



"Official of Official"  
(07258) 203711



उपवनसंरक्षक, मेळघाट व्याघ्र प्रकल्प, अकोट वन्यजीव विभाग, अकोट यांचे कार्यालय,  
कार्यालय :- पोपटखेड रोड, अकोट पि. को. 444101  
ई-मेल dycfwlankot@mahaforest.gov.in



पुनर्वसन विभाग, अकोट

क्रमांक :- कक्ष- / सक्षे/ 619 /2024-25

अकोट, दिनांक. 02.09.2024

प्रति,

Deputy Chief Engineer /Construction  
South Central Railway,Akola

विषय:- अकोला खंडवा प्रस्तावित रेल्वे प्रकल्पासाठी वळतीकरण होणा-या वनविभागाच्या 49.60 हे.आर वजमीन वन्यजीव मंजूरी वावत प्रस्ताव सादर करणेबाबत.

संदर्भ :- Deputy Chief Engineer /Construction South Central Railway,Akola यांचे कार्यालयीन पत्र  
क्रमांक/-/ दिनांक 02/09/2024

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उपरोक्त संदर्भीय पत्राचे अनुषंगाने अकोला खंडवा प्रस्तावित रेल्वे प्रकल्पासाठी वळतीकरण होणा-या वनविभागाच्या 49.60 हे.आर वनजमीन वन्यजीव मंजूरी वावत प्रस्ताव उपवनसंरक्षक बुलडाणा वनविभाग बुलडाणा यांचे कार्यालयास सादर केलेला आहे.

सदर प्रस्तावात बुलडाणा वनविभागाचे 49.60 हे.आर वाधित होत असुन बुलडाणा जिल्ह्यातील सर्व्हे ऑफ इंडियाच्या टोपोशिट नकाशावर मेळघाट व्याघ्र प्रकल्पाची वफर सिमा अभयरण्याची सिमा पर्यावरण संवेदनशिल क्षेत्राची सिमा व प्रस्तावित रेल्वे लाईन दर्शविलेली आहे. त्यात अकोला जिल्ह्यातील महसुल क्षेत्र पर्यावरण संवेदनशिल क्षेत्र (ESZ) वावत आपल्या विभागातील क्षेत्रामध्ये किती लांबीचे क्षेत्र (ESZ) पर्यावरण संवेदनशिल क्षेत्रात येते याबाबतची माहिती खालील प्रपत्रात देण्याबाबत विनंती केलेली आहे.

त्यानुषंगाने आपणास कळविण्यात येते कि, आपले कार्यालयाकडील पुरवठा करण्यात आलेल्या रेल्वे ट्रॅक KML File ची तपासणी केली असता मेळघाट व्याघ्र प्रकल्प अकोट वन्यजीव विभाग अकोट या विभागाच्या कार्यक्षेत्र अंतर्गत पर्यावरण संवेदनशिल क्षेत्र (ESZ) क्षेत्रामधील वनतेर क्षेत्रात 1.40 कि.मी. अंतर येत असल्याचे आढळुन येत आहे. त्याबाबतच तपशिल यासोबतच्या प्रपत्रात सहपत्रीत करण्यात येत आहे. तसेच सदर रेल्वे लाईनचे भाग पर्यावरण संवेदनशिल क्षेत्र (ESZ) च्या अतील सिमालगत असुन सदर रेल्वे लाईनचे Wild life Clearance वन्यजीव मान्यतेचा प्रस्ताव मंजूरीसाठी गेल्यामुळे सदर प्रस्तावामध्ये सदर क्षेत्र समाविष्ट करुन Wild life Clearance चे प्रस्ताव मंजूरीकरीता पाठविण्यात यावे.

करीता माहितीस व पुढील कार्यवाहीस अग्रेषित.

सहपत्र:- वरील प्रमाणे

एन. जयकुमारन (भा.व.रो.)  
उपवनसंरक्षक,  
मेळघाट व्याघ्र प्रकल्प,  
अकोट वन्यजीव विभाग, अकोट

जिल्हा /वनविभाग अकोला अकोट वन्यजीव विभाग अकोट	अभयारण्यातील क्षेत्र				प्रपत्र व्याप्त भ्रमणमार्गातील क्षेत्र								पर्यावरण संवेदनशील क्षेत्र				शेरा
	वनक्षेत्रफळ		यनेतर क्षेत्र		वनक्षेत्रफळ		यनेतर क्षेत्र		वनक्षेत्रफळ		यनेतर क्षेत्र						
	हे.	लांबी	हे.	लांबी	हे.	लांबी	हे.	लांबी	हे.	लांबी	हे.	लांबी					
	00	00	00	00	00	00	00	00	00	00	0.40	1.40					



उपवनसंरक्षक,  
मेळघाट व्याघ्र प्रकल्प,  
अकोट वन्यजीव विभाग, अकोट

प्रति,

उपवनसंरक्षक,

अकोट वन्यजीव विभाग अकोट

विषय : अकोला खंडचा प्रस्तावित रेल्वे प्रकल्पासाठी वळतीकरण होणाऱ्या वनविभागाच्या

49.60 हे आर वनजमीन वन्यजीव मंजूरी बाबत प्रस्ताव सादर करणे बाबत.

संदर्भ : 1. या कार्यालयाचे पत्र क्र dyce/c/ak/forest/... दिनांक 25.06.2024

2. उपवनसंरक्षक बुलढाणा यांचे पत्र क्रमांक /उत्सर्ग/सर्व्हे/वनो/मंजूरी/ प्र.क्र 63 (1) /277 दिनांक 27.06.2024

3. मुख्यवनसंरक्षक (प्रा) अमरावती यांचे पत्र क्रमांक कक्ष-4/जमान/FC A/अकोला-खंडचा-रेल्वे/वन्यजीव/मंजूरी/268/2024-25 दिनांक 01.08.2024

4. अण्णर प्रधान मुख्यवनसंरक्षक वन्यजीव पूर्व नागपूर पत्र क्रमांक कक्ष-23/2 वजी/सर्व्हे प्र.क्र 302/1573 दिनांक 19.08.2024

विषयांकित प्रकरणाचा अकोला खंडचा प्रस्तावित रेल्वे प्रकल्पासाठी वळतीकरण होणाऱ्या वनविभागाच्या 49.60 हे आर वनजमीन वन्यजीव मंजूरी बाबत प्रस्ताव उपवनसंरक्षक बुलढाणा यांचे कार्यालयास सादर केलेला आहे.

सदर प्रस्तावात बुलढाणा वनविभागाचे 49.60 हे आर बाधित होत असून बुलढाणा जिल्ह्यातील सर्व्हे ऑफ ईंडिया च्या टोपोग्राफिक नकाशावर मेळघाट व्याघ्र प्रकल्पाची वफर सिमा अभयारण्याची सिमा पर्यावरण संवेदनशिल क्षेत्राची सिमा व प्रस्तावित रेल्वे लाईन दर्शविलेली आहे. त्यात अकोला जिल्ह्यातील महसुल क्षेत्र पर्यावरण संवेदनशिल क्षेत्र (ESZ) मध्ये बाबत होत असल्यामुळे सदर पर्यावरण संवेदनशिल क्षेत्र (ESZ) बाबत आपल्या विभागातील क्षेत्रामध्ये किती लांबीचे क्षेत्र (ESZ) पर्यावरण संवेदनशिल क्षेत्रात येते त्याबाबतची माहिती खालील प्रवात देण्यात यावी जेणे करून सदर प्रस्ताव पुढील कार्यवाहीस वरिष्ठांना सादर करणे सोईचे होईल या सोबत Form A (Area Statement) सहपत्रीत करण्यात येत आहे.

सहपत्र : वरील प्रमाणे

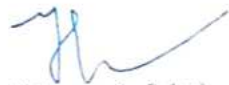
(Y Yogananda Babu)

Deputy Chief Engineer /Construction,  
South central Railway, Akola

09.09.2024  
जाबक लिपीक  
मेळघाट व्याघ्र प्रकल्प  
अकोट वन्यजीव विभाग,  
अकोट

जिल्हा वनविभाग	अभ्यारण्यातील क्षेत्र				व्याघ्र भ्रममागील क्षेत्र				पर्यावरण संवेदनशील क्षेत्र				शेरा
	वनक्षेत्रफळ		वनेत्तर क्षेत्र		वनक्षेत्रफळ		वनेत्तर क्षेत्र		वनक्षेत्रफळ		वनेत्तर क्षेत्र		
	हे	लांबी	हे	लांबी	हे	लांबी	हे	लांबी	हे	लांबी	हे	लांबी	
वसुंधारा	-	-	-	-	49.60 हे	6.04	-	-	-	-	8.63	1.439	

टिप वरील क्षेत्रांची आपल्या वनविभागासमक्ष पर्यावरण संवेदनशील क्षेत्र येत असल्यामुळे आपण आपल्या अभिप्राय सह माहिती देण्यात यावी हि विनंती .



(Y. Yogananda Babu)  
Deputy Chief Engineer /Construction  
South central Railway, Akola



प्रती,

मा. उपवनसंरक्षक  
बुलढाणा वनविभाग  
बुलढाणा

विषय:- अकोला-खंडवा प्रस्तावित रेलवे प्रकल्पासाठी वकतीकरण होवाल्या वनविभागाच्या 49. 60 हे० वन जमीन वन्यजीव मंजूरी बाबत प्रस्ताव सादर करणे बाबत  
संदर्भ - आपके कार्यालयीन पत्र क्रमांक /उ.व.स /सर्व्हे/व.जी./मंजूरी/ प्र. क्र.63(1) /924/2024-25 दिनांक 20/08/2024

1. अपर प्रधान मुख्यवनसंरक्षक वन्यजीव पुर्व नागपूर पत्र क्र क25/23(2) व.जी./सर्व्हे पत्र क्रमांक 302/1573 दिनांक 19/08/2024
2. मुख्यवनसंरक्षक (प्रा.) अमरावती यांचे पत्र क्रमांक करू-4/जमीन/FCA /अकोला-खंडवा रेलवे/वन्यजीव मंजूरी/268/2024-25 दिनांक 01/07/2024
3. उ.व.स/सर्व्हे /व. जी./मंजूरी/प्र. क्र.63(1) /277 दिनांक 29/06/24

विषयांकित प्रकरणाचा प्रस्ताव हया कार्यालया मार्फत हया कार्यालयाचे पत्र क्रमांक DY.CE/C/AK/Forest/WL6-24 दिनांक 25/08/2024 नुसार त्रुटी अभावी परू हया कार्यालयास प्राप्त झाला त्या अनुषमाने अ.क्र 1 से 7 ची त्रुटीपुर्तता करून पुन्हा आपल्या कार्यालयास संपूर्ण प्रस्ताव सादर करण्यात येन आहे तरी सादर प्रस्तावास मंजूरी मिळण्यात यावी हि विनंती।

सहपत्र

1. प्रस्तावाच्या तिन मूल प्रती
2. दस्ताऐवजाच्या सूची सह

  
उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण/Construction  
Deputy Chief Engineer  
इ.म.रेल्वे/SCR, अकोला/AKOLA  
construction/SCR/Akola

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**Annexure-1**

**FORMS**

**(All documents to be submitted in triplicate and signed in Blue ink)**

**PART I**  
**Proposal for Investigation and Survey in the National Park / Sanctuary**  
**(Details to be provided by the Applicant)**

1.	Name of the Organization	<b>SOUTH CENTRAL RAILWAY</b>
2.	Aims and Objectives of the Proposed Project	The main aim of this project is Gauge conversion from MG to BG as a 'UNIGAUGE POLICY'. The proposed gauge conversion project will provide shortest rail link between Khandwa and Akola stations. Also, this rail link will provide better rail connectivity between industrial centers in the South and Western India parts with all weather system of mass transport of goods and encourage Industrialization, accelerating the regional development with passenger traffic of south and western region as well as encourages the tourist activity.
3.	Location and Map (1:50,000 scale) of the area duly authenticated by the competent authority to be investigated/ surveyed	Reserve forest in compartment no- 453,625 and 627 near Kuverdeo village in Jamod range of Buldhana forest division. Toposheet Attached(Annexure-I)
4.	Whether investigation/survey requires clearing of vegetation	No
5.	If yes, please specify the extent (in Ha.)	49.60 Ha
6.	Opinion of the Officer In Charge of the NP/ WLS (Attach signed copy)	List Attached
7.	Opinion of the Chief Wildlife Warden (Attach signed copy). The following be included in the opinion :	List Attached
	i) Brief history of the protected area	The alignment is passing through the Territorial Forest of Jalgaon Jamod Range of Buldhana Forest Division comprising of Compartment numbers 453, 625 and 627. The Compartment number 625 and 627 are contiguous forest patches with undulating terrain and blessed with good tree density.
	ii) Current status of wildlife	Tiger Movement is Seen in this compartment : numbers 453,625 and 627. Also Leopard, Nilgai And Wild boar are there
	ii) Current status of pressures on protected areas	The area is constantly under threat from human activities, Forest fires, grazing of livestock, dumping of domestic waste are some activities which are threatening Area.
	iv) Projected impacts of projects on wildlife, habitat management and	The beneficial for meeting the load demand of connectivity between Maharashtra and Madhya Pradesh and due to requirement of freight corridor.



access/use of resource by various stakeholders.	Hence bare minimum area for Rail line has been proposed as per technical requirements of the user agency. No noticeable negative impacts envisaged on the flora and fauna of the Wildlife Sanctuary. The forest composition varies from pure teak to the mixed crop having high proportion of teak. the common associates of teak are Ain, Dhaora, Tiwas, Lendia, Tendu, Moha, Bhirra, Mowai, Salai, Rohan, Shisham, Aonla, Achar, Kulu, Semal and khair, Majority of the Area Supports stunted tree crop. teak, Bhirra, palas and Khair are found in larger proportions.
v) Contiguous wildlife areas which would benefit wildlife if added to national park/sanctuary.	Not required
vi) Other areas in the State which have been recommended by State Government, Wildlife Institute of India, BNHS, SACON, IISC, IUCN or other expert body for inclusion in protected area network.	It is a Tiger corridor (Melghat-jalgaonjamod-Wodadha) of Melghat Tiger Reserve.

