



Forest Headquarters,
Vazhuthacaud,
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Date : 24.02.2023

From

The Additional Principal Chief Conservator of Forests,
Nodal Officer, F(C)Act &
Chief Executive Officer, CAMPA,
Forest Headquarters, Vazhuthacaud,
Thiruvananthapuram - 695014.

To

The Assistant Inspector General of Forests (Central),
Government of India,
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office (Southern Zone), Kendriya Sadan,
IVth Floor, E&F Wings, 17th Main Road, IInd Block,
Koramangala, Bangalore - 560034.

Sir,

Sub :- Forest & Wildlife Department - Proposal for diversion of 17.263 Ha of forest land for construction of Twin Tunnel with four lane approaches for providing direct connectivity between Anakkampoyil - Kalladi - Meppady road in Kozhikode and Wayanad Districts of Kerala - regarding.

Ref :- Letter No. 4-KLC 1368/2022-BAN/651 dated 29.08.2022 of Ministry of Environment, Forest & Climate Change, Regional Office, Bangalore.

Attention is invited to the letter under reference and the above mentioned proposal. The information sought from that end vide reference cited, are furnished below for necessary further action.

- i. Areas surrounding the enclosures proposed as CA land are furnished below:

CA area - in four bit

Sl. No.	Location	Area (in Ha)	Bit	Boarders	Status of land
1.	Kollivayal	2.01	1	East	Forest land
				North	Forest land
				West	Forest land
				South	Private land owned by Madhavan

			2	East	Forest land
				North	Private land owned by Madhavan
				West	Forest land
				South	Private land owned by Anil, Madhavan
			3	East	Private land owned by Govindan
				North	Private land owned by Vinod
				West	Forest land
				South	Forest land
2.	Chullikkad	4.8164		North	Forest land
				East	Forest land, Forest Right Assigned land in procession of tribals.
				West	Forest land
				South	Forest land
3.	Madaparambu	10.50	1	East	Private land owned by Balakrishnan
				North	Forest land
				West	Private land owned by Narayanan
				South	Forest land
			2	East	Private land owned by Bhaskaran
				North	Forest land
				West	Private land owned by Balakrishnan
				South	Forest land
4.	Manalvayal	1.42	1	East	Private land owned by Manian, Chikki
				North	Forest land
				West	Forest land

				South	Forest land
			2	East	Private land owned by Lasar
				North	Forest land
				West	Private land owned by Sukumaran
				South	Forest land
			3	East	Private land owned by Mohanan
				North	Forest land, Forest Right Assigned land in Pocession of tribals
				West	Private land owned by Lasar
				South	Forest land
			4	East	Forest land
				North	Forest land
				West	Private land owned by Mohanan
				South	Forest land
	Total	18.7464			

- ii. Out of the 17.53 Ha of land identified for CA, an area of 7.40 Ha land is suitable for planting. A total of 7400 plants are proposed to be planted in this area against a total of 96 trees required to be felled, which would more than compensate for the tree loss due to the project. The remaining area of 10.13 Ha is ecologically sensitive Vayals which play an important role in soil-moisture retention and are preferred habitats of herbivores. Hence these areas are proposed to be conserved as such.

Site suitability certificate is enclosed as Annexure- 1

- iii. The remarks in the compliant, specifically pertaining to forests, raised in the representation by Sri. Dharmaraj C.S., Secretary, 'Our Own Nature' in are as follows.


Sl. No.	Objection	Remarks
X	Period for which the forest land is proposed to be diverted is nil	The forest land is proposed to be diverted initially for a period of 25 years. Thereafter, if need be, the User Agency may seek to renew it according to prevalent laws and rules of the time.
I	Project area is located in Protected Area and ESZ	The proposed project area does not form part of any Protected Area or ESZ. In addition, it is understood that the project is lined up for EIA for which there is a separate application under process in PARIVESH.
J	Project area falls under Elephant corridor	The area proposed for diversion is not cutting across any Elephant Corridor or Tiger Reserve
L	Compensatory afforestation is not included in the proposal	In this case Compensatory Afforestation is applicable and an area of 17.53 Ha is identified for CA.

