and maintenance of National Highways under the Ministry of Road Transport & Highways (MoRT&H). The major portion of funds operated is from the Government of India. The National Highways Zone has two Circles and seven Divisions.

Karnataka Road Development Corporation Limited (KRDCL) was established on 21<sup>st</sup> July 1999, as a wholly owned Government of Karnataka enterprise for development of road infrastructure in the State. Managing Director is the head of this enterprise.

Karnataka State Highway Improvement Project (KSHIP) is an initiative of the Public Works Ports and Inland Water Transport Department, Government of Karnataka for the improvement of road network in the State under World Bank assistance. Chief Project Officer heads this Project Office.

State Highway Development Project (SHDP) was established on 4<sup>th</sup> November 2011. 15,000 km of Core road network in the state for development / improvement has been proposed, out of which 4,500 km road is proposed to develop under SHDP. Chief Project Officer heads this Project Office.

**1.2 Cadre strength of engineers in the Department:-**

**Table – 1 .1**

**Cadre strength in PWP&IWTD (as on March 2013)**

Post	Sanctioned	Filled up	Vacant
Engineer in Chief	01	01	00
Chief Engineer	06	06	00
Superintending Engineer	30	30	00
Executive Engineer	87	86	01
Assistant Executive Engineer	386	385	01
Assistant Engineer	1254	1065	189
Junior Engineer	1098	983	115
<b>Total</b>	<b>2862</b>	<b>2556</b>	<b>306</b>

**1.3 Total number of Circles, Divisions, and categories of roads under each zone as at the End of March 2013**

**Table 1.2  
Number of Circles, Divisions and Road Length**

(Road length in Km)

Sl No	Zone	Circles (In No.)	Divisions (In No.)	State Highways	Major District Roads	National Highways	Total
1	National Highways	2	7	-	-	4490.71	4490.71
2	North Zone	5	19	12073.20	21940.00	-	34013.20
3	South Zone	7	26	8675.55	27944.59	-	36620.14
<b>Total</b>		<b>14</b>	<b>52</b>	<b>20748.75</b>	<b>49884.59</b>	<b>4490.71</b>	<b>75124.05</b>
<b>Road Length per lakh Population (2011 Census)</b>				<b>34</b>	<b>82</b>	<b>7</b>	<b>123</b>
<b>Road Length per 100 sqkm</b>				<b>11</b>	<b>26</b>	<b>2</b>	<b>39</b>

## CHAPTER- 2

### 2.1 State's Road Network:-

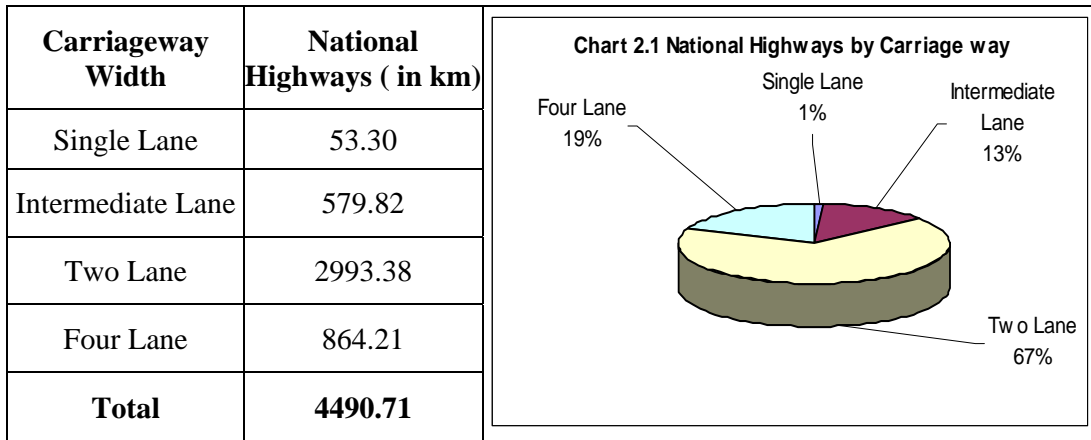
Public Works Ports & Inland WaterTransport Department is responsible for the development and maintenance of National Highways, State Highways and Major District Roads, adding to 75,124.05 Km. Apart from National Highways the State Highways length is 20,748.75 Km and Major District Roads length is 49,884.59 Km.

From the viewpoint of infrastructure capabilities, two characteristics of roads are relevant, namely Surface quality and Carriageway width. Carriageway width is classified under four categories

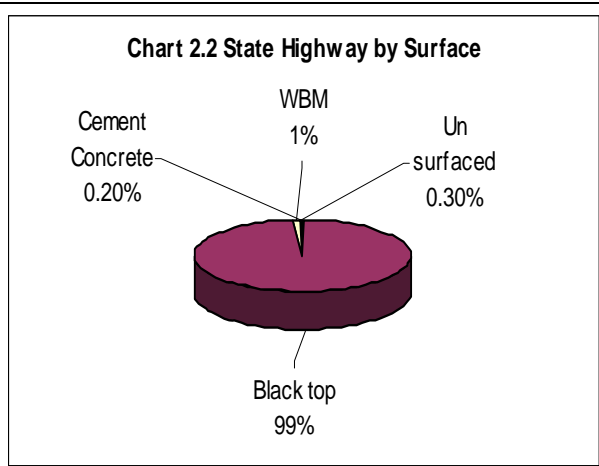
- (a) Single Lane: 3.75 metre
- (b) Intermediate Lane: 5.5 metre
- (c) Two Lanes: 7.0 to 7.5 metre
- (d) Four Lanes: 14 to 15 metre

Road surface can be of cement concrete (CC), black top (BT) or water bound macadam (WBM). There are some unsurfaced roads also i.e – earthen road with carriageway composing of natural soil. Unsurfaced roads are further classified into motorable and non-motorable.

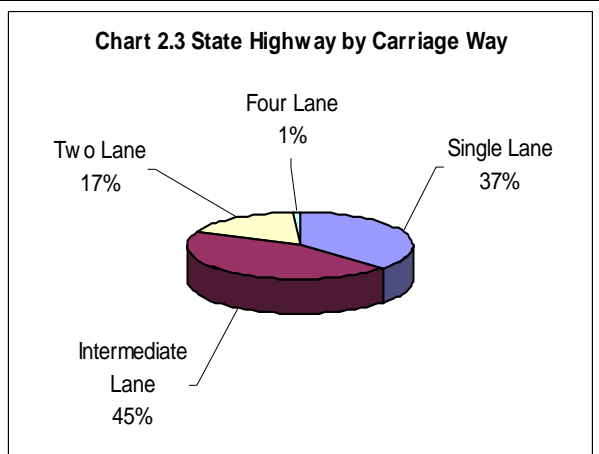
The share of the road length of National Highways, State Highways and Major District roads according to these two features is presented in the charts below:



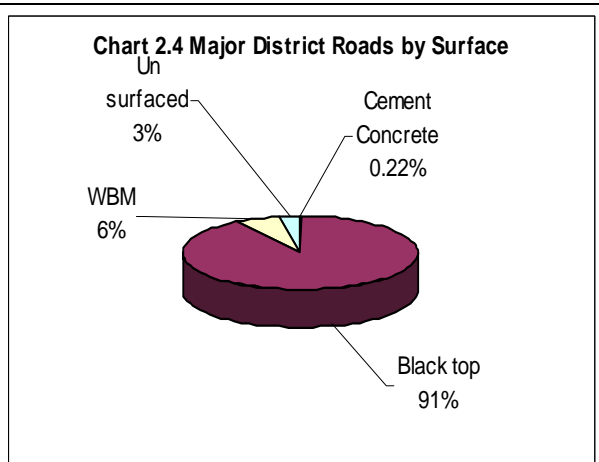
Surface Type	State Highways (in km)
Cement Concrete	69.40
Black top	20482.36
WBM	135.87
Un surfaced	61.12
<b>Total</b>	<b>20748.75</b>

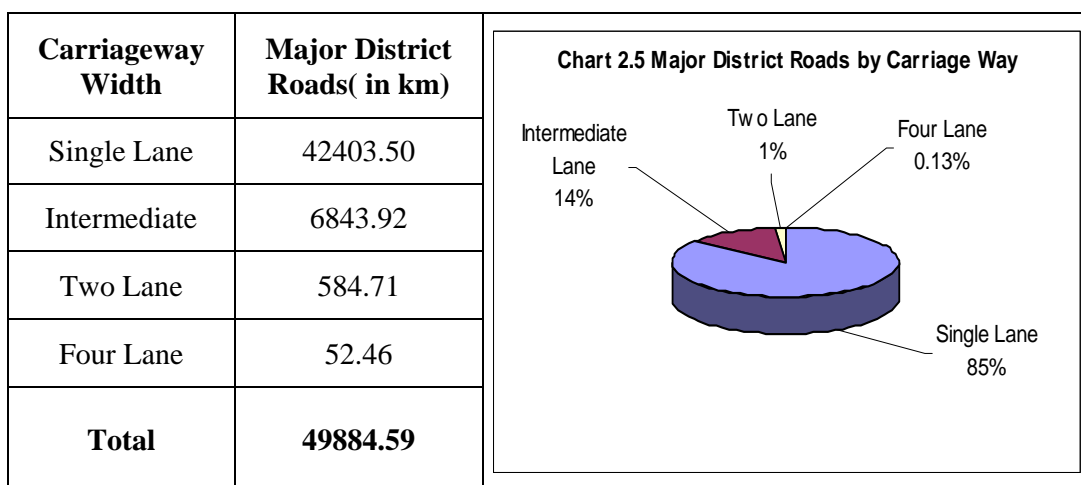


Carriageway Width	State Highways ( in km)
Single Lane	7581.15
Intermediate	9437.56
Two Lane	3500.46
Four Lane	229.58
<b>Total</b>	<b>20748.75</b>



Surface Type	Major District Roads( in km)
Cement Concrete	154.56
Black top	45189.43
WBM	3159.47
Un surfaced	1381.13
<b>Total</b>	<b>49884.59</b>





## 2.2 ROADS & BRIDGES – PLAN ALLOCATION

In this Chapter, the budgeted Road and bridge works under Communication and Buildings of North and South zones are presented, including the additional grants released from the Finance Department. Programme relating to National Highways is presented in Chapter 3.

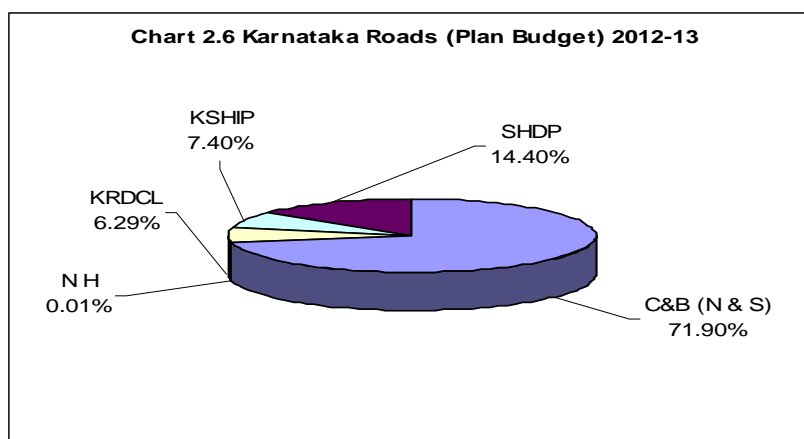
The budgeted plan funds are used for strengthening / improving the riding quality of roads and converting single lane roads into intermediate Lane / two lane / four lane roads.

Table 2.1 shows PWP&IWTD budget in crore for the year 2012-13.

**Table – 2.1**  
**Allocation under State’s Plan Budget: 2012-13**

(In Crore)

Category	State Plan	C.S.S	Total	% of State Plan
Communication and Buildings (North + South Zones)	2610.77	-	2610.77	71.90
National Highways	0.21	16.21	16.42	0.01
KRDCL	230.00	-	230.00	6.29
Karnataka State Highways Improvement Project (KSHIP)	270.52	-	270.52	7.40
State Highway Development Project (SHDP)	519.56	-	519.56	14.40
<b>Total</b>	<b>3631.06</b>	<b>16.21</b>	<b>3647.27</b>	<b>100.00</b>



The total plan budget for 2012-13 is Rs.3647.27 Crore. However, NABARD works and a provision for the World Bank Assisted State Highway Improvement Project, State Highway Development Project and KRDCCL takes major share of Plan funds to the tune of Rs.1353.76crore. The remaining Rs.2293.51 crore is available for regular road and bridge works. The share of Rs.2293.51crore among the three zones is in the following manner

**Table 2.2**  
**Amount shared by three zones**

	Rs.Crore
National Highways	16.42
North Zone & South Zone	2274.70
Establishment Charges	2.39
<b>TOTAL</b>	<b>2293.51</b>

Table 2.3 presents Plan allocation for Roads and Bridges in 2012-13 budget, sub head wise (including Rs.1621.00 lakh of central assistance) .

The physical and financial progress achieved during 2012-13 against the target of 5862 Km of road length is 7293 Km of road length. The financial progress of roads & bridges shows that the both zones utilized budget grants completely with respect to the works shown in table 2.4.

### **2.3 RIDF Scheme:-**

The State has been receiving NABARD assistance for roads and bridges under RIDF scheme since 1996-97. The focus of NABARD assistance is on improvements to rural roads in terms of connectivity and quality. Since inception and upto 2012-13, 28,819 Km road length and 888 bridges works have been taken up under this scheme. The achievement as at the end of March 2013 shows that 26660 Km of road length and 748

bridges have been completed. The annual progress details of NABARD RIDF scheme are presented in **Annexure I**.

**Table 2.3**  
**Plan Schemes for Roads & Bridges: 2012-13**

(Rs. In Lakh)

Sl. No.	Head of Account	Scheme Name and Zone	State Plan	Central Plan	Total
1	2	3	4	5	6
	<b>I</b>	<b>C &amp; B (North+South Zones)</b>			
1.	5054-04-337-0-01	District & Other Roads			
	133	Special Development Plan (SDP)	4928.07	0	4928.07
	154	Improvements	73992.07	0	73992.07
	160	Renewals	32396.27	0	32396.27
	422	Special Component Plan (SCP)	8750.56	0	8750.56
	423	Tribal Sub Plan (TSP)	2320.13	0	2320.13
2.	5054-04-337-0-02	NABARD Assistance Major District Roads			
	133	Special Development Plan (SDP)	4987.26	0	4987.26
	154	Improvements	26282.72	0	26282.72
	422	Special Component Plan (SCP)	1290.21	0	1290.21
	423	Tribal Sub Plan (TSP)	809.91	0	809.91
3.	5054-04-800-2-02-172	Central Road Fund (CRF)	16296.52	0	16296.52
4.	5054-03-337-0-17	State Highway Road Works			
	133	Special Development Plan (SDP)	6020.01	0	6020.01
	154	Improvements	50930.87	0	50930.87
	160	Renewals	22598.11	0	22598.11
	422	Special Component Plan (SCP)	1044.03	0	1044.03
	423	Tribal Sub Plan (TSP)	997.71		997.71
5.	5054-03-337-0-16	State Highway Bridges			
	154	Improvement	3491.38	0	3491.38
	160	Renewals	2995.51	0	2995.51
	422	Special Component Plan (SCP)	946.10	0	946.10
		<b>Total C &amp; B (North+South Zones)</b>	<b>261077.44</b>	<b>0</b>	<b>261077.44</b>
	<b>II</b>	<b>National Highways Zone</b>			
6.	5054-05-337-1-01-172	Road works of Inter-State Importance (CSS)	0	1600.00	1600.00
7.	5054-05-337-2-01-172	Road works of Economic Importance (CSS)	21.00	21.00	42.00
		<b>Total National Highways</b>	<b>21.00</b>	<b>1621.00</b>	<b>1642.00</b>
	<b>III</b>	<b>World Bank Assisted Projects</b>			
8.	5054-03-337-0-84-172	KSHIP-II EAP Roads	19856.87	0	19856.87
9.	5054-03-337-0-86-172	KSHIP-II EAP Roads (ADB)	7195.58	0	7195.58
		<b>Total KSHIP</b>	<b>27052.45</b>	<b>0</b>	<b>27052.45</b>
	<b>IV</b>	<b>KRDCL</b>			
10.	5054-80-190-0-01-132	Capital Expenses	23000.00	0	23000.00
		<b>Total KRDCL</b>		<b>0</b>	
	<b>V</b>	<b>SHDP</b>			
11.	5054-03-337-0-18-154	Improvements	29716.43	0	29716.43
	160	Renewals	17499.26	0	17499.26
	422	Special Component Plan (SCP)	2246.67	0	2246.67
	423	Tribal Sub Plan (TSP)	2493.49	0	2493.49
		<b>Total SHDP</b>	<b>51955.85</b>		<b>51955.85</b>
		<b>Grand Total (I + II + III+IV+V )</b>	<b>363106.74</b>	<b>1621.00</b>	<b>364727.74</b>

**Table 2.4**  
**Physical and Financial Progress for the year, 2012-13**

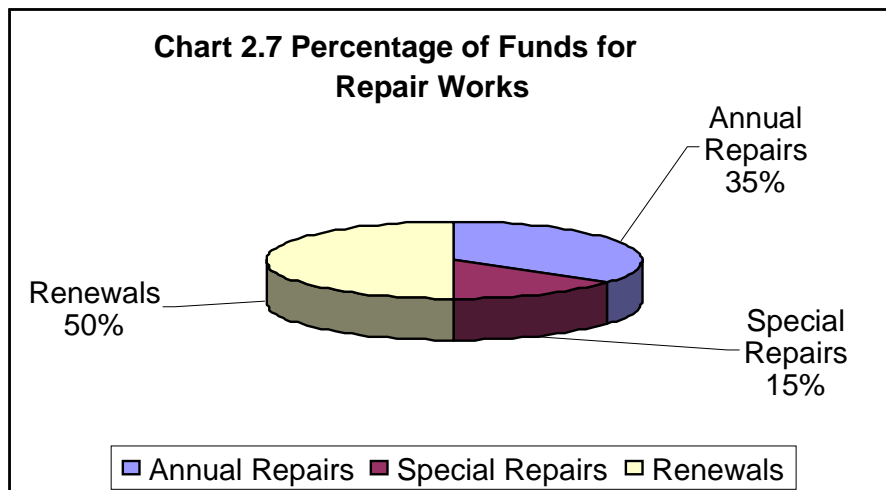
(Rs.in Lakh)

Head of Account	Scheme Name	Physical Progress		Percentage Achievement to the Target	Financial Progress		Percentage Achievement to the Target
		Target	Achievement		Target	Achievement (Expenditure)	
1	2	3	4	5	6	7	8
<b>PLAN</b>							
<b>I</b>	<b>Budget Works</b>						
5054-04-337-0-01-422	Major District & Other Roads (SCP)	219	149	68	8999.95	8750.56	97
5054-04-337-0-01-423	Major District & Other Roads (TSP)	90	45	50	2500.00	2320.13	93
5054-03-337-0-17-133	State Highways road works (SDP)	248	178	72	6077.07	6020.01	99
5054-04-337-0-01-133	Major District & Other Roads (SDP)	252	282	112	5000.00	4928.07	99
5054-03-337-0-17-154	SH road works Improvements	506	703	139	50941.52	50930.87	99.99
5054-03-337-0-17-160	SH road works Renewals	320	591	185	22665.48	22598.11	99.68
5054-03-337-0-01-154	Major District & Other Roads Improvements	1900	2543	134	74021.97	73992.07	99.95
5054-04-337-0-01-160	Major District & Other Roads Renewals	1040	1426	137	32500.00	32396.27	99.68
5054-03-337-0-16-154	SH bridges Improvements	74	48	65	3499.65	3491.38	99.77
5054-03-337-0-16-160	SH bridges Renewals	83	58	70	3000.00	2995.51	99.85
<b>Total</b>	<b>Roads (in Km)</b>	<b>4575</b>	<b>5917</b>	<b>129</b>	<b>202705.99</b>	<b>201936.09</b>	<b>99</b>
	<b>Bridges (in Nos)</b>	<b>157</b>	<b>106</b>	<b>67</b>	<b>6499.65</b>	<b>6486.89</b>	<b>99</b>
<b>II</b>	<b>NABARD Works</b>						
5054-04-337-0-02-422	Special Component Plan	62	49	79	1393.21	1290.21	92
5054-04-337-0-02-423	Tribal Sub Plan	21	27	128	1073.69	809.91	75
5054-04-337-0-02-133	Special Development Plan	279	306	109	5000.00	4987.26	99
5054-04-337-0-02-154	Improvements	925	994	107	26300.00	26282.72	99.93
	Bridges	74	68	92			
<b>Grand Total</b>	<b>Roads (in Km)(Total (I + II))</b>	<b>5862</b>	<b>7293</b>	<b>124</b>	<b>242972.54</b>	<b>241793.08</b>	<b>99.52</b>
	<b>Bridges* (in Nos)(Total (I+II))</b>	<b>231</b>	<b>174</b>	<b>75</b>			



## 2.4 Allocation of Funds under the H/A 3054 Plan:

The allocation under the Mukhya Mantri Grameena Raste Abivrudhi Yojane is earmarked for the maintenance of Major District Roads and bridges. Chart 2.7 indicates the categories and percentage of funds apportioned for the maintenance.



Annual Repairs and Ordinary Repairs comprise of pothole filling, jungle clearance, berm cutting etc. Rechipcarpeting / resurfacing are done under renewals Works of any urgent nature are carried out under Special Repairs. Maintenance of bridge involves cleaning the vents, removal of vegetation, repairs to Piers, abutments, parapets, painting etc.

Table 2.5 presents total plan and non-plan funds provided under 3054 head for 2012-13

**Table -2.5**

### Allocation of Plan & Non Plan funds for maintenance of Roads & Bridges during 2012-13

(Rs. in Lakh)

Sl. No	Head of Account	Scheme Name and Zone	2012-13
1	2	3	4
		<b>C &amp; B (North+South Zones)</b>	
	3054-03-102-0-01-200	State Highways - Bridges	1601.64
	3054-03-337-0-05-200	State Highways - Maintenance	27782.80
	3054-04-337-1-09-172	Mukhyamantri Grameena Raste Abivriudhi Yojane (Plan)	17278.15
	3054-04-337-1-09-172	Mukhyamantri Grameena Raste Abivriudhi Yojane (Non Plan)	15936.10
	3054-04-337-0-06-200	13 <sup>th</sup> Finance Commission	13939.46
	3054-04-105-0-01-200	District & Other Roads bridges	976.21
	3054-04-337-1-10-200	District & Other Roads	21011.94
		<b>Total: {C &amp; B (North+South Zones)}</b>	<b>98526.30</b>

**CHAPTER- 3**  
**NATIONAL HIGHWAYS (N H ZONE)**

**3.1** The length of National Highways has been increased from time to time from 900 Km in 1956 to 1377 Km in 1971 and 4490.71 Km as on March 2013. A list of National Highways in Karnataka is shown in Appendix-4 and Map-1.

The Ministry of Road Transport & Highways, Government of India releases grants for the construction and maintenance of National Highways along with agency charge (for salaries and other expenditure) at 9% of the estimated cost of works.

Works on National Highways will be financed by the Ministry of Road Transport & Highways. In addition, National Highway zone has also undertaken improvements of road and bridge works on SHs and MDRs under Centrally sponsored schemes of Central Road Fund (CRF), Inter State connectivity and Economic Importance.

Details of progress achieved up to March 2013 under different heads of State and Central grants are appended vide Table 3.1.

Under Central head (Plan) during 2012-13 Rs.297.40 Crore has been spent against the allocation of Rs.309.07 Crore. 60 works out of 162 works have been completed to end of March 2013 under Central head (Plan) four nos of works have been sanctioned on NH 234 under Special projects, with total estimated cost of Rs 526.42 Crores during 2010-11. Out of these 4 works, 4 works are under progress. During 2012-13, 11Km of widening of single lane to two lane, and 6 Minor bridges and one Major Bridge and 411 km of IRQP have been completed.

Under Central head (non- plan) for periodical renewal, an allocation of Rs.87.09 Crore has been provided during 2012-13 and Rs.90.19 Crore has been spent. Under periodical renewal 16 works have been completed out of 25 works.299.58 km of periodical renewal have been achieved. The details of Grants & out lay for the last 3 years under different head of accounts is also appended here with vide table 3.1.

**3.2 Central Road Fund Scheme**

The Central Road Fund Act was in existence prior to 1988, but got statutory status governed by the Resolution of Parliament passed during May- 1988, for development and maintenance of national highways, State roads, rural roads, Railway over bridges/ under

bridges and other safety works, and for these purposes to levy and collect by way of cess, a duty of excise and duty of customs on motor spirit commonly known as petrol, high speed diesel oil.

As per the CRF Act, 2000, the cess on fuel being levied since 2000-01 was at Rs 1 per litre on petrol and HSD oil, in 2003, it was increased to Rs 1.50 per litre and in 2005, it was raised by another 50 paise, and the present rate of cess is Rs.2 per litre.

The present rate of cess at Rs.2 per litre is being distributed in the following manner.

1. Rs 1.50 per liter is being allocated as follows;

a) 50% (Rs 0.75) of the Cess on high-speed diesel (HSD) Oil for development of rural roads.

b) 50% (Rs 0.75) of Cess on HSD and the entire cess collected on petrol are there after allocated as follows:

- An amount equal to 57.5% of such sum for the development and maintenance of National Highways(Rs 0.43125)
- An amount equal to 12.5% for construction of road under or over bridges and safety works at unmanned railway crossing; (Rs 0.09375)
- An amount equal to 30% (Rs 0.225) on development and maintenance of state roads. Out of this amount, 10% (Rs 0.075) is kept as reserve by the Central Government for (Rs 0.15) allocation to States for implementation of State road scheme of Inter State Connectivity and Economic Importance (ISC&EI).

2. Remaining cess of Rs.0.50 per litre is entirely allocated for development and Maintenance of National Highways.

Based on the CRF Act 2000, Ministry has framed CRF Rules vide notification dtd.10th July 2007. As per this prevailing CRF Rules-2007, State Highways, MDRs and other roads (excluding rural roads) of importance with out any encumbrance, may be taken up for development, but the length of road to be generally not less than 10 Kms.

During the year 2012-13, the spill works have been executed and out of that 200.08 Km of road under CRF, 12.50 Km under ISC have been improved by utilizing the grant of Rs. 105.06 crore, Rs. 16.00 crore respectively. No Fresh works have been sanctioned under these schemes during the year 2012-13.