Date 24/06/2024

Place Akola

(Sri Y.YoganandaBabu,IRSE)  
Deputy Chief Engineer  
(T) Construction  
Division

South central Railway, Akolal

उप मुख्य अभियंता

निर्माण/ट.म.रे./अकोला

Deputy Chief Engineer

Const. Div. S.C.R./AKOL



(Smt Saroj Gawas,IFS)  
Deputy Conservator of Forest  
Buldhana Forest

Deputy Conservator of Forest  
Buldhana Division, Buldhana

## PART II

**Proposal for Investigation and survey in the National Park/Sanctuary**  
**(To be filled in by the Applicant)**

1	Project details:	
(i)	Copy of the Investigation and Survey report. (The report should include the dates of survey and the names of the investigators, surveyors and all officials of the concerned NP/WLS who remained present during the period)	Joint Inspection awaited.
(ii)	Self-contained and factual project report for which NP/WLS area is required (Enclose copy of the Project Appraisal document)	—
(iii)	Map (duly authenticated by the Divisional / District Head of the Department dealing with Forests and Wildlife) on a scale of 1: 50,000 showing the boundaries of the NP/WLS, delineating the area in question in red color).	Toposheet Map Enclosed (Annexure-II)
(iv)	Self contained and factual report of at least two alternatives considered by the project authorities along with technical and financial justification for opting national park/ sanctuary area.	Attached with this proforma (Annexure-III)
(v)	Copy of the Bio diversity Impact Assessment report in case the proposal involves diversion of more than 50 ha. NP/WLS area.	Not Applicable.
2.	Location of the project/scheme	Division-Buldhana range-Jalgaon, Jamod round-Jamod beat-west jamod, Kuwardeo&Chaldhana Compartment no 453 pt., 627 & 625 village-Kheloan, Jamod&Kuwardeo Block
	(i) State/Union Territory	Maharashtra
	(ii) District	Buldhana
	(iii) Name of the National Park/Sanctuary	Reserve forest in compartment no- 453,625 &627 near Kuverdeo village in Jamod range of

		Buldhana forest division.					
3.	Details of the area required (in Hectares) only) (Provide breakup of the land use under the project, eg, construction of dam, submergence, housing for staff, road etc)	S. N.	Village	Compart . no	Length (Mtr)	Width (Mtrs)	Area in Ha
		1	Kuwar deo	625	3467.275	78.44	27.20
		2		627	1575.805	83.06	13.09
		3	KhelloanJamod	453 pt	997.331	93.35	9.31
					6040.411		49.60
Area Statement attached (Annexure-V)							

4.	Details of displacement of people, if any, due to the project	NA
(i)	Total number of families involved in displacement	NA
(ii)	Number of scheduled caste/Scheduled tribe families involved in displacement	NA
(iii)	Detailed rehabilitation plan	NA
5.	Any other information relevant to the proposal but not covered in any of the columns above.	Index Map attached (Annexure-V)

Date 04/01/2024

Place Akola



*(Signature)*  
 Deputy Conservator of Forest  
 Buldana Division, Buldana

*(Signature)*  
 उप मुख्य अभियंता  
 Dy. Chief Engineer  
 (Sri. Yogananda Babu, IRSE)  
 निर्माण / Construction  
 Deputy Chief Engineer Construction  
 द. डब्ल्यू. स. रेलवे / S.C.R. Railway, Akola



## PART III

(To be completed by the Officer -in- Charge of the National Park/ Sanctuary completed and submitted to the Chief Wild Life Warden or officer authorized by him in this behalf within 30 days of the receipt of PART-II)

1	Date of receipt of the PART-II	02/11/2023
2	Total Area (Ha.) of national park/sanctuary	49.60 Ha of Buldhana Forest division, Buldhana
3	Total area (Ha.) diverted from the NP/WLS so far for development purposes	1178.880 Sq.mt. (808.17 Sq.Km. of Buldhana (T.) division, Buldhana Total diverted proposal 49 and 1868.072 Ha.
4	List the past projects and the area (Ha.) diverted	List Attached
5	Positive impact(s) due to the diversion of area for the projects referred to in column 4 above.	Socio-economic development

(Attach separate document, if required)

6	Negative impact/s due to the diversion of area for the projects referred to in column 4 above	Not seen
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(Attach separate document, if required)

7	Management Plan Period	Buldhana forest Division working plan year 2020-21 to 2029-30
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Attach copy of the Management Plan/Management Scheme/ Recommendation of Chief Wildlife Warden

8	List Management actions taken/ proposed to be taken in the whole Block/ Zone in which the proposed area is located.	Wild life Mitigation prepared by south Central Railway WII
9	Type of forest in which the proposed area falls.	Eco-Class III (Tropical Dry Deciduous Forest ) and has the density of 0.2, Legal Status – Reserve Forest.
10	Location of the proposed area w.r.t. the critical/intensive wildlife management areas/wildlife habitats (attach Map to scale).	The Construction Railway Gauge Conversion work from MG to BG between Akola-Khandwa has passing through Buldhana forest division Jalgaon, Jamod range corridor (Ambabarwa to AnerVidarbha Corridor) of total length of the project area is 6.040 Km. the map is attached.
11	Last the likely POSITIVE AND NEGATIVE impact/s of the proposed project giving scientific and technical justification for each impact	POSITIVE IMPACT:- The main aim of this project is Gauge conversion from MG to BG as a 'UNIGAUGE POLICY'. The proposed gauge conversion project will provide shortest rail link between Khandwa and Akola Station. Also, this rail link will provide better rail connectivity between industrial centers in the south and western India parts with all weather system of mass transport of goods And encourage industrialization, accelerating the regional



		<p>transport of goods And encourage industrialization, accelerating the regional development with passenger traffic of south and western region as well as encourages the tourist activity.</p> <p><b>NEGATIVE IMPACT:</b></p> <p>The said alignment passes through the tiger corridor as is mentioned in the tiger Conservation Plan of Melghat Tiger Reserve. Moreover, the said passes through a 4Th year plantation in CN 453 (1336 trees needs to be felled in the plantation side) and AR and NR Tree totalling 6991 trees in needs to be felled as is mentioned in the enumeration sheet.</p>
12	Provide COMPREHENSIVE details of the impact of the proposal in terms of Sections 29 and/or section 35 (6) of the Wild Life (Protection) Act, 1972 as the case may be.	Not Applicable
13	Whether the project authorities have ever committed violation of the Wild Life (Protection) Act, 1972 or Forest Conservation Act, 1980. If yes, provide the EXHAUSTIVE details of the offence and the present status of the case.(Concealing or misrepresenting the facts will lead to rejection of the case in addition to any other penalty as prescribed under Law)	As per our record no violation has ever been committed by project authorities.
14	Have you examined the Project Appraisal document and the alternatives as provided in PART-II	Yes
15	Have you examined the Bio diversity Impact Assessment Report?	Not Applicable
16	If Yes, please give your comments on the recommendations given in the report?	---
17	Dates and duration of your field visits to the proposed site.	02/011/2023
18	Do you agree that the present proposal of diversion of NP/WLS area is the best or the only option and is viable.	Yes
19	Any other information that you would like to bring to the notice of the State Board for Wildlife, National Board for Wildlife or its Standing Committee that may be relevant and assist in decision making.	It is Tiger corridor as per the Melghat Tiger Conservation Plan.
20	Do you recommend the project.(Please provide full justification to support your	The earlier proposal of expanding the existing Meter Gauge line to broad Gauge line which

Buldhana Forest Division comprising of Compartment numbers 453, 625 and 627. The Compartment number 625 and 627 are contiguous forest patches with undulating terrain and blessed with good tree density. However, a tunnel is proposed 30 ft deep below ground level so that trees may not be required to be felled. The said alignment passes through the Tiger corridor as is mentioned in the Tiger Conservation Plan of Melghat Tiger Reserve. Moreover, the said passes through a 4th year plantation in CN 453 (1336 trees needs to be felled in the plantation site) trees totaling 6991 in number needs to be felled as is mentioned in the enumeration sheet.

Given the fact that infrastructure is essential for the economic development of an area, and the fact that development and conservational needs be balanced, the current proposal seeks tunnel construction in CN 625 and CN 627 and new railway line to be setup CN 453, given the technical and engineering inputs, the proposal is requires bare minimum forest area and the other alignments studied by the user agency to not be compatible, the said proposal is recommended under the conditions that prior Wildlife and FCA clearance will be obtained by the user agency are proper land reclamation plan consisting of stabilization measures, debris disposal plan and wildlife mitigation measures is submitted by the user agency in future.

Date 13/12/23

Place - Akola



Signed by

  
**Deputy Conservator of Forest**  
The Officer in Charge of the NP/ WLS  
**Buldana Division, Buldana**  
Official Seal

Date of submission to the Chief Wild Life Warden or any other officer authorized by him in this regard.

PART IV

(To be completed by the Chief Wildlife Warden within 15 days of the receipt of PART-II and Part-III)

1	Date of RECEIPT of PART-II and Part-III by the Chief Wild Life Warden or the officer authorized by him in this regard	Dated 08/01/2024 authorized by
2	Do you agree with the information and recommendations provided by the Officer-in-Charge in PART-III?	Yes, Agree with the information and The Officer-in- recommendation provided by the Officer-in- charge (Deputy Conservator of Forest, Buldhana (Territorial) Division, Buldhana) in PART-III
3	If not, please provide the reasons	-NA-
4	Have you visited the site yourself and held discussions with the applicant?	Yes. Visited site on 16/01/2024 along with Deputy Conservator of Forest, Buldhana (Territorial) Division, Buldhana and applicant.
5(a)	Do you agree that the present proposal for permitting use of NP/WLS area is the best option or the only option, and is viable?	Yes, Agree with the present proposal for permitting use of proposed area which is mentioned in Tiger Corridors of Vidarbha Landscape published by WII and Melghat-Jalgaon Jamod-Wadodha Corridor as per Tiger Conservation Plan (Corridor Plan) of Melghat Tiger Reserve. Out of 6.040 km total affected length 5.04308 km area is underground tunnel and only 0.99739 km area is open rail track. A part of these 1.439 Km fall in ESZ area. In this ESZ area is not part of forest land and tiger corridor.
5(b)	Whether the proposal sub-judice? If yes, give details,	No
6	Please provide specific comments w.r.t. Section 29 of the Wild Life (Protection) Act, 1972	Not Applicable. As the said area is outside the boundary of Np/WLS.
7	Any other information that you would like to bring to the notice of the State Board for Wildlife, National Board for Wildlife or its Standing Committee that may be relevant and assist in decision making	None
8	Do you recommend the project?	Yes



	<p>(Please provide full justification to support your recommendations)</p>	<p>your Earlier proposal of expanding the existing meter gauge railway line to broad gauge railway line was passing through the core area of Melghat Tiger Reserve which was rejected. The alignment was later changed which is now passing through the area of Territorial Forests of Buldhana Division. The said area falls in Wildlife Corridor as mentioned in Tiger Conservation Plan of Melghat Tiger Reserve. Total area affected for said project is 49.60 Ha. and distance between starting point and end point of alignment of railway track within forest area is 6.040 km. Out of total length passing through forest area 5.04308 Km is proposed to pass through tunnel and only 0.99739 km area is open rail track. Impact of said railway track should be mitigated through proper mitigation measures and animal passage plan. By considering the importance of proposed railway line for the economic development of area said project is recommended.</p>
9	<p>Conditions, if any, to be ensured in the interest of protection and conservation of wildlife for allowing use of the area?</p>	<p>User Agency has to pay for implementation of for various activities under proposed Wildlife Mitigation Plan and under Animal Passage Plan.</p>

Place – Amravati  
Date-

Signed by

The Chief Wildlife Warden  
Name- Maheep Gupta, IFS  
State-Maharashtra.  
Official Seal

Date of submission to the State Government

(Jayoti Banerjee)  
Chief Conservator of Forests,  
(Territorial) Amravati



**PART V**

(To be completed by the Department in Charge of Forestry and Wild Life in consultation with the State Board for Wild Life within 30 days of the receipt of PART-II, PART-III and PART-IV)