Remarks on the technical matters connected to the tunnel raised in the complaint, submitted by the User Agency is enclosed as Annexure - 2.

- iv. Remarks and recommendations of Chief Wildlife Warden on the Wildlife Mitigation measures suggested by the User Agency and Divisional Forest Officer is enclosed herewith as Annexure-3.

It is requested that the proposal may be taken up for further consideration in light of the above.

Yours faithfully,


Additional Principal Chief Conservator of Forests
Nodal Officer, F(C) Act &
Chief Executive Officer, CAMPA

Copy to the Additional Chief Secretary, Forest & Wildlife Department, Secretariat, Thiruvananthapuram.



COMPENSATORY AFFORESTATION SITE SUITABILITY CERTIFICATE

Total area of 17.263 Ha of land is required for compensatory afforestation against diversion of forest land for construction of Twin Tunnel in Vellarimala village, under Meppady Range of South Wayanad Division. The land proposed for compensatory afforestation is the area under Chedleth range from which people living inside/fringes of forest are to be relocated. But out of the proposed area, only 7.4 Ha land is suitable for planting and the balance land is Vayal. It is advisable to maintain the Vayal ecosystem as such. Therefore degraded area of Kurichipatta Teak Plantation having a total extent of 25.7 Ha is also proposed for compensatory afforestation. The effective area in the degraded forest for planting is 10.6 Ha. As the total number of trees to be cut for the Twin Tunnel is 96 only, enough number of seedlings can be planted in both the proposed areas. Therefore the sites proposed for compensatory afforestation is suitable to compensate the diverted ecosystem. Details of the proposed compensatory afforestation area is appended herewith.

1) PROPOSED VOLUNTARY RELOCATION AREAS

From the land agency has proposed, only 7.40 Ha of land is suitable for planting. This area will be suitable for compensatory afforestation in lieu of diverted land.

From the field examination of proposed voluntary relocation settlements of Chullikkad, Manalvayal, Kollivayal, Madaparambu areas, we have found that 4.2 Ha of land is suitable for planting. However, this extent of land was calculated after excluding areas such as existing buildings and sheds, Vayal areas, Water bodies and wells, Tree plantations such as Coconut, Arecanut, Silver Oak, and heavy bamboo growth areas. These details are give below.

SL NO	AREA	EXTENT (HA)
1	CHULLIKKAD	2.00
2	KOLLIVAYAL	0.30
3	MANALVAYAL	0.90
4	MADAPARAMBU	1.00
		4.20

However, it is possible to plant suitable species in between the trees or after cutting and removing cash crops. It is also possible to raise a plantation after demolishing the existing building in each area. If we include the area of existing buildings and sheds, tree plantations such as Coconut, Arecanut, Silver Oak, and heavy bamboo growth areas, we can get an additional 3.2 Ha land suitable for planting trees. These details and location sketches are given below.

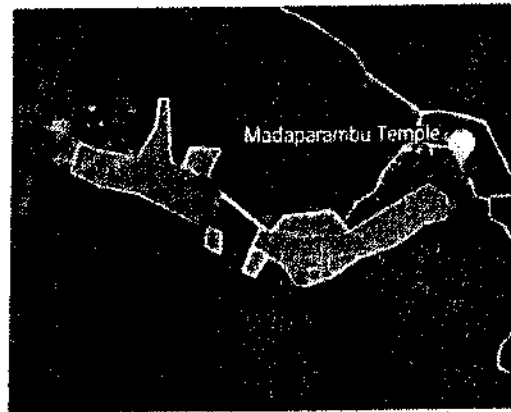
SL NO	AREA	EXTENT (HA)
1	CHULLIKKAD	3.80
2	KOLLIVAYAL	0.50
3	MANALVAYAL	0.90
4	MADAPARAMBU	2.20
		7.40

2) 1959 KURICHIPATTA TEAK PLANTATION(BIT-1)

Clear felling of Bit-1 of Kurichipatta Teak plantation 1959, under Pulpally Forest Station of Chedleth Range as per the working plan of South Wayanad Division has done in the year 2021-22. Total area of the Bit -1 is 25.7 Ha of which 10.6 Ha can be used for CA planting.

