



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

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(Ministry of Road Transport & Highways)

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भारतमाला

प्रगति के पथ पर अग्रसर

BHARATMALA

ROAD TO PROSPERITY

NHAI/PIU-SMG/12017/01/2018-19/

03.10.2018

**Project Name:** Four laning of Tumkur - Shimoga Section of NH-206 from Km. 12+310 to Km. 217+000 on HAM under Bharathmala Pariyojana - reg.

**PROPOSAL:** For diversion of 40.2625 Ha of forest land falling under Tumkur, Hassan, Chikkamagaluru and Bhadravati Forest Divisions which is being diverted for widening of existing National Highway to four lane - Section I (from Km. 12+310 to Km 217+000) of NH 206.

### JUSTIFICATION FOR LOCATING THE PROJECT IN FOREST AREA

#### 1. BACKGROUND:

In view of National Highways Interconnectivity Improvement Project strategy, the Ministry of Road Transport and Highways (MoRTH) had selected 33 National Highways to upgrade from single lane / intermediate lane National Highways to at least 2 lane with paved shoulder standards / 4 lane. Out of these, some National Highways were proposed to be taken up through the assistance from World Bank. Although, this project stretch was initially under scope of World Bank fund, got transferred back to MoRTH – NHDP – IV due to segregation of 4-lane and 2-lane with paved shoulder development project. Thereafter the project stretch had been proposed and implemented on DBFOT (Hybrid Annuity) PPP mode under MoRTH-Delhi through ownership of NH-PWD (Karnataka). In July 2016 the project has again been transferred from MoRTH-Delhi to National Highways Authority of India (NHAI), Delhi because of policy matter and eventually scope of services had been defined for an up-gradation on including strengthening and widening to 4-lane/2- lane / 2- lane with paved shoulder standards to facilitate the corridors in accordance with highway geometrics, safety measures, social and environmental perspective.

#### 2. INTRODUCTION:

The Project Road NH 206 was previously the part of state highway 68, which was subsequently up-graded to National Highway No 206. NH 206 extends from Tumkur (km 0+000) to Honnavara (km 370+000) has a total length 370 km. From implementation point of view NH 206 has been divided into two sections. Section I starts from Tumkur and ends at Shimoga and Section II starts from Shimoga and ends at Honnavara. Section I of the project road is being widened for four lanes as per the traffic projections.

#### 3. LOCATION OF THE PROJECT ROAD:

Section I alignment pass through 4 districts i.e. Tumkur, Hassan, Chikmagalur and Shimoga. Location map and summarised existing features are shown below in Figure and Table. Section I from Tumkur (km 0+000) to Shimoga town (km 216+500) is further split in to 4 Contract Packages as under.

1. Package I: (Km 12+310- to Km 66+540) – Mallasandra Village to Karadi Village
2. Package II: (Km 66+540 to Km 119+790) – Karadi Village to Chikkarehalli Village
3. Package III: (Km 119+790 to Km 166+100) – Chikkarehalli Village to Hosur Village
4. Package IV: (Km 166+100 to Km 217+000) – Hosur Village to Shimoga

