

**Pre-feasibility Report (PFR)**  
for  
**Environmental Impact Assessment (EIA)**  
for

**Construction of four/six lane Greenfield highway from Palakkad to Kozhikode in the State of  
Kerala  
under**

**Bharatmala Pariyojana**

**Project Proponent**

**National Highway Authority of India**



**Prepared by**

**ULTRA TECH**

**Environmental Consultancy And  
Laboratory**

**A QCI-NABET Accredited Environmental  
Consulting Organization**

**Unit No. 206, 224, 225 Jai Commercial  
Complex, Eastern Express Highway,  
Opposite Cadbury Factory, Khopat, Thane  
(West) - 400 061**

**Tel: 022 2534 2776, 0484 4011173, Fax: 022  
25429650,**

**Email: [kochi@ultratech.in](mailto:kochi@ultratech.in),**

**Website: [www.ultratech.in](http://www.ultratech.in)**

**DPR Consultants**

**M/s TPF GetinsaEuroestudios S.L  
in J.V with  
TPF Engineering Pvt. Ltd.**

**Office:**

**TPF Engineering Pvt.Ltd  
1401, Rupa Sapphire, Plot no. 12, Sector-18,  
Opposite Sanpada Railway Station,  
Sion - Panvel Highway, Vashi, Navi Mumbai -  
400705**

**getinsa-euroestudios**

**TPF  
INGENIERÍA**



**TPF**

**ENGINEERING PVT. LTD.**

**ULTRA-TECH**

**Prepared by ULTRA TECH Environmental Consultancy and Laboratory**

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<b>Annexure No</b>	<b>:</b>	<b>Details</b>
<b>Annexure 1</b>	<b>:</b>	<b>Final approval of the proposed alignment</b>



## 1. Executive Summary

The Bharatmala Pariyojana (BMP), is one of the biggest highway construction projects in India that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes, Coastal and Port connectivity roads and Greenfield expressways.

The state of Kerala remains un-developed in terms of Highways development. In Kerala, the total length of NHs is 1781.5 km, out of which only 200.0 km has 4 lane infrastructure and widening of additional 79.16 km is under implementation by NHAI. The remaining 84% of the NHs in Kerala has only 2-lane infrastructure. This depicts the urgent intervention required for development of Highways in Kerala to ensure the overall development of the State.

The proposed project, a part of the BMP is the proposed development of the route connecting Palakkad-Kozhikode in the State of Kerala. It is the development of four/six lane Greenfield highway from Palakkad to Kozhikode starting at Ch 0+000, Marutharode Village, Palakkad district & ending at Ch 121+006. Proposed alignment end point is on NH- 66 at Olavanna Village in Kozhikode district. The project will reduce the travel time between Palakkad and Kozhikode from 4.0 hours to 2.0 hours and interconnects two important NHs of Kerala (i.e, NH-544 and NH-66). The proposed project will cater to the traffic from all the existing and proposed industrial establishments such as the Kerala Industrial Infrastructure Development Corporation (KINFRA) at Kanjikode, Kannambra, Kakkanchery etc.

The implementing agency for this project is NHAI. The Final Alignment for the proposed project identified by NHAI's DPR Consultant for the project M/s TPF Getinsa Euroestudios S.L in J.V with TPF Engineering Pvt. Ltd (TPFEPL) and approved by all the concerned regulatory authorities such as the Land Acquisition Committee of NHAI and Government of Kerala, is the basis of development of the project.

**Table 1.1 : Salient Features of the proposed ICR 34\***

S No	Item	Particulars
1.	Name of the project	Construction of four/six lane Greenfield Highway from Palakkad to Kozhikode in the State of Kerala
2.	Design speed	100 km/h
3.	Flexible/Rigid Pavement Road Length	121.006 km
4.	Starting point	Ch 0+000 (10°46'30.53"N, 76°42'6.25"E) at NH-544 (Salem– Kochi- -Kanyakumari Highway) at Marutharode Village, Palakkad district.



S No	Item	Particulars						
5.	Ending point	Ch 121+006 (11°14'16.19"N, 75°50'30.19"E). Proposed alignment end point is on NH-66 at Olavanna Village of Kozhikode district.						
6.	Right of Way (ROW)	45.0 m						
7.	Width of carriage way	<ul style="list-style-type: none"> <li>Ch 0+000 to Ch 121+006: four/six lane divided carriageway</li> </ul>						
8.	Type of Terrain	<table border="1"> <thead> <tr> <th>Terrain</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Plain</td> <td>84</td> </tr> <tr> <td>Rolling</td> <td>16</td> </tr> </tbody> </table>	Terrain	%	Plain	84	Rolling	16
Terrain	%							
Plain	84							
Rolling	16							
9.	Environment and Social aspects	<ul style="list-style-type: none"> <li>Land area requirement: 547.407 ha</li> <li>Forest land: 0 % (0 ha)</li> <li>Built-up area: 16.71% (91.472 ha)</li> <li>Agricultural land: 83.29% (455.935 ha)</li> <li>Barren land: 0 % (0 ha)</li> </ul>						
10.	Cost Estimates, based on LAC Approval	<ul style="list-style-type: none"> <li>Total Capital Cost including Land Acquisition: INR 7937.96 Cr</li> </ul>						
11.	Revenue divisions crossed	<ul style="list-style-type: none"> <li>No of Villages: 39</li> </ul>						

**\*Source: TPFEPL**

The proposed project is Greenfield alignment and is partially access controlled. Grade separated structures are proposed at all SH, NH, MDR, intersections including start & end locations.

The proposed highway would provide better infrastructure for freight and passenger movement, enhance economic development, provide employment opportunities to locals, ensure road safety and reduces the fuel consumption and pollution, in addition to decongesting the existing roads between Palakkad and Kozhikode.



## 2. Introduction of the project/ Background Information

After the successful completion of National Highway Development Programme (NHDP), MoRTH/NHAI introduced the flagship highway development programme called Bharatmala Pariyojana (BMP), referred to as a 'Stepping Stone towards New India'. It focuses on bridging critical infrastructure gaps through development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Coastal and Port connectivity roads and Green-field expressways.

### i. Identification of the Project Proponent

National Highways Authority of India (NHAI) is the implementing agency for the proposed project. NHAI undertakes several programs towards environment protection, including the initiatives such as 'greening of Highways', obtaining Forest/Environment/CRZ Clearance wherever applicable, scrupulously following the conditions for environment protection stipulated by the statutory clearances etc.

### ii. Identification of the Project

The proposed project comes under the Bharatmala Pariyojana and is proposed to be developed as an Inter-Corridor. It is the proposed development of the route connecting Palakkad-Kozhikode which interconnects two important NHs of Kerala, i.e, NH-544 and NH-66. The proposed alignment is having optimum economic impact, maximum ERR & IRR, most feasible engineering aspects and minimum impact on forest, flora and fauna, water bodies and human settlement. The various alignment approvals obtained from the competent authority of Central and State Governments and NHAI HQ is attached as Annexure 1.

It has got the following approvals

1. MoRTH vide it's office Memorandum dated 03.11.2017 conveyed that Cabinet Committee on Economic affairs has considered the proposal for investment approval of Phase-1 of Bharatmala Pariyojana in its meeting dated 24.10.2017, where, in Annexure II b of the MoM, the route Palakkad to Kozhikode is listed out as Sl. No 33 of Inter Corridors.
2. Special Secretary (Revenue), Government of Kerala, on 07.10.2020 vide letter no. REV-B1/392/2020-REV
3. Land Acquisition Committee letter No LA/ 11013 / LAC Minutes/2020 (Computer No.5369) dated 02.11.2020. The LAC comprises of the Chairman and members of NHAI.



### iii. Brief Description of the nature of the project

The proposed project starts from NH- 544 at Ch 0+000, Marutharode village, Palakkad district & ends at Ch 121+006. Proposed alignment end point is at around 8.5 km from existing Ramanatukara junction on NH- 66 at Olavanna Village of Kozhikode District. The proposed design speed of ICR-34 is 100 km/h. It will have 4/6 lane flexible/rigid pavement with grade separated structures at all SH, NH, MDR, intersections including start & end locations.