**TABLE 3:1**  
**Progress of Roads & Bridges works to the end of 31-3-2013**

(Rs in Lakhs)

Head of Account	Head of Development	No. of works				Grant 2012-13	Estimated cost	Expenditure		
		Sanctioned	Completed	Progress	Not started			Upto 3/2013	During 2012-13	Cumulative
1	2	3	4	5	6	7	8	9	10	11
<b>I</b>	<b>State Head - Plan I</b>									
5054-05-337-1-01	Road works of Inter State connectivity (ISC)	6	3	2	1	1600	4198.6	11056.85	1600	12656.85
5054-05-337-2-01	Road works of Economic Importance(EI)	4	4	0	0	21	1113	9060.6	21	9081.6
	<b>Total Plan I</b>	<b>10.00</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>1621</b>	<b>5311.60</b>	<b>20117.45</b>	<b>1621</b>	<b>21738.45</b>
<b>II</b>	<b>State Head - Non Plan</b>									
3054-01-052	National Highways-Machinery & Equipment	-	-	-	-	164.36	-	357.84	169.51	527.35
5054-04-800	District & Other Roads - Other expenditure (Central Road Fund -NH)	25	24	1	0	1050.6	24034	38730.43	10518.56	49248.99
	<b>II Total Non Plan</b>	<b>25</b>	<b>7</b>	<b>18</b>	<b>0</b>	<b>1214.96</b>	<b>24034.00</b>	<b>39088.27</b>	<b>10688.07</b>	<b>49776.34</b>
	<b>Grand Total (I+II)</b>	<b>35</b>	<b>14</b>	<b>20</b>	<b>1</b>	<b>2835.96</b>	<b>29345.60</b>	<b>59205.72</b>	<b>12309.07</b>	<b>71514.79</b>
	<b>Central Head - Plan</b>									
5054	Roads & Bridges Original works	52	27	17	3	33000	31704	120250.64	28477	148727.64
5054	Improvements or Riding Quality Programme (IRQP)	42	29	11	5		31413			
	Special project	4	0	4	1		52642			
	Permanent Bridge Fee Fund (PBFF)	4	4	0	0	1280	2925	2768.62	1203.17	3971.79
	<b>Total Plan I</b>	<b>102</b>	<b>60</b>	<b>32</b>	<b>9</b>	<b>34280</b>	<b>118684</b>	<b>123019.26</b>	<b>29680.17</b>	<b>152699.43</b>
II	<b>II Central Head - Non Plan</b>									
3054	Roads & Bridges Maintenance & Repairs									
	A) Ordinary	-	-	-	-	2264	-	3720.00	2217.08	5937.08
	B) Periodical Renewals	25	16	9	0	8709	12011	12277.61	9018	21295.61
	C) Special Repairs	-	-	-	-	-	-	-	-	-
	D) Flood Damages	28	8	0	20	631	831.00	3054.91	173.1	3228.01
	<b>Total Non Plan II</b>	<b>53.00</b>	<b>24</b>	<b>9.00</b>	<b>20.00</b>	<b>11604</b>	<b>12842</b>	<b>19052.52</b>	<b>11408.18</b>	<b>30460.7</b>
	<b>Total Plan</b>	<b>112.00</b>	<b>67.00</b>	<b>34.00</b>	<b>10.00</b>	<b>35901.00</b>	<b>123995.60</b>	<b>143136.71</b>	<b>31301.17</b>	<b>174437.88</b>
	<b>Total Non Plan</b>	<b>78.00</b>	<b>48.00</b>	<b>10.00</b>	<b>20.00</b>	<b>12818.96</b>	<b>36876.00</b>	<b>58140.79</b>	<b>22096.25</b>	<b>80237.04</b>
	<b>Total Plan+Total Non Plan</b>	<b>190.00</b>	<b>115</b>	<b>44.00</b>	<b>30.00</b>	<b>48719.96</b>	<b>160871.60</b>	<b>201277.50</b>	<b>53397.42</b>	<b>254674.92</b>

**MAP - 1**

## CHAPTER- 4

### KARNATAKA ROAD DEVELOPMENT CORPORATION LIMITED

The Government has constituted “Karnataka Road Development Corporation Ltd” vide Government order No. PWD 172 CRM 97 dated 01-06-1999 and this was established on 21<sup>st</sup> July 1999 as a wholly owned Government of Karnataka Enterprises.

#### 4.1 The structure and the role of the Corporation are as detailed below:

- a. The Corporation is established under Companies Act, 1956 [Sl.No.of 196 (56)] as a Public Limited Company wholly owned by Government of Karnataka and is under the administrative control of the Public Works, Ports & Inland Water Transport Department.
- b. The Corporation will take up development programme for Roads, Bridges and other related infrastructure development works connected with surface transport.
- c. The Corporation has its Registered Office at Bangalore.
- d. The Corporation has an initial Authorized Share Capital of Rs.510.00 crores.
- e. The Corporation functions under the supervision and control of the Board of Directors.

#### 4.2 Road works:

- 7327 km of State Highway Maintenance at an amount of Rs. 225 Crore during 2001-04
- 14500 km of State Highway Maintenance an amount of Rs. 105 Crore during 2001-04
- 26 EPC Road works of 840 km at an amount of Rs. 1289 Crore
- 2 Annuity works of 105.50 km at an amount of Rs 289.27 Crore
- One project under Public Private Partnership (PPP) at an amount of 141.20 km at an amount of Rs. 243 Crore.

#### 4.3 Bridge works:

- 147 Bridges in 1<sup>st</sup> phase for an amount of Rs. 110 Crore
- 255 Bridges in 2<sup>nd</sup> Phase for an amount of Rs. 246.43 Crore
- 167 Bridges in 3<sup>rd</sup> Phase for an amount of Rs. 226 Crore
- 70 Bridges in 4<sup>th</sup> Phase for an amount of Rs. 89 Crore
- 9 Major Bridges have been constructed for an amount of 153 Crore.

#### 4.4 Ongoing works of KRDCL:

##### Road works:

- 11 works of 378 km at an amount of Rs. 967 Crore under EPC
- 3 works of 217.40 km at Total Project Cost of Rs. 670 Crore
- One work of 25.67 km at an amount of Rs. 158.47 Crore

**Bridge works:**

- 13 Bridges in different parts of Karnataka at an estimated amount of Rs. 226.30 Crores.

**4.5 Works completed during 2012-13:****Roads - PPP project:****4.5.1 Wagdhari – Ribbanpalli road (Maharashtra Border to A.P Border (141.2 Km):**

It is a BOT – VGF project, Concession period is 30 years including 2 years construction period and 28 years maintenance period with tolling. The total length of road is 141.2 km at a project cost of Rs.242.75 crores. Project completed and Commissioned on 18-08-2012 ie., Commercial Operation Date (COD) declared.

**Bridge works:****4.5.2 Construction of Bridge at km 4.32 and km 4.72 across Ghataprabha River on Ghataprabha Railway Station to Konnur Village.**

Construction of bridge at 4.32 and km 4.72 across Ghataprabha River on Ghataprabha Railway Station to Konnur Village is taken up by KRDCCL at a contract amount of Rs.15.99 Crore. The work commenced from 15-03-2010 and completed during November 2012. Expenditure during the year 2012-13 is Rs.5.42 Crore. Total expenditure to end of March 2013 is Rs.11.34 crore.

**4.5.3 Construction of bridge across Tungabhadra river on Devasugur – Kattagoda SH-13 at km 56.50 in Raichur District.**

Construction of bridge across Tungabhadra river on Devasugur – Kattagoda SH-13 at km 56.50 in Raichur district is taken up by KRDCCL at a contract amount of Rs.43.15 Crores. The work commenced from 12-07-2010 and completed on 31-08-2012. Expenditure during the year 2012-13 is Rs.15.17 crore. The total expenditure incurred to end of March 2013 is Rs.44.23 Crore.

## CHAPTER- 5

### KARNATAKA STATE HIGHWAYS IMPROVEMENT PROJECT (KSHIP) Overview of Karnataka State Highways Improvement Project

#### 5.1 Karnataka State Highways Improvement Project –I

The Karnataka State Highways Improvement Project –I (KSHIP-1) is the first major initiative of the Public Works Department (PWD) of Government of Karnataka (GOK) for improvement of Road net work of the state with external assistance during 1999. The PWD carried out Strategic Option Study (SOS) on a road network of 13,362 kms through an Independent Consultant during 1996 and study identified 2888 kms comprising of State Highways (SH) and Major District Roads (MDR) roads for prioritised improvements.

The Karnataka Highways Improvement Project, KSHIP-I was launched by Karnataka Government in the year during 1999-2000 vide G.O. No. PWD 21 CRM 96, dated 01.07.1999. The Karnataka State Highway Improvement Project-1 has been implemented with the financial assistance of the IBRD (The World Bank) in line with the Project & Loan Agreement no 4606 IN dated 21-07-2001. The original cost of the project was Rs.2030.27 Crore, which includes World Bank loan of Rs.1635.21 crore (US \$ 360.00 million) being 80% of the project cost. The Project cost has been revised from Rs. 2030.27 crore to Rs. 2390.00 crore. The Project Completion Date was also extended from 30-06-2006 to 31-08-2011 and that of loan closing date extended from 31-12-2006 to 31-01-2008.

After carrying out feasibility study about 2414 Kms were implemented during the period of 2001- 2008. The Improvement is carried out in two category:

- **Upgradation-901 kms:** involved reconstruction of existing carriage way to the specified new width of 7.00 m carriage way with 1.00 m wide paved shoulders and 1.5 mt earthen shoulders on both sides with a total formation width of 12.00 mts.
- **Rehabilitation-1513 kms:** involved improvement for the existing width of carriageway or 5.5 meters, whichever is higher without Geometrical improvements and rebuilding the weak widened portion of carriageway

The total project length of 2414 Kms was taken up for improvement spread over 50 contract packages. A total length of 2385 kms of 49 contracts is completed excluding 29 kms passing in forest areas due to court interventions. The contract of Construction of Bridge across the Bennithora River (package U3Br) near Gulbarga has been terminated for the poor performance of contractor and is being handed over to NH for taking up of Balance work.

The Loan Agreement concluded on 31-01-2008 with 100% utilization of the World Bank loan. An expenditure of Rs. 2368.00 crore has been incurred upto end of March, 2013.



The physical targets and achievements from the commencement of the project are as under.

**Table 5.1**

<b>Year</b>	<b>Physical in Kms</b>	<b>Financial Rs. in crore</b>
2001-02	-	69.85*
2002-03	191	161.23
2003-04	366	231.53
2004-05	510	480.26
2005-06	666	541.35
2006-07	449	524.62
2007-08	132	195.80
2008-09	40	73.14
2009-10	30	66.90
2010-11	-	15.52
2011-12	Nil	2.89
2012-13	1	4.56
<b>Cumulative</b>	<b>2385</b>	<b>2367.65</b>

\*inclusive of front end fee of 16.35 cr

The performance of KSHIP-1 received the appreciation of the World Bank in its Portfolio Review of Karnataka in June 2005. The WB has assessed progress of KSHIP as far higher than National Average and on par with the Bank's worldwide average. The KSHIP has also bagged the India-Tech Excellence Award-2010 as the 2nd Best Implemented Infrastructure Project in India and the award was presented by the President of India on 27th Oct 2010.

## **5.2 Karnataka State Highway Improvement Project - II**

After successful completion of KSHIP-1 and as per the Government order no PWD 61 EAP 2006 dated 25-11-2006 the improvement of 3411kms of State Highways of the core road network of the State has been taken up under KSHIP-II. All the roads under KSHIP-2 are proposed to be upgraded to a min. 2 lane carriageway with geometric improvements. The list of roads prioritized for improvement under KSHIP-II is provided below:

### **GO No. PWD 61 EAP 2006 Bangalore Dated: 25-11-2006 List of Selected Roads For Improvement Under KSHIP-II**

<b>SL No</b>	<b>Name of the Roads</b>	<b>km</b>
1	Tinthni-Devadurga-Kalmala	74
2	Kushtagi (NH-13)-Tawargera-Sindhanur	64
3	Managoli-Talikota-Devapur	110
4	Mudgal-Kudithini (NH-63)	115
5	Konannanur-Hunsur-HD Kote	89
6	Sira-AP Border via Madhugiri-Gowribidanur-Chikaballapura-Chintamani-Srinivasapura-Mulbagal	210
7	Haliyal-Kudalasangama via Dharwad-Soundatti-Ramdurga-Badami-Pattadakal-Kamatgi-NH13	243
8	Hassan-Periyapatna via Arakalagud-Ramanathpura	77
9	Hirekerur-Ranebennur (on NH-4)	58

SL No	Name of the Roads	km
10	Kudachi-Kabbur-Ghataprabha	50
11	Shikariura-Anandapuram (on NH-206)	32
12	Kotumachigi-Gajendragarh	32
13	Goa Border-Soundatti via Khnapur-Bagewadi-Bailhongal	133
14	Mudhol-Nippani vial Mahalingapur-kabbur	104
15	Belur-Kodlipet via Bikkodu-vatehole-Alur-Magge	72
16	Davenagere-Birur via Channagiri	104
17	Gangamula-Kottigehara	63
18	Hangal-Haveri (NH-4)	32
19	TN Border (Hunasanahalli)-AP Border via Kanakapura-Ramanagara-Magadi-Dobbespet-Koratagee-Madhugiri-Pavagada	220
20	Hole Narsipura to K.R.Nagar via Saligaram	46
21	Shelavadi-Harapanahalli via Gadag-Mundarigi	112
22	Indi-Zalaki (on NH-13)	20
23	Maharashtra Border – Gulbarga via Afzalpur	99
24	Hungund-Talikot via Muddebihal	58
25	Gubbi-Mandya via Yediyur-Kowdle	109
26	Jagalur-NH-13	10
27	Hoskote-AP Border via Chintamani	88
28	Belthangadi to Bantwal (on NH-48)	35
29	Ramangaram-Saligamma via Thalavadi-Choulnankuppe-Huliyurdurga-Nagamangala-K.R.Pet Akkihebbal -Berya	142
30	Malavalli-Koratagere via Maddur-Kunigal-Tumkur	135
31	Shimga-Tadasa on NH-4 via Savalanga via Shikaripura-Shiralakoppa-Togarsi-Anvatti-Gondi-Hangal	171
32	Jamkhandi-Maharashtra Border via Terdal-Kudachi-Managsuli	79
33	Horanadu-Subramananya via Kalasa-Kottigehara-Mudigere-Sakaleshpura Junction-Vanagur	164
34	Molkalmur to SH 19 (KSHIP1 Road)	6
35	Bidar-Chincholi via EkHELLI (NH9)	61
36	Padubidri-Karkala	28
37	Kollegala-Tamilnadu Border via Hanur-MM Hills	97
38	Virajpet-Somawarpet via Madikere	71
	<b>Total Length (Kms)</b>	<b>3,411</b>

The PIU, KSHIP under PWD is responsible for the implementation of all externally-aided SH projects in Karnataka. It is headed by the Chief Project Officer and a Project Director who report administratively to the Principal Secretary, PWD through Secretary, PWD.

KSHIP-II is taken up in two stages depending on the loan assistance received from the funding agencies. The Stage-1 has been taken up with the World Bank finance and Stage-2 with the ADB finance.

### 5.2.1 KSHIP-II – STAGE – I – World Bank Project

Initially the World Bank sanctioned a loan assistance of US\$ 300 million with an overall project size of Rs.2545 crore. Following the Loan Negotiations meeting held with the World

Bank and DEA, GOI in February 2011 the Project cost has undergone a significant revision. With the concurrence of the DEA, GOI the Loan has been enhanced from US\$ 300 million to US\$ 350 million and further the World Bank has enhanced the component size under the “Highway financing Modernisation” from Rs. 50 crore (US\$ 10 million) to Rs. 1682 crore (US\$ 374 million) which is aimed at assisting KRDC in implementing the concept of co-financing with private financial institutions to develop about 400 km of highways under either item-rate contracts or PPP concessions. The Project Cost has been since revised from the initial Rs. 2545 crore (US\$ 565 million) to Rs 4522 crore (US\$ 1005 million).

The details of the Loan agreement with the World Bank are:

1. Loan no: 8022-IN
2. Loan Signed date: 30-05-2011
3. Loan Effectiveness date: 19-07-2011
4. Project Cost: US\$ 1005 million (Rs.4522 Cr)
5. World Bank Share: US\$ 350 million ( Rs. 1575 Cr)
6. GOK Share: US\$ 155 million (Rs.607 Cr)
7. Private Sector/ Developer/KRDC Share: US\$ 500 million (Rs.2250 Cr)
8. Loan closing date: 31-12-2016.
9. Loan Amortization Schedule: 15-06-2016 to 15-03-2029.

The implementation of World Bank assisted KSHIP-2 under Stage-1 and the list of roads of 831 kms has received the approval of the Government vide GO no. PWD 13 EAP 2010 dated: 28-06-2010 and GO no. PWD 121 EAP 2011 dated: 04-02-2012.

A total of **1284 km** of road length has been taken up for improvement at a total project cost of Rs 4522 crores under KSHIP-2, out of which World Bank loan assistance is Rs 1575 Crores. The Project is being implemented in following contracts;

**EPC contracts (269 kms):**

The EPC contracts are regular ICB contracts with a defect notification period of one year and the World Bank would fund 80% of the contract cost. The contracts for the five EPC packages are procured and works commenced in July/August, 2011. The original ICB contract WEP2 from Haveri- Hangal-Tadas (75 kms) entrusted to M/s Roman Tarmat, Mumbai was terminated due to non performance in Nov, 2012 and retendered by splitting the contract into two NCB contracts WEP2A & WEP2B. The contract for WEP2A has been signed in Feb, 2013 with approval of the World Bank and the bids for WEP2B has been invited in March,2013. The contracts have duration of 18 to 36 months and are in various stages of progress. The details of the contracts are as under:

<b>Contract No.</b>	<b>Contract Name</b>	<b>Length (km)</b>	<b>Contractor</b>	<b>Contract Price in Rs. Crore</b>
WEP-1	Upgradation of the Road from Hoskote to Chintamani	52.40	M/s Lanco Infratech Ltd, Gurgoan	98.22
WEP2A	Upgradation of the Road from Haveri (NH-4) to Hanagal	31.78	M/s DRN Infrastructure, Hubli	92.53
WEP2B	Upgradation of the Road from Hanagal to Tadas	43.50	To be awarded	105 (Est cost)
WEP-3	Upgradation of the Road from Dharwad to Saundatti	38.50	M/s RVCPL- RIDL (JV), Bangalore.	84.44
WEP-4	Upgradation of the Road from Tinthini to Kalmala	73.80	M/s Patel Engineering Ltd, Hyderabad.	160.68
WEP-5	Upgradation of the Road from Chowdapur to Gulbarga	28.63	M/s SRK-KCL (JV), Hyderabad.	61.55
		<b>268.61</b>		<b>602.42</b>

#### **Annuity contracts (562 kms):**

The Annuity Contracts would be of 10 years duration with max. of 3 years of construction and 7 years of maintenance. Under Annuity Concession Contracts, it is proposed to avail the World Bank assistance for an upfront payment of 50% of the construction cost on completion of the construction and the remaining payments of 50% to be funded by GOK during the maintenance period of 7 years on annuity basis. The details of the roads proposed under Annuity mode are as below:

<b>Package</b>	<b>Name of the road</b>	<b>Length kms</b>	<b>Est Cost (Rs in Cr)</b>
WAP-1	Malavalli – Maddur – Hulyurdurga- Kunigal- Tumkur- Koratagere- Madhugiri- Pavagada	190.36	560
WAP-2	Mudhol – Mahalingapura- Kabbur- Chikodi-(NH-4 cross) Nippani.	107.94	318
WAP-3	Shikaripura - Anandapuram (on NH-206)	153.67	397
	Shimoga - Savalanga – Shikaripura- Shiralakoppa – Togarsi- Anvatti - Gondi – Hangal		
WAP-4	Managuli - Basavana Bagewadi – Talikota- Hunasagi - Devapur	109.95	248
	<b>Total</b>	<b>561.92</b>	<b>1523</b>

The procurement process of Annuity contracts is completed. The bids received for the four packages are proposed for rejection as quotes received have not yielded Value for Money (VFM) for the Government and are also not within the thresholds of equity IRR. The issue is under consideration of the Project Governing Board of KSHIP under the Chairmanship of the

Chief Secretary to Govt and Annuity contracts are proposed to be converted to regular ICB item rate mode of contracts and fresh contracts are to be procured during 2013-14.

**KRDCL contracts (453 kms):**

A road length of 453 kms is selected from out of 3411 kms for taking up PPP contracts on BOT (toll), VGF or Co-financing models through KRDCL under Highway modernisation component of KSHIP-II. KRDCL is designated as the Implementing Agency for this component. A financial advisory consultant has been appointed to carry out feasibility analysis to identify the roads which can be taken up adopting innovative models. The DPR updating is in progress. The list of roads is given below:

<b>Contract Package No.</b>	<b>Name of package</b>	<b>Length in km</b>	<b>Estimated Constn. cost Rs crore</b>
1	Bagewadi (NH-4)- Bailhongal - Saundatti	61.9	227.09
2	Bidar - NH-9 (EkHELLI)- Chincholi	61.5	182.18
3	Hassan-Ramanatpura-Periyapatna	76.7	154.02
4	MH Border (Near Hosur) - Chowdapur	66.6	175.98
5	Hirekerur - Ranibennur	58.4	144.25
6	Mundaragi - Hadagali - Harapanahalli	51.7	129.18
7	Hungund - Muddebihal - Talikot	57.7	145.38
8	Raibhag - Kudichi	18.2	44.95
<b>Total</b>		<b>452.7</b>	<b>1203.03</b>

**Budget and Expenditure**

**Rs in Cr**

<b>Project KSHIP-II World Bank funded</b>	<b>Expenditure up to 31-03-2013</b>	<b>Budget for the year 2013-14</b>
EPC	266	272
Annuity	100	128
Total	366	400

**5.2.2 KSHIP-II – STAGE-II – Asian Development Bank Project:**

A road length of 616 kms is identified out of 3411 kms and programmed to be developed at a total Project Cost of Rs 2150 Crores. The ADB loan assistance has been received for US\$ 315 million. The details of the loan agreement are as under:

1. Loan no: 2705-IND
2. Loan Signed date: 20-07-2011
3. Loan Effectiveness date: 12-09-2011
4. Project Cost: US\$ 462.75 million (Rs.2150 Cr)
5. ADB Share: US\$ 315 million ( Rs. 1463 Cr)
6. GOK Share: US\$ 147.75 million (Rs.687 Cr)
7. Loan closing date: 30-06-2015.

The proposal of implementation of Asian Development Bank assisted KSHIP-2 under Stage-2 and the list of roads has received the approval of the Government vide GO no. PWD 120 EAP 2011 dated: 28-11-2011.

The project covers improvement of a total 616 kms of State Highways in the state under EPC contract and construction of 4 ROB's in the existing level crossings in the project roads. All the roads are proposed for up gradation to a minimum of 2 lane carriageway with geometrical improvements. The implementation has been taken up in nine contract packages. The contracts have been procured and commenced in March, 2012 and are in various stages of progress. The package wise details are below:

<b>Contract No.</b>	<b>Name of work</b>	<b>Name of Contractor</b>	<b>Approx Length (km)</b>	<b>Contract Period (months)</b>	<b>Contract amount in Rs. Crore</b>
<b>AEP1</b>	Upgradation of the Road from Magadi NH-48 (Km.0+000) to Koratagere (Km 68+200) of SH-3	M/s.KNR Construction Ltd.,Hyderabad	68.2	33	116.78
<b>AEP2</b>	Upgradation of the Road from Pavagada (Km.0+000) to AP Border (Km 23+210) of SH-3	M/s.GVR –RMN JV, Chennai	23.21	18	43.30
<b>AEP3</b>	Upgradation of the Road from Gubbi (Km.0+000) to Mandya (Km 108+620) of SH-84	M/s. KMC-VDB (JV), Hyderabad	108.62	33	196.90
<b>AEP4</b>	Upgradation of the Road from Jaglur to NH-13 of SH-45 (Approx length=9.25 Kms) Upgradation of the Road of about 5 Kms from SH-19 of KSHIP Road to Molakalmuru of SH-2	M/s.GVR –RMN JV, Chennai	14.38	15	31.25
<b>AEP5</b>	Upgradation of the Road from Padubidri (Km.0+000) to Karkala (Km 27+800) of SH-1	M/s RNS Infrastructure Ltd, Bangalore	27.8	18	61.48
<b>AEP6</b>	Upgradation of the Road from Davangere (Km.0+000) to Channagiri (Km 105+630) of SH-76	M/s Gammon India Limited, Bombay	105.63	33	202.57
<b>AEP7</b>	Upgradation of the Road from Shelvadi (Km.0+000) to Mundargi (Km 63+440) of SH-45	M/s.KNR Construction Ltd., Hyderabad	63.44	33	121.25
<b>AEP8</b>	Upgradation of the Road from Mudgal (Km 0+000) to Gangawathi (Km 74+200) of SH-29	M/s.KNR Construction Ltd., Hyderabad	74.2	36	152.63
<b>AEP 9</b>	Upgradation of Road from Soundatti - Hulikatti – Ramdurg- NH218 – Badami-Pattadakal-Kamatagi	M/s Ramky Infrastructure Ltd, Hyderabad	130.13	36	225.50
	<b>Total</b>		<b>615.61</b>		<b>1151.66</b>

The details of the four ROB works are as under:

<b>Package</b>	
AEP-6 ROB-1	At Chainage 7.691 – Tholahonse Village ( on Davangere Channagiri route )
AEP-6 ROB-2	At Chainage 44.830 Near Birur ( on Channagiri – Birur route )
AEP-7 ROB-3	At chainage 25.922 on Gadag Bypass ( on Shelavadi – Gadag Route )
AEP-9 ROB-4	At Chainage 42.214 Near Badami ( on Ramdurga – Ba dami route )

### **Budget and Expenditure**

**Rs in Cr**

<b>Project</b>	<b>Expenditure up to 31-03-2013</b>	<b>Budget for the year 2013-14</b>
KSHIP-II Asian Development Bank funded	306	350

### **OVERALL STATUS OF THE ROAD WORKS:**

<b>Funding World Bank</b>	<b>Total length (Km)</b>	<b>Total Cost Rs. Cr</b>	<b>Progress to 3/2013</b>		<b>Programme for 2013-14</b>	
			<b>Physical Kms</b>	<b>Financial Rs. Cr</b>	<b>Physical Kms</b>	<b>Financial Rs. Cr</b>
EPC	269	595	85	178	108	210
Annuity	562	1296	.*	.*	.*	70
KRDCL	453	1203	-	-	-	-
<b>ADB</b>						
EPC	616	1152	50	165	153	250

\* Annuity bids are proposed for cancellatin and Fresh EPC contracts to be procured.

### **Institutional Reforms under KSHIP:**

Apart from creating infrastructure assest for the State, KSHIP has introduced and under taken following reforms and innovative initiatives in the area of Institutional Development and capacity building of PWD.

1. Implementation of Institutional Development Strategy (IDS)
2. Establishment of Karnataka State Highway Traffic and Transport Authority (KSHTTA),
3. Revision of Departmental Code,
4. Black spot improvement and road safety,
5. Road Accident Analysis System for use by Police and PWD,
6. Resettlement Action Plan to improve the livelihood of PAPs,
7. Environmental Management Plan (EMP)
8. Road User Satisfaction Surveys to obtain feedback from the Road Users
9. ISO 9001:2000 certificates and ISO 14001 Certification for PWD Divisions and Circle offices.

10. Annual Road Condition Surveys and GIS based Road Information System.
11. Establishment of Road Fund.
12. Establishment and Operationalisation of Planning and Road Asset Management Centre (PRAMC).
13. Identification of Core Road Network (CRN) about 24,000 km
14. Capacity Building in Road Safety Management (RSM) and Centre of Excellence (CoE) for road safety related issues.
15. Governance & Accountability Action Plan (GAAP) and Complaint handling Mechanism.
16. Project Management System
17. Project Financial Management System.
18. HRD and Training.