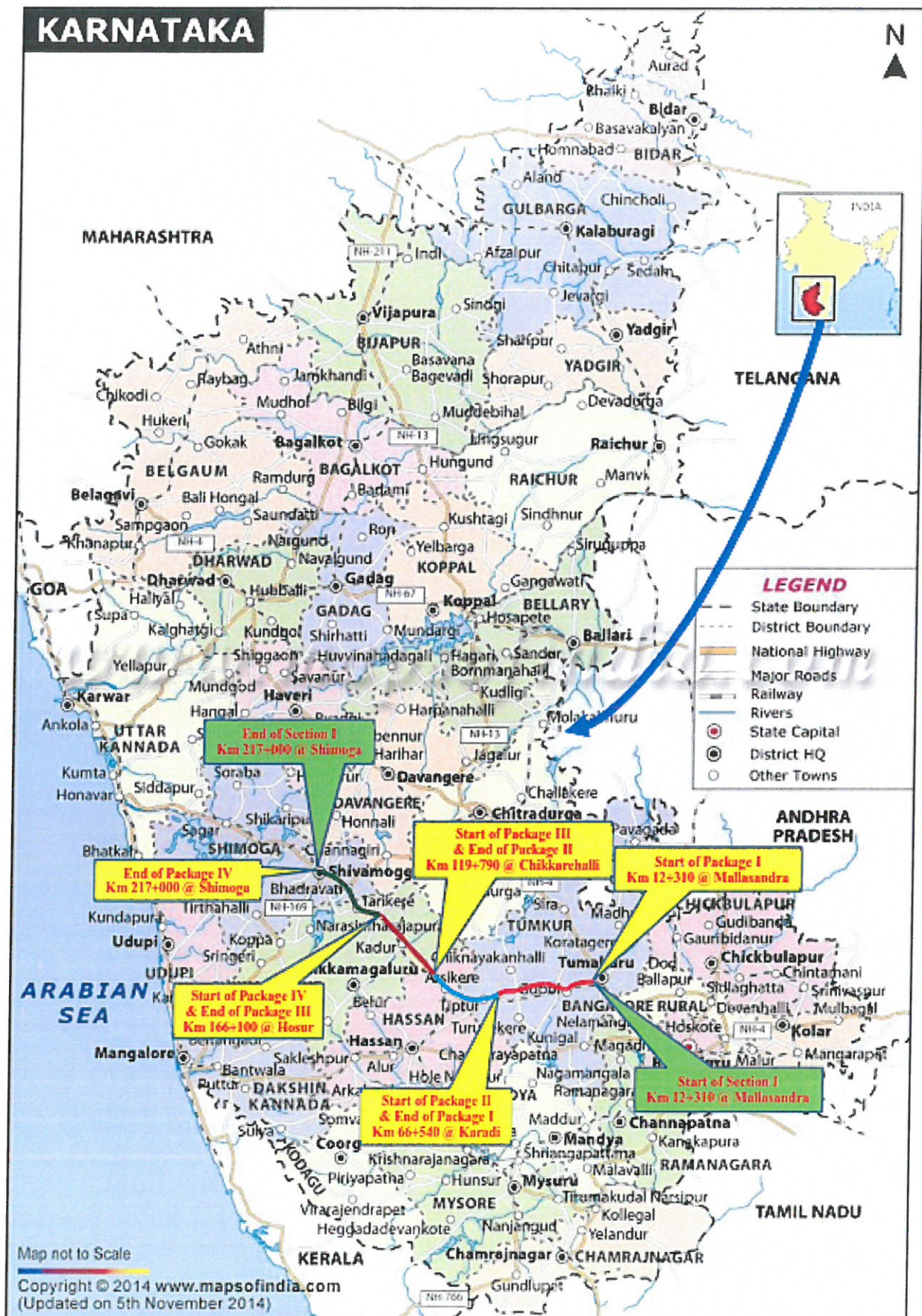
The **location map** indicating the Section I and four packages of project road is presented in Figure below.

PROJECT DIRECTOR

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Figure: Location map indicating Section I and package wise details





#### 4. EXITING FEATURES OF PROJECT ROAD:

Existing National Highway 206 is of two lanes with or without paved shoulders varying from 5.0 to 7.5 m carriageway. Over the recent years, there has been an increase in traffic volume along the existing highway. Hence the highway needs to be widened to 4 lanes accommodating the increased traffic volume. Project features are given in the Table below.

**Table: Salient features of proposed Section I project road**

SL. No.	Particulars	Project Features	Remarks
1	Start Km	Existing: Km 12+310	Mallasandra
		Design: Km 12+310	
2	End Km	Existing: 216+500	End of Shimoga Bypass
		Design: Km 226+750	
3	Total Length (km)	Existing: 216.000	
		Proposed: 229.620	
4	Districts	4 Nos.	Tumkur, Hassan, Chikkamagalur and Shimoga
5	Terrain	Plain and Rolling	
6	Right of Way (RoW)	Existing: 20 to 40 m	
		Proposed: 60 m	
7	Existing Carriage way (length)	2 lanes without paved shoulders,	156.300 km
		2 lane with paved shoulders and	25.200 km
		4 lane divided carriageway	22.600 km
8	Major Bridges	6 Nos.	
9	Minor Bridges	104 Nos.	
10	Vehicular Overpasses	8 Nos	
11	Vehicular Underpasses	31 Nos.	
12	Foot Over Bridge	6 Nos.	
13	ROBs	4 Nos.	
14	Railway Level Crossings	2 Nos.	
15	Culverts	546 Nos.	
16	Flyover	1 No.	
17	Major Junctions	38 Nos.	
18	Minor Junctions	103 Nos.	
19	Hairpin Curves	Nil	
20	Agriculture lands	117.000 Km	
21	Industrial / commercial areas	20.000 km	
22	Built up Areas	50.584 Km	
23	Forest stretch	18.700 Km (both LHS & RHS)	
24	Villages/Towns	36/9	

## 5. IMPROVEMENT PROPOSALS AND DESIGN

Study mandates the improvement of the project road to 4-lane standards for the Section I project stretch. Improvement proposals are based on the "Manual of Specifications and Standards for 4-laning of highways", which has published as IRC: SP: 74 – 2014.

Considering the importance of the project, careful planning has been made to provide various components of the highway and associated utilities, which affect the safety and operation of the highway. The proposed improvements are aimed at easing traffic congestion; reducing the accident, improving physical characteristics of the road, which includes geometry, pavement strength, drainage; and enhancing the aesthetic. Hence, the following optimum level of improvements is proposed:

- Widening of the project road as per the traffic warrants;
- Strengthening/reconstruction of the existing pavement for the entire length;
- Provision of footpath cum built-up drain at Built up and industrial locations;
- Improve / redesign sharp curves;
- Widening/ reconstruction of existing culverts and provision of additional culverts depending on the drainage condition;
- Junction improvements;
- Provision for Pedestrian crossing facilities;
- Provision of traffic signs and road furniture;
- Provision of bus shelters;
- Shifting of utilities;
- Land acquisition, R&R and other social impacts.