### iv. Need for the project and its importance

The time taken for travel between Palakkad to Kozhikode in the existing route of 113.0 km is 4.0 hours during peak traffic. Existing route starts at Ch 0+000 Chandaranagar junction Palakkad and ends at Ch 113+000 on junction of NH-966 and NH-66 near Ramanattukara bypass junction Kozhikode (alignment passes through existing road – NH-966, SH-53). Average Existing RoW is 10m to 13m along the existing alignment. The traffic studies and diversion analysis of the existing stretch reiterated the necessity of a four carriageway. However, widening of existing road stretch is not feasible due to deficient geometry in accordance with codal provisions of Highways. In addition, all along the route there are residential/ commercial settlements, religious places and plantations, which will have huge financial and socio-economic impacts. Hence, the development of a Greenfield alignment based on crow-flight alignment is essential.

The photographs showing the existing limited RoW is given in Figure 2.1. Photographs depicting the congestion in the existing route is given in Figure 2.2.



**Figure 2.1: Photographs showing the limited RoW along the existing route**



**Figure 2.2: Photographs showing congestion in the existing route**



Three Greenfield options, based on crow-flight arrangement were analyzed and presented to NHA by TPFEPL. With due consideration to engineering, environmental, and financial aspects, the Option 1 is selected as the Final Alignment for the development of the proposed project. The alignment will provide connectivity to rural areas with the consequent increase of land values and boosting the economic growth of these regions.

The approval to the alignment Option-1 was received from the competent authorities of NHA/MoRTH and the Government of Kerala as stated above.

The proposed alignment will have the following benefits:

- The project will reduce the travel time between Palakkad and Kozhikode from 4.0 hours to 2.0 hours
- It interconnects two important NHs of Kerala (i.e., NH-544 and NH-66).
- Project road will also cater to the to and from traffic between Kozhikode and International airport at Kondotty.
- The proposed project will cater to the traffic from all the existing and proposed industrial establishments such as the Kerala Industrial Infrastructure Development Corporation (KINFRA) at Kanjikode, Kannambra, Kakkanchery etc.
- The proposed alignment will provide high speed connectivity to Kozhikode port and Chennai port
- It has no tunnel, no forest along the alignment, minimum built up area and minimum project cost. It has the most feasible engineering aspects and minimum impact on forest and human settlement.
- It will provide connectivity to 39 villages alongside.
- Provide alternate routes / options of connectivity.
- Decongestion of the existing routes, thereby reducing possibility of accidents /fatalities.
- Faster movement of freight & passenger vehicles by avoiding busy existing highways resulting in usage shift from existing roads.
- Reduction in the travel time, fuel consumption and pollution being shorter routes.
- Helps overall development of the region
- Development / Strengthening of ports and infrastructure / networking of the state will help in increase in the growth of industrial/tourism/health and education sectors of Kerala.
- Direct access to the highway for the people residing in remote / inside area of land thereby boosting the economy of the region, consequently, bringing socio-economic change in the society

v. **Demand-Supply Gap**

Not applicable



**vi. Imports vs Indigenous production**

Not applicable

**vii. Export Possibility**

Not Applicable

**viii. Domestic/Export markets**

Not applicable

**ix. Employment generation (Direct and Indirect)**

**Direct Employment:** During the construction of the road project around 600 persons would be employed temporarily for a period of 30 months. This will include skilled, semi-skilled and unskilled labours, Preference will be given to local people for employment. In the post construction phase, the project will provide social benefits to no. of people in terms of direct employment by way of better commercial and industrial development of the area.

**Indirect Employment:** Ancillary units will be set up due to project which will provide employment. Local vendors/traders etc. will be benefitted through employment generated during construction and operation phase.

### 3. Project Description

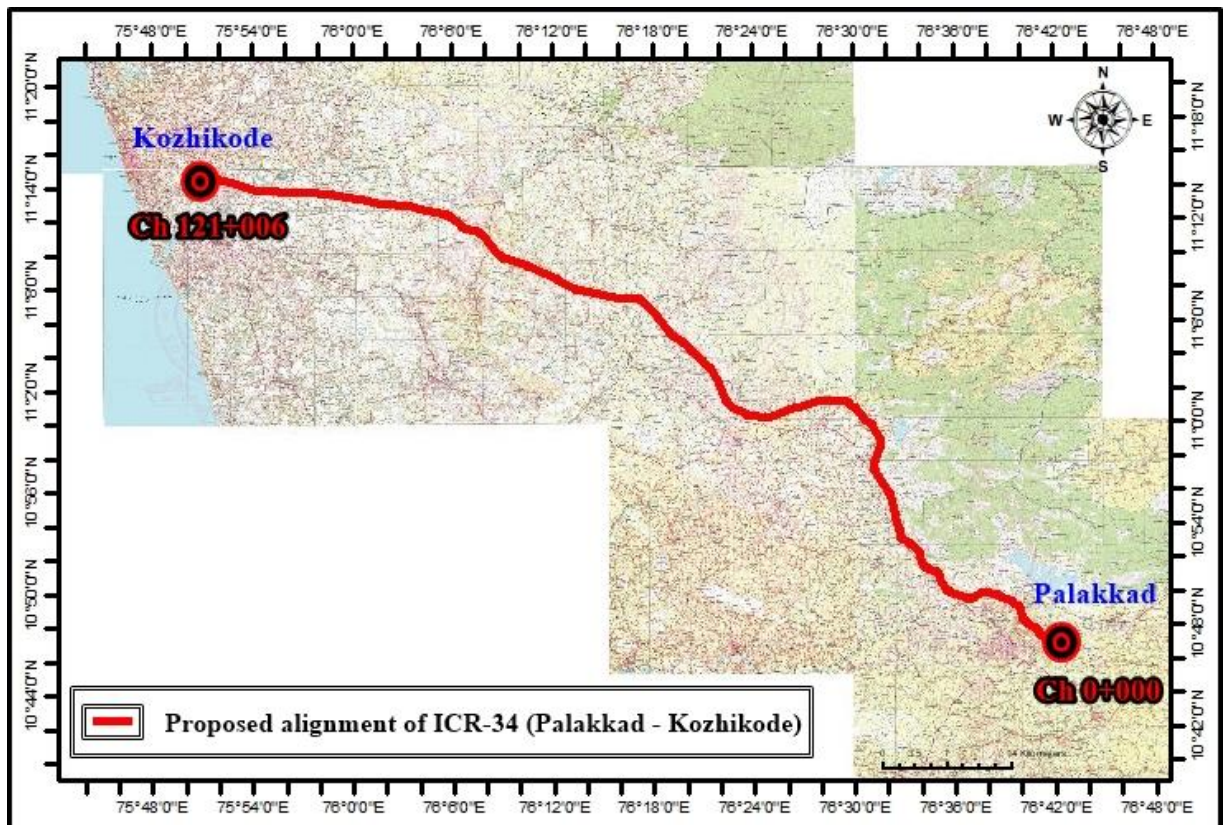
**i. Type of project including interlinked and interdependent projects, if any.**

Type of project: Construction of four/six lane Greenfield highway from Palakkad to Kozhikode for a length of 121.006 km in the State of Kerala.

Interlinked and interdependent projects: No

**ii. Location (map showing general location, specific location, and project boundary & project site layout) with coordinates.**

The toposheet showing the final alignment option is given in Figure 3.1.



*Figure 3.1: Toposheet showing the final alignment*

**iii. Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.**

Three Greenfield options, based on crow-flight arrangement were studied by TPFEPL, based on engineering, social, environmental and indicative cost aspects. Sensitivity analysis of these three options were done considering engineering, environmental & social and cost aspects.



The above-mentioned comparisons and alignments were discussed with NHA and State Government. After various rounds of discussion, final alignment (Option 1) was approved by LAC of NHA and State Government, as it is found to be the most feasible alignment due to (1) Straight alignment (Crow- flight alignment), (2) Built-up portion mostly avoided, (3) no forest length (4) minimum utility shifting, (5) no tunnel and (6) less project cost.

**iv. Size or magnitude of operation**

The proposed partially access controlled Greenfield highway will have four/six lane carriageways with flexible/rigid pavement which will have necessary structures along the alignment. The length of proposed stretch is 121.006 km and estimated total cost of the project is INR 7937.96 Cr i.e. INR 65.60 Cr / km. The total land area required for the project is 547.407 ha. The land use pattern along the proposed alignment is mostly agriculture (83.29%), built up area (16.71%), barren land(0%), forest(0%).