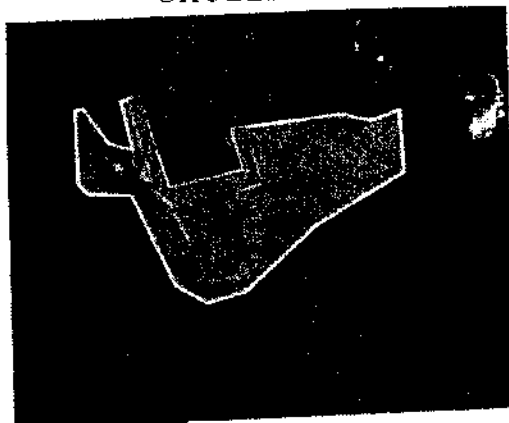
Sl No	Total Area (Ha)	Effective extent for planting (Ha)
1	25.7	10.6

MADAPARAMBU



- II AREA NOT SUITABLE FOR PLANTING
- III AREA SUITABLE FOR PLANTING - 2.2 HA

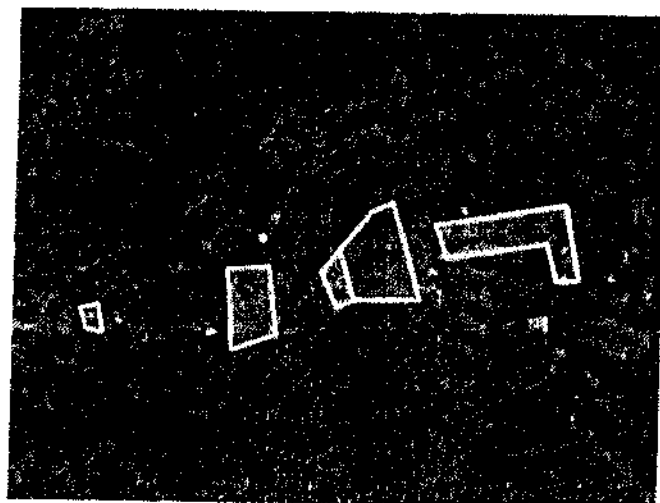
CHULLIKKAD



AREA NOT SUITABLE FOR PLANTING

AREA SUITABLE FOR PLANTING 3.8 HA

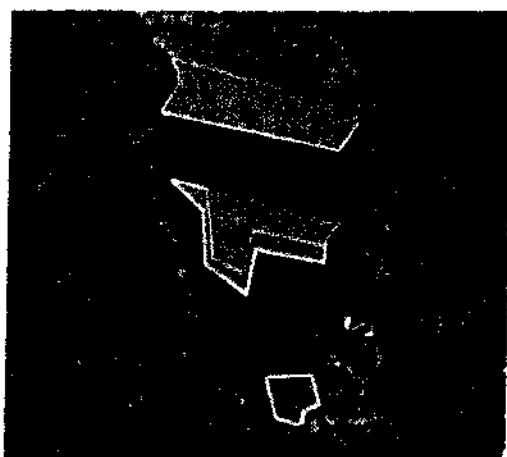
MANAL VAYAL



AREA NOT SUITABLE FOR PLANTING

AREA SUITABLE FOR PLANTING - 0.8 HA

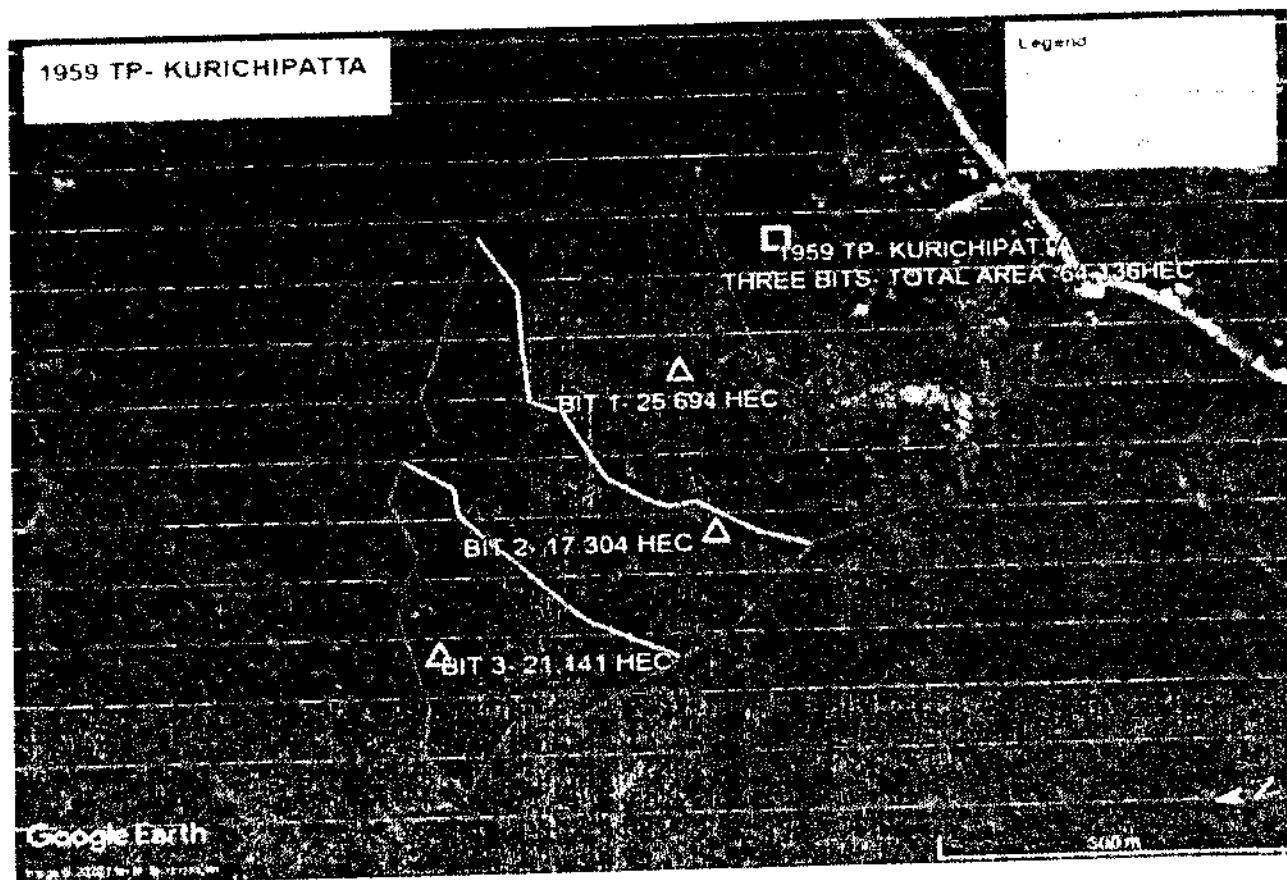
KOLLIVAYAL



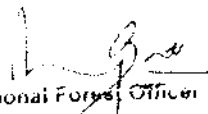
AREA NOT SUITABLE FOR PLANTING

AREA SUITABLE FOR PLANTING - 0.5 HA

1959 KURICHIPATTA TEAK PLANTATION (BIT -I)



- Area Suitable for Planting -10.6 Ha


Divisional Forest Officer
South Wayanad Division

Kerala Public Works Department

Office of the Executive Engineer,
Roads Division, Kozhikode - Pin: 673 020

Phone : 0495 2374974
Fax : 0495 2374874
Email: eeroadskkd@gmail.com
Web Site: www.keralapwd.gov.in