1	Date of RECEIPT of PART-II, PART-III and PART-IV by the Department	
2	Do you agree with the recommendation(s) of the Chief Wildlife Warden	
3	If not, please provide the reasons.	
4	Did you provide PART- II, PART- III and PART IV to the members of the State Board for Wild Life?	
5	Attach copy of the opinion of the State Board for Wild Life	
6	Give details of the recommendations of the State Government	
	Signed by  The Principal Secretary Name State Official Seal   Date of submission to the Central Government	



उप मुख्य अभियंता  
 Dy. Chief Engineer  
 निर्माण/Construction  
 द.म.रेल्वे/S.C.R., अकोला/Akola

# Information Sheet-A

## Proposal for Wildlife Clearance

1	Name Of the Project	Akola-Khandwa section-Gauge Conversion of track from MG to BG between Akot-Amlakurdh section (Phase - III).		
2	Location	Village	Taluka	District
		Kuvardeo	JalgaonJamod	Buldhana (2 villages falls under the Tiger)
		Khel Lon (Jamod)		Buldhana
		Khelshivapur (Jamod)		
		Khelmali (Jamod)		
		Khelwardhe (Jamod)		
		Karmoda	Sangrampur	
		LohagaonKhurd		
		Ladanpur		
		TunkiKhurd		
		TunkiBudruk		
		Sonala	Telhara	Akola
		Sagoda		
		Danapur		
		Saundala		
		Sonwadi		
		Hivarkhed		
		Parshrampur		
		TalegaonKhurd		
		MalthanaKhurd		
MalthanaBudruk				
AdgaonBudruk				
Project Proponent Agency	Department	South Central Railway, Rail NirmanNilyam, Secunderabad		
	Division	Nanded		
	Phone/Mob. No	9701372175		
	E-mail	dycecakknw@gmail.com		
4	Whether the Project falls within National Park/ Sanctuary / Conservation reserve	No		
5	If Yes name of the Sanctuary/National Park/Conservation Reserve and Location Compartment No. Surevy No./Village etc.	NA		
6	Whether the Project fall within deemed Eco-Sensitive Zone, give specific distance from ESZ Boundary	Yes, Project Falls in 1439 Mtr. Under ESZ boundary.		
7	If Yes, Name of Sanctuary/National Park/Conservation Reserve & Minimum distance in Km From boundary of Sanctuary/National Park	Eco-Sensitive Zone of the Malghat Tiger Reserve.		
8	Whether the project falls within officially proposed ESZ, gives specific distance from ESZ Boundary	Yes, Project Falls in 1439 Mtr. Under ESZ boundary.		

9 Details of the Total area required of the project								
Sr. No.	Item of work	Name of village	Commt. No	Survey /Gat no.	Length (mtr)	Width ( mtr)	Area In Hect.	States of land
1	Gauge conversion of existing railway line from meter	Kuvardeo	625		3467.275	78.44	27.20	
2	gauge to broad gauge between Akola Khandwa Railway Stations	Kuvardeo	627		1575.805	83.06	13.09	
3		Jamod	453		997.331	93.35	9.31	
Total					6040.411		49.60	
10	Compulsory attach digital color map(on scale of A4 Size) showing Sanctuary/national Park/ Conservation Reserve area, forest area within 10.00 km radius from boundary of National park/Sanctuary, Boundary of Proposed ESZ etc. (Probably map should be on Google Earth Background)				Map Attached			
11	If Forest land is involved within WLS/NP, ESZ and outside ESZ then date of FC Act proposal submitted to the Nodal Officer and status of Process (Please attached relevant documents)				Forest Proposal has been submitted on dated Proposal no. FP/MP/RAIL/405331/2022			
12	What is the status of Environment clearance (Please attach relevant document)				NA			
13	Specific cost of the Project:							
	A	Cost of part within WLS/NP	0					
	B	Cost of part within ESZ	25.20 Crore					
	C	Cost of part outside ESZ	897.605 Crore					
	D	Cost of part within Tiger Corridor	1149.71 Crore					
		Total Cost	2072.51 Crore					

Date :- 04/01/2024

Place :- Akola



*(Signature)*  
Deputy Conservator of Forest  
Buldana Division, Buldana

*(Signature)*  
उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण / Construction

द.प.रेल्वे/S.C.R., अकोला/AKOLA



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भारत सरकार / GOVERNMENT OF INDIA  
रेल मंत्रालय / MINISTRY OF RAILWAY  
रेल बोर्ड / RAILWAY BOARD

No.93/W-1/GC/W/12/RTM-Part3/Akot-Amalkhurd)(FTS-3265456)

dt.22.02.2019

The General Manager,  
South Central Railway,  
Secunderabad

Sub: Part Detailed Estimate for Akot-Amalkhurd (77.43 km) GC section of  
Alkola-Khandwa-Mhow-Ratlam Gauge Conversion project.  
Ref: SICR's letter No.W.Con.153/N/95 vol.XI dated 14.08.2018, No.SG.CN.GC.  
2(008-09/1/Estimates/Vol.VI dated 11.12.2018 and W.Con.153/N/95 Vol.XI  
Part-II dated 17.01.2019.

Sanction of the President is hereby communicated to the Part Detailed Estimate  
for Akot-Amalkhurd GC section of Akola-Khandwa-Mhow-Ratlam Gauge Conversion  
project at a cost of ₹1356 crore (Rupees one thousand three hundred fifty six crore  
only). Department-wise break-up of cost is as under:

Civil Engg.	Rs.1189.86 cr
S&T	Rs. 80.34 cr
Elect (TRD)	Rs. 59.75 cr
Elect(G)	Rs. 26.05 cr
Total	Rs.1356.00 cr

2. This issues with the concurrence of the Finance Directorate of the Ministry of  
Railways.

Total cost.  
Phase-I - 184.26  
= II - 532.25  
= III - 1356.00  
Total = 2072.51 Cr.

(Dhananjaya Singh)  
Director/Works-II  
Railway Board.

No.93/W-1/GC/W/12/RTM-Part3/Akot-Amalkhurd)(FTS-3265456) dt. .02.2019

Copy to:

- The IFA & CAO(C), South Central Railway, Secunderabad
- The Principal Director of Audit, South Central Railway, Secunderabad
- The Deputy Comptroller & Auditor General of India/Railways. Room No.224,  
Rail Bhavan New Delhi.

For Financial Commissioner/Railways.

- Copy to:
- CAO(C) South Central Railway, Secunderabad
  - F(X) II, WDO, and Budget Branches, Railway Board

CAO	Secy	Dy. CMM
CE I	Dy. ST	Dy. CPO
CE II	Dy. ST	Dy. COM
CE III	Dy. Des	Sr. LO
CE IV	Dy. G-I	CSTE/C
CE V	Dy. G-II	CEE/C
CE VI	Dy. LMA	





GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

No.93/W-1/GC/W/12/RTM-Part 2/Duplicate

New Delhi, dated 02.02.2018

The General Manager,  
South Central Railway,  
Secunderabad

Sub: Sanction of Detailed Estimate for Amlakhurd-Khandwa section (54.5 Km) as part of Ratlam-Mhow-Khandwa-Akola Gauge Conversion Project.

Ref: SCR's letter Nos. W.Con.153/N/95 VOL-VIII Part II dated 25.01.2017 and further replies vide letters dated 18.7.2017 and 18.12.2017

Sanction of the President is hereby communicated to the Detailed Estimate amounting to Rs 532.25 crore (Rupees Five Hundred Thirty Two Crore and Twenty Five Lakh only) for GC of Amlakhurd-Khandwa section (54.5 Km) as part of Ratlam-Mhow-Khandwa-Akola Gauge Conversion project. Department-wise break-up is given below:-

Department	Amount (Rs in Crore)
Civil Engg	437.91
S&T Engg	45.36
Elect (G)	12.71
Mech Engg	31.00
Environmental Charges	5.27
Total	532.25

2. This issues with the concurrence of Finance Directorate of Ministry of Railways.

(Dhananjaya Singh)  
Director/Works-II/Railway Board

No.93/W-1/GC/W/12/RTM-Part 2/Duplicate

New Delhi, dated 02.2018

Copy to:

- The FA & CAO(C), South Central Railway, Secunderabad.
- The Principal Director of Audit, South Central Railway, Secunderabad.
- The Deputy Comptroller & Auditor General of India (Railways), Room No.224, Rail Bhawan, New Delhi.

for Financial Commissioner/Railways

- Copy to: (i) The Chief Admn. Officer (Construction), South Central Railway, Secunderabad  
(ii) F(X)II, (iii) Budget, & (iv) WDO Branches, Railway Board.  
(iii) The Chief Admn. Officer (Construction), Western Railway, Churchgate, Mumbai

उप मुख्य अभियंता  
निर्माण/व.म.रे./अकोला  
Dy. Chief Engineer  
निर्माण/Construction  
व.म.रेल्वे/S.C.R., अकोला/AKOLA

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GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

No.93/W-1/GC/W/12/RTM-Mhow Pl.

New Delhi, dt.06.05.2010

The Chief Administrative Officer/Con.,  
South Central Railway,  
Secunderabad.

Sub:-Part detailed estimate of Akola-Akot (43.5 km) section of Ratlam-Mhow-Khandwa-Akola gauge conversion project.

Ref:- Railway's letter No. W.Con.153/N/95 dated 10.06.2009.

The part detailed estimate amounting to Rs. 186.35 crore for gauge conversion of Akola-Akot section of Ratlam-Mhow-Khandwa-Akola gauge conversion project has been pruned down to Rs. 184.26 crore by restricting the excess provision of passenger amenities of over and above initially envisaged as per attached list of deletion/reduction.

2. Accordingly, sanction of the Ministry of Railways is hereby communicated to the part detailed estimate amounting to Rs. 184.26 crore (Rupees one hundred eighty-four crore and twenty six lakh only) for gauge conversion of Akola-Akot section of Ratlam-Mhow-Khandwa gauge conversion project.

3. This issues with the concurrence of the Finance Directorate of the Ministry of Railways.



(Virender Kumar)  
Director/Works-II

No.93/W-1/GC/W/12/RTM-Mhow Pl.

New Delhi, dt.06.05.2010

- Copy to:
- (i) The FA&CAO/Con., South Central Railway, Secunderabad.
  - (ii) The Principal Director of Audit, South Central Railway, Secunderabad.
  - (iii) The Deputy Comptroller and Auditor General of India (Railways), 224, Rail Bhavan, New Delhi.

for Financial Commissioner/Railways

WDO, EXE-II and Budget branches of Railway Board.

उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण/Construction  
द.म.र.ल./S.C.R., अकोला/AKOLA  
Deputy Chief Engineer Construction  
S.C.R., Akola



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## Office of the Deputy Conservator of Forests

Rani Bag Chikhali Road Buldana- 443001  
Email Id- [dycfbuldana@mahaforest.gov.in](mailto:dycfbuldana@mahaforest.gov.in)

Chack List-17

### Site Inspection Report

(State serial No of proposal - FP/MH/RAIL/418941/2023)

Sr.No.	Items	Observation and remarks
1	Name of the project and location	Proposal for diversion of 49.60 Ha. Forest Land for construction Railway Gauge Conversion work from MG to BG between Akola Khandwa in favour of Deputy Chief Engineer, South Central Railway in the State of Maharashtra.
	Village :	Kuwardeo Block & Khel loan Jamod
	Range :	Jalgaon Jamod
	Round :	Jamod
	Beat :	Chalthana, Kuwardeo, West Jamod
	Forest Comptt. No.	625,627,453pt
2	Name of the User Agency.	Deputy Chief Engineer, South Central Railway
3	Date of site inspection.	Visit-11/04/2023
4	Extent (Ha) and legal status of forest land proposed for division.	49.60 Ha.of Reserved Forests
5	a. Details of forest land proposed for diversion and activity-wise break-up of forest land.	49.60 Ha.of Reserved Forests
	b.Density and Eco-value class.	Eco-class III (Tropical Dry Deciduous Forests) and has the density of 0.2
6	Whether the requirement of forest land as proposed by the User Agency in col.2 of part-I is unavoidable and barest minimum for the project. If no, recommended area item-wise with details of alternative examined.	The requirement of forest land as proposed by the User agency in Col.2 of Part 1 is unavoidable and barest minimum for this diversion project because on another suitable alternative not available.
7	Whether the proposal involves any construction of building (including residential) or not? If yes, details thereof.	No
8	a) Whether forest area proposed for diversion is important from wildlife point of view or not.	Yes,
	b) Details of any rare or endangered or unique species of flora and fauna found in proposed forest land. If so, the details thereof	No
	c) Aerial distance from the nearest boundary of any Protected Area (Km)	Distance from proposed project is 7.22 km from Ambabarwa (MTR) Wild life Sanctuary Map Enclosed
	d) Remarks about sensitivity of the forest area likely to be affected due to project.	Since a tunnel is proposed in CN 625 and 627 which will be 30mts deep below ground level, no tree felling is planned over the tunnel. However, tree felling in planar areas is bound to negatively impact the area.