**v. Project description with process details (a schematic diagram/ flowchart showing the project layout, components of the project etc. should be given)**

The cross-section of the project is given in Figure 3.2.



Pre-feasibility report for conducting the Environmental Impact Assessment of construction of four/six lane Greenfield highway from Palakkad to Kozhikode (121.006 km) in the State of Kerala

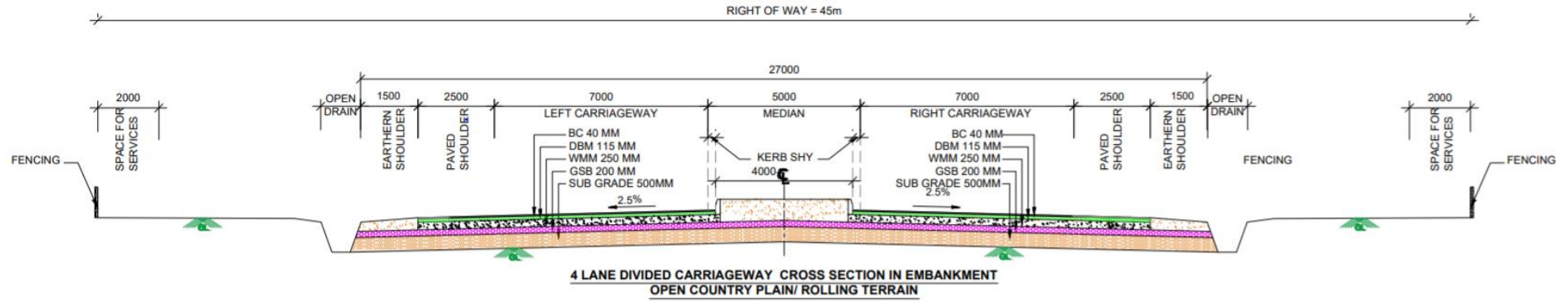


Figure 3.2: Cross section of the project (4 lane divided carriageway in embankment)



**vi. Raw material required along with estimated quantity, likely source, marketing area of final product/s, Mode of transport of raw Material and Finished Product.**

The raw material requirement for the construction of the proposed Greenfield highway, along with the sources is detailed in Table 3.1.

**Table 3.1 : Quantities of raw material for the proposed ICR 34**

Item	Quantity** #	Source
Earth	58,400 MT	From operational licensed borrow areas and quarry sites
Fine Aggregates	750 MT	
Coarse Aggregate	2,130MT	
Water	5,300 kLD	Nearby areas after permission
Bitumen	21,500 MT	Authorized local vendors
Cement	1,400 MT##	
Sand	10,60,610 MT	
Structural Steel	37,130 MT	
Emulsion	1,600 MT	

\*\* - These are approximate quantities

# Details of the source of the material will be given in the EIA report

## 1 bag cement = 43 kg

**vii. Resource optimization/ recycling and reuse envisaged in the project, if any, should be briefly outlined.**

The optimization of the natural resources will be practiced during the construction of the highway. As per the NHA guidelines resource optimization will be carried out, the details of which will be given in the EIA report.

**viii. Availability of water its source, Energy/ power requirement and source should be given.**

Water will be required during construction phase at about 5300 kLD approximately, for site activities and labour camps. The water shall be obtained from nearby surface/ ground water with consent. The details will be quantified in the EIA report.

Electric connections from Kerala State Electricity Board and DG sets (back-up) will be used to meet the power requirement of construction activities. Power requirement at labour camps will be arranged by prospective contractor/concessionaire. Fuels (Diesel) for vehicles will be obtained from local fuel Depots.

**ix. Quantity of wastes to be generated (liquid and solid) and scheme for their Management/disposal.**



## 1) Solid Wastes

Construction wastes will be managed as per Construction and Demolition Wastes Management Rules, 2016 and other solid wastes will be managed as per the Solid Waste Management Rules, 2016 by Concessionaire/Contractor.

## 2) Liquid wastes (effluents)

Labor camp & day workers sewage to septic tank/ soak pit. Any wastage will be controlled and details will be incorporated in the EIA study report.

### x. Schematic representations of the feasibility drawing which give information of EIA purpose.

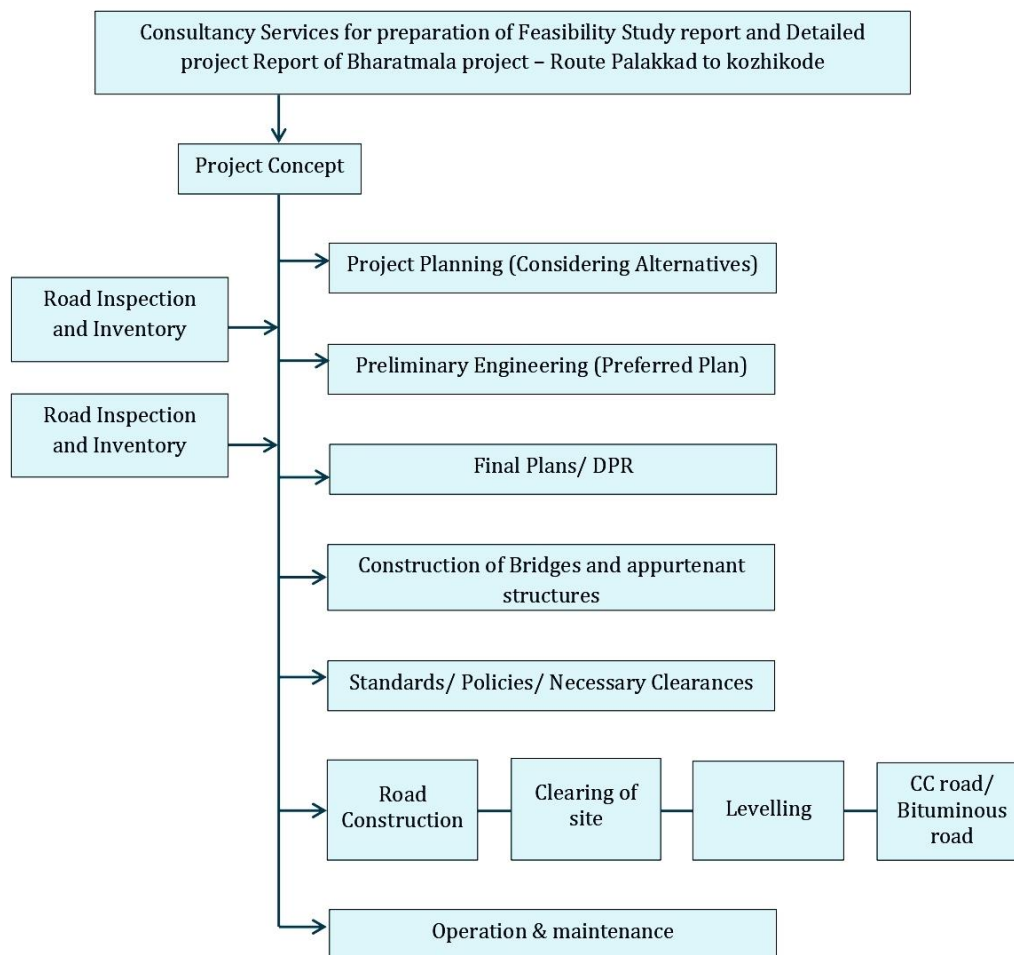


Figure 3.3: Illustration of the EIA purpose



## 4. Site Analysis

### i Connectivity

The proposed alignment starts from Ch 0+000 at NH -544 in Palakkad District and ends at Ch 121+006 on NH- 66 in Kozhikode District. The list of roads which are being crossed by the proposed alignment and the respective chainages are given in Table 4.1.