Date: 04.01.2023

No. D4/Price/230/2014
To

The Divisional Forest Officer
Wayanad, Kerala

Sir/Madam,

Sub: Construction of twin tube tunnels (2+2 lane) with four lane approaches (for existing roads) for providing direct connectivity between Anakkampoyil - Kalladi - Meppadi in Kozhikode and Wayanad districts - Factual position in connection with the objections raised by "Our Own Nature"

- Ref 1) Application submitted in Parivesh portal vide application no FP/KL/ROAD/148616/2021.
2) Directives received from CCF, North Circle, Kannur vide letter no KFND0/278-CCFNC/P dated 03.12.2022.
3) Letter no B-9198/22 dated 05.12.2022 from DFO/Wayanad.
4) Objections raised by "Our Own Nature" dated 03.01.2022.

Reference above, the Anakkampoyil- Meppadi road tunnel project is a prestigious project approved by Government of Kerala vide G.O. No.10/2022/PWD dated 25.02.2022 for implementation of the said project with an objective to provide safe and express road connectivity between Kozhikode and Wayanad districts in the Malabar region of Kerala state.

The Malabar region in the state of Kerala comprises of the districts Palakkad, Malappuram, Kozhikode, Wayanad, Kannur and Kasaragod. The NH 766 connects Kozhikode in Kerala to Kollegal in Karnataka, which further joins the NH 948, and further connects to Bengaluru and Coimbatore. The NH 766 passes through the Kozhikode and Wayanad districts and is the primary road link between these two districts.

Topographically, from west to east, after a flat coastal strip, the road rises from Adivaaram in Kozhikode district to Lakkidi in Wayanad district, by around 900 metres to reach on the top of Deccan Plateau. This is connected with 11.5 kms long 2-lane hill road of NH which is Thamarassery Churam having steep gradient and nine hair-pin bends.

Earth slips are being reported from the fragile slopes of the Thamarassery Churam causing traffic snarls, blockages and accidents in this 2-lane Ghat road, especially during the monsoon. Due to the geographical condition and also due to the forest land adjacent to the ghat road on the entire stretch, it is not viable to improve the width and geometry of this Ghat road (NH 766) in order to cater fast growing traffic on already over saturated route.

Considering the above, the Government of Kerala approved for construction of an alternate 4-lane twin-tunnel road for smooth, fast and safe connectivity without adverse impact on environment and ecology.

The inherent benefits of this project are:

- a) Fast, safe and accident free road connectivity between Kozhikode and Wayanad districts of Kerala also providing safer connectivity to the state of Karnataka via State Highway No.59 and to Tamil Nadu via Ooty.
- b) Minimising the road accidents in the tunnel stretch due to controlled monitoring of traffic movement, wildlife safety measures, and other regulated time bound maintenance etc.
- c) It is also envisaged that tunnel road is free from heavy rainfall triggered landslides recurrent in this region.
- d) Saving from huge expenditure of public exchequer for periodical maintenance of existing ghat road.
- e) In view of incessant flooding similar to year 2018 in Kerala, which resulted isolation of Wayanad district from other parts of Kerala and therefore this connectivity will ensure safe traffic movement to the affected district.
- f) Tourism sector constitutes 10% of GDP the Kerala state and is reportedly contributing around 23.5 % of the total employment generated. The increased connectivity will boost the tourism sector in the Wayanad district of Kerala as well as in the neighbouring states of Karnataka (Nagarahole & Bandipur national park) and Tamil Nadu (Ooty) etc, thus has a huge potential to generate employment to the people of the 3 states from this project.
- g) Since the codal life of the tunnel road is ranging from 80 to 100 years for public use, therefore, the present project connectivity with value of 2000 crores makes it further economically sustainable. We have a living example of such serving tunnel of the year 1916 from Thane to Diwa in Maharashtra.
- h) Further, the distance from Kunnamangalam in Kozhikode district to Meppadi in Wayanad district is 63 kms via present ghat road which will be reduced to 54.7 kms through the proposed new tunnel road.
- i) In view of the strategy of providing the tunnel road connectivity, it is evident that not only the travel time will be reduced to 45 min from present journey of 1 hr 45 min, also distance is saved up to 8.3 kilometres one way. This will have an enormous cumulative effect of time and monetary saving to the public and government exchequer.