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		Moreover, it is a wildlife corridor as per the Tiger Conservation Plan of Melghat Tiger Reserve and is in active use by wild animals including Tiger. Appropriate wildlife mitigation measures, land recalimation plan and debris disposal plan must be submitted by the User Agency.
	e) Whether wildlife mitigation plan is required? If yes, reasons therefore:	Yes. Since the forest area is part of the wildlife corridor as is mentioned in the Tiger Conservation Plan of Melghat Tiger Reserve.
9	Details of vegetation:	
	a) Total number of trees to be felled:	6991
	b) Number of trees to be felled of girth below 60cm:	576
	c) Effect of removal of trees on the general eco-system in the area.	The maximum number of trees that will be removed is from areas which are plain in nature hence no adverse effect in the general ecosystem of the area. Moreover, a tunnel is proposed which will be 30 mts below the ground level and trees above the tunnel would not be felled as per User Agency's submission hence no adverse effect on the ecosystem. However, land rehabilitation plan, debris disposal plan and wildlife mitigation measures must be undertaken by the user agency.
10	Background note on the proposal (Short summary)	Earlier existing railway line was denied expansion as it passed through the core area of the Melghat Tiger Reserve hence a this new realigned proposal was submitted which passes through the Territorial Forest of Buldhana Forest Division.
11	Whether the proposal involves any violation of Forest (Conservation) Act 1980? If yes, a detailed report on violation including action taken against the concerned officials to be attached.	No
12	Whether the proposal involves rehabilitation of displaced person. If yes, whether rehabilitation plan has been approved by the State Government?	No
13	Details on catchment and culturable command area under the project (if applicable)	NA
	Status of catchment area treatment plan to prevent siltation of reservoir (if applicable).	NA
14	Utility of the project.	Overall socio-economic development.
15	Whether land being diverted has any socio-cultural/religious values? Whether any sacred grove or very old growth trees/forests exist in the areas proposed for diversion?	No
16	Any other important information related to the project (Separate note may be attached, if	-



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17	Details of documents and photographs enclosed.	Enclosed.
18	Recommendations of the Inspecting Officer	<p>The earlier proposal of expanding the existing Metre Gauge line to broad Gauge line which was passing through the core area of Melghat Tiger Reserve was not approved. The alignment was later changed which is now passing through the Territorial Forest of Buldhana Forest Division comprising of Compartment numbers 453, 625 and 627. The Compartment number 625 and 627 are contiguous forest patches with undulating terrain and blessed with good tree density. However, a tunnel is proposed 30 ft deep below ground level so that trees may not be required to be felled. The said alignment passes through the Wildlife corridor as is mentioned in the Tiger Conservation Plan of Melghat Tiger Reserve. Moreover, the said passes through a 4<sup>th</sup> year plantation in CN 453 (1336 trees needs to be felled in the plantation site) trees totaling 6991 in number needs to be felled as is mentioned in the enumeration sheet.</p> <p>Given the fact that infrastructure is essential for the economic development of an area, and the fact that development and conservational needs be balanced, the current proposal seeks tunnel construction in CN 625 and CN 627 and new railway line to be setup CN 453, given the technical and engineering inputs, the proposal is requires bare minimum forest area and the other alignments studied by the user agency to not be compatible, the said proposal is recommended under the conditions that prior Wildlife and FCA clearance will be obtained by the user agency and a proper land reclamation plan consisting of stabilization measures, debris disposal plan and wildlife mitigation measures is submitted by the user agency</p>

Buldhana Dt. 11.04.2023



(Akshay Gaikhiye, IFS)  
Dy. Conservator of Forests  
Buldhana Forest Division  
**Deputy Conservator of Forest**  
**Buldhana Division, Buldhana**





**Office of The Deputy Conservator of Forests**  
**Buldana Division, Buldana**

Email-Id - [dycfbuldana@mahaforest.gov.in](mailto:dycfbuldana@mahaforest.gov.in)

No./ Survey / \_\_\_\_/2022-23

Buldana Date 17.04.2023

**Site Inspection Report**

Akola Khandwa Railway Gauge Conversion proposal involving 45.4 ha of Forest Land to be diverted under the Forest Conservation Act, 1980

Date of visit: 11/04/2023

Shri G K Anarse Chief Conservator of Forest, Amravati, Akshay Gajbhiye, DCF Buldana visited the site of the proposed Akola Khandwa Railway Gauge Conversion proposal moved by South East Central Railway, SCR under the Forest Conservation Act 1980 on 11<sup>th</sup> April 2023. Moreover, the undersigned was accompanied with ACF Buldana, Mr. Ranjit Gaikwad, RFO Jalgaon-Jamod Mr. Kishor Padol, Round Officer Mr. Tayde, surveyors Shri Muley and Shri Wagh along with concerned forest guards and forest labours accompanied for the visit.

The undersigned was accompanied by officials of the user agency. Mr. Yogananda Babu, Deputy Chief Engineer, SECR, Mr. Tiwari, along with Mr. Padhgavhankar, Retd ACF and currently consulting with the User Agency with regards to the proposal under examination were present for the joint examination of the site.

The following observations have been recorded as follows:

1. As per the KML submitted by the user agency, the chainages mentioned in the KML files have been marked on the ground by forest field functionaries. A photo is attached as an example showing marking of chainage number 672.





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the area has been started, will further clarify the actual area needed for demarcation and diversion for the purpose. Given the terrain under consideration, actual enumeration on field may require 20-25 days. Joint Enumeration of trees that needs to be felled will be carried out once the area is demarcated on the field by the user agency.

7. The said area is part of the wildlife corridor and passes through the corridor as mentioned in the Tiger Conservation Plan of the Melghat Tiger Reserve. Hence parallel proposal for wildlife clearance may be initiated by the user agency at the earliest. Moreover, the corridor is in active use by wild animals including tigers hence plan wildlife mitigation **plan consisting of measures such as overpasses, signages** etc to mitigate attacks on labours will construction of the said project too is hereby brought to the notice of the user agency to submit a **plan for wildlife mitigation measure**.
8. This office is not in receipt of the hard copy of the proposal. The User Agency is required to submit the hard copy to this office at the earliest.
9. On perusal of the online proposal: the following observations are brought to the notice of the user agency for their perusal and necessary action:
10. In subheading *Others*; point no. 10: whether any alternative sites examined or part thereof for the non site specific component: User Agency has mentioned as the project or activity is site specific. Clarification of alternative route explored and reasons for rejections may kindly be stated by the user agency.
11. In the head *project details*: point 1.4: whether any proposal seeking prior approval of central government under the forest conservation act 1980 for diversion of forest land required for the project has been submitted or not: the user agency has mentioned NO. However a proposal measuring 18.8 ha for the same proposal has been submitted. The same may be deleted by the user agency as new proposal measuring a higher area of 45.2 ha has been submitted.
12. With respect to *afforestation details* point 7.1: whether compensatory afforestation applicable or not: user agency has mentioned NO whereas CA would be required.
13. With respect to *others*; point no. 8.3: wildlife clearance details: whether project is part of thereof is located in any protected area or their eco sensitive zone: user agency has mentioned NO. However, the proposal passes through wildlife corridor of melghat tiger reserve and hence WL clearance will be required for the proposal.
14. The user agency is hereby requested to peruse the parivesh portal for the required changes in the proposal submitted online.

Akshay Chaudhari

Deputy Conservator of Forest,

Buldana Forest Division Buldana.

Deputy Conservator of Forest  
Buldana Division, Buldana

(G.K. Anarse)

Chief conservator of Forests (T)

Amravati Forest Circle



## Form for Drone Survey

(Profarma prescribed by PCCF(WL) Letter No. 1025, Dated: 20.8.2020)

1	Name of the user Agency	South Central Railway, Secundrabad
2	Date of submission by user Agency	06.03.2023
3	Whether proposal is sub judice	No
4	Name of the protected Area involved	
5	Area of the protected Area	Nil
6	Location of the project	Reserve Forest in compartment no 453,625,627 near Kuverdeo village in Jamod range of Buldhana forest division
7	Details of total area required	Area statement Enclosed
8	Status of ESZ, Draft/Family notified, if any	Not Required
	Length/Area of the project with in ESZ/deemed ESZ	Nil
	Total no of trees to be felled	6991
A	Cost of part within WLS/NP	0
B	Cost of part within ESZ	25.20 Crore
C	Cost of part outside ESZ	897.605 Crore
D	Cost of part within Tiger Corridor	1149.71 Crore
	Total Cost	2072.51 Crore
12	Justification of the project	The Main aim of the project is Gauge conversion from MG to BG as a UNIGAUGE POLICY the proposed gauge conversion project will provide shortest rail link between Khandwa and Akola Stations. Also this rail link will provide better rail connectivity between insustrial centers in the south and western India part with all weather system of mass transport of goods and encourage insustrialization Accelerating the regional development with passenger traffic of south and western region as well as encourages the tourist activity
	Recommendation of the chief wildlife warden	

Date 04/01/2024

Place - Akola



(Signature)  
Deputy Conservator of Forest  
Buldana Division, Buldana

(Signature)  
उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण / Construction  
द.म.रेल्वे / S.C.R., अकोला / AKOLA



22

## PROJECT NOTE

### **Construction of AKOLA- KHANDWA Gauge conversion work**


**The above project sanctioned and bearing the cost by Railway – 100%**

The project will contribute to development of backward region of Maharashtra state by creating more jobs and business opportunities by creating connectivity through transport and may attract various project in the region.

The present AKOLA-KHANDWA project is gauge conversion of existing line from meter gauge to broad gauge between Akola and Khandwa stations. Two existing railway stations namely AKOLA Located on Badnera – Bhusawal Section of central railway to Nanded existing station and it passes through four district namely Akola and of Buldhana district of Maharashtra state and Burhanpur and Khandwa district of Madhya Pradesh state.

Buldhana is a famous tourist and pilgrimage centre. It also has Hill station, Dnyanganga sanctuary & Lonar sanctuary.

Akola is a district town. The famous Gajanan Maharaj temple is situated at Shegaon Tahsil Khamgaon 43.5 km away from Akola district. It is an ancient place where many bhakta Niwas is available in this place. Many tourists from Maharashtra, Telangana, Chattishgarh, and all over India visits these places.

  
उप मुख्य अभियंता/उप मुख्य इंजिनियर  
Dy. Chief Engineer/निर्माण/द.म.रे./अकोला  
निर्माण/Construction Deputy Chief Engineer Construction  
द.म.रेल्वे/S.C.R., अकोला/AKOLA Akola



The total length of the line is approximately 202.96 km and shall pass through Jalgoan Jamod Town in the District of Buluhana.

The Goods traffic on the new line shall consist of cements, fertilizer, sugar and its byproducts oilseeds, pulses, food grains, cotton etc.

The project is planned to be executed in Three phases between AKOLA to KHANDWA and likely to be completed by the year 2026.

The AKOLA-KHANDWA Guage conversion project included in the pink book by Railway board.



(Y. Yogananda Babu)

Deputy chief Engineer Construction  
South Central Railway, Akola.

उप मुख्य अभियंता  
Dy. Chief Engineer Construction  
निर्माण/Construction  
द.म.रेलवे/ S. C. Ry., अकोला/ AKOLA  
S.C.Ry., Akola

## Undertaking of 2%

This is to certify that the project authority agrees to deposit 2% of total project cost of implementation of the Wildlife management Plan into the account of CAMPA against the Gauge conversion of MG to BG between Akola to Khandwa project across Tiger corridor for a total length of 6.040 km and 49.60 Ha. Forest Dea under Buldhana Division in the state of Maharashtra in favour of South-Central Railway

Date- 04-01-2024  
Place – Akola

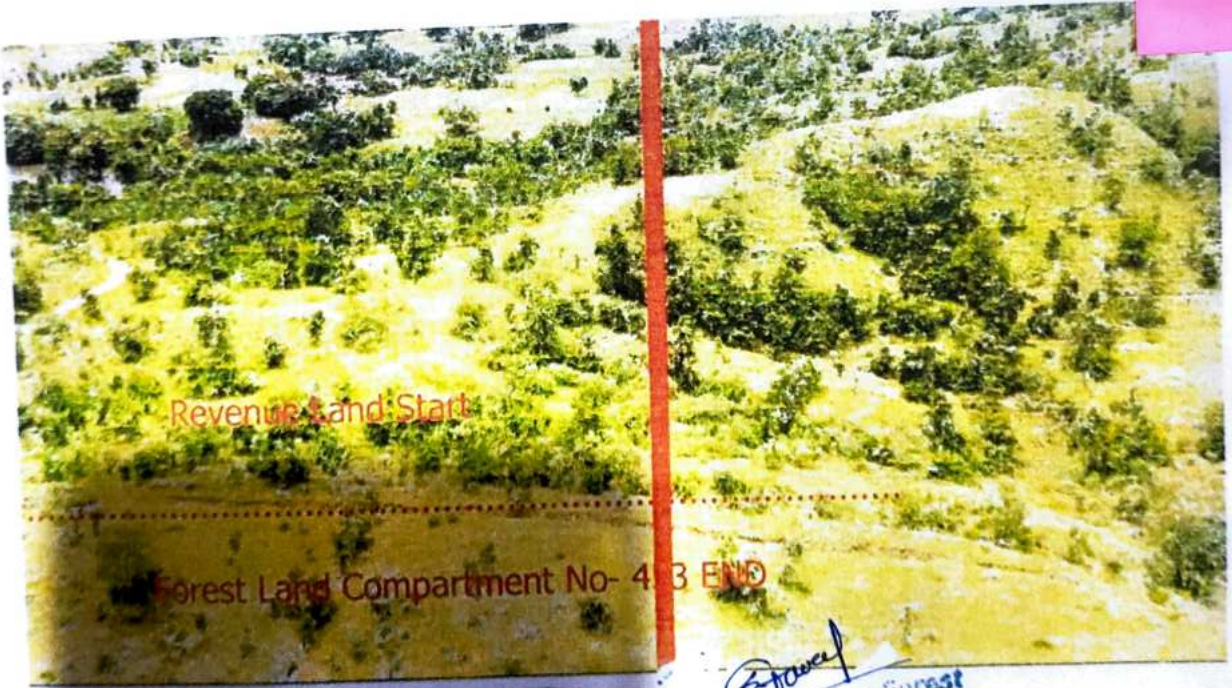
  
उप मुख्य अभियंता (Ugandha Baba)  
Deputy Chief Engineer (Construction)  
South Central Railway, Akola  
निर्माण, Construction  
द.म.रेल्वे/S.C.R., अकोला/AKOLA





उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण / Construction  
ह.म.रेल्वे / S.C.R., अकोला / A.  
निर्माण अभियंता, ह.म.रेल्वे,  
Dy Chief Engineer,  
Office of Dy.C.E.  
Buldana Division  
Deputy Conservator of Forest  
Buldana Division, Buldana  
Sgawal



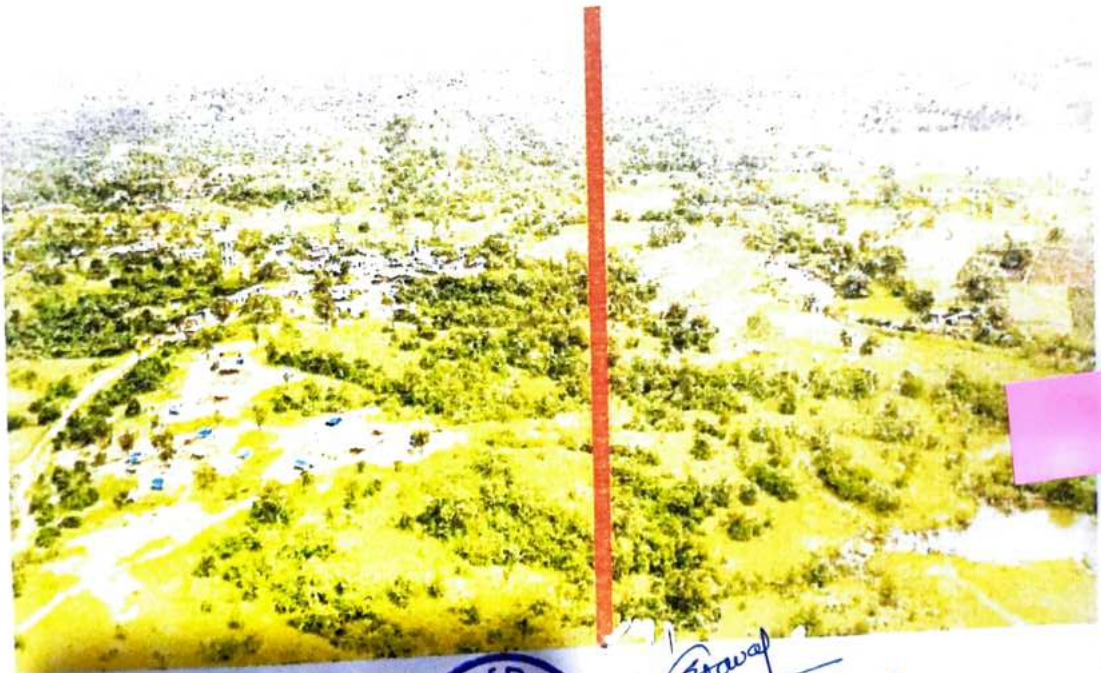


उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण / Construction  
उप माली इन्जिनियर  
ह.म.रेल्वे / S.C.R. अकोला / AKOLA  
निर्माण अकोला, ह.म.रेल्वे,  
Dy. Chief Engineer,  
Const. Akola, S.C. Railway

Office of Dy. Conservator of Forest  
Buldana Division, Buldana

हस्ताक्षर





उप मुख्य अभियंता  
Dy. Chief Engineer  
उप निर्माण / Construction  
ह.म.स.वे. / S.C.R., अकोला / - 432 004  
Dy Chief Engineer,  
Const. Akola, S.C. Railway



Deputy Conservator of Forest  
Buldana Division, Buldana





*[Signature]*  
उप मुख्य अभियंता  
Dy. Chief Engineer  
उप निर्माण/Construction  
इ.म.रेल्वी / S.C.R., अकोला / Akola / S.C. Railway  
Office of Dy.C.E.  
Buldana Division, Buldana  
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Deputy Conservator of Forest  
Buldana Division, Buldana



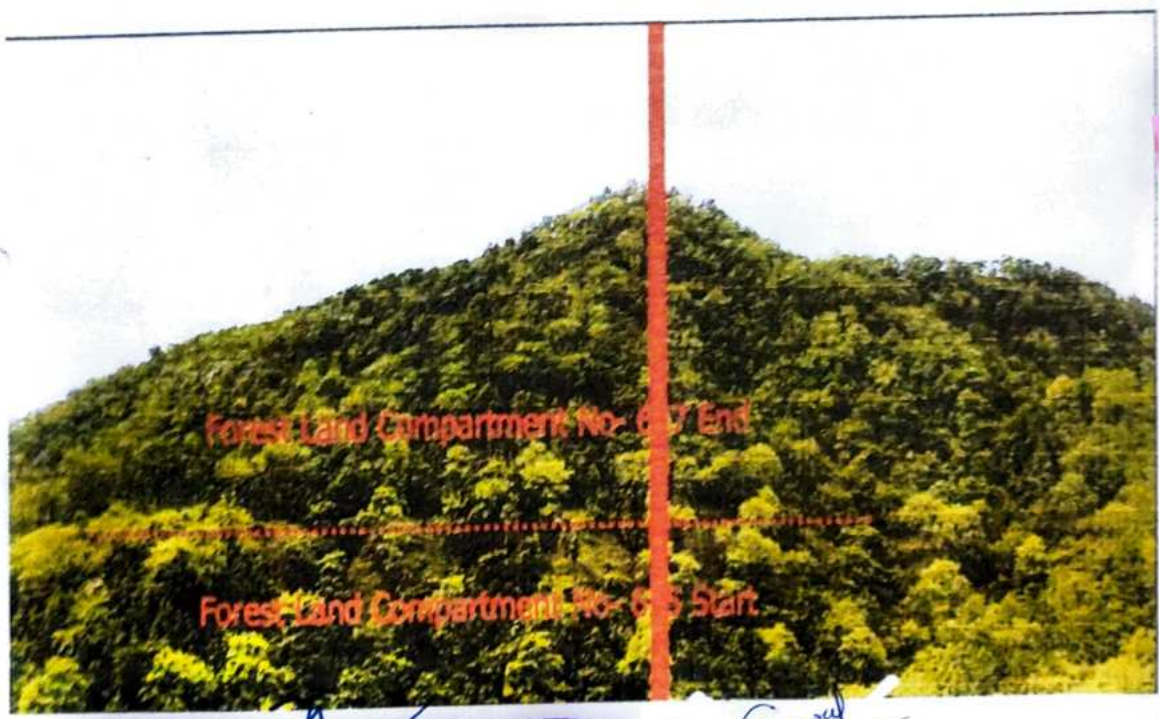


उप मुख्य अभियंता  
Dy. Chief Engineer  
उप निर्माण / Construction  
ड.म.रेल्वे / S.C.R., अकोला / Akola  
Dy. Chief Engineer,  
Forest Akola, S C. Railway



Deputy Conservator of Forest  
Buldana Division, Buldana





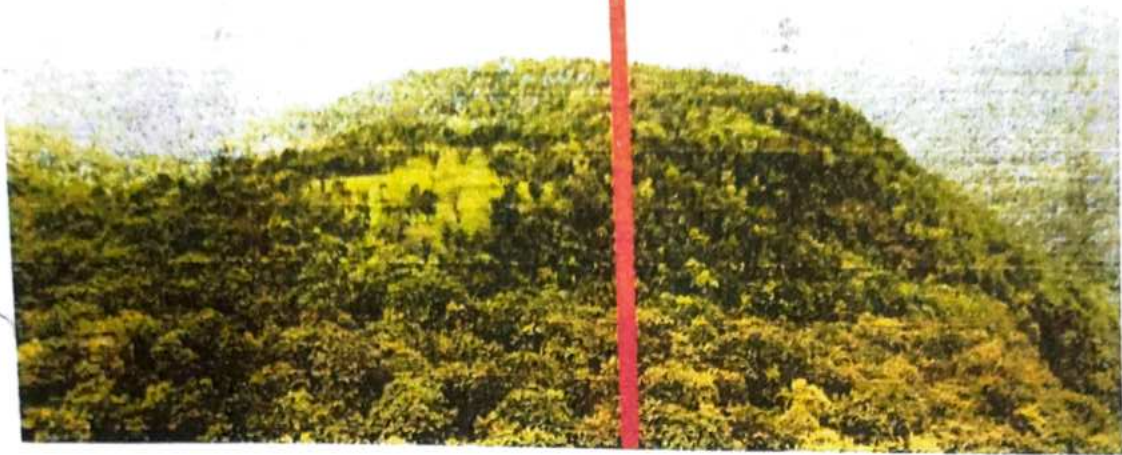
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Dy. Chief Engineer  
निर्माण / Construction  
इ.प्र.र. / S.C.R., अकोला / Akola  
निर्माण अकोला, इ.प्र.र. /  
Dy Chief Engineer,  
Const. Akola, S.C. Railway

Office of Dy.C.E.  
Deputy Conservator of Forest  
Buldana Division, Buldana

Office of Dy.C.E.  
Buldana Dn

Spaw





मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण / Construction  
कोस, अकोला / KOS, AKOLA  
Dy. Chief Engineer,  
निर्माण विभाग, अकोला  
अ. म. स. १२३४५६७८९



*[Signature]*  
Deputy Conservator of Forest  
Buldana Division, Buldana



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उप मुख्य अभियंता  
उप मुख्य अभियंता  
Chief Engineer  
Construction  
निर्माण अकादमी, अकोला / AKOLA  
Dy. Chief Eng. Const. Akola, S. C. Railway



Deputy Conservator of Forests  
Buidana Division, Buidana



# Office of the Deputy Conservator of Forests

Rani Bag Chikhali Road Buldana- 443001  
Email Id- [dycfbuldana@mahaforest.gov.in](mailto:dycfbuldana@mahaforest.gov.in)

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## Area Statement

1. State serial No of Proposal - FP/MH/RAIL/418941/2023
2. Name of Proposal - Proposal for diversion of 49.60 Ha. Forest Land for construction Railway Gauge Conversion work from MG to BG between Akola Khandwa in favour of Deputy Chief Engineer, South Central Railway in the State of Maharashtra.
3. Purpose wise breakup of Forest Land Required

Sr. No.	Name of Village	Taluka	Comptt No	Survey No. / Gut No.	Length & Width	Area in	
						Sq. M.	HA.
1	2	3	4	5	6	7	8
1	Kuwardeo Block	Jalgaon Jamod	625	Unsurveyed	3626.5 X 75	271987.5	27.20
2	Kuwardeo Block	Jalgaon Jamod	627	Unsurveyed	1745 X 75	130875	13.09
3	Kheloan Jamod	Jalgaon Jamod	453pt	96/173	931 X 100	93100	9.31
Total						495962.5	49.60

Buldhana  
Dt. 18/05/2023



Akshay Gaibhiye  
Deputy Conservator of Forests  
Buldana Division, Buldana  
Buldana Forest Division