**Table 4.1: Connectivity of the proposed alignment**

S No.	Item	Details
1	National Highways	1. NH 544 (Salem-Kochi Highway)- (Ch 0+000) 2. NH 66 - (Ch 121+006)
2	State Highways	1. SH 70- Karuvarakund- Perinthalmanna Road (Ch 65+100) 2. SH 73- Valanchery- Nilambur Road (Ch 74+750) 3. SH 28- Nilambur- Malappuram Road (Ch 87+500) 4. SH 65- Areacode-Parappanangadi Road (Ch 98+630) 5. SH 39- Perumbilavu-Nilambur Road-4.7km NE of the proposed alignment, from Ch 64+210 6. SH 60- Angadippuram-Cherukara Road- 17.6 km NE of the proposed alignment, from Ch 63+760 7. SH 71- Tirur-Manjeri Road – 5.9 km NE of the proposed alignment, from Ch 84+880 8. SH 72- Malappuram-Thirurangadi Road- 15.2 km NE of the proposed alignment, from Ch 84+940
3	Major roads	1. Perumanna Road (Ch 116+780) 2. Puthormadam-Mundupalam Road (Ch 117+670) 3. Akkode Road (Ch 113+450) 4. Areacode- Manjeri Road (Ch 96+870) 5. Manjeri- Wandoor Road (Ch 83+260)
4	Bus Stands	1. Perumanna Bus Stand : 0.1km from Ch 116+690 2. Areacode Bus Terminal: 1.98 km from Ch 97+580 3. Edavanna Bus Stand : 3.21 km from Ch 88+730 4. Vaniyambalam Bus Stand: 7.1 km from Ch 74+660 5. Melattur Bus Stand : 5.74 km from Ch 64+140 6. Alanallur Bus Stand : 2.8 km from Ch 54+060 7. Mannarkkad Bus Stand : 2.92 km from Ch 45+320 8. Kongad Bus Stand : 4.51km from Ch 23+170 9. Malampuzha Bus Stand: 2.18 km from Ch 6+520 10. Kanjikode Bus Stand: 6.19 km from Ch 0+280 11. Palakkad Town Bus Stand: 4.11 km from Ch 4+490



5	Railway Lines	<ol style="list-style-type: none"><li>1. Shoranur- Palakkad- Coimbatore Rail Line at (Ch 6+110)</li><li>2. Palakkad- Pollachi- Coimbatore Rail Line 3.8 km W of the proposed alignment, from Ch 2+600</li><li>3. Shoranur- Nilambur Rail Line at (Ch 69+490)</li><li>4. Shoranur- Kasaragod Rail Line – 30.7 km W of the proposed alignment, from Ch 51+360</li></ol>
6	Railway Stations	<ol style="list-style-type: none"><li>1. Kozhikode Railway Station : 6.6km, WNW from Ch 121+006</li><li>2. Tuvvur Railway Station : 0.34 km S, from Ch 69+490</li><li>3. Palakkad Junction Railway Station : 2.9km SW from Ch 5+320</li></ol>
7	Nearest Airport	Calicut International Airport : 9.8km, South from Ch 109+170

## ii Land Form, Land use and Land ownership

The general land use pattern is agriculture (83.29%), built-up (16.71%), forest (0%), barren land (0%). Some of the habitant villages are developed along the project route. There is residential, commercial & institutional development of major villages like Malampuzha, Mundur, Tuvvur, Areacode, Perumanna, etc. along the road. The area falling under the proposed Right of Way (ROW) majorly passes through agricultural land, hence there will be permanent change in the landuse from agricultural to non-agricultural land. For the built-up areas, the landuse will change from private to Government land. Details of Land use breakup will be described in EIA.

## iii Topography (along with map)

The project road passes through plain and rolling terrains. The details are given in Figure 4.1

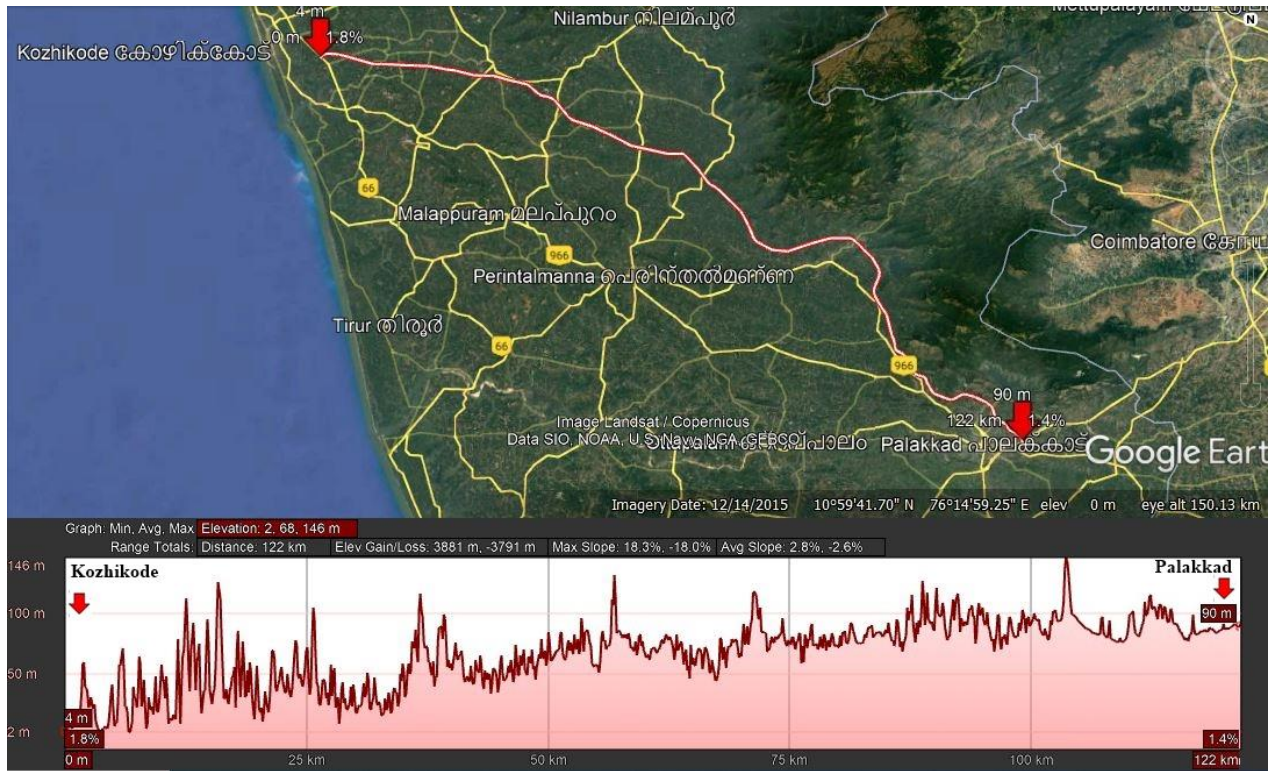


Figure 4.1: Topography along the proposed alignment of ICR-34

- iv Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ)), shortest distances from the periphery of the project to periphery of the forests, national park, wildlife sanctuary, eco-sensitive areas, water bodies (distance from the HFL of the river), CRZ. In case of notified industrial area, a copy of the Gazette notification should be given.

The existing land use pattern along the proposed alignment is given in Table 4.2.

Table 4.2: Existing land use pattern along the proposed alignment

Land use pattern	% of land use
Agriculture	83.29
Built up	16.71
Barren	0.00
Forest	0.00
<b>Total</b>	<b>100</b>

The environmental setting of the proposed alignment is given in Table 4.3.