**ADB Technical Assistance:**

Asian Development Bank, as part of its TA financing program, has sanctioned Capacity Development Technical Assistance (CDTA) grant of US\$ 3.0 million for KSHIP aimed at enhancing the efficiency of the planning, programming, policy formulation and monitoring of the road sector in Karnataka. The CDTA has been utilized in two parts of US\$ 1.50 million each under CDTA-1 and CDTA-2.

**CDTA -I:**

ADB engaged M/s Scott Wilson India Pvt Ltd in Dec, 2009 as the consultancy firm to carryout the studies under CDTA-1 grant. The scope of CDTA-1 included following tasks.

- Formulation of the Core Road Network (CRN) for the State through the development of the road sector master plan.
- Strengthening of institutional structure for enhancing of the efficiency in the planning, programming, policy formulation and monitoring of road sector.
- Strengthen the institutional focus on road sector.

The consultants have submitted the Final Report. The study has identified **24,225.60 km** of the most important traffic corridors and designated them as the state's Core Road Network (CRN) which are carrying major commercial traffic and are of economic importance. The Core Road Network encompasses the road links considered important for the economic and social development in the State.

The CRN have been further classified into "A-Class" roads and "B-Class" roads. The "A-Class" roads form major corridors for traffic in the state which connects all the Taluk head Quarters, tourism centers, Airports, Ports and inter sect all the national highway for cross journeys. The breakup of CRN is under;



<b>Classification</b>	<b>Length (km)</b>	<b>CRN Extent</b>
National Highways	4,490.7	CRN 24,225.6 km
'A' Class	9,078.16	
'B' Class	10,656.74	
'C' Class	50,560.1	
'D' Class	147,212.0	

Out of 9078 kms of 'A' Class, about 2480 kms have already been developed under KSHIP-I & KRDC and about 1900 kms are being developed under KSHIP-II with the loan assistance of WB and ADB. The Balance Class "A" roads to be developed is 4638 Kms. The CRN formulated through CDTA-1 grant has been submitted for approval of the Government.

The proposal seeking ADB 2<sup>nd</sup> loan is submitted to Department of Economic Affairs (DEA) Govt of India to develop the CRN roads on PPP model. The DEA has accorded in principle approval for ADB assistance of USD 350 million. The loan negotiation with ADB is tentatively scheduled for 2nd quarter of 2014.

#### **CDTA -II:**

The major focus of the TA includes strengthening asset management and road safety management capacity of PWD, including advisory support in strengthening and equipping PWD for effective operation, maintenance and protection of existing roads, establishing practices incorporating safety into lifecycle of state roads in a sustainable manner, assisting PWD in developing capacities to procure and implement road projects under public sector participation schemes, and building PWD capacities to integrate environmental and social safeguards into road design, project implementation and operation of the road network.

The TA is financed on a grant basis from the ADB TA funding program out of the technical assistance special fund (TASF-Others). The services under CDTA-II is carried out by an international consulting firm with expertise in transport planning, asset management, road safety and traffic management, institutional strengthening of transport sector agencies, and private sector participation. M/s Vic roads is recruited by ADB as consultants under the grant. The Consultants have commenced the operations from 9<sup>th</sup> April 2012. The consultants have been carrying out the study.

## CHAPTER- 6

### PLANNING AND ROAD ASSET MANGEMENT CENTER (PRAMC)

#### 6.1 Overview of PRAMC:

The Project will have tangible value addition to the current efforts of the Government to secure sustainable financing of the road sector through the establishment of the State Road Fund, as it will establish robust mechanisms, ensuring most effective use of funds in the road sector. Specifically, the project will provide (i) consulting services, tools and equipment to support establishment of the state-of-the art Planning and Road Asset Management Centre (PRAMC) mainstreaming objective, data driven practices in the areas of strategic road policy and planning, programming, and road safety; (ii) equipment to improve the efficiency and quality of asset management at zonal and district levels. In order to ensure sustainability and high quality of PRAMC operations, the PRAMC supporting consulting services will be provided in the innovative mode including three phases; (i) preparatory (6 months), including developing business processes, operations manuals, and supply and installation of systems and tools required for PRAMC operations; (ii) operational (two years) including carrying out day-to-day operations of the PRAMC conducted in apprenticeship mode together with PRAMC staff; and (iii) standby (6 months), including support of PRAMC operations on as needed basis, once PRAMC operations are fully taken over by PRAMC staff.

The PRAMC organization has been created vide Government Order No. PWD/11/EAP/2011 dated 23.08.2012 headed by Chief Engineer. The following posts have been sanctioned for the organization.

**Table 6.1**  
**Cadre Strength of PRAMC**

<b>Post</b>	<b>Number</b>
Chief Engineer	1
Superintendent Engineer	3
Deputy Secretary	1
Executive Engineer	1
Assistant .Executive Engineer	3
Assistant Engineer	10
Junior Engineer	2
System Administrator	1
Programmer	2
HRD Manager	1

And other required Clerical and Ministerial staff totalling to 51 posts. The office of PRAMC has been established in the 4<sup>th</sup> Floor, 2<sup>nd</sup> Stage of PWD Annexe Building, and K.R. Circle, Bangalore-560001.

M/s Egis International have been selected as the Consultants to provide consultancy services to support the establishment and operation of the PRAMC. The contract agreement with M/s Egis International has been entered into by the Project Director, KSHIP, Public Works Department, Bangalore on 10.12.2012.

M/s Egis International Consultants have mobilized their team of experts and commenced the consultancy work from 12.02.2013. The main aim of PRAMC is to establish the following five units;

- I. Policy and Planning Unit
- II. Programming and Monitoring Unit
- III. Road Safety Unit
- IV. Information Technology unit
- V. Training unit.

The consultants have been provided with the existing data of the Road network in Karnataka and also the reports submitted by the previous consultancies under CDTA-1 and other Consultancy services.

The consultants are in the process of preparation of the Draft Inception Report.

## CHAPTER- 7

### STATE HIGHWAY DEVELOPMENT PROJECT (SHDP) Overview of State Highway Development Project

#### 7.1 Scheme:

The State Government has approved a scheme to Develop/ Improve 10500 km length of State road network by utilizing the available machinery in the Public Works Department, on the similar lines of Karnataka State Highway Improvement Project (KSHIP) with a program to complete the same within 2 years. The entire expenditure for the Project is borne by the State Government.

1. The Empower committee under the chairmanship of the chief Secretary will look after the selection of roads, Administrative approval and Finalization of tenders.
2. For proper monitoring of the Project Engaging Project Management Consultants, Technical Committee under the chairmanship of Secretary, PWD Approval to tenders by the Tender Approving Authority under the chairmanship of Principal Secretary, Public Works, and Ports & Inland Water Transport Department and also over all monitoring by the Steering committee.

#### 7.2 Details of the Scheme:

1. Approval has been accorded to take up 7254 km length of road at a cost of Rs.2797.00 crore (Improvements of 4132.64 km at a cost of Rs.2192.66 crore and Renewals of 3121.76 km at a cost of Rs.604.61 crore ) by the Empowered committee in the meeting held on 16.11.2011.
2. Detailed Project Reports have been prepared through DPR consultants under the supervision of South Zone and North Zone of the Public Works Department. The roads connecting District to District and Taluk to Taluk are considered for Improvements.
3. The State Highway Development works are being implemented on Project mode.
4. For monitoring of the Project, a Project Implementation unit similar to KSHIP has been created in state Government Order No: PWD 45 EAP 2011 Bangalore dated: 04.11.2011.
5. It is proposed to take up Improvement / Renewal works for Roads connecting District to District, Taluk to Taluk & Taluk to Taluk of adjacent districts.
6. Administrative Approval has been accorded in State Government order No.PWD 45 EAP 2012, Bangalore, Dt: 09.05.2012 and No.PWD 121 EAP 2012, Bangalore, Dt: 19.12.2012 for development of 3724.41 km at an estimated cost of Rs 1439.24 Crore. The

works are grouped into 66 Packages under **Phase-1**. A length of 3567 km (As per Technical Sanction accorded by the Chief Engineer, South & North) is being developed at a cost of Rs.1439.24 crore under these 66 Packages (Improvements to 2110 km at a cost of Rs.1115 crore and Renewals in a length of 1457 km at a cost of Rs.324.00 crores)

7. Tenders for these works have been invited by the respective Jurisdiction Execution Engineers; Technical Bids have been approved by the Tender Evaluation Committee under the chairmanship of the secretary, PWP & IWT department. The Financial bids for 63 Packages have been approved by the Tender Approving Authority under the chairmanship of the Principal Secretary PWP & IWT department. Work orders are issued during October-November 2012 and the works are in various stages of Progress.
8. Program is framed to complete the works in 11 months.
9. 1438km of road is completed up to March 2013 at a cost of Rs.519.56crore.

### **7.3 Procurement of Project management consultants for Supervision of Works**

State Highway Development Project is being implemented on Project mode. The Project management consultants have been engaged for all 9 PWD Circles. Main activities defined are monitoring the Project, Quality control Supervision, Engineering Designs, good Quality construction in accordance with drawings and specifications, contract Management etc.

### **7.4 Project Management System Software (PMS)**

For Comprehensive monitoring of the Project, Project Monitoring System software has been developed and installed in the department. In this Project Management system, Monitoring, Quality control and Contract Administration are the main Modules and through these modules, the Project activities, daily activities and Photographs, Quality control tests are being uploaded.

### **7.5 Grants/ Progress for Phase-I works:**

A Grant of Rs.519.70crore is provided for phase-1 works during 2012-13 and a financial progress of Rs.519.56crore is achieved.

### **7.6 Phase-II Project:**

Administrative Approval has been accorded to develop 3745Km of road length in 70 packages at a cost of Rs.1498.90 crore in G.O.No PWD 107 EAP 2012.dt:19.03.2013. Tenders have been invited for the project.

## CHAPTER- 8

### INSTITUTIONAL DEVELOPMENT IN PWP&IWTD

#### 8.1 Background:

Institutional Development commenced in PWP&IWTD with the following initiatives:

- A “State Level Commissionerate of Tenders” headed by the senior most Engineer-in-Chief / Senior Chief Engineer was constituted on 18-12-2000 to approve tenders of Rs. 1.00 crore & above.
- Ownership of hot-mix plants, pavers & allied equipments leading to mechanization of road construction for improved quality & speed was mandated on 21-04-2001.
- Ownership of specified equipment & formwork for bridge construction for improved quality & speed was mandated on 21-04-2001
- Pre-qualification work criteria leading to selection of competent construction agencies were prescribed on 21-04-2001.
- Building Lines & Control Lines were notified under the Karnataka State Highways Act – 1964.
- Standard Data & Rate Analysis for roads, bridges & building works were published & mandated.

Computerization of PWP&IWTD was initiated in 1997-98 and implemented in a phased manner.

Institutional Development in PWP&IWTD was given a major impetus with the on coming of the Karnataka State Highways Improvement Project (KSHIP); as a pre-cursor to which an Institutional Development Strategy Study was undertaken in 2000-01. The Government on 15-03-2001 approved the recommendations of the Study. The Department has since then been undergoing major Institutional Development. The Institutional Strengthening of the Department consists of following 6 components:

- Regulatory Context
- Organization & Management
- Financial Mechanisms
- Core Processes
- Information Systems
- Human Resources

In all the above 6 components major Institutional Development initiatives took place between 2001-'02 & 2004-'05 which are briefly narrated ahead.

## **8.2 Regulatory Context:**

**8.2.1 Karnataka State Highways Authority (KSHA):** The Government has established the Authority on 08-08-2001 as an advisory body consisting of members from both the government & private sector.

**8.2.2 Road Fund Study:** The Study was commissioned in Nov 2003 and the report was received in July 2004. The recommendations of the Study are currently under the consideration of the Government.

## **8.3 Organization & Management:**

**8.3.1 Road Users' Board:** Government has constituted "Karnataka Road Users' Board" on 08-08-2002 consisting of both ex-officio & private sector members under the chairmanship of the Hon'ble Minister for Public works. The Board would contribute to policy-making.

**8.3.2 Revision of the PWP&IWTD Code:** The PWP&IWTD Code was got revised by the Radhakrishna Committee. It is to be mandated after review to make it compatible with the revised procurement processes and with the inclusion of Codes of Practice for construction management quality assurance and environment protection & prevention of HIV / AIDS at work site.

**8.3.3 Annual Road Users' Stakeholders Forum:** The KPWD commenced conducting the Annual Road Users' Stakeholders Forum bringing together the various stakeholders in the road sector. Three such well-attended Forums have been held in 2003-04, 2004-05, 2005-06 & 2006-07.

## **8.4 Financial Mechanisms:**

**Departmental Medium Term Fiscal Plan (DMTFP):** Strategic road investment requires a multi-year road investment plan. Towards this end, a beginning was made by KPWP&IWTD with the publication in July 2003 of DMTFP for the period 2002-03 to 2006-07. PWP&IWTD was a pilot Department to have prepared DMTFP. Publication of DMTFP continued regularly

## 8.5 Core Processes:

**8.5.1 Strengthening of Procurement:** Revised, comprehensive procurement documents were finalized under the Country Procurement Assessment Report (CPAR)/State Procurement Assessment Report (SPAR) under the aegis of the Finance Department. The revised processes would be followed in KPWP&IWTD.

KRDCL commenced use of external consultants for preparation of Detailed Project Reports, work supervision & quality control as per the best practices.

International best practices have been adopted in supervision of works of KSHIP. Environmental & social impact assessment & mitigation plans are adopted both by the KRDCL & KSHIP.

**8.5.2 Asset Condition Information:** Two Road Measurement Data Acquisition System (ROMDAS) were procured & put to use. PCC Consultants on Core Road Network carried first Annual Road Condition Survey in 2001. Thereafter the PWP&IWTD developed internal capacity & carried out a second RCS of Core Road Network & the first RCS of the entire remaining road network in 2003. The RCS data was incorporated in RIS. The RCS has led to the availability of precise information on asset condition.

**8.5.3 Road Users Satisfaction Survey (RUSS):** First RUSS was conducted in April-May 2002 across the State on all categories of roads. It was the first ever such Survey conducted in South Asia.

**8.5.4 Traffic Census:** KPWP&IWTD is conducting traffic census since 1959. Last quintessential 7 days 24 hours traffic census was conducted at 3652 permanent traffic count posts in February 2010 and 2 days Traffic Survey was conducted in February 2013.

**8.5.5 Strategic Options Study-II (SOS-II):** The KPWP&IWTD commissioned SOS-II by an in-house committee as a pre-cursor to a possible project of major road improvement. This is the first ever such in-house study being carried out by KPWP&IWTD.

**8.5.6 Road Safety:** KPWP&IWTD mandated use of "Manual for Safety in Road Designs on 15-03-2004. Two Traffic Cells were created on 24-10-2002 in the Offices of the



Chief Engineers, C&B (South & North zones) with a wide range of duties pertaining to traffic & road safety.

8 Black spots on PWP&IWTD roads were improved as part of KSHIP road safety component. This was the first such specific black spot improvement work in PWP&IWTD. Further such works are envisaged.

For better road safety KRDCCL is improving 298 curves on its project works. KSHIP is constructing 346 bus bays & 12 truck lay-byes. KRDCCL is constructing 149 bus bays & 13 truck lay-byes. Construction of bus bays & truck lay-byes as an integral part of road improvement projects is taken up for the first time in KPWP&IWTD.

### **8.6 Information Systems:**

An Information Technology Cell was established in PWP&IWTD under a Chief Information Officer. The GIS based RIS is continuing to be updated with the latest information. PWP&IWTD was computerized up to the Division level. "Build Super Fast" software for updating the Schedule of Rates & for estimating of works was put in use. An enterprise level E-governance Study was got carried out in 2003-'04.

### **8.7 Human Resources:**

A Human Resources Improvement Study was commissioned on 5.10.2004. The Engineering Staff College of India, Hyderabad was appointed as Consultants. The Consultants have submitted the Final Report during March 2007. One of the recommendations of the study is to train the staff of PWD. Cadre wise training areas for various levels of Officers / officials have been identified along with the training institutes. About 1176 engineers have undergone training till now. About 200 officers / engineers (i.e., 15% of PWD officers/engineers) during the year 2009-10 is trained at different Training Institutes on various subjects, as per this training plan is evolved for the current year.

### **8.8 Institutional Development Measures:**

The Institutional Development initiatives continued in KPWP&IWTD in 2004-05 mainly under the aegis of Karnataka State Highways Improvement Project through the Institutional Development Strategy Cell in 2005-06 as a continued follow up of the recommendations of the Institutional Development Strategy Study carried out under KSHIP & mandated by the Government on 15-03-2001.

### **8.9 Rationalization and re-organizing of MDRs & State Highways:**

The PWP&IWTD rationalized and re-organized the MDRs & State Highways. A Government Order in this regard was issued on 18-05-2004. As a result, 9709 Km of MDRs were reclassified as State Highways and the number of State Highways increased from the earlier 76 to 146. Beside the State Highways were also duly rationalized. This was a very major endeavor at systematizing the PWP&IWTD road network.

### **8.10 Human Resources Improvement Study (HRIS):**

A Human Resources Improvement Study was commissioned on 05-10-2004. The Engineering Staff College of India, Hyderabad was appointed as Consultants. The Consultants have submitted the final report.

### **8.11 Road Accident Analysis System (RAAS):**

A Major initiative towards safety was brought to a level of commencement of implementation of RAAS during the year 2008. The Consultancy of supplying, installing & operationalizing a computer based RAAS is being entrusted to M/s IBS Software Services Pvt.Ltd., Trivandrum. This would systematize acquisition, storage, retrieval and design of countermeasures to reduce road traffic accidents. Presently the RAAS application has been rolled out at the PWD server situated at Koramangala and can be accessed by the PWD divisions across the state including the National Highway division, Bangalore.

### **8.12 Road Maintenance Expenditure Tracking Study:**

A Road Maintenance Expenditure Tracking Study was commissioned under the aegis of the World Bank. M/s NCR Consultants Ltd carried out the Study. The PWP&IWTD Divisions Bangalore, Raichur & the KRDCCL Division, Belgaum was taken up for studying as pilot Divisions. This was the first such Expenditure Tracking Study carried out in KPWP&IWTD.

### **8.13 Road Users Satisfaction Survey:**

It is stipulated in the Project Agreement of KSHIP with the World Bank that the GOK shall conduct at least three times during the period of Project Implementation, a Road User Survey to assess Road User's Satisfaction with PWD's performance in maintaining and operating the road network and to make comparisons with attitudes expressed in previous surveys and to furnish to the Bank the report of such surveys.

The First and Second Road User Satisfaction Surveys was carried out by M/s TNS Mode during February 2002 and January 2004, respectively. The Third survey was carried out by M/s Wilbur Smith Associates, Bangalore during Nov'2007.

A total of 7000 sample respondents covering all the 30 districts of Karnataka were interviewed in this effort. About 5500 samples from motoized traffic, 1000 samples from non-motorized traffic and about 500 samples from Associations were interviewed to elicit their opinion on the conditions of the roads and the performance of the Public Works Department.

The findings of the Third Survey and a comparative report of all the three surveys are available on PWD website.

#### **8.14 Road Condition Survey:**

The KPWP&IWTD carried out the 3<sup>rd</sup> Annual Road Condition Survey of the Core Road Network spread over 10,092 Km of State Highways. The findings converted into International Roughness Index (IRI) & the simultaneous findings of the Visual Inspection Survey were incorporated in the RIS.

#### **8.15 International Standards of Quality Management Systems:**

The contract of consultancy services for implementation of International standards of Quality Management Systems to twenty one(21) divisions of PWD was signed with M/s EQMS India Pvt Ltd; Delhi in the year 2005. M/s EQMS assisted 21 divisions of KPWD by development, implementation, training and capacity buildings of quality management systems for obtaining certification for quality management system. The contract for consultancy services for certifying agency for implementation of Quality Management System in KPWD was signed with M/s BSI Management system India Pvt, Ltd., Bangalore in the year 2008.

Presently 21 divisions of PWD hold the Certificate for the Quality Management System which complies with the requirements ISO 9001:2000.

The certifying body will start surveillance audit at all the certified PWD divisions from last week of October, 2009 and the assessment will be carried out for ISO 9001:2008 standards.

#### **8.16 E-governance:**

All the field offices up to Sub-Division level were connected with e-mail facility. The Estimation & Rate Analysis software was customized incorporating all the components of the data and rate analysis of the Radha Krishna Committee already mandated by the PWP&IWTD.

The GIS based RIS system is effectively used while upgrading MDRs to SHs.

For more details the Website of the department may be visited ([www.kpwd.gov.in](http://www.kpwd.gov.in))

The Institutional Development activities thus continued Since 2004-'05, further strengthening the KPWP&IWTD in various aspects of road management

## **8.17 E-Procurement:**

**8.17.1 Objectives:-**The primary focus of the e-procurement initiative was to bring about transparency in government procurement and to standardize the procurement process within the state in order to institute a more fair, open and competitive environment for government procurement through one central state portal.

The GoK wanted the e-proc system to address concerns arising from the previous manual procurement process with respect to potential collusion – or bid rigging – whereby, on occasion, contractors would be prevented from picking bid packages or submitting bids, or could be influenced if they were known to be participating in a bid. The electronic system is intended to help GoK address many of these concerns by ensuring all interested contractors have access to bid packages with complete anonymity and may submit a response without any threat of interference.

The e-proc system is in line with the key principles to ensure the basic standards of good governance which include:

- Transparency
- Non-discrimination
- Equality of access
- Open competition
- Accountability
- Security of the process

**8.17.2 Achievements:-** The Public Works Department and HP have spent a lot of effort creating standard estimate and specification tables for a variety of works projects, which also support variable estimates depending on the location of the project. This is intended to greatly improve the initial indent and estimating process prior to the approval for the tendering step.

Since the launch of the system till April'2008, PWD has conducted 958 bids (value: 2843 crore). At present, there are 3,900 registered contractors, of which 12 contractors are international contractors.

**8.17.3 System Review:-** The Public Works Department has been using the e-proc system for about more than one – and- half years. PWD was one of the original pilot agencies on the system and has been working closely with the Centre for e-Governance and HP in defining its specific requirements for the system and proposing enhancements for improving system functions to better accommodate its needs. HP has been very responsive to PWD and continues to review change requests and accommodate them through the change management process for any system changes.

To date, PWD has processed 1631 tenders with an average of one or two bidders. There are approximately 2,000 works contractors currently registered in the system.

G.O number, PWD20EAP 2008, Bangalore, dated 21-04-2009 was issued under section 18A of Karnataka Transparency in public procurement (Amendment) act, 2007 that for all works costing Rs. 50 lakh and above in the department e-procurement system is mandatory from 01-04-2009 onwards. Now from 01-04-2010 all works costing Rs. 20 lakh and above are awarded by e-Procurement compulsarily.

**8.17.4 Training of Departmental staff:-**From April-2008 to Mar-2009, 606 officers of PWD has been trained on e-Procurement platform. To date, 757 officers of PWD have been trained on e-Procurement Platform.

**8.17.5 Key Features of the e-Procurement System:**

- Digital Key Encryption of the financial bid submitted by the contractors.
- Online mode of Payment options to make the Tender processing fee and EMD amount and online refund of EMD amounts.
- Split-EMD feature to pay part EMD and rest by other options like Bank Guarantee, Demand Draft
- Decentralization of ‘eProc-Admin’ so that individual departments can manage themselves
- Portal Messages/Flash Messages – administration via portal enabled for eProcAdmin.
- Notification and Escalation features to higher authorities/officials incase of delays in processing the tasks.
- Financial Comparision – both online and downloadable (excel format)
- Approval flowchart displayed Graphically
- PDF conversion to track the status and print estimate facility available

## **8.18 Major Stake Holders of PWP&IWTD roads in Karnataka**

Truck operators, Bus operators and other Transport vehicle operators are the Stake holders. Cement, Bitumen and Steel manufacturers, Buildings of all Public Offices, Forest department for providing wood, Quarey owners, manufacturers of other construction materials, manufacturers of bridge bearings and construction equipment manufacturers and labour work force.

## **8.19 Quality Control activities taken up on PWP&IWTD roads**

### **8.19.1 California Bearing Ratio (CBR)**

California Bearing Ratio (CBR) test is a penetration test, evolved for the empirical method of flexible pavement design. The CBR test is carried out either in the laboratory on prepared specimens or in the field by taking- in site measurements. This test is also carried out to evaluate the strength of other flexible pavement component materials.

### **8.19.2 CBR Requirements:**

To evaluate the subgrade strength, an adhoc penetration test is generally conducted. California Bearing Ratio (or simple CBR) is a measure of the shearing resistance of a soil to penetration under controlled density and moisture conditions. The strength of the soil is found by penetrating the soil specimen by the plunger of standard size. The soil is kept in a standard mould. The resistance offered is compared with the known standard resistance.

The CBR test is conducted as per relevant Code of IS- 2720

The CBR tests are carried out by PWD Quality Control Divisions pertaining to roads coming under C & B South Zone. CBR tests are conducted for upgraded MDRs and also as and when requisitions received from concerned construction sub divisions.

## **8.20 Conducting ROMDAS Survey for core net work roads of PWD South Zone:**

Road Measurement Data Acquisition System (ROMDAS) has been developed by DATA COLLECTION LTD. (DCL), New Zealand as a generic system for collecting data on road condition i.e., International Roughness Index (IRI) Values. The ROMDAS Survey Equipment is mounted on a standard vehicle.

Each vehicle responds differently to roughness due to variations in the springs, dampers and tyres. It is therefore essential to calibrate each roughness survey vehicle

against a standard roughness so that its measurements can be related back to the standard roughness.

The Bump Integrator is a response type Road Roughness Measurement instrument which records the cumulative displacement of the rear axle relative to the body of the vehicle. ROMDAS will convert raw roughness data into calibrated roughness through user supplied equations. If equations are available for different speed, ROMDAS will apply the appropriate equation given the vehicle speed at the time of the measurement.

The roughness is expressed in terms of IRI (M/km). Apart from IRI data, Road Inventory Details are also collected during ROMDAS survey. The details collected are

1. Length of the road
2. Name of the road
3. Starting chainage Km
4. Location of Bridges (minor/major)
5. Location of culverts/causeways)
6. Major intersection (with NH/SH)
7. Minor cross roads (Left/right)
8. Start and end of intermediate village stretches
9. Route followed-through town or bypass
10. Road furniture-Km posts, signs, guard rails
11. Ending chainage Km

ROMDAS survey work was entrusted to Quality Control Division, PWP&IWTD Bangalore during the year 2002. Since then every year the survey is being carried out and details are submitted to the government

ROMDAS survey is also carried out for the works approved under CRF & ORF schemes. The survey is conducted before the commencement of the work and also after the completion of the work to know the improvement in the riding quality.

## CHAPTER- 9

### DEPARTMENT OF ARCHITECTURE

#### 9.1 INTRODUCTION

The Department of Architecture is functioning as an independent Department since 30.10.1986. The main objective of the Department is to furnish Architectural Design Drawings for buildings of various Government Departments throughout the State of Karnataka. Architectural Design Drawings are prepared based on the requirements furnished by the user Departments, site condition and other prescribed standards and norms.