Check

# AKOLA-KHANDWA GC RAILWAY PROJECT

• USER AGENCY

Y.YOGANANDA BABU

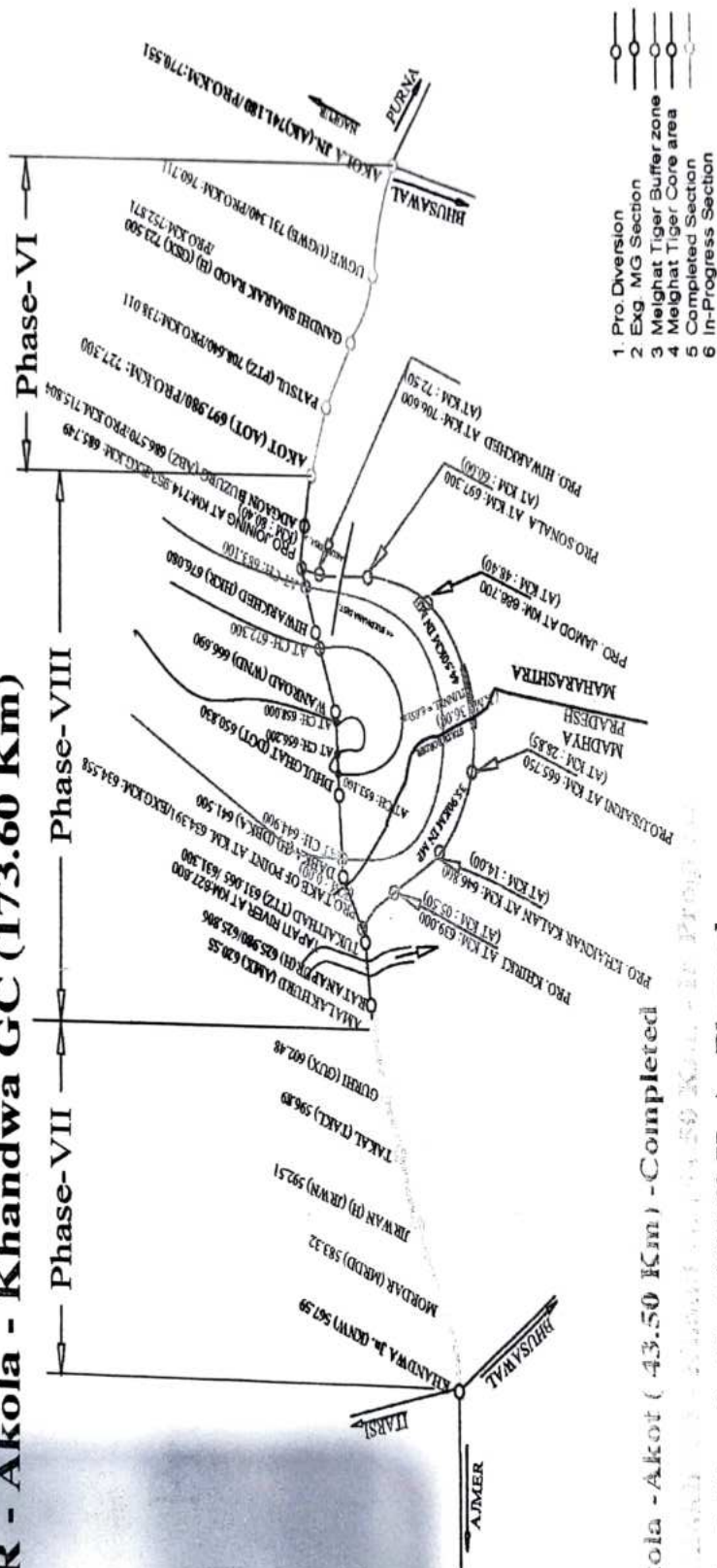
DY. CHIEF ENGINEER

SOUTH CENTRAL RAILWAY

P. P. T.



**SCR - Akola - Khandwa GC (173.60 Km)**



PA - VI Akola - Akot ( 43.50 Km ) - Completed

**Ph - VIII Amlakhurd -Akot ( 75.60 Km) - Planned**

# AKOLA-KHANDWA GC RAILWAY PROJECT

Project is executing in 3 Phases

1. AKOLA-AKOT (43.20KM)-Completed
2. KHANDWA-AMLAKHURD(54.5KM)- In Progress
3. AKOT-AMLAKHURD (106.5KM)

# AKOLA-KHANDWA GC RAILWAY PROJECT

- Total Forest area requirement —49.60 Ha
- Clearances applied on PARVESH PORTAL  
Forest Clearance on 21.02.2023  
Wild life Clearance on 06.03.2023



# SAILANT COMPONENTS

## AREA STATEMENT

S.NO	Name of Village	Compartment number	Length (Mtrs)	Width (Mtrs)	Area in Hect	State of Land
1	KUVARDEO	625	3467.275	78.44	27.20	Reserve Forest
2	KUVARDEO	627	1575.805	83.06	13.09	Reserve Forest
3	Jamod	453(P)	997.331	93.35	9.31	Reserve Forest
<b>Total</b>					<b>6040.41</b>	<b>49.60</b>

## SAILANT COMPONENTS SPEED

- Railway Line is designed for speed potential of 130 KMPH

# SAILANT COMPONENTS

Project cost

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Estimated cost of Project is 2072.51 Crs



# SAILANT COMPONENTS

Project completion period

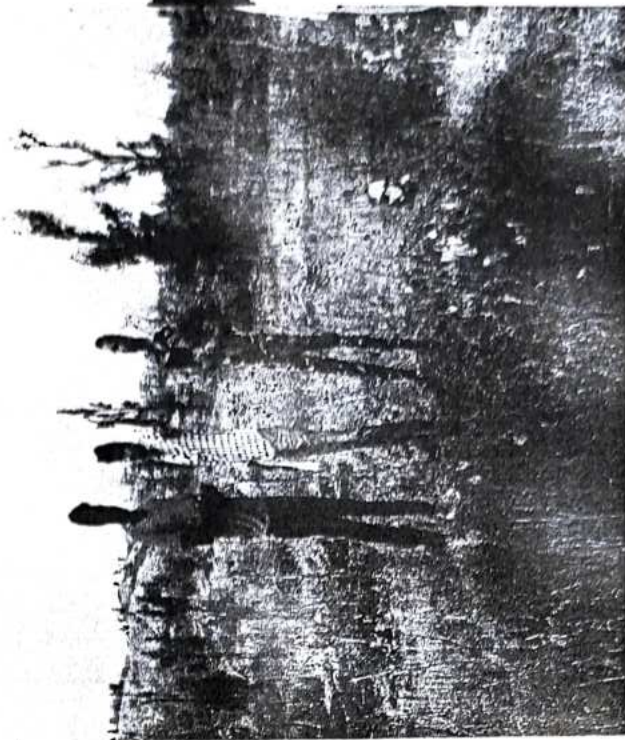
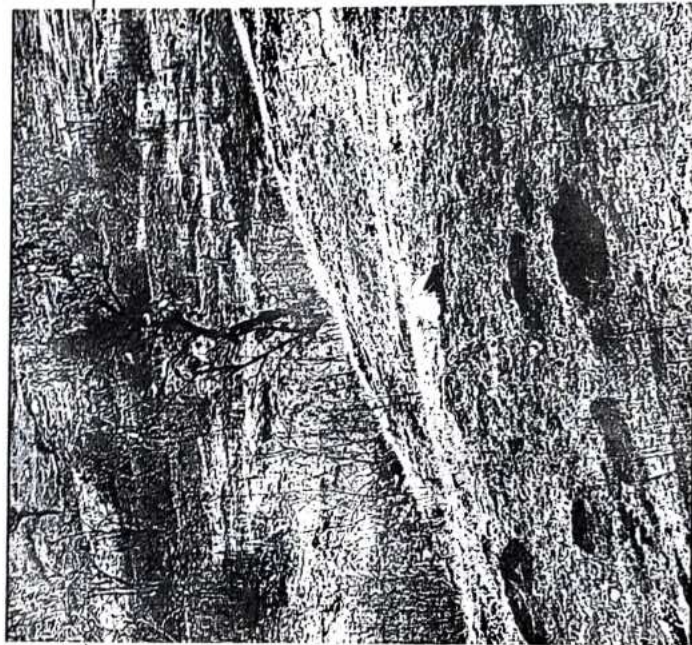
- Project planned to complete in the year 2026-27

## SITE INSPECTIONS BY OFFICIALS

- Joint Site inspection with Sri.Akshay Gajbhiye DFO/Buldhana on 11.01.2023 & 16.03.2023
- Joint Site inspection with Sri.Akshay Gajbhiye DFO/Buldhana on 11.04.2023



AKOLA-KHANDWA GC RAILWAY PROJECT  
Site inspection by DCF/buldhana on 16.03.2023





# AKOLA-KHANDWA GC RAILWAY PROJECT

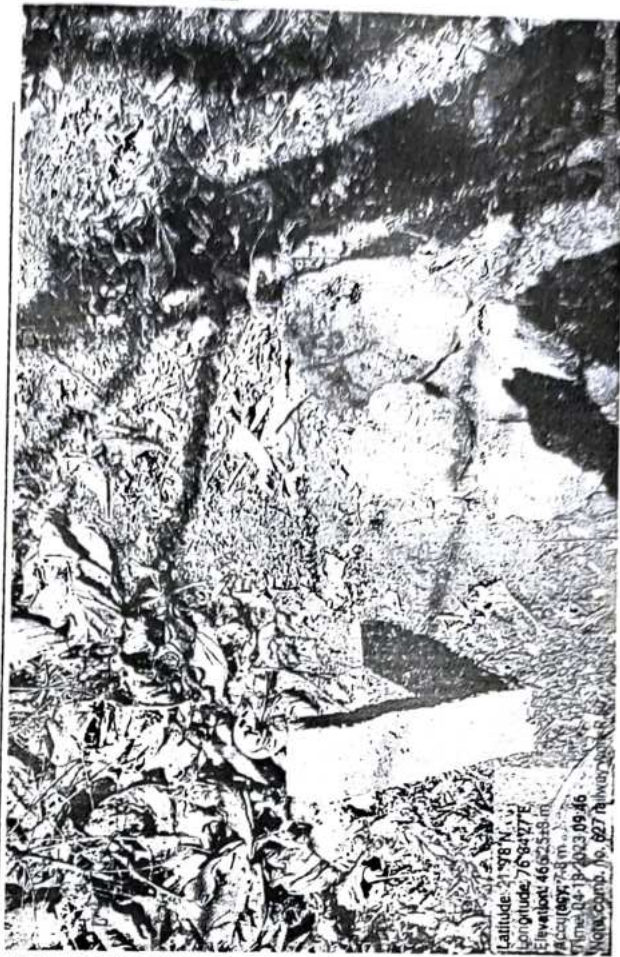
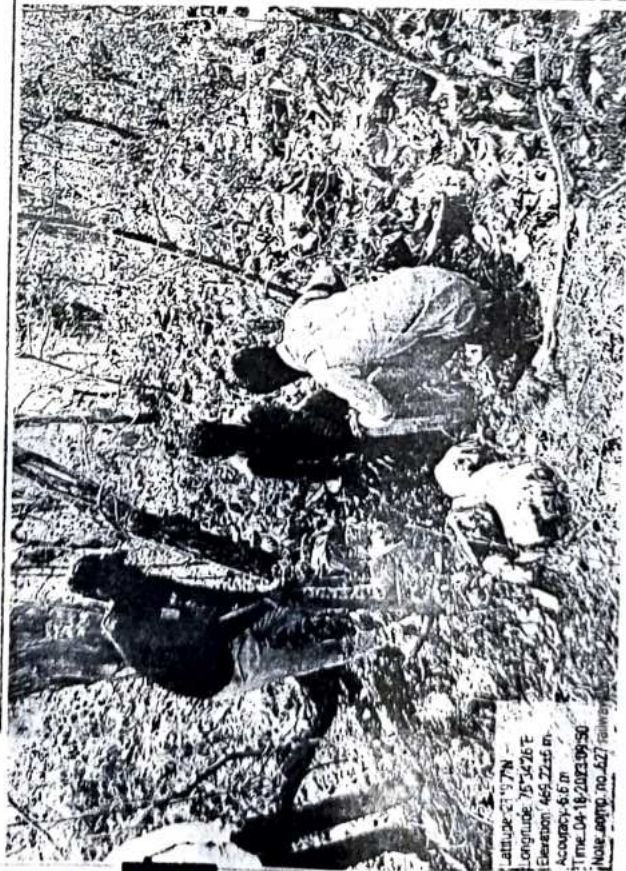
Site inspection by CCF(T)/Amaravathi on 11.04.2023