**Table 4.3: Distances of the proposed alignment from ecologically sensitive areas**

S No	Item	Details
1	Water bodies	Crossing alignment 1. Malampuzha Canal at (Ch 1+820) 2. Bharathapuzha 5.8 km SW at (Ch 15+290) 3. Kanjirappuzha Canal at (Ch 34+860) 4. Thenkara canal at (Ch 37+870) 5. Nellippuzha at (Ch 38+740) 6. Kunthippuzha at (Ch 45+280) 7. Poonkudi puzha at (Ch 100+630) 8. Mampuzha at (Ch 120+530) 9. Chaliyar River (Ch 114+410) Proposed alignment will be crossing the Chaliyar River between Vazhayur and Perumanna Villages (CRZ applicable).
2	Areas under CRZ	<ul style="list-style-type: none"> <li>Chaliyar River (Ch 114+410) Proposed alignment will be crossing the Chaliyar River between Vazhayur and Perumanna Villages (CRZ applicable).</li> <li>Arabian Sea at 6.9 km West</li> </ul>
3	Eco-sensitive areas	The nearest Eco-Sensitive Area (ESA) of Western Ghats is at 1.0 km Northeast of the proposed alignment, from Ch 8+630, in Palakkad District (Kerala State Biodiversity Board)
4	Wildlife Sanctuary, National Park	The boundary of Silent Valley National Park is at distance of 5.5 km North of the proposed alignment (No.5462/FSA.3/82/AD dated 15 <sup>th</sup> November, 1984).
5	Reserved / Protected areas / Other Forests	1. Forest area near Malampuzha: 0.52km, East 2. Forest area near Alanallur-III: 0.42 km, East 3. Attappadi Reserve Forest: 1.3km, NorthEast 4. Vellarimala Forest near Urangattiri: 3.8 km, North

#### v Existing Infrastructure

The existing route starts at Chandaranagar junction Palakkad and ends at Junction of NH- 966 and NH-66 near Ramanattukara bypass junction Kozhikode (alignment passes through existing road – NH-966, SH-53). The total length of the existing stretch is 113 km. Average RoW is 10m to 13m along the existing alignment. The time taken for travel in the existing road is 4.0 hours during peak traffic. The traffic studies and diversion analysis of the existing stretch reiterated the necessity of a four lane carriageway. However, widening of existing road stretch is not feasible in accordance with the technical specifications such as horizontal and vertical geometry.



In addition, all along the route there are residential/ commercial settlements, religious places and plantations, which will have huge financial and socio-economic impacts. Hence, the development of a Greenfield alignment based on crow-flight alignment is essential.

#### vi Soil Classification

The District Survey Report (DSR 2016) for Minor Minerals prepared, as per EIA notification 2006 for Palakkad District, by the Department of Mining and Geology, Government of Kerala, has identified four types of soil in Palakkad District viz, laterite soil, virgin forest soil, black cotton soil & alluvial soil. The regions of Palakkad District through which the proposed alignment passes are covered with mostly black cotton soil and virgin forest soil. Virgin forest soil is found in certain parts of Mannarkad taluk, in & near the forest areas and is rich in humus and organic matter. The black cotton soil is found in Chittoor and Attapady valley of the Mannarkad Taluk, and is characterized by mud cracks with a high water retaining power.

As per DSR 2016 for Kozhikode District, three types of soil are observed in Kozhikode District viz alluvial soil, lateritic soil and forest loam. The regions of Kozhikode District through which the proposed alignment passes consist of alluvial soil, lateritic soil and forest loam soil.

#### vii Climatic data from secondary sources

The climatological data of the Palakkad and Kozhikode districts is given in Table 4.4.

**Table 4.4: Climatological data of Palakkad and Kozhikode Districts**

Climatological data of IMD Kozhikode and IMD Palakkad (Annual Mean- 1981-2010)							
District	Temperature (°C)		Relative Humidity (%)		Rainfall (mm)	Wind Speed (kmph)	Wind Direction
	Maximum	Minimum	Maximum	Minimum	Annual average	Monthly Mean	Monthly Mean
Kozhikode	34.8	20.0	83.0	75.0	3053.9	8.7	NW, W & E
Palakkad	39.8	18.3	81.0	61.0	1838	--	W & E

#### viii Social Infrastructure available

Various social infrastructure facilities along the alignment include health care centres, schools, colleges, universities, market places, police stations, industries, roads, railway networks etc. The approximate number of these facilities along the alignment, within its 15 km radius is as follows:

- Hospitals: 195 Nos.



- Schools/ Colleges: 470 Nos.
- Temples: 210 Nos.
- Churches: 180 Nos.
- Mosques: 260 Nos

The industrial estate of the Government of Kerala is at a distance of 3.8 km towards South-West from the end point (Ch: 121+006) of the proposed alignment. The mini-Industrial Estate at Kanjikode, Palakkad is 4.5 km, NE from the starting point (Ch: 0+000) of the proposed alignment. In addition, the proposed road will cater to the proposed industrial parks of KINFRA at Kanjikode and Kannambra in Palakkad District. Details will be furnished in the EIA report.



## 5. Planning Brief

### i Planning Concept (type of industries, facilities transportation etc) Town and Country Planning/Development authority Classification

Not applicable.

### ii Population Projection

Not applicable.

### iii Land use planning (breakup along with green belt etc).

The proposal is for the development of four/six lane Greenfield highway with 45.0 m RoW. Agro-climatically suitable species will be recommended for plantations along the highway alignment, including the medians, as per the IRC: SP: 21-2009 (Guidelines on Landscaping and Tree Plantation) during the construction and operation phase. Details will be provided in the EIA report.

### iv. Assessment of Infrastructure Demand (Physical & Social)

Only basic infrastructure facilities are available in the vicinity of in the study area. The proposed road is essential for improving faster and economical transportation facilities in the State of Kerala.

### v. Amenities/Facilities.

The following amenities/facilities are proposed along the alignment.

- Proper site services such as First Aid, Rest Shelter, toilet with soak pits & drinking water will be provided to the workers in the construction stage.
- Necessary numbers of wayside amenities with facilities like First Aid, Rest Shelter, toilet with soak pits & drinking water etc will be provided to the road users during the operation phase.
- Other project facilities like bus bays/bus shelters, truck lay-by-bays etc will be constructed on the proposed highway.
- There will be 24x7 services like ambulance, cranes, highway patrolling vehicles etc on the proposed highway
- Construction of Helipad is proposed along the proposed highway for emergency services.
- Toll Plaza will be provided with facilities like First Aid, Rest Shelter, drinking water & toilet with soak pits etc.



## 6. Proposed Infrastructure

### i Industrial Area (Processing Area)

There are no industries located along the proposed Greenfield Highway project. The proposed road will cater to the proposed industrial parks of KINFRA at Kanjikode and Kannambra in Palakkad District. The proposed alignment will improve the connectivity between Kozhikode Port and Coimbatore.

### ii Residential Area (Non-Processing Area)

The project alignment will be crossing agricultural lands and built-up areas with some residential areas. The residential areas are expected to have better economic growth due to improved infrastructure.

### iii Green Belt

Agro-climatically suitable species will be recommended for plantations along the highway alignments, including medians, as per the IRC: SP: 21-2009 (Guidelines on Landscaping and Tree Plantation). Detailed plantation scheme will be provided in the EIA report.

### iv Social Infrastructure

The project envisages development of better road connectivity.

### v Connectivity (Traffic and Transportation Road/ Rail/ Metro/ Waterways etc)

The project road connects Palakkad and Kozhikode and is expected to improve the connectivity between Kozhikode Port and Coimbatore and connects the 2 NHs in Kerala (NH-544 and NH-66). It will also cater to the traffic from the proposed industrial parks of KINFRA at Kanjikode and Kannambra. It will provide connectivity to the tourist places such as Silent Valley, Mysore and Ooty. It will improve the connectivity of the 39 villages alongside.

### vi Drinking Water Management (Source & Supply of water)

Water requirement for construction activities (5300 kLD) will be sourced from surface water bodies through water tankers after obtaining necessary approvals. The drinking water required for the construction workers will be sourced from nearby drinking water suppliers. Ground water will not be extracted. Drinking water facilities will be provided at Toll Plaza and way side amenities during the operation phase.

### vii Sewerage System

During construction phase sewage will be generated from labor camps. However, these will be provided with septic tank and soak pit.



Other effluents from site will be collected in sedimentation tank and proposed to be reused after checking parameters.

In the operation phase, soak pits shall be provided at project facilities such as wayside amenities, Toll Plaza etc where toilet and washrooms facilities are proposed.

#### **viii Industrial Waste Management**

Not applicable.

#### **ix Solid Waste Management**

Construction and Demolition wastes will be managed as per Construction and Demolition Wastes Management Rules, 2016 and other Solid Wastes will be managed as per the Solid Waste Management Rules, 2016 by Concessionaire/Contractor.

#### **x Power Requirement & Supply / source**

D.G. sets and temporary electric connections from Kerala State Electricity Board will be used to meet the power requirement of construction activities. Power requirement at labour camps will be arranged by prospective contractor. Fuels (Diesel) for vehicles will be obtained from local fuel Depots.