The Department also furnishes Architectural Drawings to Quasi-Government Organisations, Autonomous Bodies, Boards, Development Authorities, like Bangalore Development Authority, Corporations, Municipalities etc., on request after collecting Architects Fee.

Whenever a request for Architectural design is received from the user department or an Engineering Department, the concerned team of Architects makes a thorough study of all the aspects of building design. The approach to any project is highly professional and creative in nature. All requests, whether they are new proposals / alterations and additions to the existing building / ongoing works, are all dealt with equal importance, giving utmost priority to budgeted works. This office is committed in issuing the necessary Architectural drawings in time, based on the stage of the project. For e.g. schematic drawings for Administrative sanction or detailed drawings for technical sanction or working drawings for execution. The Department undertakes periodical inspections of building projects which are under construction at various places in order to solve the problems encountered by the site Engineers at the time of execution and to see that the works are executed in accordance with the drawings furnished by this Department.

In addition to Architectural Design Drawings, the Department also furnishes detailed working drawings, joinery details, Interiors and for services like Electrical, plumbing and Sanitary etc., which are essential for executing the building projects.

List of Projects costing more than Rs.One crore for which Architectural drawings have been furnished during the year under report is enclosed in Annexure IV

#### 9.2 ADMINISTRATION:

Central office of the Department of Architecture is functioning at Bangalore, Sri. K. Udaya is working as Principal Chief Architect since **12.4.2007** and under his guidance Deputy Chief Architects, Deputy Architects, Senior Assistant Architects and other Technical staff have prepared Architectural drawings. Principal Chief Architect and other Officers of the



Department have undertaken site visits to most of the projects during construction at various stages. With a view to fulfill the urgent needs of the works of Northern parts of the State, more site visits are undertaken.

This Department has a Computer Wing and Computers are being used for preparing Architectural Design Drawings and also for Administration purpose.

### **9.3 FINANCIAL:**

No Architects fee is collected for designing Government buildings. However, Architects fee is collected in case of Quasi-Government Organisations, Corporations and Z.P. Works, etc.

### **9.4 PROGRAMME/PROGRESS:**

The main aim of this Department is to provide very efficient, economical and user-friendly designs based on the requirements of the User Departments.

There is need for reviewing Cadre and Recruitment Rules of this Department and necessary steps have already been initiated in this regard.

During the year under report, the Department has prepared and furnished about **653** Architectural Design Drawings to various Government building projects costing about **Rs. 568.03 crores**.

### **9.5 SUMMARY/ CONCLUSION:**

With better coordination from the Government, User Departments and the Public Works Department, this Department can function more efficiently and provide better designs in terms of usage, economy and aesthetics and necessary working drawings and detailed drawings for services etc., can also be given in time.

## **CHAPTER- 10**

### **BUILDINGS**

**10.1** Public Works, Ports & Inland Water Transport Department is responsible for construction and maintenance of government buildings. While it has its own budget for construction and maintenance of buildings, it also undertakes construction on behalf of other Departments/local bodies under the Deposit Contribution Works.

Broadly, buildings under PWP&IWTD fall under two categories viz., Non residential buildings and residential buildings. The first category covers office buildings, commercial complexes, colleges, hospitals, libraries, etc. Residential buildings include quarters and hostels.

While minor works are undertaken under the budget heads 2059 and 2216, major asset creation works are taken up under the budget heads 4059 and 4216 capital outlay. In addition, there are building programmes under the budget heads of other government Departments, for which budget provision is made under the respective budget heads.

PWP&IWTD undertakes two kinds of repairs for maintenance of buildings, viz., ordinary repairs and special repairs. Ordinary repairs are carried out annually and include activities like white washing, colour washing, repairs of patches, replacement of small broken parts, painting of doors, etc. Special repairs are less frequent and include repairs to the damaged portions of the building, floors, doors and windows and replacement of water supply and sanitary fittings.

Major buildings under the purview of Public Works Ports & Inland Water Transport Department in North and South Zones is listed in Annexures II & III

#### **10.2 Important Proposed and Ongoing Projects**

##### **10.2.1 Construction of 15 Hon'ble High Court Judges quarters at Hebbal, Bangalore**

The construction of 15 Hon'ble High Court Judges quarters has been taken up near Hebbal in the land measuring about 14 acres and 2 guntas belonging to Karnataka Agro Industries Corporation, Bangalore. The estimate has been approved for Rs 5500 lakh under the Head of Account 4216-01-700-2-01-386-S and GS. The built up area of each minister's quarters is about 1200 sqmt. All the 15 quarters are completed and 13 quarters are handed over and occupied by the Hon'ble High Court Judges and the remaining 2 quarters are to be allotted to Hon'ble High Court Judges.

##### **10.2.2 Construction of Meggan Hospital of Medical Science at Shimoga**

The construction of Meggan Hospital of Medical Science and teaching Hospital is taken up at an estimated cost of Rs.5900 lakh. With this construction, about 600 beds can be accommodated additionally to the existing bed strength of 300. Meggan Hospital is designed

for basement with four floors. The total area of all the floors is 21500 sqmt. Finishing works like flooring, fixing of doors & windows, and painting are under progress.

### **10.2.3 Construction of S.K.S.J.T.I Engineering College Annexe building at K R Circle, Bangalore**

The construction of S.K.S.J.T.I Engineering College Annexe building at K R Circle, Bangalore is taken up at an estimated cost of Rs 1350 lakh under the head of account 4202-02-104-01-03-386. The building consists of basement, ground+four floors having a total area of 11600 sqmt. In this college Civil Engineering, Computer Science, Electronics & Communications, Fashion Technology, Electrical & Electronics Courses are offered. Second floor roof work, 3rd floor column concrete work is under progress.

### **10.2.4 Constuction of Government Medical College, Boys hostel, Girls hostel and Doctors quarters at Shimoga (Second Phase)**

The construction of Government Medical College Boys hostel, Girls hostel and Doctors quarters at Shimoga (Second Phase) is taken up at an estimated cost of Rs 4000 lakh under the head of account 2210-05-105-1-40. The total area of the building is 19625 sqmt. The plinth area of the proposed boys and girls hostels having five floors is 1255 sqmt. in each floor. The plinth area of the staff quarters having eight floors is 852 sqmt in each floors. The Medical college building is having Ground + Three floors. The work has been completed.

### **10.2.5 Developmental work in Sri Kshethra of Yadiyur Siddalingeshwar Temple :**

The Developmental works in Sri Kshethra of Yadiyur Siddalingeshwar Temple has been taken up at an estimated cost of Rs.1850 lakhs. On first stage Temple development & Renovation work is taken up at an estimated cost of Rs.495 lakhs. Construction of Administrative Block, Shopping Complex, Darmitary block & V.I.P, V.V.I.P Guest Houses is taken up for the facilities of pilgrims at an estimated cost of Rs.410 lakhs. In addition to above Roads in and around the temple are being upgraded at an estimated cost of Rs.550 lakhs. Temple and allied works are under progress.

### **10.2.6 Developmental work in Sri Kshethra Kukke Subramanya Temple, Sulya, Managalore Dist:**

As per the approved Master plan the developmental works in Sri Kshethra Kukke Subramanya Temple under 1<sup>st</sup> stage is taken up at an estimated cost of Rs.6000 lakhs. Under this, construction of Yaga Shala, Bojana Shala & Dormitory block for Sarapa Samskara Sevarthis, General dormitory block, V.I.P & V.V.I.P Guest houses, Toilet blocks, Vehicle Parking Lot & Quarters for Employees are taken up. The work has commenced during June 2009 and is proposed to be completed by December 2013. Out of 9 works, 8 works were completed and 1 works is under finishing stage.

### **10.3 High Court Circuit bench at Dharwad & Gulbarga**

The people of Northern Karnataka were pleading for setting up of High court circuit bench at Dharwad & Gulbarga cities in order to cater to the needs of the common man of that region. In this direction the advocates and the people of northern Karnataka have staged several dharnas & protests for setting up of the High court benches. The Government of Karnataka has obliged and ordered for construction of circuit benches both at Dharwad & Gulbarga. This has enabled the people of the regions to get their grievances attended by reducing the travel time & hard earned money. Thus the dreams of the people of that region have become true and it was fulfilled in practice. The details of the High court circuit benches built both at Dharwad & Gulbarga are as follows.

#### **10.3.1 Construction of High court circuit bench in Dharwad.**

The Dharwad High court circuit bench is proposed to build at Valmi premises of Dharwad in 47 acres of land with construction cost of Rs.11500.00 lakh. The Construction work is being done by M/s.Rao Constructions, Bangalore. The details of facilities are

##### **Main Building:**

1. Basement consists of 700 vehicles parking facility.
2. Ground Floor Consists of Court halls, Advocate general offices, Computer sections, Bank, Canteens and other facilities included.
3. First floor consists of 10 court halls with one Hon'ble Chief Justice chamber.
4. Second floor consists of Register Offices, Conference halls, meeting halls.

Construction of quarters for Hon'ble judges and Advocate General consists of 6 houses in ground & first floor.

Construction of single bed room quarters for staff consists of 48 houses in 6-blocks, with four floors each. Construction of double bed room quarters for staff consists of 88 houses in 5-blocks with four floors each. Construction of 2+3 bed room quarters for staff consists of 16 houses in 2-blocks with four floors each. Construction of Registrar quarters consists of 3 houses in ground of first floor.

Construction of guest house which consists of 2 VIP suits in ground floor including dining hall, Kitchen room and two personnel assistants' rooms. Construction of 3 VIP suits with 2 personnel assistants rooms in first floor and second floor each.

Construction of club house which consists of Recreational hall, dining hall, kitchen hall in ground floor and Gymnasiums, Yoga, reading rooms and other facilities.

### 10.3.2 Construction of High court circuit bench in Gulbarga.

The Gulbarga High court circuit bench was commenced on 2-11-2006 with an original cost of Rs 66.66 crore. As per the recommendations of the technical committee the cost was revised to Rs 101.44 crs. The construction work is being done by M/s Unity Infra projects Ltd Mumbai.

The project includes the construction of

1. Main Building :- Cellar, Ground & Two floors.
2. Hon'ble judges Banglows :- 6 Nos
3. Registrar quarters :- 3 Nos
4. Staff Accommodation :- 180 Families
5. Guest House :- 8 suites with kitchen & dining.
6. Club House :- Ground & First Floor
7. Allied works :- Road, C.Ds, septic tank, compound wall etc.

#### Present stage:

The construction work is completed. The building was inaugurated on 05-07-2008 by the Hon'ble chief justice of India Sri K.G Balakrishnan in the presence of Hon'ble Chief Minister of Karnataka Sri. B.S Yedurappa and Hon'ble Chief Justice of Karnataka Justice Sri Cyriac Joseph, Hon'ble PWD Minister Sri. C.M Udasi, Hon'ble High court judges and other Ministers and V.V.I.Ps. High court circuit bench Gulbarga has started functioning since 07-07-2008 and working with full strength. The Hon'ble Judges are staying in the judge's quarters and the staff's in the respective quarters. The people of the areas of the district are benefited by this Circuit bench.

### 10.4 Construction of Suvarna Soudha at Belgaum:

The first historical session of Karnataka Legislative Assembly & council outside the capital city Bangalore was held at Belgaum during 25<sup>th</sup> to 29<sup>th</sup> September, 2006. A decision was taken to construct fully equipped building named as "SUVARNA SOUDHA" at Belgaum, in order to conduct the legislative assembly and council sessions at Belgaum, every year.

State Government had constituted High power committee comprising Hon'ble Minister for Home & Parliamentary affairs for the selection of a suitable site for this purpose. The committee has selected the site comprising about 127 acres of private land adjoining to NH-4 near Halaga Bastwad villages of East Belgaum city. The land has been acquired for this purpose. The Administrative approval to this Project was accorded by the Government in January 2009.

The details of structure & accommodation made in the building are as follows:

<b>FLOORS</b>	<b>BUILT-UP AREA</b>
Basement	13180 Sqm

Ground Floor	12011 Sqm
First Floor	13438 Sqm
Second floor	9714 Sqm
Third Floor	12055 Sqm
Service block (Generator+Transformer)	830 Sqm
<b>Total</b>	<b>61228 Sqm</b>
Size of building	150.47m x 107.25 m
Central Big dome	01 No
Small Domes	06 Nos

**10.4.1 The details of the events of the project are as follows:**

1. Technical sanction to the estimate for Rs.230 Crores was accorded on 27.04.2009.
2. Technical bids were opened on 11-06-2009.
3. The financial bids were opened on 15-06-2009.
4. Cabinet approval to the financial bid was accorded on 01-07-2009.
5. Work awarded to the agency- M/s. B.G. Shirke Construction Technology Pvt. Ltd., Pune.
6. Bid cost-Rs. 232.67 crores (+24.68%)
7. Date of agreement with the Agency - 08-07-2009.
8. Date of work order to Agency - 09-07-2009.
9. Date of handing over of site to the Agency - 10-07-2009.
10. Stipulated time period for Construction - 18 months
11. Date of Completion 09-01-2011.

**10.4.2 The project has been divided into two Milestones as follows:**

**First Milestone:** Completion of Assembly & Council Halls in first 12 months.

**Second Milestone:** Completion of the entire project in the stipulated time period of 18 months.

**10.4.3 The facilities provided in the building are as under:**

1. Basement: Conference hall (capacity 350 persons), Buffet Area, AC Plant room, DG room, bank, record room, store etc
2. Ground floor: Banquet hall, Ministers chamber (11 nos), Secretariat chambers (36 nos), Tractin lift-3 nos, Capsule lift-6 nos, Police station, Post office and toilets.
3. First floor: Central Hall (450 Persons), Assembly Hall (350 Persons), Council Hall (100 Persons), Ministers chamber (3 nos).
4. Second floor: Minister Chamber (15 nos), Concerned Department of Assembly and Council.

5. Third floor: Chief Minister's Chamber, Chief Minister's office, Cabinet hall, Conference hall, Ministers Chamber (10 nos)

### **10.5 E-Courts**

Karnataka state is in the Fore front in Information Technology field in the country. To make use of the technology it is proposed to introduce E-Courts in the selected courts across the state to augment/upgrade the judicial process of the cases for speedy working and giving the justice to the common people at the shortest possible time. Here under this plan district and taluk level courts were used with Internet connections to create IT server in court halls and converted into IT server rooms. To construct every IT server rooms civil, electrical and other requirements in the rooms, approximately with an estimated cost of Rs 1.25 lakh to 4.00 lakh.

In the first stage a total of 101 courts in the state have been commenced and the works are completed.

In the second stage a total of 90 courts in the state has been proposed and the works has been completed for 77 courts.

### **10.6 Construction of Court buildings & Judicial Officers quarters**

35 Judiciary court buildings and 159 Judicial quarters are taken as per G.O Dt: 15.2.2011 under the jurisdiction of Chief Engineer, Communicaiton and Buildings (South) zone. Out of 35 court buildings agency has been fixed for 29 works, agency to be finalized for 6 works. 28 works are under progress. The total estimated amount is Rs. 216.99 crore.

Construction of 159 Judicial quarters were taken up at an estimated cost of Rs. 156.42 crore. Out of 159 works, agency has been fixed for 141 works, agency to be fixed for 18 works & 99 works are under progress.

### **10.7 Budget: 2012-13**

For the year 2012-13, total budget provision for both categories of buildings (residential and institutional / commercial) was Rs.716.11 crore under plan and Rs.367.30 crore under non-plan, with a total of Rs. 1083.41 crore. Details of budget provision are given in Table 8.1.

**Table 10.1****Financial Allocation of Building Works under PWP&IWTD Budget for the Year 2012-13**

(Rs.in lakh)

<b>Head of Account</b>	<b>Head of Development</b>	<b>PLAN</b>	<b>NON-PLAN</b>	<b>TOTAL</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
2059-80-053-4-00-147	Construction of Departmental Buildings	292.37		292.37
2059-80-053-4-00-200	Maintenance of Departmental Buildings		27396.75	27396.75
2059-80-053-1-08-147	Minor Construction of Legislative Home works & Buildings	119.70		119.70
2059-80-800-0-06-051	Sand Mining-Administration		9024.03	9024.03
2059-80-053-1-11-200	Works of Vidhana Soudha, Vikasa Soudha, M.S building & VV tower.		202.53	202.53
2059-80-011-0-13-051	Maintenance of Departmental E-Governance expenditure		87.88	87.88
2059-80-053-1-09-200	Works of Legislative Assembly building		6.77	6.77
2059-80-053-1-10-200	Works of Legislative Council building		12.12	12.12
<b>2059</b>	<b>Sub Total</b>	<b>412.07</b>	<b>36730.08</b>	<b>37142.15</b>
4059-80-051-0-29-386	Construction of Departmental Buildings	13320.46		13320.46
4059-80-051-0-32	Construction of Court Buildings	16371.24		16371.24
4059-80-051-0-40-386	Construction of Vidhana Soudha at Belgaum	7863.98		7863.98
4059-80-051-0-50-386	Karnataka Bhavan I,II & III New Delhi	650.72		650.72
4059-80-051-0-52-386	Infrastructure & stay facilities at religious places	840.90		840.90
4059-80-051-0-42-386	Construction of District Office	1589.23		1589.23
4059-80-051-0-30-386	Construction of mini Vidhana Soudha & Sub Registrar's Offices	2330.74		2330.74
4059-80-051-0-47-386	Law University Building construction	1500.00		1500.00
<b>4059</b>	<b>Sub Total</b>	<b>44467.27</b>		<b>44467.27</b>
2216-01-700-2-12-386	Maintenance of Residential Buildings	84.94		84.94
2216-01-700-2-04-386	Minor construction of Residential Buildings	237.08		237.08
2216-01-700-3-01-200	Maintenance of Residential Buildings	13347.35		13347.35
2216-01-700-4-00-221	Furnishing	123.31		123.31
<b>2216</b>	<b>Sub Total</b>	<b>13792.68</b>		<b>13792.68</b>
4216-01-700-2-01-386	Construction of Residential Buildings	12755.03		12755.03
4216-01-700-2-25-386	Construction of Quarters for High Court Judges at HSR Layout	16.80		16.80
4216-80-800-0-01-386	Karnataka Bhavan I, II & III construction, New Delhi	167.07		167.07
<b>4216</b>	<b>Sub Total</b>	<b>12938.90</b>		<b>12938.90</b>
	<b>TOTAL - BUILDINGS</b>	<b>71610.92</b>	<b>36730.08</b>	<b>108341.00</b>



## CHAPTER- 11

### PORTS & INLAND WATER TRANSPORT

#### 11.1 Introduction:

Sea ports are important gateways for trading in commodities between countries. The ports form a major infrastructure in the logistic chain of activities in economic transport of goods. It is an acknowledged fact that, there is a big gap between available capacity of ports in India and the huge demand for port services.

In India, marine transport has the highest modal share of export-import cargo. Sea routes provide efficient and cost effective modes of transporting large quantities of goods. As per Ministry of Shipping estimates, traffic at sea ports is likely to grow three times by 2019-20 from the present level.

Karnataka, India's eighth largest State in terms of geographical size (191,791 sq km) is home to 5.28 crore people (2001 census) accounting for 5.1% of India's population. The population density (per square kilometre) in the State has risen from 235 in 1991 to 275 in 2001.

Karnataka has a maritime coastline of 155 nautical miles (300 kilometres) and has only one Major port at Mangalore i.e., New Mangalore Port Trust and Eleven minor ports between Karwar in the North and Mangalore in the south.

#### Minor Ports of Karnataka

- |             |                   |
|-------------|-------------------|
| 1. Karwar   | 7. Kundapur       |
| 2. Belekeri | 8. Hangarkatta    |
| 3. Tadri    | 9. Malpe          |
| 4. Honnavar | 10. Padubidri     |
| 5. Manki    | 11. Old Mangalore |
| 6. Bhatkal  |                   |

#### 11.2 Major Regulatory functions:-

With a view to achieve the various objectives the Department discharges the following regulatory functions:-

- 1) Regulation of Navigation at the ports.
- 2) Landing and Shipping of goods at the ports.
- 3) Maintaining and hiring of marine Floating crafts and cargo handling, equipment such as Cranes, Tugs, Water Barges, Weigh Bridge etc.,
- 4) Execution, supervision and Maintenance works of Port structures.

- 5) Dredging at the Ports and channels for safe Navigation;
- 6) Maintenance of Navigational Aids such as local Light Houses, Buoys and beacons;
- 7) Survey, Inspection and Licensing of Harbour Crafts;
- 8) Constructions management of Port Estate Installations, Transit sheds etc.,
- 9) Examination and issue of Certificate of competency to Engine, Drivers, Masters, Sarongs under Karnataka Harbour Craft Rules.
- 10) Levying and collecting the fees on vessels entering the port and on Harbour crafts, Cargo landed and shipped.
- 11) Inspection and issue of Certificate of fitness to crafts deployed in Ferries and Waterways.
- 12) Providing modernised and mechanised crafts and operating departmentally more important ferries and waterways in the state.
- 13) Auctioning and supervising operation of Ferries through contract system.
- 14) Conducting Hydrographic surveys of the Ports & Waterways in a phased manner.
- 15) Conducting enquiry about casualties / wrecks, jettisoning
- 16) Registration, Survey and Inspection of sailing vessels.
- 17) Construction of jetties, platforms, Approach Roads for Ferry Services.
- 18) Execution of Coastal Protection Works.
- 19) Supervising of Liquid Cargo terminals and handling of liquid cargo at the port.
- 20) Manning the Fire Fighting Equipments.
- 21) Manning the Oil Spill Response Equipments.
- 22) Maintaining the Security System as per I.S.P.S. requirement.

### **11.3 Administration:**

The Department functions under the administrative control of the Public Works Ports and Inland Water Transport Department at the Government level. The Director of Ports and Inland Water Transport with Head-quarters at Karwar is the Head of the Department who has been assisted in the administration as indicated below.

The Port Officers (Master Mariners (F.G.) are functioning with Head quarters at important ports in the state i.e., Karwar, Honnavar, Kundapur and Mangalore who are directly responsible for management and operation of the ports in their respective jurisdiction. Licensing of harbour crafts, conducting examination for issue of certificate of competency as Master and Serang's, Inspection / Preliminary Investigation into shipping Casualties, Jettisoning etc., Port conservator, Deputy Port conservators and Assistant Port conservators are stationed at other

lesser important ports who work under the direct administration and technical control of the Port officers.

**Table 11.1**

**Cadre Strength of Ports & Inland Water Transport Department**

<b>Group</b>	<b>No. of Posts sanctioned</b>	<b>No. of Posts Filled</b>	<b>No. of Posts Vacant</b>
Group - A	16	11	5
Group – B	37	16	21
Group – C	295	110	185
Group – D	245	133	112
<b>Total</b>	<b>593</b>	<b>270</b>	<b>323</b>

The Port Engineer is the Technical Advisor to the Director of Ports & Inland Water Transport and looks after the maintenance of Port works, Buildings etc., and supervises the dredging works in Uttara Kananda District and State Inland Water Transport works and assisted by Asst. Executive Engineer, Junior Engineers. The Executive Engineer of Port Division with Head-quarters at Karwar and the Executive Engineer of Ports & Fisheries Division, with head-quarters at Udupi is working in the department. They are assisted by Assistant Executive Engineers, Assistant Engineers/ Junior Engineers. The Executive Engineer, Ports & Fisheries Division, Udupi is looking after the developmental works, dredging works and maintenance of Port structure, Fisheries harbour works. Anti Sea Erosion works of Dakshina Kannada and Udupi Districts. The Executive Engineer, Ports Division, Karwar look after the Port development works, fisheries harbour works and Anti Sea Erosion works of Uttara Kannada District. One Marine Engineer (First Class Engineer) with head quarters at Karwar has been working in the department. He is also responsible for survey of the Mechanized harbour crafts conducting examination for issue of certificate of competency as Engineer/ Engine Driver.

**11.4 Imports & Exports:**

Karnataka exports a wide variety of goods both agricultural and industrial covering silk, sandalwood oil, handicrafts, readymade garments, coffee, iron ore, sophisticated machine tools, electronic products, computer hardware and software, inter alias. In the last two decades the State has emerged as a major player in the export of engineering goods, readymade garments, leather goods, chemicals, minerals and ores.

## Major Commodities in Transaction at Karwar Port

EXPORTS	IMPORTS
<ul style="list-style-type: none"><li>➤ Iron Ores, Manganese Ore, Bauxite, Sugar, Alumina, Food grains, Maize, Granite, Horticulture and Agriculture products,</li><li>➤ Liquid cargoes like Molasses, phosphoric acid marine products</li></ul>	<ul style="list-style-type: none"><li>➤ Coal, Cement, Sugar, Food Grains, Fertilizers, Industrial salt, Rock Phosphate, Raw Sugar</li><li>➤ Liquid cargoes like H.S.D, Furnace Oil, Kerosene, Palm Oil, Molasses and other Chemicals.</li></ul>

Cargo Handled during 2012-13 is given in Appendix-8

### 11.5 Port Development through Private Investment:-

For faster development of ports and its efficient and cost effective operations, the development of ports through private investment is envisaged. The development of port dependent industries and other infrastructural facilities will be integrated with port development.

#### 11.5.1 Port Development Project Proposals under PPP Project:-

The Government of Karnataka has already initiated proposal for Second stage development of Karwar Port under D-BOOST concept with active private participation on PPP Mode at the approximate cost of Rs. 1,500 crores M/s. Price Waterhouse Coopers Pvt. Ltd, transactional adviser has submitted draft bid document and concession agreements. Tender documents to be issued to qualified bidders.

Manki Port is located at south of Honnavar Port in Honnavar Taluka, The port limits of the Manki Port has been declared vide Govt. Notification No:- PWD 86 PSP 2010. Dt: 18.11.2011 M/s. Renuka Sugars Limited, has been permitted to construct Captive Port at Manki. Project report is under preparation by the Port developer.

M/s. Honnavar Port Limited has signed the agreement with the Karnataka State Government for comprehensive development of the Honnavar Port. The required port land of 211 acres has been already sanctioned. Preliminary works are in progress.

M/s. Minerals Enterprises Ltd., has submitted proposals to develop Deep Draft Green Field Port at Haldipur at the cost of Rs. 1,900 Crores under Swiss Challenge Method. They have been requested to submit the detailed project report.

Development of modern sea port at Tadri is estimated at the cost of Rs. 3,000 Crores. IDD nominated KSIIDC as nodal agency. Preparation of DPR and other preliminary procedures are in progress.

#### **11.5.2 Creation of Port Facilities:-**

In view of the fact that ships of large sizes are used in transportation for economies of scale in the international trade. Port would be developed with the required drafts, berthing facilities and efficient mechanical handling facilities, so as to reduce waiting period of ships and saving in the cargo handling expenses. In order to expedite creation of port facilities, it is proposed to adopt the following strategies.

Major aim of Port development in Karnataka is to promote regional development. Port based industrial estates would be encouraged along the coastline facilitate import of raw material and export of finished goods. As more number of Mega projects are coming up in the State. Industrial development shall be synchronized with the port development and the infrastructure development.