# AKOLA-KHANDWA GC RAILWAY PROJECT

## Boundary Marking

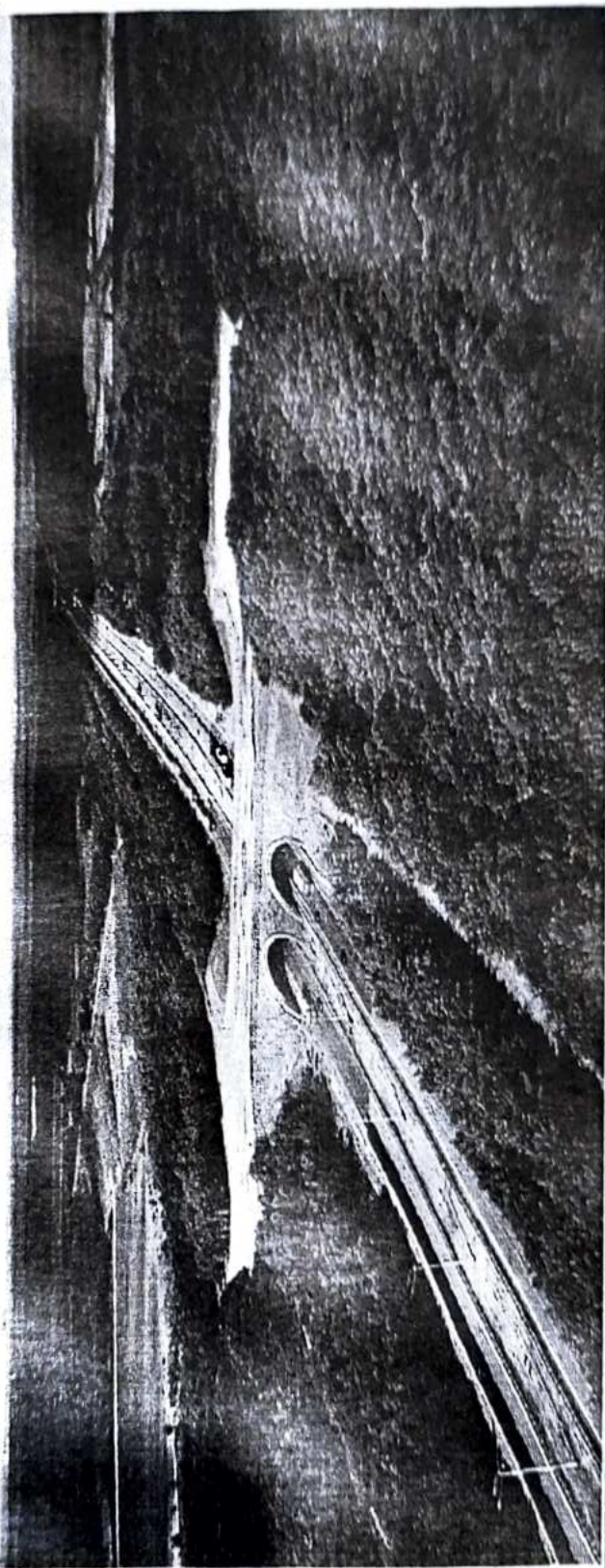






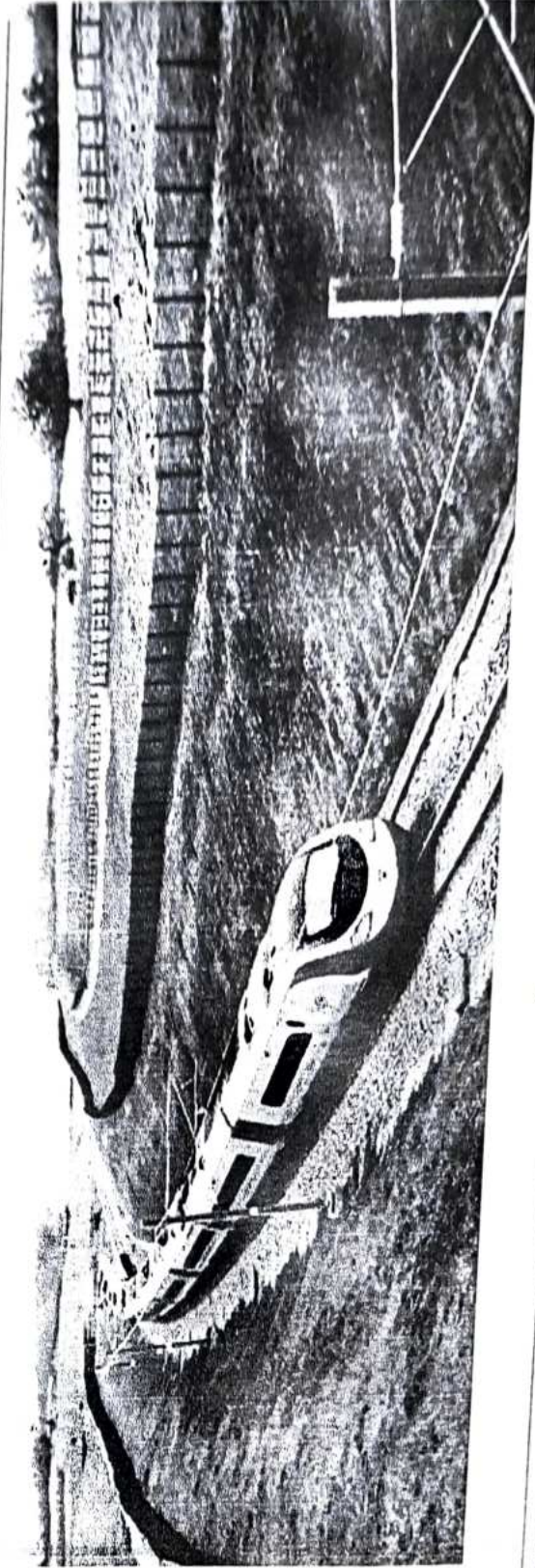


# Measures for crossing of Wild life

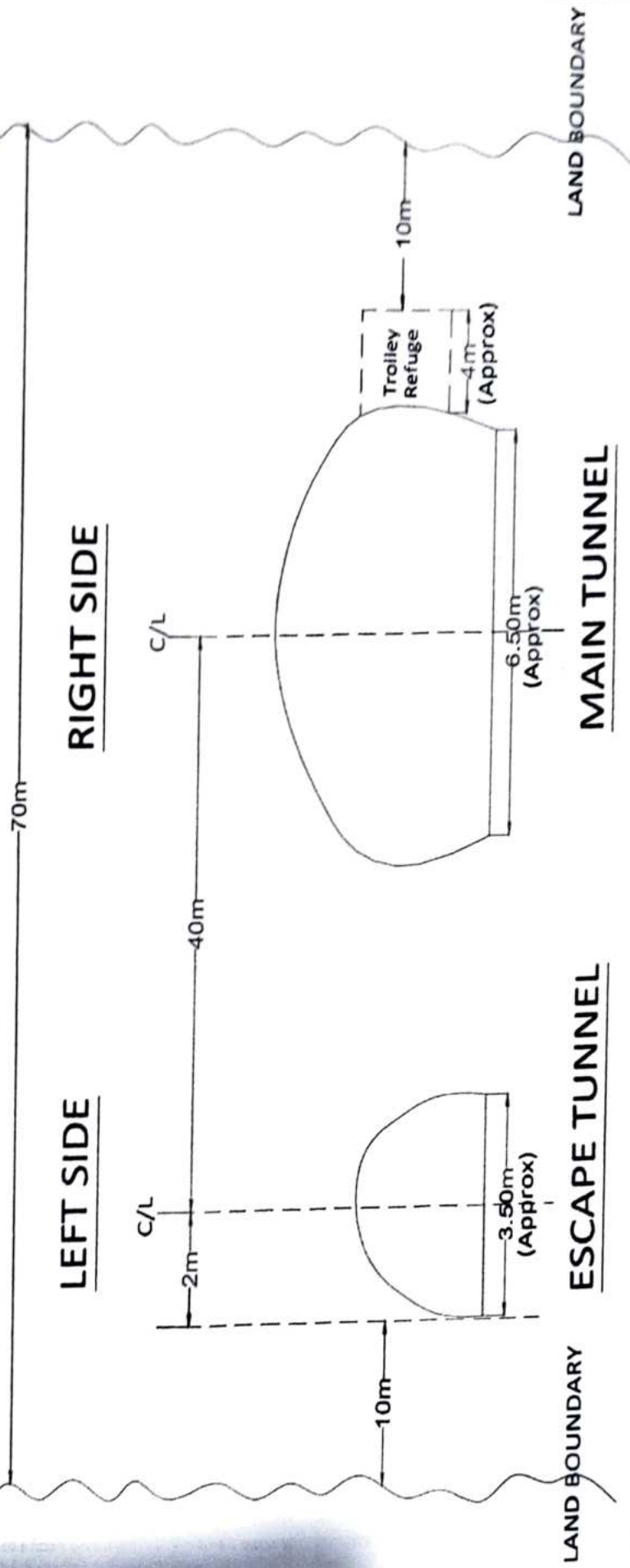




## Measures for crossing of Wild life



Proposed tunnel (5.50 km long in Maharashtra state ) between  
USARNI and JAMOD in Amlakhurd and Akot Section

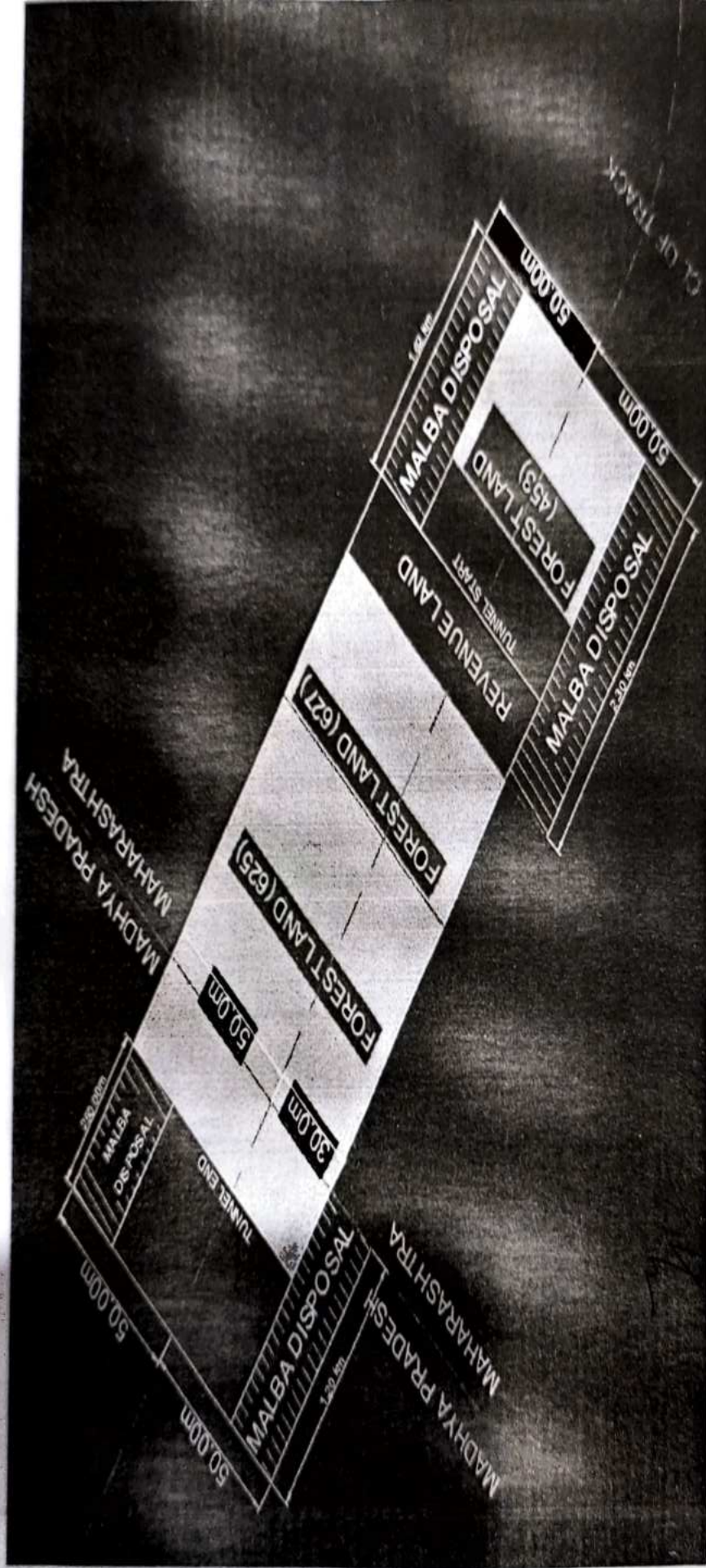


राज्य मंत्रालय अभियंता  
Dr. Chief Engineer  
Planning / Construction  
इ.म.खेदे / S.C.R. जं.म.म. / A.M.O.L.A

Special  
Deputy Conservator of Forest  
Buldana Division, S.C.R.



# MUCK DISPOSAL



उप मूखी अभियंता

Dy. Chief Engineer

निर्माण / Construction

द.म.रेल्वे / S.C.R., अकोला / AKOLA

Deputy Conservator of Forest  
Buldana Division Bhandara

THANK YOU



No 55  $\sqrt{h}$ [illegible]

महाराष्ट्र  
MAHARASHTRA

[illegible]

**Deputy Conservator of Forest  
Buldana Division, Buldana**

**द.म.रेल्वे/8.C.R., अकोला/AKOLA**



## ANNEXURE -1

### Opinion of Deputy Conservator of Forest (T), Buldhana Division Buldhana

As no significant adverse impact on wildlife is foreseen by this project, hence it is recommended under following conditions:

1. The total of 33055 trees are currently standing in the affected area. 6991 trees are likely to be felled in the proposal. As stated by the user agency, the proposal involves the construction of a tunnel that will be above CN 453 and above ground. A portion of CN 627 where a total of 6991 trees are likely to be felled. The rest of the tunnel will be underground, more than 30 meters below the surface. Therefore, excluding these 6991 trees, the rest of the trees will not be affected.
2. The work should be done only during day time to avoid causing disturbance to movement of wildlife during the night.
3. User agency shall be asked to deposit 2% of amount to Buldhana Forest Division foundation for wildlife habitat improvement works.
4. Wildlife mitigation measures plan should be prepared by will Del



(Smt Saroj Gawas, I.F.S).  
Deputy Conservator of Forest (T)  
Buldhana Forest Division  
Deputy Conservator of Forest  
Buldhana Division, Buldhana

By  
Dy. Chief Engineer  
Construction  
निर्माण / Construction  
द.म.रेल्वे / S.C.R., अकोला / AKOLA



## 55



Deputy, Conservator of Forest  
Baidam, Sivakasi, Cuddalore

**प्रमाणित**  
**उप महा अभियंता**  
**Civil Engineer Deputy Chief**  
**DX Civil Construction S.I.**  
**निर्माण / Construction**



Proposal for diversion of original area 45.40 ha. (Revised 49.60 ha) Forest land for construction Railway Gauge Conversion work from MG to BG between Akola-Khandwa in favour of Deputy Chief Engineer, South Central Railway in the State of Maharashtra-reg (FP/MH/RAIL/418941/2023)

**Specific Recommendation of Principal Chief Conservator of Forests  
(Head of Forest Force), Maharashtra State, Nagpur with regards to acceptance or otherwise  
of the proposal supported by reasons.**

The Government of India has launched new Parivesh i.e., 2.0 version, hence, the User Agency has registered aforesaid proposal after 28th June 2022. The Parivesh ID Number generated is FP/MH/RAIL/418941/2023.