## 6. FOREST STRETCHES ALONG THE PROJECT ROAD:

Section I of proposed project highway starts at Mallasandra (at chainage **Km 12+310**) of Tumkur district and ends after Shimoga bypass (at chainage **Km 217+000**) having a length of 226.750 km.

The proposed Section I alignment passes adjacent to some of the reserved forests shown in the following table. The total forest land to be diverted is **40.2625 Hectares**.

Sl. No.	Forest Sy No.	Village/Hobli/Taluk	Chainage (km)		LHS /RHS	Forest Area (Ha)
			From	To		
1	6	Babiganahalli/Nittur/Gubbi	33+870	35+120	RHS	1.1603
2	20	Ankapura/Nittur/Gubbi	35+120	35+580	RHS	0.3539
3	1	Bidarahallada Kaval/Nittur/Gubbi	35+170	41+380	LHS	2.7268
4	36	Yellapura/Nittur/Gubbi	39+620	40+080	RHS	0.8155
5	35		40+080	40+500	RHS	1.0005
6	34		40+500	40+760	RHS	0.4987
7	30	Kanchiganahalli/Nittur/Gubbi	40+980	41+710	RHS	0.8439
8	1	Bennihalli kaval/Nittur/Gubbi	46+760	48+000	RHS	2.7183
9	2		46+480	48+010	LHS	1.9202
10	95	Rajathadripura/Kibbana halli/Tiptur	49+640	49+910	RHS	0.2189
11	11	Chavadlapurakaval/Kibbana halli/Tiptur	60+940	64+460	RHS	5.7177
12	12		60+960	64+460	LHS	2.9165
13	36	Kallanaykanahalli/Kasaba/Arasikere	108+200	108+420	RHS	0.7000
14	148	Bendekere/ Banavara/ Arasikere	108+420	108+680	RHS	0.6762
15	69	Linglapura/Shingatagere/Kadur	123+730	124+120	RHS	0.3640
16	51		123+080	123+400	RHS	0.7066
17	50		123+260	123+265	RHS	0.0034
18	66	Anche Chomanahalli/Shingatagere/Kadur	126+640	126+980	RHS	0.6798
19	31	Kuppalu/kasaba/Kadur	127+040	127+320	RHS	0.4138
20	32		127+020	127+400	LHS	0.2897



Sl. No.	Forest Sy No.	Village/Hobli/Taluk	Chainage (km)		LHS /RHS	Forest Area (Ha)
			From	To		
21	33	Kuppalu/kasaba/Kadur	127+400	127+710	LHS	0.4276
22	2		128+040	128+200	RHS	0.2373
23	230	Mathighatta/kasaba/Kadur	130+520	130+700	LHS	0.4246
24	14	Gedlehalli/kasaba/Kadur	133+850	134+360	LHS	0.6415
25	293	Tangali/ kasaba/Kadur	136+460	136+520	LHS	0.0851
26	153	Jodi Thimmapura/Birurur/Kadur	151+570	152+290	LHS	0.3063
27	11	H.Rangapura/Kasaba/Tarikere	178+840	179+470	RHS	1.1725
28	12		179+460	181+460	RHS	4.0710
29	4	Malali Chennenahalli/ Kasaba/Tarikere	178+580	178+620	RHS	3.2226
			178+680	179+600	RHS	
30	22	Karehalli / Kasaba/ Bhadravati	181+460	181+560	RHS	0.3394
31	38/1&38/2		181+560	181+660	RHS	0.1852
32	37		181+660	181+760	RHS	0.0824
33	34/1		181+760	181+840	RHS	0.0224
34	14	Anekoppa / Kasaba/ Bhadravati	186+820	188+170	LHS/RHS	3.6071
35	58	Ujjanipura / Kasaba/ Bhadravati	188+140	188+480	LHS/RHS	0.4493
36	5		189+020	189+100	LHS/RHS	0.2635
		Total				40.2625

## 7. JUSTIFICATION:

The existing highway is a two lane road with or without paved shoulders varying in width from 7.0 m to 15.0 m carriage way. There has been an increase in the traffic volume in the recent past necessitating the widening of existing road from Tumkur to Shimoga to 4 lanes. The width of the highway is being increased up to 60 m incorporating median along the centre line. The existing road is geometrically poor with respect to alignment and has concerns over safety of road users.

The existing alignment is followed during design but where the alignment is geometrically poor with respect to alignment and a threat to safety of road users, geometrical improvements such as smoothening of sharp curves has been recommended as per Indian Road Congress (IRC) specifications. While doing so, curved alignments at forest stretches adjacent to highway have been smoothened keeping the designed vehicle speed and the safety of the road users.

Technical, economical and environmental attributes have been considered during finalising the alignment and all possible efforts have been made to avoid the forest land. It is further stated that the area of forest land involved in the proposed alignment for improvement of **Section I** stretch of NH 206 is bare minimum. The attempt has also been made for alternative alignments to avoid forest land and there are no feasible alternatives found.



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