#### **11.5.3 Development of Support Infrastructure:-**

The investment in the port sector would demand an equal investment in the infrastructure facilities like roads and railways for faster and efficient handling of the cargo movement. Along the coastline National Highway and Konkan Railway broad gauge line are available. The Hassan-Mangalore board gauge line would connect the ports in the Southern coast to the adjacent hinterland and similarly the proposed railway linkage from Hubli to Karwar / Ankola would connect all the ports on the Northern coast to the rest of the state. The State Government would endeavor to provide the required road network and railway linkage to the hinterland.

#### **11.5.4 Maritime Related Industries:-**

Maritime related industries would be given priority to be located along Karnataka Coast in the field of ship building, ship repairing, dredging, eco-friendly ship breaking and other flotilla units like tugs, barges, launches and support crafts. The above manufacturing facilities as well as the traditional boat building activities would be allowed in Karnataka Maritime Waterfront on lease basis to such units. The incentives and concessions to such units would be governed by the industrial incentive package announced by the Government of Karnataka.

#### **11.5.5 Coastal Shipping:-**

Private entrepreneurs will be permitted to develop, operate and maintain terminal facilities along the Karnataka Coast. These terminals will be used to transport passenger and cargo to import centers on the Western Coast like Bombay, Goa, Trivandrum, Kanyakumari etc., these facilities will promote tourism.

- By linking places of historical, religious and tourist interests.
- By attracting Amusement Parks, Beach Resorts and Water Sports on Karnataka Coast.

### **11.6 Port Facilities of Power Projects:-**

The barge mounted power projects would be provided with required port facilities at identified locations. Similarly, Thermal Power plants would be provided with exclusive port facilities for importing different kinds of power fuels at Harbours.

#### **11.6.1 Inland Water Transport Activities:-**

In Karnataka State, the Inland Water Transport wing has been created under the Department of Ports in the year 1972 on the recommendations of Gokhale Committee and Bhagavathi Committee to look after the administration, maintenance, control and regulation of the Ferries and Waterways by providing modernized Dumb Boats, LCTs. FRP Boats and Mechanised Steel & Wooden Boats.

According to the latest review, the State has got 334 Ferries out of which 15 Ferries are operated by the Department and 51 Ferries operated by public auction under the control and supervision of the department.

Remaining 268 Ferries are operated by Taluk, Village and Zilla Panchayat and Taluk Development Boards. The personnel working in the department are well trained in the field on Navigation and Nautical Technology. The above Ferry services are mainly provided to cater shore to shore transportation of Men and materials of the remotest rural areas, which are not connected either with road or rail transportation. They are service oriented facilities to the rural commuters for their daily requirements.

During 2012-13, 18,84,566 passengers and 1,46,880 different vehicles have been transported through 15 ferries run by the Department of Ports and Inland Water Transport and revenue earned Rs. 38,55,820/-.

**Table 11.2**

<b>Sl No.</b>	<b>Traffic</b>	<b>Details</b>
1.	Passengers	18,84,566
2.	Cargo	78,497 kg
3.	Two Wheelers	89,549
4.	Animals	422
5.	Bus	7991
6.	Lorry	970
7.	Jeep, Van and Car	48,670

## **11.7 Anti Sea Erosion Works:-**

### **11.7.1 Coastal Protection:-**

The coastline of Karnataka State stretching from Majali in Karwar Taluka in the North to Ullal in Mangalore in the South passes through three districts i.e., Uttara Kannada, Udupi and Dakshina Kannada. Out of the approximately 300 Kms. long coastline of Karnataka State, about 240.54 Kms. long coastline is subjected to Sea Erosion. The tidal reaches of as many as 14 rivers like Kali, Belekeri, Aghanashini, Gangavali, Sharavathi, Kollur, Sitanadi, Gurupur, Netravathi etc., are also subjected to river bank erosion. It is very essential to protect the public property like roads, buildings etc. by construction of permanent/Temporary Sea walls wherever severe erosion is taking place.

During the year 2012-13 an amount of Rs. 523.36 lakhs has been spent under the head of Account 4711 and constructed 550 Mtrs. Seawall.

### **11.7.2 A.D.B Project**

Sustainable Coastal Protection & Management Programme is being implemented with the loan assistance of ADB to take up the coastal protection measures at the cost of Rs. 911 crores in three trenches over a period of 8 years.

- The 1st trench of project is under progress at Ullal at the cost of Rs. 223.32 crores.
- Construction of 4 inshore berms at the cost of Rs. 26.24 crores is under progress.
- Offshore reeps & breakwater design was obtained & preparation of estimate by the consultant is under progress.

**Table – 11.3****Physical And Financial Progress of Works for the year 2012-13 of Port & IWT Dept Development Works**

(Rs. in lakh)

Head of Account	Scheme Name	Physical Progress		Financial Progress		Percentage Achievement to the Target
		Target (No. of works)	Achievement	Target (Grant 2012-13)	Achievement (Expenditure)	
1	2	3	4	5	6	7
<b>Head of account:</b> 5051 Capital Outlay on Ports & Light Houses <b>-02 Minor Ports</b>						
<b>5051 -02-201</b>	Development of Karwar Port:	23 Nos. of works	18 Nos. completed	1142.00	874.60	76%
<b>5051-02- 202</b>	Development of Honnavar Port	1 No. of building work	1 No. completed	5.00	5.00	100%
<b>5051-02-203</b>	Development of Kundapur Port	1 No. of building work	1 No. completed	5.00	5.00	100%
<b>5051-02-204</b>	Development of Belekeri Port	2 Nos. of building work	-	40.00	-	-
<b>5051 -02-205</b>	Development of Tadri Port	1 No. of jetty work	1 No. completed	30.00	30.00	100%
<b>5051 -02-206</b>	Development of Bhatkal Port	-	-	1.00	-	-
<b>5051 -02-207</b>	Development of Malpe Port	2 Nos. of building & 1 No. wharf work	2 Nos. of building completed	380.00	1.99	0.52%



Head of Account	Scheme Name	Physical Progress		Financial Progress		Percentage Achievement to the Target
		Target (No. of works)	Achievement	Target (Grant 2011-12)	Achievement (Expenditure)	
1	2	3	4	5	6	7
5051 -02-208	Development of Hangarkatta Port	1 No. of building work	1 No. completed	1.00	1.00	100%
5051 -02-209	Development of Mangalore Port	19 Nos. of works	5 Nos. completed	391.00	43.16	11%
5051-80-800	Development of IWT	3 Nos. of LCT, 6 Nos. of Boat & 5 Nos. of Ram works	6 Nos. of Boat completed	575.00	93.55	16%
5051-80-800-0-80	Sustainable Coastal Protection & Management Program (EAP)	4 Nos. of Inshore berms	-	1070.00	129.62	12%
4711 Capital Outlay on Flood Control Projects. -02 Anti Sea Erosion Works. 103 Civil Works Maintenance	Anti Sea Erosion Works	Construction of 550 mtrs length Sea wall.	550 Mtr	531.41	523.26	98%

# **ANNEXURES**

## Annexure-1

<b>Progress of NABARD Works</b>						
Scheme	Physical Progress				Financial Progress (Rs. in Lakh)	
	No. of Works		Road Length in Km		Estimated Cost	Expenditure Upto 3/2013 Cumulative
	Sanctioned	Completed	Sanctioned	Completed		
1	2	3	4	5	6	7
<b>Roads</b>						
<b>RIDF II</b>	119	119	1693	1693	7838	7173
<b>RIDF III</b>	315	315	2985	2985	12906	12908
<b>RIDF IV</b>	257	257	2330	2330	9571	11225
<b>RIDF V</b>	315	315	2706	2663	16735	16926
<b>RIDF VI</b>	355	355	2863	2844	21745	20652
<b>RIDF VII</b>	129	129	1006	943	8526	7561
<b>RIDF VIII</b>	45	45	316	315	2911	2719
<b>RIDF IX</b>	215	215	1550	1527	14856	14938
<b>RIDF X</b>	381	381	2401	2343	23266	22253
<b>RIDF XI</b>	439	439	2067	1979	23624	24102
<b>RIDF XII</b>	520	520	2165	2082	28730	30224
<b>RIDF XIII</b>	539	539	1985	1904	32611	32950
<b>RIDF XIV</b>	336	336	1206	1177	26486	23616
<b>RIDF XV</b>	257	251	914	869	19221	16489
<b>RIDF XVI</b>	265	216	832	613	18968	12348
<b>RIDF XVII</b>	335	151	1070	393	25614	8941
<b>RIDF XVIII</b>	260	0	730	0	20836	44
<b>Total</b>	<b>5082</b>	<b>4583</b>	<b>28819</b>	<b>26660</b>	<b>314444</b>	<b>265069</b>
<b>Bridges</b>						
<b>RIDF II</b>	124	123	0	0	5481	5561
<b>RIDF III</b>	58	58	0	0	2739	2795
<b>RIDF IV</b>	41	41	0	0	1903	2153
<b>RIDF V</b>	34	34	0	0	1783	1821
<b>RIDF VI</b>	76	76	0	0	2826	2757
<b>RIDF VII</b>	46	46	0	0	2230	2220
<b>RIDF VIII</b>	12	12	0	0	889	838
<b>RIDF IX</b>	23	23	0	0	1121	1125
<b>RIDF X</b>	48	48	0	0	2282	2348
<b>RIDF XI</b>	42	42	0	0	1901	1918
<b>RIDF XII</b>	41	41	0	0	1928	2285
<b>RIDF XIII</b>	2	2	0	0	97	89
<b>RIDF XIV</b>	16	16	0	0	880	739
<b>RIDF XV</b>	27	26	0	0	1400	1121
<b>RIDF XVI</b>	183	156	0	0	13431	11784
<b>RIDF XVII</b>	28	4	0	0	2464	522
<b>RIDF XVIII</b>	87	0	0	0	10411	18
<b>Total</b>	<b>888</b>	<b>748</b>	<b>0</b>	<b>0</b>	<b>53766</b>	<b>40094</b>
<b>Grand Total</b>	<b>5970</b>	<b>5331</b>	<b>28819</b>	<b>26660</b>	<b>368210</b>	<b>305163</b>

## Annexure – II

### MAJOR GOVERNMENT BUILDINGS MAINTAINED BY PWP&IWTD. CHIEF ENGINEER, C & B (NORTH)

Name of the Division	Name of the Building
<b>Dharwad</b>	1. Deputy Commisioners office, Dharwad
	2. R.T.O. Building, Dharwad
	3. Borstal School, Dharwad
	4. Court Complex, Hubli
	5. City Central Library, Hubli
	6. Government Printing Press,Dharwad
	7. Remand Home for men, Hubli
	8. District Industrial Training Centre, Dharwad
<b>Gadag</b>	1. Revenue Complex, Gadag
	2. Court Complex, Gadag
	3. Sub-jail, Gadag
	4. JMFC Court, Ron
	5. T.B. Hospital, Malasamudra Tq. Gadag
<b>Haveri</b>	1. District Court, Haveri
	2. Commercial Tax Office, Haveri
	3. Court Building, Haveri
	4. Tahasildar Office, Hirekerur
	5. Mini Vidhana Soudha, Savanoor
	6. Commercial Tax Office, Ranebennur
<b>Karwar</b>	1. Mini Vidhana Soudha, Karwar
	2. R.T.O. office, Karwar
	3. I.T.I. Building, Karwar
	4. Taluk Office, Yellapur
	5. First Grade College, Mundagod
<b>Sirsi</b>	1. District Training Institute, Sirsi
	2. Fire Brigade Office, Sirsi
	3. First Grade college, Yallapur
	4. Court Compelx, Sirsi
<b>Belgaum</b>	1. Suvarna Soudha, Belgaum
	2. Divisional Commissioner Office, Belgaum
	3. Deputy Commissioner Office, Belgaum
	4. New Court Complex, Belgaum
	5. Govt. Polytechnic, Belgaum
<b>Chikkodi</b>	1. Mini Vidhanasoudha, Hukkeri
	2. Court compelx, Athani
	3. P.U college Building, Yamanakardi
	4. Court Complex, Athani
<b>Bijapur</b>	1. Deputy Commissioner Office, Bijapur
	2. Superintendent of Police Office, Bijapur
	3. Sainik School, Bijapur

Name of the Division	Name of the Building
	4. New Court Complex, Bijapur
<b>Bagalkot</b>	1. Civil Court, Bagalkot
	2. TCH college, Hungund
	3. Munsiff & JMFC Court at Jamkhandi
	4. Court complex, Mudhol
	5. Womens PU college, Jamkandi
<b>Bellary</b>	1. Deputy Commissioner's Office, Bellary
	2. Govt. Polytechnic, Bellary
	3. JMFC Court & Central Jail, Bellary
	4. Governement Medical college & Hospital, Bellary
	5. First Grade Degree college, Kargodu
<b>Hadagali</b>	1. Mini Vidhanasoudha, Hadagali
	2. Staff quarters, Hagribomanahalli
<b>Raichur</b>	1. Deputy Commissioner's Office, Raichur
	2. Court Complex, Raichur
	3. Ranga Mandira, Raichur
<b>Koppal</b>	1. Court complex, Koppal
	2. Deputy Commissioner's Office, Koppal
	3. Mini Vidhana Soudha, Yelburga
	4. First Grade college, Yelburga
	5. ITI college, Gangavathi
<b>Gulbarga</b>	1. Mini Vidhana Soudha (Vikas Bhavan) Gulbarga
	2. Leprosy Rehabilitation, Gulbarga
	3. Court compelx, Gulbarga
	4. Mini Vidhanasoudha, Aland
<b>Yadgir</b>	1. Mini Vidhanasoudha, Yadgir
	2. JMFC court, Shapur
	3. First grade college, Yadgir
	4. First grade college, Gumitkal
<b>Bidar</b>	1. Deputy Commissioner's Office at Bidar
	2. Degree College at Humanabad
	3. Public Hospital, Bidar
	4. Civil Court complex, Bidar
	5. ARTO Office at Humnabad

## Annexure – III

### MAJOR GOVERNMENT BUILDINGS MAINTAINED BY PWP&IWTD CHIEF ENGINEER, C & B (SOUTH)

Name of the Division	Name of the Building
No.1, Buildings Division, Bangalore	1. Rajbhavan, Bangalore
	2. Vidhana Soudha
	3. Vikasa Soudha, Bangalore
	4. M.S Building complex
	5. Visveswaraiiah Tower
	6. L.H complex
	7. KPSC Old and New Buildings
	8. Karnataka Bhavan I, II, III New Delhi
	9. Bowring & Lady Curzon Hospital
No.2, Buildings Division, Bangalore	1. City Civil Complex, Dr. Ambedkar Veedhi, Bangalore
	2. Puttannachetty Town Hall, Bangalore
	3. Ravindra Kalakshetra
	4. Mayo Hall, M.G.Road, Bangalore
	5. Jayanagara General Hospital, Bangalore
	6. Minto Hospital and Bangalore Medical College, Bangalore
	7. Ambedkar Bhavan, Bangalore
	8. Karmika Bhavan, Bangalore
ESI Buildings Division, Bangalore	1. High Court Building, Bangalore
	2. K.G.I.D., Bangalore
	3. E.S.I. Hospital, Rajajinagar, Bangalore
	4. E.S.I. Hospital, Indiranagar, Bangalore
Bangalore	1. New Central Prison at Parappana Agrahara at Bangalore
	2. Mini Vidhana Soudha at Doddaballapura
	3. Mini Vidhana Soudha at Nelamangala
	4. Mini Vidhana Soudha at Kanakapura
	5. First Grade College at Hoskote
	6. Agricultural Complex at Banashankari, Bangalore
Bangalore Special	1. Aranya Bhavan, Malleshwaram, Bangalore
	2. K.C. General Hospital
	3. Mini Vidhana Soudha, Bangalore South
	4. Minis Vidhana Soudha, Anekal
Ramanagara	1. Government Engineering College Building, Ramanagara
	2. JMFC Court Building, Ramanagara
	3. Minividhana Soudha, Ramanagara
	4. Minividhana Soudha, Magadi
	5. Poly technical college, Channapatna
Kolar	1. Deputy Commissioners office at Kolar
	2. Magistrate court at Kolar
	3. Office of the Dy. Superintendent of Police, Kolar

Name of the Division	Name of the Building
	4. Govt. College at Kolar 5. K N T B Hospital at Kolar
Chickballapur	1. First Grade College, Chickballapur. 2. Court Complex Building, Chickballapur. 3. Mini Vidhanasoudha, Shidlaghatta. 4. JMFC Court complex, Gauribidnur.
Tumkur	1. District Court at Tumkur 2. Office of the Deputy Commissioner, Tumkur 3. Govt. Polytechnic at Tumkur 4. Stadium at Tumkur 5. First Grade College at Tumkur 6. JMFC at Sira Taluk, Tumkur Dist. 7. Mini Vidhana Soudha at Pavagada 8. JMFC at Kunigal 9. Mini Vidhana Soudha at Gubbi 10. Govt. Junior College at Madhugiri
Mysore	1. Deputy Commissioner Office, Mysore 2. Palace, Mysore. 3. State Home, Mysore University 4. K.R Hospital, Mysore 5. Chamundi guest house, Mysore 6. RTO Office, Mysore
Hunsur	1. Sri. Devrajurs Government First Grade college, Hunsur. 2. Public Building Offices, Hunsur. 3. Court Building, HD Kote 4. JMFC Court, KR nagara
Mandya	1. District Court complex, Mandya. 2. Exrcise Department M S Building, Mandya 3. District Treasury, Mandya. 4. Court Building, K.R pete. 5. Mini Vidhanasoudha, Maddur
Chamarajanagar	1. District Court Building, Chamarajanagar 2. Fire force station at Chamarajanagar 3. PWD guest house (10 rooms) at M.M hills 4. Womens ITI Building, Gundlupet. 5. First Grade College at Chamarajanagar
Hassan	1. District Treasury office at Hassan 2. District Commissioner's office at Hassan 3. Office of the Superintending Engineer, PWD, Hassan 4. District Industrial Centre at Hassan 5. RTO Office Building in Hassan
Hassan Special	1. First Grade college, Arkalgud. 2. JMFC court, Holenarsipura 3. Mini Vidhanasoudha, Arkalgud.

Name of the Division	Name of the Building
	4. Mini Vidhanasoudha, Sakleshpur
Chikamagalur	1. District Court, Annexe Building, Chickmagalur.
	2. District Treasury at Chickmangalore
	3. Commercial Tax office at Chickmangalore
	4. Mini Vidhana Soudha at Kadur
	5. Taluk office at Kadur
Shimoga	1. Taluk office at Sagar
	2. RTO office at Sagar
	3. Court Building, Shikaripura.
	4. ITI building, Shikaripura.
	5. Court complex at Soraba
Shimoga Special	1. District Commissioners Office Building, Shimoga.
	2. Court complex, Shimoga.
	3. RTO Building, Shimoga.
	4. Court Complex, Bhadravathi.
	5. Mini Vidhanasoudha, Thirthahalli.
Chitradurga	1. District court at Chitradurga
	2. R.T.O. office at Chitradurga
	3. District Treasury at Chitradurga
	4. J.M.F.C. Court at Hiriyur
	5. First Grade College at Chellakere
Davangere	1. Court complex at Davangere
	2. Blind Children School, Davangere.
	3. RTO Office, Davangere
	4. Mini Vidhana Soudha at Chennagiri
	5. J.M.F.C. at Harappanahalli
Mangalore	1. District court complex annexe, Mangalore
	2. D.C. office complex at Mangalore
	3. CTO office at Mangalore
	4. District New Court Complex at Puttur
	5. Women's Polytechnic at Bondel
Udupi	1. District court complex at Udupi
	2. Taluk office building at Udupi
	3. State Home for Women at Udupi and Superintendent Quarters
	4. Govt. Junior College at Kapu
	5. Construction of Court Complex at Kundapur
Madikeri	1. Court Building, Madkeri
	2. Sudarshan Guest House
	3. Polytechnic and Hostel at Kushalnagar
	4. District Industrial Centre, Madikeri
	5. Madikeri Fort Building



**Annexure - IV**

**LIST OF PROJECTS COSTING MORE THAN ONE CRORE  
DURING THE YEAR 2012-2013**

<b>Sl. No.</b>	<b>Name of the Project</b>	<b>Plinth Area (Sq.Mt)</b>	<b>Approximate cost (@ Rs. 10000/sqmt)</b>
1	Proposed Patrika Bhavan at Mangala Gangotri, Mangalore University	22895.00	228950000.00
2	Proposed DC Office at Kolar	21400.00	214000000.00
3	Proposed District Court Complex at Chikamagalur	14750.00	147500000.00
4	Proposed Multi level Car Parking /Office Complex at PWD Premises and Land records at K.R.Circle, Bangalore	8500.00	85000000.00
5	Proposed 100 beds Hospital at Vadagoan, Belgaum	8455.00	84550000.00
6	Proposed Central Record room for Annex to Court building at Haveri	8230.00	82300000.00
7	Proposed Office Complex for Co-operative Society, Raichur	7970.00	79700000.00
8	Proposed multi level Car Parking at Gandhinagar, Bangalore	6484.00	64840000.00
9	Proposed Mini vidhanasoudha at Karwar	6050.00	60500000.00
10	Proposed Ambedkar Bhavan at Anekal	5330.00	53300000.00
11	Proposed Mini Vidhana Soudha, Honnavara	4880.00	48800000.00
12	Proposed ITI building - 10 trades (TD)	4878.00	48780000.00
13	Proposed Dr. Babu Jagajeevan Ram Bhavan at Raichur	4216.00	42160000.00
14	Proposed Mini Vidhana Soudha at Bidar Dist	4095.50	40955000.00
15	Proposed Mini Vidhana Soudha at T.Narasipura, Mysore dist	3822.00	38220000.00
16	Proposed Academic Block for Atal Bihari Vajpayee Model Residential School	3706.00	37060000.00
17	Proposed ITI at Siddapura. Uttarakannada Dist	3522.00	35220000.00
18	Proposed Dormitory Block for Atal Bihari Vajpayee Model Residential School	3426.00	34260000.00
19	Proposed Suvarna Karnataka Bhavan at Madakeri	3323.00	33230000.00
20	Proposed ITI at Ponnampet	2928.00	29280000.00
21	Proposed Mini Vidhana Soudha at Virajpet, Madakeri	2700.00	27000000.00
22	Proposed Mini Vidhana Soudha at Koppa, Chikmaglur	2700.00	27000000.00
23	Proposed (BCM) Post Metric Hostel for Boys at Chikmaglur	2608.00	26080000.00
24	Proposed Mini Vidhana Soudha at Mundgod	2540.00	25400000.00
25	Proposed Yathri Nivas at Bhagamandala, Kodagu Dist	2440.00	24400000.00

<b>Sl. No.</b>	<b>Name of the Project</b>	<b>Plinth Area (Sq.Mt)</b>	<b>Approximate cost (@ Rs. 10000/sqmt)</b>
26	Proposed Auditorium at Chitrakala Parishat, Banglore	2354.00	23540000.00
27	Proposed ITI building - 5 trades (TD)	2325.00	23250000.00
28	Proposed Balamandira for Girls at Karwar	2190.00	21900000.00
29	Proposed Judicial Officers Quarters at Raichur	2160.00	21600000.00
30	Design for Balamandira ( 100 capacity) (TD)	2060.00	20600000.00
31	Proposed RTO Office at Dharwad	2060.00	20600000.00
32	Proposed Ist grade college in the premises of Government women's college at Udupi	1890.00	18900000.00
33	Proposed ADR Building at Chamarajanagar	1855.00	18550000.00
34	Proposed Additional Class rooms for Junior college at Kustagi	1820.00	18200000.00
35	Proposed Mini Vidhana Soudha at Belthangadi	1800.00	18000000.00
36	Proposed Interiors for Arbitration Law Centre at Khanija Bhavan 3rd floor, Blore		18000000.00
37	Proposed Hostel (TD)	1735.00	17350000.00
38	Master Plan and Kalyana Mantapa for the proposed Developments at Kodanda Rama Swamy Temple premises at Bangarpet, Kolar District	1630.00	16300000.00
39	Proposed Valmiki Bhavan at Byadagi, Haveri	1630.00	16300000.00
40	Proposed observation centre at Raichur	1615.00	16150000.00
41	Proposed Dy.Director and CDP Office for Remand home at Raichur	1550.00	15500000.00
42	Proposed Circuit House (TD)	1500.00	15000000.00
43	Proposed IB at Devanahalli	1500.00	15000000.00
44	Proposed VVIP Guest House (TD)	1493.00	14930000.00
45	Proposed I.B. at Chikballapura District	1468.00	14680000.00
46	Proposed Kalyana Mantapa in the premises of Sri.Rao Bahadur Yelemallappa Choultry at Bangarpet, Kolar Dist	1462.00	14620000.00
47	Proposed Bar Association at Hospet	1290.00	12900000.00
48	Proposed Office Complex at Yalandur, Chamarajanagar.	1279.00	12790000.00
49	Proposed Auditorium for ATI at Mysore	1270.00	12700000.00
50	Proposed Office Complex at Hangal	1269.00	12690000.00
51	Proposed Balamandira for Boys for Remand Home at Raichur - 50 capacity	1255.00	12550000.00
52	Proposed Complex for Lawyer's Chambers in the Court Premises at Hassan	1240.00	12400000.00
53	Proposed Division office and Sub division Office of KUWS & DB at Chitradurga	1230.00	12300000.00

<b>Sl. No.</b>	<b>Name of the Project</b>	<b>Plinth Area (Sq.Mt)</b>	<b>Approximate cost (@ Rs. 10000/sqmt)</b>
54	Proposed Valmiki Bhavan at Hanagal, Haveri Dist	1214.00	12140000.00
55	Proposed Library building at BTM Layout, Bangalore	1200.00	12000000.00
56	Proposed Samskruthika Bhavan at Hangal	1195.00	11950000.00
57	Proposed CTO at Sindanur	1150.00	11500000.00
58	Proposed Junior College at Naganur, Bailahongala Taluk, Belgaum District	1143.00	11430000.00
59	Proposed First Grade College at Varthur, Bangalore	1140.00	11400000.00
60	Proposed 2nd & 3rd floors over existing De-Addiction centre for Women at Nimhans	1140.00	11400000.00
61	Shopping Complex for the proposed Developments at Kodanda Rama Swamy Temple premises at Bangarpet, Kolar District	1115.00	11150000.00
62	Proposed P.U.Collegefor Boys at Tavaregere, Kushtagi Taluk	1077.00	10770000.00
63	Proposed Additional Class rooms (TD)	1077.00	10770000.00
64	Proposed Class rooms (TD)	1077.00	10770000.00
65	Proposed First Grade College at Thirthahalli, Shimoga	1061.00	10610000.00
66	Proposed Govt First Grade College - Nabards 80 lakh	1044.00	10440000.00
67	Proposed Shikshakara Bhavan at Tumkur	1000.00	10000000.00
68	Proposed Guru Bhavan at Hangal	1000.00	10000000.00
69	Excise Office at Chikmaglur	1070.00	10700000.00
70	Proposed Bar Association at Maddur	660.00	11880000.00
71	Proposed Guru Bhavan at Hangal	1210.00	12100000.00
72	Proposed Dormitory Block at Sri Kukke Subramanya Temple at Sulya	770.00	13860000.00
73	Proposed Dr.Ambedkar Bhavan at Ranibennur	858.00	15444000.00
74	Proposed Bar Association at Soraba	880.00	15840000.00
75	Proposed Multi purpose hall (TD)	920.00	16560000.00
76	Proposed First Grade College at Hethur, Sakaleshpura	1820.00	18200000.00
77	Proposed Samskruthika Bhavan at Hangal	1860.00	18600000.00
78	Proposed Administrative block and Dasoha Bhavan for Sri Nimishamba Temple at Sri Rangapatana	1050.00	18900000.00
79	Proposed Valmiki Bhavan Byadagi	1110.00	19980000.00
80	Proposed Dormitory for Sri NimiShamba Temple at Ganjam, Sri rangapatna	1150.00	20700000.00
81	Proposed District Industries Centre at Bidar	1185.00	21330000.00
82	Proposed Office Complex at Hangal	1269.00	22842000.00
83	Proposed VIP Guest House (4 VIP + 4 Rooms) (TD)	1270.00	22860000.00
84	Proposed VIP Guest House ( 3 VIP + 6 Rooms) (TD)	1270.00	22860000.00