## 7. Rehabilitation and resettlement (R&R) plan

- i. **Policy to be adopted (Central/State) in respect of the project affected persons including home oustees, land oustees and landless labourers (a brief outline to be given).**

Most of the land falling in the alignment of the proposed highway is agricultural land followed by builtup land. No forest and barren land are involved. The land required for the construction of highway will be acquired by NHA before the commencement of construction work as per the provision of the LARR, 2013 and NH Act, 1956 (with its amendments).



## 8. Project Schedule and Cost Estimates

### i. Likely date of start of construction and likely date of completion

The construction work will start after approval of DPR and Environmental Clearance from MoEF&CC which is likely to start by December 2022. The completion period is estimated of about 30 months from the start of construction.

### ii. Estimated project cost along with analysis in terms of economic viability of the project.

- The Estimated Civil Cost Including Centages: Rs 3908.52 Cr
- Land Acquisition Cost: Rs.4013.81Cr
- Other Pre-Construction Cost: Rs. 15.63 Cr
- Total Estimated Capital Cost: Rs 7937.96 Cr
- Civil Construction Cost (in Rs. Crores/km): Rs 32.43 Cr / km
- Land Acquisition Cost (Rs. Crores/km): Rs 33.17 Cr / km
- Total capital cost, including the pre-construction cost (Rs. Crores/km): Rs 65.60 Cr / km
- IRR under EPC Mode
  - 12.91 % (without Land Acquisition cost)
  - 6.08% (with Land Acquisition cost)



## 9. Analysis of proposal (Final recommendation)

### i. Financial and social benefits with special emphasis on the benefit to the local people including tribal population, if any, in the area.

The highlight is the reduction in travel time between Palakkad and Kozhikode from 4.0 to 2.0 hours and the interconnection provided between 2 NHs of Kerala NH-544 and NH-66. The proposed alignment will have the following benefits:

- The project will reduce the travel time between Palakkad and Kozhikode from 4.0 hours to 2.0 hours
- It interconnects two important NHs of Kerala (i.e, NH-544 and NH-66).
- Project road will also cater to the to and from traffic between Kozhikode and International airport at Kondotty
- The proposed alignment will provide high speed connectivity to Kozhikode port and Chennai port.
- The proposed project will cater to the traffic from all the existing and proposed industrial establishments such as the Kerala Industrial Infrastructure Development Corporation (KINFRA) at Kanjikode, Kannambra, Kakkanchery etc.
- Improve the connectivity of the 39 villages along the alignment.
- It will improve the connectivity to tourist destinations like Silent Valley, Nilambur, Wayanad, Mysore and Ooty.
- It has no tunnel, no forest along the alignment, minimum built up land and minimum total project cost. It has the most feasible engineering aspects and minimum impact on forest and human settlements.
- Provide alternate routes / options of connectivity.
- Decongestion of the existing routes, thereby reducing possibility of accidents /fatalities.
- Faster movement of freight & passenger vehicles by avoiding busy existing highways resulting in usage shift from existing roads.
- Reduction in the travel time, fuel consumption and pollution being shorter routes
- Helps overall development of the region
- Development / Strengthening of ports and infrastructure / networking of the state will help in increase in the growth of industrial/tourism/health and education sectors of Kerala.
- Direct access to the highway for the people residing in remote / inside area of land thereby boosting the economy of the region, consequently, bringing socio-economic change in the society



*Pre-feasibility report for conducting the Environmental Impact Assessment of construction of four/six lane Greenfield highway from Palakkad to Kozhikode (121.006 km) in the State of Kerala*

Development of a Greenfield highway will have significant positive impact, but they may simultaneously also bring significant negative impacts on nearby communities if proper precaution is not taken during design and implementation stage of the project.



## **Annexure 1: Final approval of the proposed alignment**



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण  
(सड़क परिवहन और राजमार्ग मंत्रालय)  
**National Highways Authority of India**

(Ministry of Road Transport and Highways)  
जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075  
G-5 & 6, Sector-10, Dwarka, New Delhi-110075

दूरभाष / Phone : 91-11-25074100/25074200  
फैक्स / Fax : 91-11-25093507 / 25093514

NHAI/Bharatmala/DPR/LOT-5/Package-4/2017/153164

Date: 08.06.2020

To,

**Regional Officer - Kerala,**  
National Highways Authority of India,  
TC 86/1036-1, Ambly Arcade,  
SNNRA-9, Pettah (PO) Thiruvananthapuram-695 008  
Kerala

**Sub:** Consultancy services for preparation of DPR for development of Economic Corridors, Inter Corridors, Feeder Routes and National Corridors (GQ and NS-EW Corridors) to improve the efficiency of freight movement in India under Bharatmala Pariyojana - (Lot-5/Package-4) - **Minutes of Meeting- reg.**

Sir,

In reference to the subject project a presentation was held on 01.05.2020 under chairmanship of Member (P) through video conferencing with the DPR Consultant for the subject stretches i.e. (a) "Palakkad- Kozhikode" route (ICR-34), (b) "Kochi-Munnar-Theni" route (EC-21) & (c) "Hassan - Hiriyyur" route (EC-20). The copy of approved Minutes is attached herewith for further necessary action in the matter.

Yours faithfully,

**(Rajneesh Kapoor)**

General Manager (T) Kerala

Encl. As Above

Copy to:

- (i) General Manager (T)-Karnataka - for information and necessary action
- (ii) Project Director, PIU Palakkad
- (iii) M/s TPF Getinsa Euroestudios SL in J V with TPF Engineering Pvt. Ltd

Sub: Consultancy Services for preparation DPR work of Development of Economic Corridors, Inter Corridors, Feeder Routes, to Improve the efficiency of freight movement in India under Bharatmala Pariyojana (Lot -5/ Package -4) –Minutes of Meeting held on 01/05/20 at NHAI HQ through video conferencing

List of participants is attached at Annexure-1

A meeting was held at NHAI, HQ on 01.05.2020 through video conferencing wherein the consultant submitted the details and progress of the DPR of three routes viz. Hassan - Hiriya (EC-20) in Karnataka, Palakkad Kozikode (ICR-34) & Theni– Kochi (EC-21) in Kerala. The Team Leader (TL) gave a brief of the routes and details of the individual routes were discussed and are brought out in following paragraphs:-

(A) Hassan - Hiriya (EC-20) in Karnataka:

(i) The Consultant submitted that they have carried out all ground surveys and investigations for green field alignment which was in-principally approved during the meeting held on 07.08.2018 in NHAI HQ. The final feasibility study is also submitted in the month of December, 2019. It was stated that the proposed greenfield alignment is 114.239 Kms long and passes through Hassan, Tumkur & Chitradurg districts. The civil cost assessed by Consultant is Rs. 1770.86 cr and LA & Pre construction cost is 342.660 cr for 633.65 Ha of land. It was submitted that the project IRR for EPC mode is 0.54% (1.69% without Land cost). Even though the project is not economically viable as per the criteria, the consultant submitted that the project is technically sound, socially feasible and necessary. Consultant requested for approval of alignment and feasibility reports and associated payments.

(ii) Member (P) directed to place the project in the LA Committee for approval of alignment.

(Action: To be taken by Karnataka Division)

(B) Palakkad Kozikode (ICR-34) in Kerala:

(i) At the outset the consultant presented the proposed green field alignment along with compliance of minutes of meeting dated 01.06.2019. It was intimated that OD, CVC and TMC traffic surveys have been carried out on the stretch. The Expected diverted traffic on proposed corridor from Pantheeramkavu to Kandalapatta (34.046 km) is 21214 PCUs in year 2019 and for section Kandalapatta to Pallakkad (89.200 km) is 10015 PCUs in 2019. The approximate total project cost including centages for Greenfield Highway is 2230.24 cr (Rs. 18.08 Cr/Km).

(ii) In the last meeting held on 01.06.2019, the green-field alignment option was in principally agreed since the existing alignment's geometry is poor and suffer from lack of ROW having habitations all along. The consultant was directed to modify the proposal for 45 m ROW instead of 70m ROW and review the high number of LVUPs.

(iii) The consultant submitted that for 45m ROW the total land area required is 554.61 Ha which as per Kerala Govt. website for calculating fair value will cost tentatively Rs. 973.216 cr (7.89 cr/km). The Green Field Alignment option-I is having 24.44% built-up land, 74.96% agricultural land and 0.6% barren land. The locations of LVUPs provided by the consultant were also perused.