The factual position / para-wise remarks on the objections raised by "Our Own Nature" dated 03.01.2022 are as below:

Rejoinder to objections raised vide Part-1 (ii):

It has been already reported in aforesaid paragraphs regarding approval of the project by Government of Kerala vide G.O. No.10/2022/PWD dated 25.02.2022. The detailed project report prepared by the SPV appointed by the GoK, which is expert in similar kind of projects of tunnel across pan India. The prepared DPR is already with the Government.

✓ The proposed tunnel alignment neither alter hill slopes nor being constructed on the ground while maintaining the ruling gradient of 2.5% in the tunnel area, as provided elsewhere. Further, the road passes beneath the hill with an average overburden from 600 meters to 1080 meters making nature of tunnel monolithic in structure and therefore higher longevity of asset and also ease during construction.

In the similar scenario, all such tunnel works are constructed worldwide in far fragile rock deposits, like in northern Himalayan region and elsewhere. Nowadays astounding and

robust technology available for a far critical projects across the world. It accomplishes that the apprehension made by the complainant based on his fragile information as appended in his complaints which will have far reaching ramification on government planning on developmental front.

Rejoinder to objections raised vide Part-(1)(v)

The road gradient applied variably from Zero to + 2.49% across the full length of the tunnel which is well within the guidelines of IRC. The complainant has referred the tunnel gradient as vertical is absurd and misconstrued with the hazard and vulnerability to cultivate the publicity infusing the guidelines of disaster management.

Rejoinder to objections raised vide Para -(1)(x)

Land for compensatory afforestation against use of forest area has been earmarked lately by the Forest department, Kerala since last submission. Even though there is no direct forest land utilization above the tunnel alignment, the compensatory land for the same has been identified as per new prevailing forest rules for diversion of 17.263 Ha. The number of years this proposed land to be diverted will be decided mutually between GOK & Forest Dept as per extant rules. This compensatory land is provided by KIIFB from the acquired land bank in the districts of Kozhikode and Wayanad. The suitability certificate of this land to be given by the forest department.

The project has been envisaged for completion in 60 months considering pre-engineering and construction timeline. Other aspects like safety monitoring for landslide and vibration monitoring are already available for use in present construction industry.

Rejoinder to objections raised vide Para -(Para (C)(b))

The subject KML file can be viewed with supported software.

Rejoinder to objections raised vide Para -(Para-(iv))

The area of the forest land considered along the total stretch is marked and worked out from the KML file, based on the width of the twin tunnel.

Rejoinder to objections raised vide Para -(Para (D) (1)

The concerns raised under this para has been already explained in the foregoing paragraphs. Articulating independent views on engineering matter without analysis of various aspects and information is underplaying with the government planning.

Rejoinder to objections raised vide Para -(Para(ii)(a)(1.1)

The proposed alignment has been finalized after comprehensive and thorough study of four alternate alignments. Even though it is a project involving diversion of 17 Ha of forest area it has very less impact on actual forest by way of direct utilization as the underground tunnel road passes at an average of 600 meters below the hill top. The length of approach road planned is bare minimum resulting in the least impact on private land parcels.

Sequential excavation method with adequate study of geological data is proposed to be carried out in this project. Geological experts are to be deployed and every activity will be monitored with vibration monitoring system for the rock. Tunnelling is now carried out with NATM method world over, which is accepted as safest and most widely used method. Also

monitoring to ensure adherence to designs optimisation for reinforcement and protection technique based on rock type.

The proposed alignment falls under Seismic Zone-III which is classified as moderate category. Area along the alignment is occupied with very competent very hard Charnockite, Pyroxene granulite, Hornblende gneiss and amphibolite rocks without major discontinuity.