<b>Sl. No.</b>	<b>Name of the Project</b>	<b>Plinth Area (Sq.Mt)</b>	<b>Approximate cost (@ Rs. 10000/sqmt)</b>
85	Proposed Dasoha Bhavan at Sri.Banashankari Temple Premises, Bangalore	1380.00	24840000.00
86	Orioised ADR Building at Mandya Dist	1386.00	24948000.00
87	Proposed Circuit House at Deodurga, Raichur	1500.00	27000000.00
88	Proposed 100 beds Ayurvedic Hospital, Shimoga	1545.00	27810000.00
89	Proposed Jagajeevan Ram Bhavan at Chamarajanagar	1630.00	29340000.00
90	Proposed Annexe to the existing court complex at shimoga	1656.00	29808000.00
91	Proposed Multipurpose Hall (TD)	1736.00	31248000.00
92	Proposed Toilet Block for Sri Ayyappaswamy temple, Shabari Malai	1800.00	32400000.00
93	Proposed Bar Association at Bidar	1975.50	35559000.00
94	Proposed Court Complex at Kollegal	2264.00	40752000.00
95	Proposed Laboratory building in the premises of Govt Science College at Hassan	2265.00	40770000.00
96	Proposed Administrative block for NCC, Yelahanka bangalore	2315.00	41670000.00
97	Proposed 2nd & 3rd floor Over existing Additional Court building in the premises of Court at Sagar	2320.00	41760000.00
98	Proposed Anna Dasoha Bhavan at Kukke Subramanya Temple Sulya	2390.00	43020000.00
99	Kalyana Mantapa at Sri Banashankari Temple at Bangalore	4425.00	44250000.00
100	Proposed Hostel for 110 students (TD)	2880.00	51840000.00
101	Proposed Girls Junior College at Gulbarga	2947.00	53046000.00
102	Proposed Hostel for 100 students (TD)	3110.00	55980000.00
103	Proposed Dasoha Bhavan for Sri. Bhagandeshwara Temple at Madikeri	3150.00	56700000.00
104	Proposed Public Presecutors office and ADR Building at Chitradurga	3210.00	57780000.00
105	Proposed Women's Polytechnic at Udupi	3325.00	59850000.00
106	Proposed Women's Polytechnic at Karkala	3325.00	59850000.00
107	Proposed Girls Junior College at Gulbarga	3440.00	61920000.00
108	Proposed District Court Complex at Thirthahalli	4510.00	81180000.00
109	Proposed Court Complex at Thirthalli	4882.90	87892200.00
110	Proposed Commercial Tax Office at Bellary	10464.00	104640000.00
111	Proposed Office Complex at Kundagol	5877.00	105786000.00
112	Proposed D type Staff Quarters for Sri Kukke Subramanya Temple, Sulya	7760.00	139680000.00

<b>Sl. No.</b>	<b>Name of the Project</b>	<b>Plinth Area (Sq.Mt)</b>	<b>Approximate cost (@ Rs. 10000/sqmt)</b>
113	Proposed Dormitory Block (Type -1) at Sri Kukke Subramanya Temple at Sulya	7875.00	141750000.00
114	Proposed ZP Office Complex at Kodagu	8100.00	145800000.00
115	Proposed Quarters for B & C for MC Gann, Hospital, Shimoga	8375.00	150750000.00
116	Proposed Dormitory (TD)	9380.00	168840000.00
117	Proposed B & C type Staff Quarters for Sri Kukke Subramanya Temple, Sulya	10050.00	180900000.00
118	Proposed Shopping complex at Holenarasipura	14162.00	254916000.00
119	Proposed Court Complex at Belthangadi	15062.00	271116000.00

# **APPENDICES**

## Appendix - 1

### District wise details of Road length in Karnataka (As on 31-03-2013)

(in Km)

Sl.No	Name of the District	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
1	Bangalore (Urban)	147.00	96.70	686.69	930.39
2	Bangalore (Rural)	205.00	193.60	650.60	1049.20
3	Ramanagara	73.00	315.53	1555.40	1943.93
4	Tumkur	325.90	631.25	3752.48	4709.63
5	Kolar	137.40	304.79	1081.05	1523.24
6	Chickaballapur	148.00	263.88	928.04	1339.92
7	Mysore	79.00	699.09	2497.60	3275.69
8	Chamarajanagar	190.00	339.26	995.21	1524.47
9	Mandya	73.00	484.36	2881.64	3439.00
10	Shimoga	221.00	987.04	2006.48	3214.52
11	Chitradurga	167.00	612.64	2112.10	2891.74
12	Davangere	85.00	731.55	1612.10	2428.65
13	Hassan	252.16	985.17	3131.35	4368.68
14	Chikamagalur	176.25	610.21	1632.82	2419.28
15	Dakshina Kannada	266.00	528.80	774.85	1569.65
16	Udupi	142.00	353.71	790.98	1286.69
17	Kodagu	0.00	537.97	855.20	1393.17
	<b>South Zone</b>	<b>2687.71</b>	<b>8675.55</b>	<b>27944.59</b>	<b>39307.85</b>
18	Dharwad	189.00	484.41	1389.50	2062.91
19	Haveri	103.00	587.21	1843.67	2533.88
20	Gadag	74.00	709.52	1187.84	1971.36
21	Uttara Kannada	331.00	1238.71	2060.21	3629.92
22	Belgaum	201.00	2341.75	3040.62	5583.37
23	Bijapur	267.00	685.32	2440.91	3393.23
24	Bagalkote	126.00	879.01	1608.35	2613.36
25	Bellary	181.00	1017.26	1804.54	3002.80
26	Raichur	0.00	1006.12	1506.81	2512.93
27	Koppal	124.00	709.02	1503.65	2336.67
28	Gulbarga	125.00	1235.71	1400.95	2761.66
29	Yadgiri	0.00	486.06	1275.87	1761.93
30	Bidar	82.00	693.10	877.08	1652.18
	<b>North Zone</b>	<b>1803.00</b>	<b>12073.20</b>	<b>21940.00</b>	<b>35816.20</b>
	<b>State Total</b>	<b>4490.71</b>	<b>20748.75</b>	<b>49884.59</b>	<b>75124.05</b>

**Appendix – 2**  
**State Highways, District wise: Surface Feature and Carriageway Width**  
**(As on 31-03-2013)**

(in Km)

Sl. No.	Name of the District	Total Length	Type of Surface				Carriage way width			
			C.C.	B.T.	W.B.M.	Un-Surfaced	S.L.	I.L.	D.L.	F.L.
1	2	3	4	5	6	7	8	9	10	11
1	Bangalore (Urban)	96.70	0.15	96.55	0	0	2.50	20.10	68.90	5.20
2	Bangalore (Rural)	193.60	0	193.60	0	0	21.05	55.66	114.89	2.00
3	Ramanagara	315.53	0.50	315.03	0	0	14.60	151.59	102.94	46.40
4	Tumkur	631.25	0.09	629.91	1.25	0	238.54	323.81	68.90	0
5	Kolar	304.79	0.70	300.09	4.00	0	73.24	188.01	40.54	3.00
6	Chickballapur	263.88	0	263.88	0	0	121.54	83.94	54.90	3.50
7	Mysore	699.09	0.30	694.99	3.80	0	201.67	214.51	248.78	34.13
8	Chamarajanagar	339.26	0	337.26	2.00	0	127.12	208.39	1.55	2.20
9	Mandya	484.36	0	484.36	0	0	10.90	213.99	190.39	69.08
10	Shimoga	987.04	12.00	969.64	5.40	0	326.03	511.44	140.33	9.24
11	Chitradurga	612.64	0	612.64	0	0	131.04	340.55	139.95	1.10
12	Davangere	731.55	1.91	729.64	0	0	263.33	399.58	63.22	5.42
13	Hassan	985.17	3.85	974.42	6.9	0	439.69	215.92	320.26	9.30
14	Chikamagalur	610.21	3.37	604.44	2.40	0	172.18	421.01	15.02	2.00
15	Dakshina Kannada	528.80	0	528.80	0	0	61.20	454.93	12.67	0
16	Udupi	353.71	13.94	339.77	0	0	39.36	299.68	7.67	7.00
17	Kodagu	537.97	2.15	535.82	0	0	91.59	384.57	61.81	0
	<b>South Zone</b>	<b>8675.55</b>	<b>38.96</b>	<b>8610.84</b>	<b>25.75</b>	<b>0</b>	<b>2335.58</b>	<b>4487.68</b>	<b>1652.72</b>	<b>199.57</b>
18	Dharwad	484.41	0	468.83	0	15.58	169.83	239.89	74.69	0
19	Haveri	587.21	1.72	578.32	7.17	0	185.71	385.68	15.15	0.67
20	Gadag	709.52	0	683.33	4.40	21.79	390.69	218.28	97.05	3.50
21	Uttara Kannada	1238.71	5.55	1210.16	4.60	18.40	500.89	708.00	29.82	0
22	Belgaum	2341.75	0.60	2335.77	3.42	1.96	1059.54	1008.41	273.50	0.30
23	Bijapur	685.32	2.21	683.11	0	0	214.09	399.30	71.93	0
24	Bagalkote	879.01	1.31	876.44	0.87	0.39	324.25	345.04	202.63	7.09
25	Bellary	1017.26	14.00	1003.26	0	0	265.47	616.39	131.70	3.70
26	Raichur	1006.12	0.80	938.47	66.85	0	539.05	176.96	287.76	2.35
27	Koppal	709.02	0	695.66	13.36	0	357.26	226.41	119.95	5.40
28	Gulbarga	1235.71	4.05	1226.16	2.50	3.00	727.85	248.55	258.31	1.00
29	Yadgir	486.06	0.20	478.91	6.95	0	242.97	85.42	151.67	6.00
30	Bidar	693.10	0.00	693.10	0	0	267.97	291.55	133.58	0
	<b>North Zone</b>	<b>12073.20</b>	<b>30.44</b>	<b>11871.52</b>	<b>110.12</b>	<b>61.12</b>	<b>5245.57</b>	<b>4949.88</b>	<b>1847.74</b>	<b>30.01</b>
	<b>State Total</b>	<b>20748.75</b>	<b>69.40</b>	<b>20482.36</b>	<b>135.87</b>	<b>61.12</b>	<b>7581.15</b>	<b>9437.56</b>	<b>3500.46</b>	<b>229.58</b>



### Appendix – 3

#### Major District Roads, District wise: Surface Feature and Carriageway Width (As on 31-03-2013)

(in Km)

Sl. No.	Name of the District	Total Length	Type of Surface				Carriage way width			
			C.C.	B.T.	W.B.M.	Un-Surfaced	S.L.	I.L.	D.L.	F.L.
1	2	3	4	5	6	7	8	9	10	11
1	Bangalore (Urban)	686.69	5.81	640.10	40.78	0	416.57	129.39	133.53	7.20
2	Bangalore (Rural)	650.60	0.80	647.30	2.50	0	454.85	178.35	14.40	3.00
3	Ramanagara	1555.40	8.41	1441.75	105.24	0	1345.50	178.50	31.40	0
4	Tumkur	3752.48	18.57	3404.88	278.60	50.43	3083.02	633.28	35.10	1.08
5	Kolar	1081.05	2.42	1044.51	34.12	0	842.20	218.80	12.62	7.43
6	Chickballapur	928.04	1.81	893.60	16.90	15.73	663.81	243.43	17.00	3.80
7	Mysore	2497.60	0.77	2099.90	396.93	0	2214.88	231.02	49.70	2.00
8	Chamarajanagar	995.21	0	860.52	134.69	0	796.47	198.74	0	0
9	Mandya	2881.64	5.70	2470.36	383.38	22.20	2202.68	612.95	61.71	4.30
10	Shimoga	2006.48	5.00	1881.76	84.52	35.20	1758.10	233.58	5.95	8.85
11	Chitradurga	2112.10	1.44	1893.30	33.31	184.05	1898.59	196.08	17.43	0
12	Davangere	1612.10	4.85	1431.45	108.60	67.20	1410.21	194.04	5.85	2.00
13	Hassan	3131.35	3.65	2746.45	291.60	89.65	3018.55	89.13	18.17	5.50
14	Chikamagalur	1632.82	4.25	1495.62	82.05	50.90	1435.95	192.32	4.55	0
15	Dakshina Kannada	774.85	3.65	760.85	2.85	7.50	451.10	322.35	1.40	0
16	Udupi	790.98	22.27	765.96	2.75	0	473.75	317.23	0	0
17	Kodagu	855.20	1.65	814.25	11.80	27.50	673.30	179.40	2.50	0
	<b>South Zone</b>	<b>27944.59</b>	<b>91.05</b>	<b>25292.56</b>	<b>2010.62</b>	<b>550.36</b>	<b>23139.53</b>	<b>4348.59</b>	<b>411.31</b>	<b>45.16</b>
18	Dharwad	1389.50	7.90	1062.19	119.89	199.52	1247.01	130.49	12.00	0
19	Haveri	1843.67	14.26	1735.84	79.47	14.10	1526.86	301.32	13.16	2.33
20	Gadag	1187.84	1.21	1121.68	30.55	34.40	1134.19	48.95	3.00	1.70
21	Uttara Kannada	2060.21	2.38	1699.38	47.95	310.50	1809.20	224.40	26.61	0
22	Belgaum	3040.62	0.60	2944.66	70.81	24.55	2605.98	416.70	15.94	2.00
23	Bijapur	2440.91	0.55	2167.39	96.12	176.85	2225.37	188.93	26.61	0
24	Bagalkote	1608.35	6.83	1526.62	30.42	44.48	1250.21	342.76	15.38	0
25	Bellary	1804.54	15.86	1650.66	130.55	7.47	1531.29	254.18	19.07	0
26	Raichur	1506.81	1.77	1322.96	182.08	0	1448.56	49.10	8.88	0.27
27	Koppal	1503.65	4.35	1317.47	181.83	0	1290.05	204.70	8.90	0
28	Gulbarga	1400.95	5.20	1291.42	87.83	16.50	1316.05	73.55	10.35	1.00
29	Yadgir	1275.87	1.70	1208.52	63.25	2.40	1161.52	108.35	6.00	0
30	Bidar	877.08	0.90	848.08	28.10	0	717.68	151.90	7.50	0
	<b>North Zone</b>	<b>21940.00</b>	<b>63.51</b>	<b>19896.87</b>	<b>1148.85</b>	<b>830.77</b>	<b>19263.97</b>	<b>2495.33</b>	<b>173.40</b>	<b>7.30</b>
	<b>State Total</b>	<b>49884.59</b>	<b>154.56</b>	<b>45189.43</b>	<b>3159.47</b>	<b>1381.13</b>	<b>42403.50</b>	<b>6843.92</b>	<b>584.71</b>	<b>52.46</b>

## Appendix-4

### Details of Length & lane width of National Highways in Karnataka as on 31.03.2013

Sl No.	NH No.	Nomenclature	Length in Km	Carriageway Width			
				Single Lane	Intermediate Lane	Two Lane	Four Lane
1	2	3	4	5	6	7	8
1	4	Madras -Kolar-Bangalore-Hubli-Belgaum-Pune-Bombay	699.59	0	0	0	699.59
2	4A	Belgaum-Khanapur-Anmod-Panaji	84.12	0	0	84.12	0
3	7	Benaras-Nagapur-Hyderabad-Kurnool-Bagepalli-Bangalore-Hosur-Krishnagiri-Madurai-Cape Camorin	134.00	0	0	0	134.00
4	9	Poona-Sholapur-Humnabad-Hyderabad-Vijayawada	75.01	0	0	75.01	0
5	13	Sholapur-Chitradurga-Channagiri-Shimoga-Thirthahalli-Sringeri-Karkala-Mangalore	714.66	21.30	204.70	488.66	0
6	17	Panavel-Panjim-Karwar-Coondapur-Udupi-Mangalore-Cannanore-Trichur	300.10	0	0	300.10	0
7	48	Bangalore-Nelamangala-Kunigal-Hassan-Sakaleshpur-Mangalore	319.50	0	0	319.50	0
8	63	Ankola-Hubli-Hospet-Bellary-Gooty	368.60	0	0	362.20	6.40
9	67	Mettupalayam-Ooty-Gudalur-Gundlupet (On NH-212)	26.10	0	15.84	10.26	0
10	206	Tumkur- Shimoga-Honnavar	370.63	14.00	44.00	292.43	20.20
11	207	Hosur (On NH-7)-Sarjapur-Devenahalli -Doddaballapur-Dobbspet (On NH-4)	122.38	0	0	122.38	0
12	209	Dindigal-Pollachi-Coimbatore-Annur-Satlyamangalam-Chamarajanagar-Kollegal-Bangalore	203.52	0	30.20	169.30	4.02
13	212	The Highway starting from its junction NH-17 near Kozhikode in Kerala connecting Mysore and terminating at its junction with NH-209 near Kollegal in Karnataka	151.00	0	37.00	114.00	0
14	218	Humnabad-Jevargi-Bijapur-Hubli	412.00	0	3.00	409.00	0
15	234	Mangalore – Thiruvanamalli section	509.50	18.00	245.08	246.42	0
		<b>Total</b>	<b>4490.71</b>	<b>53.30</b>	<b>579.82</b>	<b>2993.38</b>	<b>864.21</b>

## Appendix-5

### Division wise length of National Highways in Karnataka as on 31.03.2013

(In Km)

SLNo	NH No.	Nomenclature	Bangalore Division	Bangalore Spl Division	Chitradurga Division	Mangalore Division	Hubli Division	Karwar Division	Bijapur Division	Over Lapping Length	Municipal bodies	NHAI	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	4	Madras -Kolar-Bangalore-Hubli-Belgaum-Pune-Bombay	0	0	0	0	0	0	0	0	16.50	683.09	<b>699.59</b>
2	4A	Belgaum-Khanapur-Anmod-Panaji	0	0	0	0	0	0	0	0	0	84.12	<b>84.12</b>
3	7	Benaras-Nagapur-Hyderabad-Kurnool-Bagepalli-Bangalore-Hosur-Krishnagiri-Madurai-Cape Camorin	0	0		0	0	0	0	0	14.98	119.02	<b>134.00</b>
4	9	Poona-Sholapur-Humnabad-Hyderabad-Vijayawada	0	0	0	0	0	0	75.01	0	0	0	<b>75.01</b>
5	13	Sholapur-Chitradurga-Channagiri-Shimoga-Thirthahalli-Sringeri-Karkala-Mangalore	0	0	285.10	153.40	0	0	71.66	6.40	0	198.10	<b>714.66</b>
6	17	Panavel-Panjim-Karwar-Coondapur-Udupi-Mangalore-Cannanore-Trichur	0	0	0	42.30	0	147.30	0	0	3.60	106.90	<b>300.10</b>
7	48	Bangalore-Nelamangala-Kunigal-Hassan-Sakaleshpur-Mangalore	0	0	0	141.28	0	0	0	0	0	178.22	<b>319.50</b>
8	63	Ankola-Hubli-Hospet-Bellary-Gooty	0	0	82.60	0	89.00	106.00	81.40	9.60	0	0	<b>368.60</b>
9	67	Mettupalayam-Ooty-Gudalur-Gundlupet (On NH-212)	26.10	0	0	0	0	0	0	0	0	0	<b>26.10</b>
10	206	Tumkur- Shimoga-Honnavar	0	91.00	159.60	49.00	0	71.03	0	0	0	0	<b>370.63</b>
11	207	Hosur (On NH-7)-Sarjapur-Devenahalli -Doddaballapur-Dobbspet (On NH-4)	0	119.88	0	0	0	0	0	2.50	0	0	<b>122.38</b>
12	209	Dindigal-Pollachi-Coimbatore-Annur-Satlyamangalam-Chamarajanagar-Kollegal-Bangalore	203.52	0	0	0	0	0	0	0	0	0	<b>203.52</b>
13	212	The Highway starting from its junction NH-17 near Kozhikode in Kerala connecting Mysore and terminating at its junction with NH-209 near Kollegal in Karnataka	151.00	0	0	0	0	0	0	0	0	0	<b>151.00</b>
14	218	Humnabad-Jevargi-Bijapur-Hubli	0	0	0	0	136.00	0	276.00	0	0	0	<b>412.00</b>
15	234	Mangalore-Thiruvanamalli section	108.30	111.00	95.30	174.76	0	0	0	20.14	0	0	<b>509.50</b>
		<b>Total</b>	<b>488.92</b>	<b>321.88</b>	<b>622.60</b>	<b>560.74</b>	<b>225.00</b>	<b>324.33</b>	<b>504.07</b>	<b>38.64</b>	<b>35.08</b>	<b>1369.45</b>	<b>4490.71</b>

## Appendix – 6

### State Highways Nomenclature and length as on 31-03-2013

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
1	SH-01	Highway connecting Padubedri with Chickalaguda via Karkala, Agumbe, Thirthahalli, Anandapura, Hangal, Thadasa, Kalghatagi, Dharwad, Uppinabetegeri, Belawadi, Bailahongala, Vannuru, Hoskoti, Ankalagi, Basapura, Hidkal Dam and Hosur.	470
2	SH-02	Highway connecting Ekkumbi with Molakalmuru via Haveri, Mylara, Harapanahalli and Kudulgi.	223
3	SH-03	Highway connecting Hunasanahalli with Chikkahalli via Kanakapura, Ramanagara, Magadi, Solur, Sompura, Koratagere, Madugiri and Pavagada	239
4	SH-04	Highway connecting Kamalanagar with Gunalli via Halburga and Bidar	68
5	SH-05	Highway connecting Bangarapet with Bagepalli via Kolar and Chintamani	106
6	SH-06	Highway connecting Karwar with Ilkal via Kaiga, Yellapura, Mundugodu, Bankapura, Savanur, Gadag, Gajendragada and Hanumasagara.	324
7	SH-07	Highway connecting Srirangapatna with Arasikere via Pandavapura, K.R Pet and Chennarayapatna.	108
8	SH-08	Highway connecting Hirisave with Chattalli via Sravanabelagula, Chennarayapatna, Holenarasipura, Arakalagudu, Sanivarasanthe, Chengadahalli, Vanaguru, Kundali, Santhalli, Thaltarshettahalli, Thakere, Beligere, Kumburu and Suntekoppa.	169
9	SH-09	Highway connecting Yelahanka with Kudumalakunte via Doddaballapura and Gowribidanur.	74
10	SH-10	Highway connecting Sarasamba with Ribbonapalli via Aland, Gulbarga and Sedam.	139
11	SH-11	Highway connecting Hulasur with Mahagao via Balakunda, Basavakalyana and Mudubi.	63
12	SH-12	Highway connecting Bijapur with Sankeshwar via Athani and Chikkodi	178
13	SH-13	Highway connecting Devasugur with Katagodu via Raichur.	56
14	SH-14	Highway connecting Ramdurg with Manvi via Badami, Pattadakal, Hulgund, Neeralakeri, Mudagal, Maski, Basapura, Pothanal and Chikalaparvi	235
15	SH-15	Highway connecting Wanamarapalli with Raichur via Aurad, Santhapur, Bidar, Chincholi, Sedam, Yadagir, Hathiguduru and Devdurg.	308
16	SH-16	Highway connecting Sindagi with Kodangal via Sahapur, Kanapur, Yadagiri and Gurmitkal.	152
17	SH-17	Highway connecting Bangalore with Mysore via Ramnagara, Chennapatna, Maddur, Mandya and Srirangapatna.	143
18	SH-18	Highway connecting Mudhol with Nippani via Chikkodi.	108
19	SH-19	Highway connecting Srirangapatna with Jeevargi via Nagamangala, Hiriur, Chellakere, Bellary, Siraguppa, Sindhanur, Lingasugur, Surpur and Sahapur (including Gulbarga City limits)	592

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
20	SH-20	Highway connecting Raichur with Bachi via Lingasugur, Hungund, Bagalkote, Lokapur, Yeraghatti and Belgaum.	354
21	SH-21	Highway connecting Hallebidu with Anechukur via Hassan, Arakalgudu and Periyapatna.	123
22	SH-22	Highway connecting Gulbarga with Hosur via Afzalpur.	99
23	SH-23	Highway connecting Kalmal with Shiggaon via Manvi, Sindhanur, Gangavathi, Ginigera, Koppal, Mundaragi, Laxmeshwar and Gudigere.	301
24	SH-24	Highway connecting Tarikere with Dharmapura via Hosadurga, V.V Pura and Hiriur.	136
25	SH-25	Highway connecting Hospet with Shimoga via Mariammanahalli, Harapanahalli, Harihara and Honnali.	184
26	SH-26	Highway connecting Halageri with Hulikal via Honnali, Ayanur, Arasalu and Hosanagar.	188
27	SH-27	Highway connecting Virajpet with Byndoor via Madikeri, Somawarpet, Shakaleshpura, Mudigere, Vastare, Jayapura, Sringeri, Begar and Agumbe.	364
28	SH-28	Highway connecting Supa with Annigeri via Haliyala, Dharwad and Hebsur.	115
29	SH-29	Highway connecting Mudgal with Kudithini via Thavaregere, Gangavathi and Kampli.	121
30	SH-30	Highway connecting Sindhanur with Hemmadaga via Kushtagi, Ron, Saundatti, Belawadi, Bekawadi and Khanapur.	309
31	SH-31	Highway connecting Jath with Jamboti via Ananthapura, Athani, Gurlapura, Gokak, Nesargi, Bailahongal and Khanapura.	245
32	SH-32	Highway connecting Umarga with Sulepet via Alandh, Mahagaon and Chincholi.	117
33	SH-33	Highway connecting Koratagere with Bavali via Tumkur, Kunigal, Maddur, Malavalli, Mysore and H.D.Kote.	265
34	SH-34	Highway connecting Aurad with Sadashivagad via Balki, Basavakalyana, Alandh, Afzalpur, Indi, Bijapur, Jamakhandi, Mudhol, Lokapur, Ramdurg, Saundatti, Dharwad, Ramanagara, Supa (Joida) and Anasi.	680
35	SH-35	Highway connecting Sidlaghatta with Anekal via Hoskote and Kadagodi.	71
36	SH-36	Highway connecting Koppal with Kyadhiguppa via Bevir and Kushtagi.	68
37	SH-37	Highway connecting Subramanya with Udupi via Dharmsthala, Belthangadi and Karkala.	131
38	SH-38	Highway connecting Kollegal with Hasanurghat.	53
39	SH-39	Highway connecting Bangalore with Hesarghatta.	13
40	SH-40	Highway connecting Mylara with Thoranagallu via Hadagali, Hagaribommanahalli and Kudlagi.	157
41	SH-41	Highway connecting Shiradon with Lingasugur via Zalki, Indi, Devarahipparagi, Hovinahipparagi, Muddebihal and Narayanapura.	202
42	SH-42	Highway connecting Ankola with Joladharasi in Koppal, Munirabadh Town limits.	11