(iv) Since, the traffic from Pantheeramkavu to Kandalapatta (34.046 km) is considerably more than the traffic from Kandalapatta to Pallakad (89.200 km), the consultant has recommended for 6 lane divided carriageway for Pantheeramkavu to Kandalapatta and 4 lane divided carriageway for Kandalapatta to Pallakad stretch. The details of stretches are illustrated below:

S.No	Location	Chainage	Proposed Carriageway Configuration	IRR for 60m ROW/ without LA cost		IRR for 45m ROW/ without LA cost	
				HAM	EPC	HAM	EPC
HS 1	Pantheeramkavu to Kandalappatta	89+200 to 123+246 (34.046 km)	6 lane divided carriageway (Warrants Eight Lane configuration in 2025)	4.62% / 9.43%	6.95% / 11.44%	5.45% / 9.48%	7.77% / 11.47%
HS 2	Kandalapatta to Palakkad	0+000 89+200 (89.200 km)	4 lane divided carriageway (Warrants Six Lane configuration in 2030)	-4.21% / -1.87%	0.72% / 4.03%	-3.72% / -1.82%	1.36% / 4.07%

(v) In-principally the alignments submitted by the consultant were agreed. It was directed that the consultant shall proceed with the Feasibility Study of the alternate alignments thus explored. Also, RO- Thiruvananthapuram was directed to examine the "Alignment Options Report" and recommend most suitable option to NHAI, HQ based on feasibility report of consultant. Further, RO may also examine the release of due payment to consultant and release the payment after verifying the deliverables as per Contract Agreement, if due.

**(Action: To be taken by Consultant and RO-Thiruvananthapuram)**

**(B) Kochi-Munnar-Theni route (EC-21):**

(i) In the last meeting held on 01.06.2019 the consultant was directed to examine the alignment's start point near Theni so that the route takes off from where the bypass ends avoiding habitations. It was also directed that the cost of the proposal shall be optimized as far as possible so as to make it viable.

(ii) Consultant submitted that the existing road alignment starts at Ch 0+000 Bodimat (KL/ TN Border) & ends at Ch 160+000 at Kundanoor Junction, Kochi. Existing project corridor passes through different Land use like residential, commercial, Tea, Coffee Cardamom plantation, religious structures, etc. Since the existing alignment has dense land use land acquisition along the existing route is not economically, financially & socially feasible. Consultant therefore proposed a greenfield alignment which is having least disturbance to habitations, ecology and forest. The consultant submitted that they have complied with the suggestions of Member (P) and now the proposed alignment starts at Ch. 0+000 of NH 183

*Reginald K. K. K.*

(Kollam - Theni Highway) near Muthuthevanpatty village near Theni district & ends at Ch. 143+251, on NH 85 (old NH 49) near Kolenchery village.

(iii) The ROW proposed is 45m in non-forest portion & 30m in forest portion. The lane configurations for the proposed alignment is 4 lane divided carriageway & pavement proposed is flexible. The design speed is kept 100 km/h in plain terrain & 65 km/h for approximate 500m length, 80 km/hr in hilly/ ghat portion, except for approximate 5km length where the design speed is reduced to 40 km/hr to optimize the cost.

(iv) Around 44% length of the alignment passes through plain terrain & 55 % passes through hilly/mountainous terrain. The alignment also passes through 22.2 km Reserve Forest and has 3 tunnels of total length 8.83 km.

(v) Consultant also intimated that they have worked out tentative cost of the project based on normative cost circular of MoRTH. For cost optimization the consultant presented two options. In option I, four lane divided highway in plain terrain, two lane single tube tunnel for both direction traffic in ghat portion & Two lane road with two lane viaduct width in ghat portion/ hilly terrain is proposed having estimated civil cost of Rs. 3884.84 Crores i.e 27.12 crores/km. In option II, structures & road are proposed four lane in plain as well as hilly terrain having estimated civil cost as Rs. 7588.84 cr, i.e. 52.98 cr/km. The preliminary IRR calculation for EPC mode are as below:

a. For Option I (45m ROW)

i) IRR = 4.22%

ii) IRR (without land acquisition cost) = 6.56%

b. For Option II (60m ROW)

i) IRR = 0.89%

ii) IRR (without land acquisition cost) = 2.6%

(vi) The alignment submitted by the consultant were perused. It was directed to the consultant to carryout detailed traffic study and proceed with the Feasibility Study of the alignments. Also, RO- Thiruvananthapuram was directed to examine the "Alignment Options Report" and recommend most suitable option to NHAI, HQ based on feasibility report of consultant. Further, RO may also examine the release of due payment to consultant and release the payment after verifying the deliverables as per Contract Agreement, if due. Further, RO- Thiruvananthapuram was directed to expedite the preparation of DPR and submit the same latest by Sept 2020 since project stretch is already entrusted to NHAI and included in BharatMala Pariyojana.

**(Action: To be taken by Consultant and RO-Thiruvananthapuram)**

\*\*\*\*\*

*Raymond K. Sabar*

List of Participants

NHAI

1. Shri R.K Pandey, Member (Projects),
2. Shri Alok Deepankar, CGM (Tech)
3. Shri Rajneesh Kapoor, GM (Tech)-Kerala
4. Shri Akil Ahmad, GM (Tech)-Karnataka
5. Shri R.K Suryavanshi, RO- Bangalore & Thiruvananthapuram (through VC)
6. Shri Prakhar Srivastava, Dy. Manager (T)-Kerala (through VC)

Consultant M/S TPF Getinsa – Eurostudios. SL in (JV) with M/S TPF Engineering Pvt. Ltd.

1. Shri B N Ohol, Team Leader (through VC)
2. Shri Pradip Shinkar, Project Coordinator (through VC)
3. Shri Omkar Deshpande, Assistant Highway Engineer (through VC)
4. Shri Ranjan Behera, Assistant Bridge Engineer (through VC)



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

## National Highways Authority of India

(Ministry of Road Transport & Highways)

परियोजना कार्यान्वयन इकाई - कोचीन

Project Implementation Unit Cochin

VII/511- बी, नेयतेली - मावेलीपुरम सड़क,

VII/511-B, Neytheli- Mavelipuram Road

मावेलीपुरम, काक्कनाड -682030, एरणाकुलम जिल्ला (केरल)

Mavelipuram, Kakkanad - 682030, Ernakulam District (Kerala)

टेलिफोन / फैक्स : 0484 - 4864616

Telephone / Fax: 0484 - 2989417

ई - मेल : cochinnhai@gmail.com

E-mail : cochinnhai@gmail.com



**BHARATMALA**  
ROAD TO PROSPERITY

NHAI/PIU-Cochin/11154/Bharatmala/TPF/2020/916

20<sup>th</sup> November, 2020

To

M/s.TPF Getinsa Euroestudios S.L.  
in JV with TPF Engineering Pvt. Ltd.,  
4<sup>th</sup> floor, Pudhari Bhavan, Sector-30A,  
Near Sanpada Railway Station, Vashi, Navi Mumbai - 400705  
e-mail - [pune@tpfepl.com](mailto:pune@tpfepl.com)

Kind Attn: Sri.B.N.Ohol -Team Leader (Mob: 8605981565)

**Sub:** Consultancy services for preparation of DPR for development of economic corridors, inter corridors and feeder routes to improve the efficiency of freight movement in India under Bharatmala Pariyojana (Lot-5/Package-4)- **-Approval of alignment and LA cost by LA Committee for Stage - 1- Intimation - Reg**

**Ref:** MOM No. LA/11013/LACMinutes/2020 (Computer No.5369) dt. 02.11.2020

Gentleman,

Please find enclosed herewith the approval for the proposed Greenfield alignment at Option -3 (Option 4 of Consultant) with 45m ROW at an estimated LA Cost f Rs.1489.65 Crores as per reference (1). In view of the above it is requested you to kindly expedite the LA activities like 3(a) & 3A and forest clearance proposal at the earliest please.