Experienced agency expert in tunnelling activities in the entire Western Ghats shall be carrying out projects with over 30 years of experience including J&K USBRL rail projects. For additional monitoring on geological behaviour of the rock mass and its sliding probability, a team of Geological experts from Norway has been deployed for the project by Government of Kerala.

In the present scenario, the project is not passing through wild life corridor and moreover, the land above the tunnel remains bare open for movement of any wildlife without affecting from the construction activities of tunnel. It seems that the complainant has been too loud for putting forward their demands with repeated imaginations with muddled mind-set.

Rejoinder to objections raised vide Para - (Para(iv) (v) & (vi)

The points raised repeatedly here has already been clarified in aforesaid paragraphs.

Rejoinder to objections raised vide Para - (Para (f)(1)

No displacement of families is warranted as no direct land is required from the forest under the project. For non-forest land, acquisition on compensatory basis is underway. The concern expressed for vibration and therefore displacement of families is highly anticipatory and hypothetical view

Rejoinder to objections raised vide Para -(Para (H)(1) & (a)

As per the directions of SEIAA, the comprehensive environmental impact assessment (EIA) study already underway for the project.

Rejoinder to objections raised vide Para -(Para(I)(1)

The proposed tunnel portal at both ends is on private land area and the remaining tunnel passage is passing under the hill and therefore no encumbrances to the wildlife is envisaged. However, for the safety and protection of wildlife like elephants, a rapid response team with trained personnel's 24X7 shall be part of the contingency arrangements during the construction and operational phase for tunnel. Any further clarifications on the same will be given by forest dept.

Rejoinder to objections raised vide Para -(Para (J))

The complainants themselves admitted that the project is not located in a scheduled area. Hence the presumption for disturbances to the PVTGs is truly articulated.

Rejoinder to objections raised vide Para -(Para(K))

As explained earlier, the tunnel alignment is passing underneath hill and there will be no disturbances on the top. However, after Stage-I forest clearance, District Collector to issue necessary clearance as per FRA regulations.

Rejoinder to objections raised vide Para -(Para L(i)(ii)(iii))

Compensatory Afforestation is planned and location has been pre identified lately by the forest department, which is already been elaborated in the foregoing paragraph. Necessary forestation shall be developed as identified by the forest department as per the existing guidelines

In view of the factual position explained against each concerns raised by the complainant which is judiciously and technically justifiable is submitted. Therefore, the present proposal with 2+2 lane highway connecting the two major cities not only will provide major imputes to the social and economic growth of state, but for the connectivity to the neighbouring states also. It is well said that "millions of wounds inflicted on the ethos of too much Indian-ness" and therefore in better sense the whole project may be perceived with positive mind set taking overall development of the state and nation

Executive Engineer
PWD Roads Division, Kozhikode.

Copy sub to:

Secretary to Government, PWD - For kind information

CCF North Circle, Kannur - For kind information

CE (Roads), PWD, GoK - For kind information

GM/Projects-III, Konkan Railway - For kind information

Copy to

The Asst Executive Engineer, PWD, Roads Sub Division, Koduvally for information

The Asst Engineer, PWD, Roads Section, Thiruvambady for information

Mitigation measures suggested by Chief Wildlife Warden

1.	The construction works be permitted during day time and same be undertaken with such machines which cause least disturbances so that existing wildlife prevalent in, around and over ground habitat are prevented from dispersal.
2.	Around and before entry and around and after exit points at least 2 km netting of sufficient height on both sides of the road with additional escape measures be undertaken so that the prevalent wildlife in this area are prevented from entering/trapping into the tunnel.
3.	Dedicated 24 x 7 hours Rapid Response Team facility at suitable sites on both side (before entry and after exit points) of the proposed tunnel be provided at the nearest suitable locations.
4.	Dedicated rescue center facilities to look after the rescued wild animals prevalent in this area on emergency situation be provided at suitable locations near entry or exit area of the proposed tunnel.

Principal Chief Conservator of Forests (Wildlife) &
Chief Wildlife Warden