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
43	SH-43	Highway connecting Tikota with Kanamadagi.	24
44	SH-44	Highway connecting Sankeshwar with Sangam via Hukeri, Ghataprabha, Arabhavi, Lokapura, Kerakalamatti, Agasanakoppa, Guledhagudda, Kamathagi and Gulur.	193
45	SH-45	Highway connecting Arabhavi with Challakere via Gokak, Naragund, Shalavadi, Sirahatti, Mandaragi, Hadagali, Itagi, Ujjani and Jagalur.	307
46	SH-46	Highway connecting Mundgodu with Anasi via Kalaghatagi, Haliyala and Dandeli.	136
47	SH-47	Highway connecting Mandya with Hadagali via Melukote, Shravanabelagula, Tiptur, Huliya, Hosadurga, Holalkere, Anagodu and Harapanahalli.	370
48	SH-48	Highway connecting Kumta with Kadamadagi via Siddapura, Soraba, Shikaripura, Honnali, Basavapatna, Chitradurga, Challakere and Pavagada.	366
49	SH-49	Highway connecting Sandur with Siraguppa via Hosapet and Kampli.	108
50	SH-50	Highway connecting Bhatkal with Soraba via Jog, Mavinagundi, Siddapura and Chandragutti.	131
51	SH-51	Highway connecting Basavakalyan with Raichur via Gulbarga, Shahabad, Ravur and Yadhgiri.	185
52	SH-52	Highway connecting Thirthahalli with Kundapur via Nagara, Balabere, Hosanagadi and Konibasur.	86
53	SH-53	Highway connecting Kagawad with Kaladhagi via Shedabal, Kudachi, Theradal, Jamakhandi and Katharaki.	128
54	SH-54	Highway connecting Jambooti with Rabakavi via Peeranawadi, Belgam, Budhihal, Akkathangerhal, Kolavi, Mamadhapur, Davaleshwar and Mahalingapura.	128
55	SH-55	Highway connecting Yeraghatti with Babaleshwar via Yadawad, Mudhol, Manthor and Chickagalagali.	105
56	SH-56	Highway connecting Bedi with Belavanki via Kittur, Gobbaragumpi, Alagawadi, Navalgund and Shelawadi.	108
57	SH-57	Highway connecting Bagalakote with Beligeriranganabetta via Badami, Ron, Huyalgola, Gadag, Sirahatti, Guttal, Ranibennur, Masur, Sikaripura, Shimoga, Lakkavalli, Tharikere, Chikamagalur, Belur, Hassan, Holenarasipura, K.R Nagar, Belikere, Nanjangud and Yalandur.	669
58	SH-59	Highway connecting Kustagi with Pattadhakal.	51
59	SH-60	Highway connecting Hungund with Surpur via Thalikote and Kembavi	122
60	SH-61	Highway connecting Managuli with Bichal via Huvinahipparagi, Basavanabagewadi, Devapura, Devdurga, Siriwara, Neermanvi, Bailmerchad and Rajolibanda.	226
61	SH-62	Highway connecting Haveri with Sagara via Lingapura, Chikerur, Hirekerur and Siralakoppa	107
62	SH-63	Highway connecting Raravi with Belur via Siraguppa, Desanur, Gorebal, Karatagi, Kanakagiri, Yelaburga, Sankallur, Sudi and Rajur.	166
63	SH-64	Highway connecting Kadur with Kannagad via Chickamagalur, Mudigere, Belthangadi, Bhantwal and Kalladka.	189

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
64	SH-65	Highway connecting Malpe with Molakalmur via Udupi, Hebri, Agumbe, Begar, Koppa, Narasimharajapura, Sulageri, Bhadravathi, Chennagiri, Shanthisagar, Davanagere, Jagalur, Mustur and B.G .Kere	329
65	SH-66	Highway connecting Gangamula with Kotigehara via Malleshwara, Kalasa and Magundi.	91
66	SH-67	Highway connecting Mangalore with Athradi via Bajpe, Kattil, Belmane, Kapu and Sirava. (including Hospet Mangalore Road in Mangalore City and Old N.H 48 in Mangalore City Limits)	62
67	SH-68	Highway connecting Tumkur with Honnavar in Badravathi and Shimoga Town Limits.	10
68	SH-69	Highway connecting Kumta with Thadas via Sirsi and Mundagodu.	138
69	SH-70	Highway connecting Belthangadi with Mulki via Mudabedri.	58
70	SH-71	Highway connecting Tiptur with Hassan via Dudda (additional length of 8 Km from Dairy Circle to Devarayapatna (NH-48 in Hassan town limits)	59
71	SH-71 E	Highway connecting Dairy Circle with Busthenahalli (NH-48 in Hassan town limits)	2
72	SH-72	Highway connecting Nippani with Kothalagi via Nanadhi, Examba, Ugar, Mangasuli, Athani and Inapura	133
73	SH-73	Highway connecting Mangasuli with Laxmeshwar via Ugar, Kudachi, Raibag, Kabbur, Belladabagewadi, Ghataprabha, Gudichinamalki, Paschapur, Akkathengarahal, Nesargi, Desanur, Suthaghatti, Matthikoppa, Sampagaon, Neginahal, Nayanagar, Belawadi, Budaraghatti, Thadakoda, Mammighatti, Dharwad, Hubli and Kundagol.(including Old NH 4 between Dharwad and Hubli)	268
74	SH-74	Highway connecting Nelamangala with Chikballapur via Doddaballapur	69
75	SH-75	Highway connecting Balki with Chincholi via Humnabad, Kabirwadi, Chitaguppa and Inapur	78
76	SH-76	Highway connecting Birur Sammasagi via Ajjampura, Sivani, Channagiri, Santhebennur, Davangere, Harihara, Koda and Thilavalli	205
77	SH-77	Highway connecting Sirsi with Hosnagar via Soraba, Masur, Bettamallppa and Anandhapura	119
78	SH-78	Highway connecting Shettihalli with Ichalakaranji via Dhaddi, Hatharagi, Hukkeri, Chikodi, Examba, Sadalga Highway connecting Borangaon	84
79	SH-79	Highway connecting Srirangapatna with Malemahadeshwarabetta via Sosale, T. Narsipura, Madapura, Kollegal, Ramapura, Kowdalli, Hanur and Palar	154
80	SH-80	Highway connecting Nanjangud with Biligiriranganabetta via Chamarajanagar and Kyathadevara Gudi	86
81	SH-81	Highway connecting Yelandur with Gundlupet via Honganur, Chamarajanagar and Terakanambi	47
82	SH-82	Highway connecting Hoskote with Gownipalli via Chintamani	90

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
83	SH-83	Highway connecting Manuli with Kotamachagi via Kadakola, Gudachi, Salahalli, Konnur, Sirola, Holealur, Ron and Abbigere	120
84	SH-84	Highway connecting Sira with Nanjangud via Gubbi, Kallur, Yadayur, Amruthur, Mandya, Kirugaval, Hosavatti and T. Narsipura	227
85	SH-84A	Highway connecting NH-212 with SH-84 via Varuna Hoskote Suthur	17
86	SH-84B	Highway connecting Kupparavalli on SH-84 with Suthur	4
87	SH-85	Highway connecting Bangalore with Jalsoor via Magadi, Huliurdurga, Kowdle, Nagamangala, KR Pet, Saligrama, Ramanathapura, Somwarpet, Vanagur and Subramanya (Saligrama Bypass length - 2.50 Km)	335
88	SH-86	Highway connecting Ramanathapura with Terakanambi via Bachhehalli, Kattemalavadi, Hunsur, HD Kote, Saragur, Begur and Madapatna	153
89	SH-87	Highway connecting Bangalore with Anekal via Bannurghatta	38
90	SH-88	Highway connecting Mysore with Bantwal via Hunsur, Periyapatna, Kushalanagar, Madikeri, Sulya and Puttur	234
91	SH-89	Highway connecting Madakeri with Kutta via Siddapura, Ghattathala, Chennyanakote, Athur and Gonikoppa	87
92	SH-90	Highway connecting Hunsur with Talakaveri via Virajpet, Napoklu, Nalkanadu and Bhagamandala	118
93	SH-91	Highway connecting Konanur with Makutta via Ramanathapura, Kushalanagar, Siddapura and Virajpet	85
94	SH-92	Highway connecting Kanakapura with Sangam	30
95	SH-93	Highway connecting Khanapura with Talaguppa via Haliyal, Yellapura, Sirsi and Siddapura	193
96	SH-94	Highway connecting Bagepalli with Halagur via Gudibande, Thondebhavi, Mavathur, Kolala, Uradigere, Kyathasandra, Neralapura, Kudur, Magadi, Ramanagar and Channapatna	235
97	SH-95	Highway connecting Hoskote with Venkatagirikote via Malur, Tekal, Bangarpet and Budhigere	82
98	SH-96	Highway connecting Devanahalli with Kempapura via Vijayapura, Vemgal, Kolar, Ghattakamadanahalli and KGF	92
99	SH-97	Highway connecting Sankeshwar with Sadalga via Kowthalli, Nippani and Badakihal	48
100	SH-98	Highway connecting Bhatnagoor with Boragaonwadi via Barawada, Mangura and Karagad	43
101	SH-99	Highway connecting Kothapalli with Masti via Gownipalli, Rajepalli, Srinivasapura, Kolar and Tekal	99
102	SH-100	Highway connecting Subramanya with Manjeshwar via Puttur, Parladaka and Ukkada	89
103	SH-101	Highway connecting Surathkal with Kabaka via Bajpe, Gurupura, Bantwal, Panemangalore and Vittal	64
104	SH-102	Highway connecting Huliya Keralapura via Jayachamarajapura, Arasikere, Haranahalli, Shanthigrama, Hariharapura and Jakkanahalli of Holenarsipura	126



Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
105	SH-103	Highway connecting Gokak with Saundatti via SH-31 to Muragodu, Karimani, Sogalkshetra, Manuli, Malaprabha and Goravanakolla	80
106	SH-104	Highway connecting Bangalore with Nandi via Kadugondahalli, Nagavara, Thanisandra, Bellahalli, Kannur, Bagalur, Arisinakunte, Devanahalli, Malligenahalli and Karahalli	58
107	SH-105	Highway connecting Humnabad with Bidar	45
108	SH-106	Highway connecting Horanadu with Balur Handpost via Kalasa	42
109	SH-107	Highway connecting Jannapura with Vanagur via Huradi Hanabal Anemahal Skaleshpura Byakarahalli Heththur	56
110	SH-108	Highway connecting Holenarsipura with K.R. Nagar via Hallimysore Saligrama Chunchanakatte Kesthur Koppalu Gate Srirampura Hebbalu	42
111	SH-109	Highway connecting Yarane Junction with Holenarsipura via Bikanahalli Channiganahalli Ankapura Karle Hanumanahalli Paduvalahippe	33
112	SH-110	Highway connecting Belur with Kodlipet via Bichodu Vatehole Kamathikodigi Byrapura Kundur K.Hosakote Mgalu	69
113	SH-111	Highway connecting Doddagangavadi Gate with Chowdanakuppe via Doddagangavadi Virupasandra Tavarekere Bandigowdanapalya	20
114	SH-112	Highway connecting Belur with Somvarpet	63
115	SH-112A	Highway connecting SH-8 with SH-57 via CR Patna Narsipura Kodlipet	22
116	SH-113	Highway connecting Uppinangadi on NH-48 with SH-37 (Bisley Ghat Road - MDR) via Bajaththur Alankaru Balya Kadaba	33
117	SH-114	Highway connecting Gundya on NH-48 with Kalkunda on SH-37 via Shiribagilu Kombharu Bilinele	16
118	SH-115	Highway connecting Kudligere with Kammaraghatta	36
119	SH-116	Highway connecting Tumkur Honnavar road (SH-68) with Birur Sammasagi road (SH-76) via Bhadravathi Shivani road	34
120	SH-117	Highway connecting Ilavala with K.R Nagar via Hoskote, Sagarakatte, Molepette, Lalam Devnahalli	22
121	SH-118	Highway connecting Guruvayanakere via Upinahangadi	20
122	SH-119	Highway connecting Ilavala, Sagarakatte, K.R. Nagar with Narayanapura Kegere via B.B Road	7
123	SH-120	Highway connecting Hampapura, Saligrama road	17
124	SH-121	Highway connecting B.T road with Kodihalli via Kyatnahalli, Hardanahalli, Shigaranahalli, Hariharapura, Duda Kunchevu road	17
125	SH-122	Highway connecting Maharastra Border with Murki, Aurad, Handarki (SH-15) via Bidar, Chincholi, Sedem	183
126	SH-123	Highway connecting Andra Pradesh border with Jamaji, Hulsur (Connecting SH-11) via Sandpur, Sangama	70
127	SH-124	Highway connecting Barked with Bilagi (Connecting SH-55) via Kachari, Padsavalgi, Afzalpur, Gatarga, Devarnavadaga, Sindagi, Byakodu, Tilagola, Talikote, Minajage, Davalgi, Rodgi, Basavna Bagevadi, Telgi, Kolar, Bilagi	294

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
128	SH-125	Highway Connecting Firozabad cross (NH-218) with Kamalapura State Highway connecting via Shabad, Bankur, Peta Shirur, Mudbala, Kudli, Rumanagada, Chengata	105
129	SH-126	Highway Connecting Andra Pradesh border with Putpak, Bosaga SH via Guru vitkal, Handarki, Satnur, Chitapura, Tengli, Hebbal, Arankal, Varnal, Mudbe	164
130	SH-127	Highway Connecting SH 10 with Mudhol, Yalagera upto Andra Pradesh border via Madana, Itkala, Gunjanur, Anpur, Madavara, Saidapur, Mangal, Sangvara, Joladadgi, Gugal, Herekudlagi, Savantgera, Gabbur, Siravara, Atanur, Machanur, Kuradi, Aroli, Matavari, Uprala, Gunjali, Malapura	175
131	SH-128	Highway Connecting SH-61 with Devdurga, Amarapura, Bagvathi, Hirekondakal, Ayanur, Bellary, via Mundargi, Galgi, Chincharki, Budani, Hirehanagi, Hire Kondakal, Adavi Amareshwara, Hosur, Valabellary, Ibrahampur, Kundroli, Kuruvali, Raravi, Darur, Talur, Ropanagudi, Chilagurki	231
132	SH-129	Highway Connecting Chickhosur, Mudgal, Mundargi, via Banigal, Ramatnal, Mudanur, Kustagi, Sankapur, Kansagar, Tumbargude, Yalaburgi, Sungada, Kukanur, Banapur, Halgera, Hire Sindagi, Katarki, Mantur, Keslapura, Hosruru	167
133	SH-130	Highway Connecting Yalburga, Kanakagiri, Gangavati, Munerabad via Vajrabande, Hirevenkalkunte, Talkere, Gundala, Basrehal, Gonal, Honnaval, Hosakere, Hosalii, Hanumanahalli, Singapura (Conneting NH-13)	123
134	SH-131	Highway Connecting Hampi, Kamalapura, Hagarebomnahalli via Papnayakanahalli, Joga, Tolur, Lingadahalli, Rajapura, Bilgatte, Chick Joganahalli, MB Aaikanahalli, Banavikal, Kottur, Dopadahalli, Benalkal	208
135	SH-132	Highway Connecting Kampli, Kuru godu, Kudtenni, Bellary, Moka, Alur	100
136	SH-133	Highway Connecting Soreban, Chitargi, Kodalsangama (Connecting SH-60) via Karlekoppa, Gomanakoppa, Chola Chaugadda, Hirenasbi, Katapura, Ihole, Amungad, Chitargi, Dhanur	109
137	SH-134	Highway Connecting Badami, Godaji, Gokak falls via Karur, Batkurki, Chandargi, Hirekoppa, K.S Bagachikoppa, Malikere, Munikere, Kaujalagi, Gokak	120
138	SH-135	Highway Connecting Banashankari, Mahakota, Almatti Dam via Nandikeshwara, Guledagudda, Shirur, Benekatte, Bhagvathi, Rampura	71
139	SH-136	State Highway Connecting Gajendragad, Sorab via Dindur, Nagendragad, Mushagere, Honegannur, Holemannur, Malvada, Belavneke, Lingadal, Hombala, Hulakotte, Kuntakotte, Anthur, Bemtur, Nelaguda, Mulagunda, Basapura, Shirahatti, Kadakole, Muradi, Bagewadi, Bidaralli, Ballehosur, Kittur, Horiti, Kanvalli, Mottebennur, Byadgi, Hamsabavi, Chickerur, Yalageri, Thogarsi, Udri	286
140	SH-137	Highway Connecting Navalgunda, Banavasi, Mugavalli via Annegeri, Bandivadi, Kundagol, Hachinal, Kobihal, Hulgur, Karadgi, Savnur, Bankapur, Masanakatte, KoprasiKoppa, Bhadrapura, Mulagi, Basi	141
141	SH-138	Highway Connecting Nagaragali, Kattokol via Nandiga Parishchad, MK Hubli, Tigadi, Inchala, Murugodu	113

Sl. No.	SH-No.	Nomenclature of State Highways	Length (in Km)
1	2	3	4
142	SH-139	Highway Connecting Yargatti, Mudhol via Kattedkol, Turnur, Budne	78
143	SH-140	Highway Connecting Alanvar, Betigere via Hindasagere, Jodgere, Kuluvalli, Kittur, Sangoli, Hulki, Akkasagara	85
144	SH-141	Highway Connecting Maharastra border with Rakasakoppa, Sutugatte (NH-4) via Belagundi, Kalaholu, Solaga, Hindalga, Handiganur	46
145	SH-142	Highway Connecting Kumta, Kurlekoppa via Aminahalli, Nilakunda, Kol, Sirsi	50
146	SH-143	Highway Connecting Gokarna, Vadi, Devnalli via Sanikatta, Heluru, Chinagara	82
147	SH-144	Highway Connecting Honavar, Munase via Salikod, Dodmane, Vandana	60
148	SH-145	Highway Connecting Songemane, Unchalli falls via Gidamavanakatte, Kansur, Ballekoppa	72
149	SH-146	Highway Connecting Ulavi, Diga to Goa border via Kumbaravada, Kiruvati	63
150	SH- 147	Highway Connecting Chennarayapatna with Nugehalli road (link road NH-48 joining to SH-47)	17
151	SH- 148	Highway Connecting Kuppali, Kavishaila, Gadikalu, Katehaklu , Hedduru, Mahrshi, Bejavalli, Ayanur, Sudur, Chordi, Gama, Chinchinkoppa, Malenahalli via Hirekerur joining road.	143
152	SH- 149	Highway Connecting Shapura to Shivrampura to AP border SH via Vadi, Shabad, Gulbarga, Hebal, Kalagi, Mangalgi, Nidagunda via Konchavaram	176
153	SH-150	Highway Connecting Davangere, Holalu SH via Kanchikere-Bendekere	71
154	SH-151	Highway Connecting Itagi-Kanchikere SH via Kenchamanahalli-Maidur-Cheгатikere-Nazirnagar-Arasikere	45
155	SH-152	Highway Connecting NH-206 Kadur-Maravanje-Belgur via Srirampura joining SH	51
156	SH-153	Highway Connecting NH-206 Kadur-Hirenallur-Ajjampurayaraganahalli via NH-13 joining Hollalkere nearby passing SH	43
157		Highway Connecting Madras-Cannanore road (Paschima vahini-Ilavala)	17.5

**Appendix – 7**  
**Taluk wise road length as on 31-03-2013**

(In Km)

Sl. No.	Taluk Name	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
1	Bangalore North	43	23.70	223.72	290.42
2	Bangalore South	74	0	240.90	314.90
3	Bangalore East	4	5.20	116.70	125.90
4	Anekal	26	67.80	105.37	199.17
	<b>Bangalore Urban Dt</b>	<b>147</b>	<b>96.70</b>	<b>686.69</b>	<b>930.39</b>
5	Doddaballapur	33	66.45	198.50	297.95
6	Devanahalli	52	39.90	85.00	176.90
7	Hosekote	65	55.75	172.35	293.10
8	Nelamangala	55	31.50	194.75	281.25
	<b>Bangalore Rural Dt</b>	<b>205</b>	<b>193.60</b>	<b>650.60</b>	<b>1049.20</b>
9	Ramanagara	0	90.80	506.10	596.90
10	Channapatna	0	28.93	383.80	412.73
11	Kanakapura	47	78.50	505.35	630.85
12	Magadi	26	117.30	160.15	303.45
	<b>Ramanagara Dt</b>	<b>73</b>	<b>315.53</b>	<b>1555.40</b>	<b>1943.93</b>
13	Kolar	31	90.59	215.33	336.92
14	Malur	8	65.55	94.17	167.72
15	Bangarapet	0	77.05	200.63	277.68
16	Mulbagil	68.5	0	354.02	422.52
17	Srinivasapura	29.9	71.60	216.90	318.40
	<b>Kolar Dt</b>	<b>137.4</b>	<b>304.79</b>	<b>1081.05</b>	<b>1523.24</b>
18	Chikkaballapur	65	17.15	194.56	276.71
19	Gudibande	12	18.73	37.40	68.13
20	Siddlaghatta	4.6	58.47	220.10	283.17
21	Gouribidanur	35.4	89.10	158.80	283.30
22	Chintamani	23	58.10	120.70	201.80
23	Bagepalli	8	22.33	196.48	226.81
	<b>Chikballapur Dt</b>	<b>148</b>	<b>263.88</b>	<b>928.04</b>	<b>1339.92</b>
24	Tumkur	47	92.00	368.50	507.50
25	Gubbi	36	68.25	494.85	599.10
26	Kunigal	27	112.06	446.98	586.04
27	Turavakere	0	43.80	422.95	466.75
28	Tiptur	41	51.10	276.15	368.25
29	Madhugiri	37.1	38.10	342.00	417.20
30	Chikkanayakanahalli	41.6	72.59	289.00	403.19
31	Koratagere	9.07	56.77	255.45	321.29
32	Sira	87.13	16.35	646.00	749.48
33	Pavagada	0	80.23	210.60	290.83
	<b>Tumkur Dt</b>	<b>325.9</b>	<b>631.25</b>	<b>3752.48</b>	<b>4709.63</b>

(In Km)

Sl. No.	Taluk Name	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
34	Mysore	34	72.01	455.25	561.26
35	T.Narsipura	26	74.72	170.31	271.03
36	Nanjunagud	19	116.34	306.56	441.90
37	Hunsur	0	92.98	551.47	644.45
38	Krishnarajanagar	0	146.78	307.80	454.58
39	Periyapatna	0	72.44	344.87	417.31
40	H.D.Kote	0	123.82	361.34	485.16
	<b>Mysore Dt</b>	<b>79</b>	<b>699.09</b>	<b>2497.60</b>	<b>3275.69</b>
41	Chamarajanagar	61	94.09	291.20	446.29
42	Kollegala	24	151.50	399.66	575.16
43	Gundlupet	87	53.07	252.65	392.72
44	Yalandur	18	40.60	51.70	110.30
	<b>Chamarajanagar Dt</b>	<b>190</b>	<b>339.26</b>	<b>995.21</b>	<b>1524.47</b>
45	Mandya	0	82.14	481.45	563.59
46	Maddur	0	58.01	510.00	568.01
47	Malavalli	44	45.83	348.77	438.60
48	Nagamangala	29	92.07	348.98	470.05
49	K.R.Pet	0	90.26	591.87	682.13
50	Srirangapatna	0	56.33	249.84	306.17
51	Pandavapura	0	59.72	350.73	410.45
	<b>Mandya Dt</b>	<b>73</b>	<b>484.36</b>	<b>2881.64</b>	<b>3439.00</b>
52	Shimoga	79	123.37	131.74	334.11
53	Bhadravati	35	97.25	206.40	338.65
54	Thirthahalli	56	144.20	375.40	575.60
55	Sagara	51	118.56	486.06	655.62
56	Hosanagara	0	167.93	236.30	404.23
57	Soraba	0	148.84	344.38	493.22
58	Shikaripura	0	186.89	226.20	413.09
	<b>Shimoga Dt</b>	<b>221</b>	<b>987.04</b>	<b>2006.48</b>	<b>3214.52</b>
59	Chitradurga	86	36.84	457.10	579.94
60	Challakere	0	157.01	532.28	689.29
61	Hiriyur	50	110.05	429.73	589.78
62	Molkalmur	0	118.05	116.85	234.90
63	Holalkere	31	76.06	362.00	469.06
64	Hosadurga	0	114.63	214.14	328.77
	<b>Chitradurga Dt</b>	<b>167</b>	<b>612.64</b>	<b>2112.10</b>	<b>2891.74</b>

(in Km)

Sl. No.	Taluk Name	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
65	Davanagere	34	128.21	214.45	376.66
66	Harihara	6	44.60	148.60	199.20
67	Channagiri	28	150.04	248.60	426.64
68	Honnali	0	117.20	377.60	494.80
69	Harapanahalli	0	215.40	324.80	540.20
70	Jagalur	17	76.10	298.05	391.15
	<b>Davanagere Dt</b>	<b>85</b>	<b>731.55</b>	<b>1612.10</b>	<b>2428.65</b>
71	Hassan	28	149.35	547.56	724.91
72	Channarayapatna	48	132.90	670.93	851.83
73	Holenarsipura	0	159.16	306.85	466.01
74	Belur	38.16	95.58	310.10	443.84
75	Arasikere	77	97.90	571.55	746.45
76	Arkalgud	0	113.69	246.53	360.22
77	Alur	16	47.80	106.90	170.70
78	Sakleshpura	45	188.79	370.93	604.72
	<b>Hassan Dt</b>	<b>252.16</b>	<b>985.17</b>	<b>3131.35</b>	<b>4368.68</b>
79	Chikmagalur	0	126.93	331.97	458.90
80	Kadur	36	83.00	404.95	523.95
81	Mudigere	47.25	165.66	274.70	487.61
82	Tarikere	28	123.68	223.50	375.18
83	Narasimharajapura	0	39.52	163.80	203.32
84	Koppa	27	54.66	165.00	246.66
85	Shringeri	38	16.76	68.90	123.66
	<b>Chikmagalur Dt</b>	<b>176.25</b>	<b>610.21</b>	<b>1632.82</b>	<b>2419.28</b>
86	Mangalore	108	78.50	340.88	527.38
87	Bhantwal	64	91.70	131.92	287.62
88	Puttur	46	146.30	106.80	299.10
89	Sulya	0	115.60	90.40	206.00
90	Belthangadi	48	96.70	104.85	249.55
	<b>Dakshina Kannada Dt</b>	<b>266</b>	<b>528.80</b>	<b>774.85</b>	<b>1569.65</b>
91	Udupi	52	77.96	352.20	482.16
92	Kundapur	55	141.80	290.00	486.80
93	Karkala	35	133.95	148.78	317.73
	<b>Udupi Dt</b>	<b>142</b>	<b>353.71</b>	<b>790.98</b>	<b>1286.69</b>
94	Madakeri	0	129.36	263.20	392.56
95	Somvarapet	0	252.10	251.30	503.40
96	Virajpet	0	156.51	340.70	497.21
	<b>Kodagu Dt</b>	<b>0</b>	<b>537.97</b>	<b>855.20</b>	<b>1393.17</b>
	<b>South Zone Total</b>	<b>2687.71</b>	<b>8675.55</b>	<b>27944.59</b>	<b>39307.85</b>