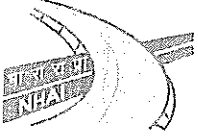
Yours sincerely,

Encl: As above

(J. Balachander)

GM (T) & Project Director

Copy : RO-Kerala - for kind information



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण  
(राडक परिवहन और राजमार्ग मंत्रालय)  
**National Highways Authority of India**  
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जी-5 एव 6, सेक्टर-10, द्वारका, नई दिल्ली-110075  
G-5 & 6, Sector-10, Dwarka, New Delhi-110075

दूरभाष / Phone 91-11-25074100/25074200  
फैक्स / Fax 91-11-25093507 / 25093514

अति तत्काल  
दस्ती

No. LA/11013/LACMinutes/2020(computer no. 5369)

02.11.2020

विषय: भू अर्जन समिति की अठारहवीं बैठक दिनांक 23.10.2020 बाबत।

भू अर्जन समिति की अठारहवीं बैठक दिनांक 23.10.2020 को भाराराप्रा मुख्यालय में आयोजित की गई थी।

2. बैठक के कार्यवृत्त इस परिपत्र के साथ परिचालित किए जाते हैं।
3. यह कार्यवृत्त सक्षम अधिकारी के अनुमोदन से जारी किए गए हैं।

(विजय श्रीवास्तव)  
महाप्रबंधक (भू-अर्जन)

सेवा में,

सभी संबन्धित अधिकारी

प्रतिलिपि:-

1. अध्यक्ष महोदय के निजी सचिव
2. सदस्य (प्रशासन) के निजी सचिव
3. सदस्य (परियोजना) के निजी सचिव

Minutes of meeting of LA committee held on 23.10.2020

Following were present:

- i. Shri S.S. Sandhu, Chairman
- ii. Shri Alok, Member (Admin)
- iii. Shri R.K. Pandey, Member (Project)
- iv. Shri Mahabir Singh, Member (Tech)
- v. Shri Manoj Kumar, Member (Project)

2. The Committee considered the proposals submitted by technical divisions and following decisions were taken:

Sr. No.	Project Name / Decision
18.01	MYSORE-Kushalanagara to near Paschima Vahini in the state of Karnataka. (Pkg-I) Unique Project Code: N/08029/01001/KA
Decision	Since 3D notification is already done, the LAC noted and approved the proposal with 45m ROW for Highway and 60m at structures location at an approximate LA cost of Rs. 1113 Crs.
18.02	MYSORE-Kushalanagara to near Paschima Vahini in the state of Karnataka. (Pkg-II) Unique Project Code: N/08029/01001/KA
Decision	LA Committee approved the proposal alignment option 1 as 3D has already been done.
18.03	4-Laning of Greenfield alignment of Malout Bypass and Mandi Dabwali Bypass in the state of Punjab. Unique Project Code: N/05025/02001/PB
Decision	The proposal alignment at Option 1 is approved with 45m ROW and approximately LA cost of Rs. 203 Crs.
18.04	4 laning of Ujjain to Badnawar in the state of Madhya Pradesh. Unique Project Code: N/05042/02001/MP
Decision	The proposed LA plan has been approved with 60m ROW at an estimated LA cost of Rs. 340 Crs.
18.05	<u>4/6-laning of Theni – Munnar – Kochi stretch of NH-85 in the state of Kerala.</u> Unique Project Code: N/14001/03002/KL
Decision	The proposed greenfield alignment at Option –3 (Option 4 of consultant) is approved with 45m ROW at an estimated LA Cost of Rs. 1489.65 Crs.

*TSM*

18.06	6-laning of Walayar – Vadakkanchery section of NH-544 in the state of Kerala. Unique Project Code: N/02013/09001/KL
Decision	The proposed brownfield alignment is approved with 45m ROW at an estimated LA cost of Rs. 159 Crs.
18.07	6-laning of Thrissur – Edapally section of NH-544 in the state of Kerala. Unique Project Code: N/02013/12001/KL
Decision	The proposed brownfield alignment from Thrissur to Angamaly with proposed greenfield alignment of Ernakulam Eastern Bypass is approved with 45m ROW at an estimated LA cost of 2899 Crs.
18.08	4-laning of Kozhikode – Mallapuram – Palakkad stretch in the state of Kerala. Unique Project Code: BP/01401/03/02/D/U
Decision	The proposed greenfield alignment at option 01 is approved with 45m ROW at an estimated LA cost of Rs. 762.37 Crs.

3. The Meeting ended with a vote of thanks to the Chair.

*f/h*

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# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

## National Highways Authority of India

(Ministry of Road Transport and Highways)

जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075

G-5 & 6, Sector-10, Dwarka, New Delhi-110075

दूरभाष / Phone : 91-11-25074100/25074200

फैक्स / Fax : 91-11-25093507 / 25093514

अति तत्काल  
दस्ती

No. LA/11013/LAC Minutes/2020(computer no. 77470)

27.01.2022

विषय: भू अर्जन समिति की चौसठवीं बैठक दिनांक 18.01.2022 बाबत।

भू अर्जन समिति की चौसठवीं बैठक दिनांक 18.01.2022 को भाराराप्रा मुख्यालय में आयोजित की गई थी।

2. बैठक के कार्यवृत्त इस परिपत्र के साथ परिचालित किए जाते हैं।
3. यह कार्यवृत्त सक्षम अधिकारी के अनुमोदन से जारी किए गए हैं।

एम एस कुमार

(एम एस कुमार)

उपमहाप्रबंधक (भू-अर्जन)

सेवा में,

सभी संबन्धित अधिकारी

प्रतिलिपि:-

1. अध्यक्ष महोदय के निजी सचिव
2. सभी सदस्य के निजी सचिव

## Minutes of 64<sup>th</sup> Meeting of LA Committee held on 18.01.2022

Following were present:

- i. Ms. Alka Upadhyaya, Chairperson, NHAI
- ii. Shri R.K. Pandey, Member (Project)
- iii. Shri Mahabir Singh, Member (Tech)
- iv. Shri Manoj Kumar, Member (Project)

2. The Committee considered the proposals submitted by Technical Divisions and following decisions were taken:

Sr. No.	Project Name / Decision
64.01	Madanpalle - Kalur (Pkg-1&2) (On HAM Mode) in the State of Andhra Pradesh. UPC Code - N/12004/01003/AP
Decision	LAC accorded approval for change in alignment with 45m ROW in built up section, 30m ROW in Forest section and 60m ROW in open areas. LAC also accorded 2 <sup>nd</sup> stage approval to proposed LA Plan for acquisition of 396 Ha. at an approximate LA cost of Rs. 352 Cr.
64.02	Hoshiarpur to Una Section in the State of Punjab. UPC Code - N/08059/01004/PB
Decision	LAC accorded 2 <sup>nd</sup> stage approval to the proposed LA Plan for acquisition of 85 Ha. Additional land at an approximate cost of Rs. 139 Cr, with 45m ROW in Greenfield stretch (15.20 Km) and 26.8m ROW in Brownfield stretch.
64.03	6 lane of Sirhind-Sehna, Greenfield (On HAM Mode) in the State of Punjab. UPC Code - N/05058/02001/PB
Decision	LAC accorded 2 <sup>nd</sup> stage approval to proposed LA Plan for acquisition of 712 Ha at an approximate cost of Rs. 756 Cr, with 60m ROW.
64.04	Construction of Varanasi - Ranchi - Kolkata (with spur to Kharagpur) in the State of Uttar Pradesh, Bihar, Jharkhand and West Bengal. UPC Code - N/14001/01046/UP
Decision	LAC accorded approval to the proposed alignment at Option-01 having a length of 612.05 Km with 90m ROW. LAC directed the Technical Division to ensure the consent of State of West Bengal on alignment before publication of 3A notification for the project stretch falling in the State.



64.05	<p><b>Tabled Item:</b></p> <p><b>Deferred Agenda No. 63.03.</b> 4-laning of Kozhikode-Mallapuram-Palakkad stretch in the State of Kerala.</p> <p><b>UPC Code - BP/01401/03/02/D/U</b></p>
Decision	<p>Discussed in LAC meeting dt 06.01.2022 &amp; LAC directed to defer the Agenda to re-examine proposed deviation -2 (Km 10.8 - Km 15.85). Technical Division submitted that due to existence of canals, the proposed deviation-2 (Km 10.8 to Km 15.85) is justified. Accordingly, LAC accorded 2<sup>nd</sup> stage approval to proposed LA Plan deviation with 45m ROW, for acquisition of 547 Ha. additional land at an approximate cost or Rs. 4014 Cr.</p>

3. The Meeting ended with a vote of thanks to the Chair.



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