(In Km)

Sl. No.	Taluk Name	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
97	Dharwad	30	193.81	352.03	575.84
98	Hubli	80	46.48	363.78	490.26
99	Kalghatgi	33	58.28	214.11	305.39
100	Kundgol	0	71.90	155.16	227.06
101	Navalgund	46	113.94	304.42	464.36
	<b>Dharwad Dt</b>	<b>189</b>	<b>484.41</b>	<b>1389.50</b>	<b>2062.91</b>
102	Haveri	19	113.06	280.46	412.52
103	Hangal	0	114.48	321.40	435.88
104	Shiggaon	30	99.49	181.55	311.04
105	Herekarur	0	95.86	347.37	443.23
106	Ranibennur	36	83.03	288.56	407.59
107	Byadagi	11	46.60	188.32	245.92
108	Savanur	7	34.69	236.01	277.70
	<b>Haveri Dt</b>	<b>103</b>	<b>587.21</b>	<b>1843.67</b>	<b>2533.88</b>
109	Gadag	34	159.73	269.90	463.63
110	Mundargi	13	97.60	236.48	347.08
111	Ron	0	256.02	295.10	551.12
112	Nargund	27	40.93	120.26	188.19
113	Sirahatti	0	155.24	266.10	421.34
	<b>Gadag Dt</b>	<b>74</b>	<b>709.52</b>	<b>1187.84</b>	<b>1971.36</b>
114	Karwar	37	107.18	141.09	285.27
115	Ankola	70	37.67	159.49	267.16
116	Kumta	31	67.23	232.21	330.44
117	Honnavaara	77	35.75	155.61	268.36
118	Bhatkal	25	27.10	157.85	209.95
119	Joida	16	222.70	138.20	376.90
120	Sirsi	0	228.77	263.10	491.87
121	Yallapura	49	91.09	169.95	310.04
122	Haliyala	0	107.57	151.61	259.18
123	Siddapura	26	223.33	338.20	587.53
124	Mundugodu	0	90.32	152.90	243.22
	<b>Uttara Kannada Dt</b>	<b>331</b>	<b>1238.71</b>	<b>2060.21</b>	<b>3629.92</b>
125	Belgaum	60	131.09	296.50	487.59
126	Bailahongala	20	293.33	302.77	616.10
127	Khanapura	53	222.32	176.78	452.10
128	Savadatti	0	347.83	294.95	642.78
129	Ramadurg	0	261.14	238.62	499.76
130	Gokak	0	315.52	277.39	592.91
131	Chikkodi	23	276.46	374.42	673.88

(In Km)

Sl. No.	Taluk Name	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
132	Aathani	0	245.17	492.03	737.20
133	Hukkeri	45	145.44	299.35	489.79
134	Rayabag	0	103.45	287.81	391.26
	<b>Belgaum Dt</b>	<b>201</b>	<b>2341.75</b>	<b>3040.62</b>	<b>5583.37</b>
135	Bijapura	91	155.56	676.37	922.93
136	Basavanabagewadi	76	122.95	371.20	570.15
137	Indi	45	113.96	573.29	732.25
138	Muddebihal	0	138.55	342.98	481.53
139	Sindagi	55	154.30	477.07	686.37
	<b>Bijapura Dt</b>	<b>267</b>	<b>685.32</b>	<b>2440.91</b>	<b>3393.23</b>
140	Bagalkote	32	95.07	232.75	359.82
141	Jamakhandi	0	95.64	374.28	469.92
142	Bilagi	22	46.12	215.50	283.62
143	Badami	34	265.98	219.65	519.63
144	Hungund	38	212.67	225.88	476.55
145	Mudhol	0	163.53	340.29	503.82
	<b>Bagalkote Dt</b>	<b>126</b>	<b>879.01</b>	<b>1608.35</b>	<b>2613.36</b>
146	Bellary	61	213.35	353.99	628.34
147	Hospet	60	102.97	220.31	383.28
148	Siraguppa	0	148.85	144.25	293.10
149	Sandur	0	124.60	263.65	388.25
150	Hadagali	0	145.19	251.29	396.48
151	Kudligi	60	174.30	335.65	569.95
152	Hagaribommanahalli	0	108.00	235.40	343.40
	<b>Bellary Dt</b>	<b>181</b>	<b>1017.26</b>	<b>1804.54</b>	<b>3002.80</b>
153	Raichur	0	135.40	339.19	474.59
154	Lingusugur	0	251.23	309.85	561.08
155	Manvi	0	287.75	277.37	565.12
156	Devadurga	0	165.39	236.90	402.29
157	Sindhanur	0	166.35	343.50	509.85
	<b>Raichur Dt</b>	<b>0</b>	<b>1006.12</b>	<b>1506.81</b>	<b>2512.93</b>
158	Koppal	87	131.97	339.58	558.55
159	Gangavathi	0	207.27	446.10	653.37
160	Yalaburga	19	179.10	465.01	663.11
161	Kustagi	18	190.68	252.96	461.64
	<b>Koppal Dt</b>	<b>124</b>	<b>709.02</b>	<b>1503.65</b>	<b>2336.67</b>
162	Gulbarga	84	164.23	121.39	369.62
163	Chitapura	0	284.01	261.72	545.73



(In Km)

Sl. No.	Taluk Name	National Highways	State Highways	Major District Roads	Total
1	2	3	4	5	6
164	Aland	0	245.50	126.35	371.85
165	Afzalpur	0	138.40	159.03	297.43
166	Chincholi	0	212.52	54.89	267.41
167	Jeevargi	41	36.35	425.57	502.92
168	Sedam	0	154.70	252.00	406.70
	<b>Gulbarga Dt</b>	<b>125</b>	<b>1235.71</b>	<b>1400.95</b>	<b>2761.66</b>
169	Yadigiri	0	209.57	435.62	645.19
170	Shahpur	0	145.69	357.84	503.53
171	Shorapur	0	130.80	482.41	613.21
	<b>Yadigiri Dt</b>	<b>0</b>	<b>486.06</b>	<b>1275.87</b>	<b>1761.93</b>
172	Bidar	0	125.55	260.49	386.04
173	Humanabad	52	83.66	181.40	317.06
174	Aurad	0	168.91	204.10	373.01
175	Basavakalyana	30	186.75	115.49	332.24
176	Bhalki	0	128.23	115.60	243.83
	<b>Bidar Dt</b>	<b>82</b>	<b>693.10</b>	<b>877.08</b>	<b>1652.18</b>
	<b>North Zone Total</b>	<b>1803</b>	<b>12073.20</b>	<b>21940.00</b>	<b>35816.20</b>
	<b>State Total</b>	<b>4490.71</b>	<b>20748.75</b>	<b>49884.59</b>	<b>75124.05</b>

## Appendix - 8

### IMPORT & EXPORT OF CARGO HANDLED AT VARIOUS PORTS DURING THE YEAR 2012-13

(M.Tone)

<b>Sl. No.</b>	<b>Name of the Ports</b>	<b>Import</b>	<b>Export</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1.	Karwar Port	2,11,084	2,30,106
2.	Belekeri Port	-	-
3.	Tadri Port	-	-
4.	Honnavar Port	-	-
5.	Bhatkal Port	-	-
6.	Kundapur Port	-	-
7.	Hangarkatta Port	247	1,593
8.	Malpe Port	2,508	397
9.	Padubidri	-	-
10	Old Mangalore Port	52,922	1,13,006
	<b>Total</b>	<b>2,66,761</b>	<b>3,45,102</b>

**Appendix - 9**  
**Constituency wise road length as on 31-03-2013**

(In km)

Sl. No.	District	Taluk Name	Sl. No.	Constituency	State Highways	Major District Roads	Total	
1	2	3	4	5	6	7	8	
1	Bangalore Urban	Bangalore North	1	Yelahanka	21.20	196.05	217.25	
			2	Byatrayanapura	2.50	7.27	9.77	
			3	Yeshwanthpura	0.00	246.20	246.20	
			4	Dasarahalli	0.00	6.20	6.20	
			Bangalore Sout	5	Bangalore South	15.20	57.63	72.83
			Bangalore East	6	Mahadevpura	5.20	107.40	112.60
			Anekal	7	Anekal	52.60	65.94	118.54
			<b>Total</b>			<b>96.70</b>	<b>686.69</b>	<b>783.39</b>
2	Bangalore Rural	Hoskote	8	Hoskote	55.75	172.35	228.10	
		Devanahalli, Doddaballapura	9	Devanahalli	60.85	124.00	184.85	
		Nelamangala, Magadi	10	Nelamangala	48.00	255.80	303.80	
		Doddaballapura	11	Doddaballapura	45.50	159.50	205.00	
		<b>Total</b>			<b>210.10</b>	<b>711.65</b>	<b>921.75</b>	
3	Ramnagara	Ramangara, Kanakapura	12	Ramanagar	22.60	426.40	449.00	
		Kanakapura	13	Kanakapura	78.50	312.45	390.95	
		Channapatna	14	Channapatna	28.93	383.80	412.73	
		Magadi, Ramanagara	15	Magadi	169.00	371.70	540.70	
		<b>Total</b>			<b>299.03</b>	<b>1494.35</b>	<b>1793.38</b>	
4	Kolar	Kolar	16	Kolar	56.89	130.88	187.77	
		Bangarapet	17	KGF	46.81	93.83	140.64	
		Kolar, Bangarpet	18	Bangarpet	43.54	113.80	157.34	
		Mulabagal	19	Mulabagal	0.00	353.32	353.32	
		Kolar, Srinivaspura	20	Srinivaspura	92.00	295.05	387.05	
		Malur	21	Malur	65.55	94.17	159.72	
		<b>Total</b>			<b>304.79</b>	<b>1081.05</b>	<b>1385.84</b>	
5	Chickballapur	Chickballapur, Gowribidnur	22	Chickballapur	29.15	211.76	240.91	
		Siddlaghatta, Chintamani	23	Siddlaghatta	58.47	237.30	295.77	
		Chintamani	24	Chintamani	58.10	103.50	161.60	
		Gowribidnur	25	Gowribidnur	77.10	141.60	218.70	
		Bagepalli, Gudibande	26	Bagepalli	41.06	233.88	274.94	
		<b>Total</b>			<b>263.88</b>	<b>928.04</b>	<b>1191.92</b>	
6	Tumkur	Tumkur	27	Tumkur Rural	80.40	323.00	403.40	
		Tumkur	28	Tumkur Urban	3.60	0.00	3.60	
		Gubbi	29	Gubbi	52.25	349.50	401.75	
		Kunigal	30	Kunigal	112.06	446.98	559.04	
		Turuvekere, Gubbi	31	Turuvekere	59.80	568.30	628.10	
		Tiptur	32	Tiptur	51.10	276.15	327.25	
		Chicknayakanahalli, Sira	33	Chicknayakanahalli	80.34	392.10	472.44	
		Sira	34	Sira	8.60	542.90	551.50	
		Koratagere, Tumkur, Madhugiri	35	Koratagere	64.77	333.95	398.72	
		Madhugiri	36	Madhugiri	38.10	309.00	347.10	
		Pavagada	37	Pavagada	80.23	210.60	290.83	
		<b>Total</b>			<b>631.25</b>	<b>3752.48</b>	<b>4383.73</b>	

Sl. No.	District	Taluk Name	Sl. No.	Constituency	State Highways	Major District Roads	Total	
1	2	3	4	5	6	7	8	
7	Mysore	Mysore	38	Chamundeshwari	53.04	341.75	394.79	
			39	Krishnaraja	0.67	1.50	2.17	
			40	Narasimharaja	0.00	1.00	1.00	
			Mysore, T.Narsipura, Nanjangud	41	Varuna	84.80	252.55	337.35
			T.Narasipura	42	T.Narasipura	56.12	147.26	203.38
			Nanjangud	43	Nanjangud	68.44	188.06	256.50
			Hunsur	44	Hunsur	92.98	551.47	644.45
			K.R Nagar	45	K.R Nagar	146.78	307.80	454.58
			Periyapatna	46	Periyapatna	72.44	344.87	417.31
			H D Kotte	47	H D Kotte	123.82	361.34	485.16
<b>Total</b>					<b>699.09</b>	<b>2497.60</b>	<b>3196.69</b>	
8	Chamrajnagar	Chamarajanagar	48	Chamarajanagar	72.53	171.30	243.83	
		Gundlupet, Chamarajanagar	49	Gundlupet	53.07	308.85	361.92	
		Kollegala, Yelandur, Chamarajanagara	50	Kollegala	73.16	153.00	226.16	
		Kollegala	51	Hanur	140.50	362.06	502.56	
		<b>Total</b>					<b>339.26</b>	<b>995.21</b>
9	Mandya	Mandya	52	Mandya	43.62	257.75	301.37	
		Maddur	53	Maddur	47.96	406.65	454.61	
		Malavalli	54	Malavalli	45.83	348.77	394.60	
		Nagamangala, Maddur	55	Nagamangala	102.12	452.33	554.45	
		K.R Pet	56	K.R Pet	90.26	591.87	682.13	
		Srirangapatna, Mandya	57	Srirangapatna	75.05	366.64	441.69	
		Pandavpura, Mandya	58	Melukote	79.52	457.63	537.15	
<b>Total</b>					<b>484.36</b>	<b>2881.64</b>	<b>3366.00</b>	
10	Shimoga	Shimoga	59	Shimoga	15.84	22.45	38.29	
		Shimoga, Bhadravathi	60	Shimoga Rural	119.32	179.99	299.31	
		Thirthahalli, Shimoga, Hosanagar	61	Thirthahalli	241.41	526.90	768.31	
		Bhadravathi	62	Bhadravathi	67.25	118.00	185.25	
		Sagar, Hosanagar, Sorab	63	Sagar	207.49	510.66	718.15	
		Shikaripura	64	Shikaripura	186.89	226.20	413.09	
		Sorab	65	Sorab	148.84	422.28	571.12	
		<b>Total</b>					<b>987.04</b>	<b>2006.48</b>
11	Chitradurga	Chitradurga	66	Chitradurga	36.84	221.50	258.34	
		Challakere	67	Challakere	93.16	363.65	456.81	
		Hiriyur	68	Hiriyur	110.05	506.45	616.50	
		Holalkere	69	Holalkere	76.06	434.53	510.59	
		Hosadurga	70	Hosadurga	114.63	214.14	328.77	
		Molakalmur, Challakere	71	Molakalmur	181.90	371.83	553.73	
		<b>Total</b>					<b>612.64</b>	<b>2112.10</b>

Sl. No.	District	Taluk Name	Sl. No.	Constituency	State Highways	Major District Roads	Total
1	2	3	4	5	6	7	8
12	Davangere	Davangere	72	Davangere North	32.66	30.65	63.31
			73	Davangere South	19.25	54.10	73.35
		Harihara	74	Harihara	44.60	148.60	193.20
		Jagalur, Harapanahalli	75	Jagalur	107.70	361.85	469.55
		Channagiri	76	Channagiri	122.87	191.00	313.87
		Davangere, Channagiri	77	Mayakonda	103.47	187.30	290.77
		Honnali	78	Honnali	117.20	377.60	494.80
		Harapanahalli	79	Harapanahalli	183.80	261.00	444.80
		<b>Total</b>					<b>731.55</b>
13	Hassan	Hassan	80	Hassan	63.47	198.87	262.34
		Channarayapatna	81	Shravanabelagola	98.95	468.18	567.13
		Holenarasipura, Hassan, Channarayapatna	82	Holenarsipura	186.93	655.75	842.68
		Belur, Arasikere	83	Belur	95.58	416.10	511.68
		Arasikere	84	Arasikere	97.90	465.55	563.45
		Arakalgud, Holenarsipura	85	Arakalgud	170.30	383.78	554.08
		Alur, Sakleshpura, Hassan	86	Sakleshpura	272.04	543.12	815.16
		<b>Total</b>					<b>985.17</b>
14	Chickmagalur	Chickmagalur	87	Chickmagalur	75.73	312.90	388.63
		Tarikere	88	Tarikere	120.38	223.50	343.88
		Mudigere	89	Mudigere	212.61	388.97	601.58
		Sringeri, Koppa, N R Pura	90	Sringeri	125.19	432.90	558.09
		Kadur	91	Kadur	76.30	274.55	350.85
		<b>Total</b>					<b>610.21</b>
15	Dakshina Kannada	Mangalore	92	Mangalore North	6.50	104.50	111.00
			93	Mulky Moodabidre	72.00	164.42	236.42
		Mangalore, Banntwal	94	Mangalore	0.00	93.36	93.36
		Bantwal	95	Bantwal	58.40	101.52	159.92
		Puttur, Bantwal	96	Puttur	94.80	78.60	173.40
		Sulia, Puttur	97	Sulia	200.40	127.60	328.00
		Belthangady	98	Belthangady	96.70	104.85	201.55
		<b>Total</b>					<b>528.80</b>
16	Udupi	Udupi	99	Udupi	18.20	109.50	127.70
		Udupi	100	Kapu	59.76	163.50	223.26
		Kundapur	101	Kundapur	32.00	178.95	210.95
		Kundapur	102	Byndur	109.80	190.20	300.00
		Karkala	103	Karkala	133.95	148.78	282.73
		<b>Total</b>					<b>353.71</b>
17	Kodagu	Madkeri, Somwarpet	104	Madkeri	324.96	327.30	652.26
		Virajpet	105	Virajpet	213.01	527.90	740.91
		<b>Total</b>					<b>537.97</b>
<b>South Zone Total</b>					<b>8675.55</b>	<b>27944.59</b>	<b>36620.14</b>

Sl. No.	District	Taluk Name	Sl. No.	Constituency	State Highways	Major District Roads	Total
1	2	3	4	5	6	7	8
18	Dharwad	Dharwad	106	Dharwad Rural	97.22	194.67	291.89
		Hubli	107	Hubli-Dharwad (East)	4.87	39.58	44.45
			108	Hubli-Dharwad (West)	32.26	56.98	89.24
			109	Hubli-Dharwad (Central)	7.00	28.11	35.11
		Kalghatagi, Dharwad	110	Kalghatagi	124.16	342.27	466.43
		Kundagol, Hubli	111	Kundagol	80.80	280.83	361.63
		Navalgund, Hubli	112	Navalgund	138.10	447.06	585.16
<b>Total</b>					<b>484.41</b>	<b>1389.50</b>	<b>1873.91</b>
19	Gadag	Gadag	113	Gadag	89.16	163.80	252.96
		Ron, Gadag, Mundargi	114	Ron	266.03	407.13	673.16
		Naragund, Gadag, Ron	115	Nargund	132.14	286.08	418.22
		Shirahatti, Mundargi	116	Shirahatti	222.19	330.83	553.02
		<b>Total</b>					<b>709.52</b>
20	Haveri	Haveri, Savanur	117	Haveri	103.54	319.07	422.61
		Byadagi, Haveri, Ranebennur	118	Byadagi	80.62	357.59	438.21
		Hangal	119	Hangal	114.48	321.40	435.88
		Shiggaon, Savanur	120	Shiggaon	126.16	286.48	412.64
		Ranebennur	121	Ranebennur	66.55	211.76	278.31
		Hirekerur	122	Hirekerur	95.86	347.37	443.23
<b>Total</b>					<b>587.21</b>	<b>1843.67</b>	<b>2430.88</b>
21	Uttara Kannada	Karwar, Ankola	123	Karwar	144.85	300.58	445.43
		Kumta, Honnavar	124	Kumta	91.18	301.49	392.67
		Bhatkal	125	Bhatkal	38.90	244.18	283.08
		Sirsi, Siddapur	126	Sirsi	380.97	531.00	911.97
		Yellapur, Mundagod, Sirsi	127	Yellapur	252.54	393.15	645.69
		Haliyal, Joida	128	Haliyal	330.27	289.81	620.08
<b>Total</b>					<b>1238.71</b>	<b>2060.21</b>	<b>3298.92</b>
22	Belgaum	Belgaum	129	Belgaum North	20.32	9.08	29.40
			130	Belgaum South	2.29	22.60	24.89
			131	Belgaum Rural	70.21	196.34	266.55
		Belgaum, Hukkeri	132	Yamankaradi	88.23	172.33	260.56
		Khanapur	133	Khanapur	222.32	176.78	399.10
		Bailhongal	134	Kittur	202.45	214.02	416.47
		Bailhongal, Savadatti	135	Bailhongal	203.20	181.40	384.60
		Savadatti	136	Savadatti Yellamma	235.51	202.30	437.81
		Ramdurga	137	Ramdurga	261.14	238.62	499.76
		Chikkodi	138	Chikkodi-Sadalaga	130.97	130.58	261.55
			139	Nippani	94.42	134.50	228.92
		Raibag, Chikkodi	140	Raibag	102.33	267.09	369.42
		Raibag	141	Kudachi	52.19	130.06	182.25
		Hukkeri	142	Hukkeri	95.48	195.50	290.98
			143	Gokak	147.70	128.60	276.30
		Gokak	144	Arabhavi	167.82	148.79	316.61
145	Athani		119.66	260.25	379.91		
Athani	146	Kagawad	125.51	231.78	357.29		
	<b>Total</b>					<b>2341.75</b>	<b>3040.62</b>

Sl. No.	District	Taluk Name	Sl. No.	Constituency	State Highways	Major District Roads	Total
1	2	3	4	5	6	7	8
23	Bagalkot	Bagalkot, Hunagund	147	Bagalkot	96.96	199.02	295.98
		Bilagi, Bagalkot, Badami	148	Bilagi	122.75	321.44	444.19
		Badami	149	Badami	218.00	171.34	389.34
		Hunagund	150	Hunagund	182.13	201.98	384.11
		Mudhol	151	Mudhol	141.57	296.29	437.86
		Mudhol, Jamakhandi	152	Teradal	62.12	160.14	222.26
		Jamakhandi	153	Jamakhandi	55.48	258.14	313.62
		<b>Total</b>				<b>879.01</b>	<b>1608.35</b>
24	Bijapur	Bijapur	154	Bijapur	16.83	59.90	76.73
			155	Babaleshwar	108.46	401.45	509.91
		Bijapur, Indi	156	Nagthan	53.52	437.91	491.43
		Indi	157	Indi	90.71	350.40	441.11
		Sindagi, Indi	158	Sindagi	107.54	315.68	423.22
		B.Bagewadi	159	B.Bagewadi	68.90	258.95	327.85
		B.Bagewadi, Sindagi, Muddebihal	160	D.Hipparagi	143.21	347.17	490.38
		Muddebihal	161	Muddebihal	96.15	269.45	365.60
<b>Total</b>				<b>685.32</b>	<b>2440.91</b>	<b>3126.23</b>	
25	Bellary	Bellary	162	Bellary Urban	20.30	12.22	32.52
			163	Bellary Rural	90.70	202.67	293.37
		Bellary, Hospet	164	Kampli	126.63	226.40	353.03
		Sandur, Bellary	165	Sandur	18.75	14.50	33.25
		Hospet	166	Vijayanagar	53.94	77.46	131.40
		Shiraguppa	167	Shiraguppa	273.45	407.90	681.35
		Hadagali, H.B.Halli	168	Hadagali	155.19	305.18	460.37
		H.B.Halli, Hospet, Kudligi	169	H.B.Halli	156.63	242.16	398.79
		Kudligi	170	Kudligi	121.67	316.05	437.72
		<b>Total</b>				<b>1017.26</b>	<b>1804.54</b>
26	Raichur	Raichur	171	Raichur	40.60	97.15	137.75
		Raichur, Manvi	172	Raichur (Rural)	135.67	253.34	389.01
		Manvi	173	Manvi	216.45	203.67	420.12
		Manvi, Sindhanur, Lingasugur	174	Maski	150.12	258.02	408.14
		Sindhanur	175	Sindhanur	123.90	193.28	317.18
		Lingasgur	176	Lingasgur	173.99	264.45	438.44
		Deodurg	177	Deodurg	165.39	236.90	402.29
		<b>Total</b>				<b>1006.12</b>	<b>1506.81</b>
27	Koppal	Koppal	178	Koppal	115.64	300.58	416.22
		Gangavati, Koppal	179	Gangavati	82.80	200.50	283.30
		Gangavati	180	Kanakagiri	140.80	284.60	425.40
		Kushtagi	181	Kushtagi	190.68	252.96	443.64
		Yelaburga	182	Yelaburga	179.10	465.01	644.11
		<b>Total</b>				<b>709.02</b>	<b>1503.65</b>

Sl. No.	District	Taluk Name	Sl. No.	Constituency	State Highways	Major District Roads	Total	
1	2	3	4	5	6	7	8	
28	Gulbarga	Gulbarga	183	Gulbarga (North)	6.00	0.00	6.00	
			184	Gulbarga (South)	36.20	24.80	61.00	
			185	Gulbarga (Rural)	187.48	117.59	305.07	
			Alanda	186	Alanda	192.80	101.95	294.75
			Afzalpur	187	Afzalpur	148.40	166.53	314.93
			Chittapur	188	Chittapur	200.54	178.66	379.20
			Chincholi	189	Chincholi	220.12	127.35	347.47
			Jewargi	190	Jewargi	36.35	425.57	461.92
			Sedam	191	Sedam	207.82	258.50	466.32
		<b>Total</b>					<b>1235.71</b>	<b>1400.95</b>
29	Yadgir	Yadgir	192	Gurumitakal	173.98	370.32	544.30	
		Yadgir, Shahapur	193	Yadgir	104.33	265.76	370.09	
		Shahapur, Shorapur	194	Shahapur	126.95	232.63	359.58	
		Shorapur	195	Shorapur	80.80	407.16	487.96	
		<b>Total</b>					<b>486.06</b>	<b>1275.87</b>
30	Bidar	Bidar	196	Bidar	49.56	131.20	180.76	
		Bidar, Humnabad	197	Bidar (South)	104.56	179.26	283.82	
		Humnabad, B.Kalyan	198	Humnabad	55.09	131.43	186.52	
		B.Kalyan	199	B.Kalyan	186.75	115.49	302.24	
		Aurad	200	Aurad	168.91	204.10	373.01	
		Bhalki	201	Bhalki	128.23	115.60	243.83	
		<b>Total</b>					<b>693.10</b>	<b>877.08</b>
<b>North Zone Total</b>					<b>12073.20</b>	<b>21940.00</b>	<b>34013.20</b>	
<b>South Zone Total</b>					<b>8675.55</b>	<b>27944.59</b>	<b>36620.14</b>	
<b>State Total</b>					<b>20748.75</b>	<b>49884.59</b>	<b>70633.34</b>	