2.0 In this connection, Government of India has issued notification vide dated 28/06/2022 and constitution of Project Screening Committee as per para No.8.

3.0 The said proposal was discussed in the Project Screening Committee-I meeting held on 17/03/2023. The PSC-I after through deliberation and discussion has observed that:-

- i. Joint Site Inspection was carried out by Deputy Conservator of Forests, Buldhana Forest Division along with User Agency on 16/03/2023
- ii. In the proposal the C.A land was not provided, so committee suggested to DCF, Buldhana to identify double degraded Forest land as CA land.
- iii. Cost Benefit analysis report to be calculated as per latest Government of India latest circular and prevailing rate structure of compensatory afforestation.
- iv. Topo-sheet, Index Map, defray the cost of CA, NPV and FRA, 2006
- v. The User Agency not uploaded following documents in additional information fields. Copy of the Area statement, Land use plan, Technical Approval, Administrative Approval. Also, Agency not approach to CCF (T), Amravati for Joint Site Inspection.
- vi. After discussion in the meeting of PSC-I, committee observed that the area statement is still not finalized.
- vii. The Dy.CF, Buldhana vide letter dated 16/03/2023 has raised back query on 11 points. The same is show as under:-
  - As per the KML submitted by the user agency, the chainages mentioned in the KML files have been marked on the ground by forest field functionaries.



- The proposed site is extremely undulating, comprises of steep hillocks and hills. Majority of the area under Buldhana Territorial division is proposed to be utilized for a tunnel for a distance of 6.5 kms. The user agency to kindly clarify as to how the proposed debris and excavated material for tunnel creation will be disposed. Moreover, forest land reclamation plan must be submitted by the User Agency to ensure stability of the terrain.
- Compartment number 625, bordering Madhya Pradesh requires roughly 3 hours of travel through Madhya Pradesh. All other compartment numbers (CN 627 and CN 453) would also may require roads, makeshifts huts, labour sheds along with some area which will be dumped for raw materials to be used in construction purposes. That area needs to be identified and included in the proposal or in the absence of such plan, any other arrangements of the above may kindly be apprised to the Forest Department.



453 (1336 trees needs to be felled in the plantation site) trees totalling 6991 in number needs to be felled as is mentioned in the enumeration sheet. Given the fact that infrastructure is essential for the economic development of an area, and the fact that development and conservational needs be balanced, the current proposal seeks tunnel construction in CN 625 and CN 627 and new railway line to be setup CN 453, given the technical and engineering inputs, the proposal is requires bare minimum forest area and the other alignments studied by the user agency to not be compatible, the said proposal is recommended under the conditions that prior Wildlife and FCA clearance will be obtained by the user agency and a proper land reclamation plan consisting of stabilization measures, debris disposal plan and wildlife mitigation measures need to be submitted by the User Agency

6.00 After that, the said proposal discussed in the in the Project Screening Committee-II meeting held on 19/05/2023. The Chief Conservator of Forests (T), Amravati and Deputy Conservator of Forests, Buldhana Forest Division, Buldhana were present in the meeting. The PSC members after thorough deliberation and discussion decided to recommended the proposal for submission Government of India for prior approval. The details of the said proposal is shown as under:-

7.0 The Chief Conservator of Forests (T), Amravati on 19/05/2023 has submitted Proposal for diversion of original area 45.40 ha. (Revised 49.60 ha) Forest land for construction Railway Gauge Conversion work form MG to BG between Akola-Khandwa in favour of Deputy Chief Engineer, South Central Railway in the State of Maharashtra for seeking approval under Forest (Conservation) Act, 1980.

8.0 The details of the forest land proposed for diversion are as under:- (P/18)

Sr. No	Item work purpose	District	Name of Village	Taluka	Gut No.	Compt. No.	Length x Width	Area (in ha.)	Legal Status
1	Gauge Conservation of existing railway line from Meter gauge to Broad gauge between Akola-Khandwa Railway Station	Buldhana	Kuwardeo Block	Jalgaon Jamod	Unsurveyed	625	3626.5 x 75	27.20	Reserved Forest
			Kuwardeo Block		Unsurveyed	627	1745 x 75	13.09	
			Kheloan Jamod		173	453 (Pt)	931 x 100	9.31	
Total Forest Area involved (in ha.)								49.60	

9.0 The proposal has been initiated by the Deputy Chief Engineer, Construction, South Central Railway, Akola proposal for diversion of 49.60 ha. Forest land for construction Railway Gauge Conversion work form MG to BG between Akola-Khandwa in favour of Deputy Chief Engineer, South Central Railway in the State of Maharashtra. The Akola Khandwa gauge conversion of existing line from meter gauge to broad gauge between Akola and Khandwa stations. Two existing railway stations namely Akola located on Badnera-Bhusawal Section of central railway to Nanded existing station it passed through five district namely Akola, Amravati, Yavatmal, Washim, Hingoli and Nanded of Maharashtra State. Buldhana is home which is a famous tourist and pilgrimage centre's. It is also hill station and near Dnyanganga Sanctuary & Lonar Sanctuary.



				Jamod		
3	219	Zodga-1	Matergaon	Khamgaon	30.00	25.00
4	369	East Bhingara	Jalgaon	Jalgaon	28.00	24.20
				Jamod		
Total Area (in ha)						99.20

and it is contiguous, suitable for afforestation and management purpose and it is free from encroachment and an encumbrances.

10.10 The proposed alignment is best suitable from forestry point of view (P/1).

**11.0 The User Agency has submitted an undertaking that:-**

11.1 The User Agency has submitted an undertaking to defray the cost of Net Present Value (P/87)

11.2 The User Agency has submitted an undertaking to defray the cost of Compensatory Afforestation (P/85)

11.3 The Cost Benefit Analysis report is enclosed on page. The Benefit loss ratio is 95.733:1 (P/116 to P/119)

11.4 The User Agency has submitted an undertaking regarding the compliance under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 has been applied and is under process and shall be submitted before final approval as per Government of India vide letter No.11-43/2013-FC, dt. 3/12/2018 (P/126)

12.0 The Deputy Conservator of Forests, Buldhana Forest Division, Buldhana and Chief Conservator of Forests (T), Amravati have recommended proposal for diversion of 49.40 ha. Reserved forest land.

13.0 Therefore the said proposal is submitted for consideration, if the State Government agrees to divert the said land it may be forwarded to the Central Government by stipulating following conditions: -

13.1 Legal status of the forest land shall remain unchanged.

13.2 Forest land will be handed over only after required non-forest land for the project is handed over by the user agency.

**13.3 Compensatory afforestation**

a) The proposed Compensatory afforestation over 99.20 ha. degraded forest land. The details of Compensatory Afforestation is as under:- (P/26)

Sr.No.	Compt No.	Beat	Round	Range	Total Area (in ha.)	Area taken for C.A (in ha.)
1	374	Hanwatkhed-1	Jalgaon	Jalgaon	30.00	25.00
				Jamod		
2	376	Hanwatkhed-2	Jalgaon	Jalgaon	30.00	25.00
				Jamod		
3	219	Zodga-1	Matergaon	Khamgaon	30.00	25.00
4	369	East Bhingara	Jalgaon	Jalgaon	28.00	24.20
				Jamod		
Total Area (in ha)						99.20



13.14 Sufficient firewood, preferably the alternate fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternate fuel. P/9

13.15 The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer. 62

13.16 No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.

13.17 The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.

13.18 The forest land shall not be used for any purpose other than that specified in the project proposal.

13.19 The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.

13.20 Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF&CC Guideline F. No. 11- 42/2017-FC dt 29/01/2018.

13.21 Any other condition that the Ministry of Environment, Forests & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

13.22 The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>)

14.0 It is therefore, requested that Government of Maharashtra may kindly submit the proposal for approving the diversion of original area 45.40 ha. (Revised 49.60 ha) Forest land for construction Railway Gauge Conversion work from MG to BG between Akola-Khandwa in favour of Deputy Chief Engineer, South Central Railway in the State of Maharashtra under section 2 (ii) of the Forest (Conservation) Act, 1980.

  
(Dr. Y.L.P. Rao)

Principal Chief Conservator of Forests  
(Head of Forest Force)  
Maharashtra State, Nagpur

## Undertaking about tree felling

This is to certify that the forest department buldhana division buldhana has been mark the enumerated trees in the projected Area. the total number of 33055 trees are currently standing in the effected area. 6991 trees are likely to be felled in the proposal there fore, excluding this 6991 trees, the rest of the tree will not be effected.

Date: 04/01/2024

Place: Akola

  
उप मुख्य अभियंता  
(M. Yogananda Baba)  
Deputy Chief Engineer/Construction  
निर्माण / Construction  
Sopri, Buldhana, Akola  
द.म.रेल्वे/S.C.R., अकोला/AKOLA



## **19. Online hard copy**

Seeking recommendation of Standing Committee of NBWL/ SBWL

84

Project Name: AKOLA - KHANDWA GAUGE CONVERSION WORK

Proposal Number: WL/MH/SA/L/22/075/2023

State: MAHARASHTRA

Single Window Number: SW/119645/2023

Common Application Form

Project Details

1. Details of Project

1.1. Name of the Project

AKOLA - KHANDWA GAUGE CONVERSION WORK

1.2. Project Proposal For

New

1.3. Project ID (Single Window Number)

SW/119645/2023

1.4. Description of Project

Akola - Khandwa gauge conversion work

2. Details of the Company/Organization/User Agency making application

2.1. Legal Status of the Company/Organization/User Agency

Central Government (Department/Autonomous body)

2.2. Name of the Company/Organization/User agency

SOUTH CENTRAL RAILWAY.

Registered address

2.3. Address

Rail nirman Bhawan SC railway Secunderabad

2.4. Village /Town / City

Bhoiguda

2.5. State

TELANGANA

2.6. District

HYDERABAD

2.7. Pin Code

500025

2.8. E-mail address

cec5scrailway@gmail.com

2.9. Mobile number

9701372175

3. Details of the person making application

3.1. Name

Panthagani Shiva Ram

3.2. Designation

Deputy Chief Engineer

Correspondence address

3.3. Address

At by side of Hanuman Temple

3.4. Village /Town / City

Ramdashpet

3.5. State

MAHARASHTRA

3.6. District

AKOLA

3.7. Pin Code

444001

3.8. Landmarks

Near Railway station

3.9. E-mail address

dycecak@gmail.com

3.10. Mobile number

9701372175

Project Location

4. Location of the Project or Activity

4.1. Upload KML

MH forest kml 18.02.23.kml

4.2. Whether the project/activity falling in the state/UT sharing international borders

NO

5. Shape of the Project

Linear



Toposheet No	State/UT	District	Sub District	Village	Plot/Survey/Khasra No.
F43Q12	MAHARASHTRA	Buldana	Jaigoon (Jamari)	RE	

43

# Remarks

N/A

## 6. Land Requirement (in Ha) of the project or activity

### 6.1. Nature of Land involved

#### 6.2. Non-Forest Land [A]

310.701

#### 6.3. Forest Land [B]

45.4

#### 6.4. Total Land [A+B]

356.101

## Project Activity Cost

### 6. Project/Activity Cost

#### 6.1. Total Cost of the Project at current price level (in Lakhs)

207251

Amount in Words : Two Lakh Seven Thousand Two Hundred Fifty One Lakh(s) Only

## 7. Employment likely to be generated

### 7.1. During construction phase

#### 7.1.1. No. of permanent employment (No.s) [A]

11

#### 7.1.2. Period of employment (No. of days) [B]

1460

#### 7.1.3. No. of man-days [X] = [A] \* [B]

16060

#### 7.1.4. Temporary / Contractual employment (No. of Man days) [Y]

200

#### 7.1.5. Total [X] + [Y]

16260

### 7.2. During operational phase

#### 7.2.1. No. of permanent employment (No.s) [A]

26

#### 7.2.2. Period of employment (No. of days) [B]

36135

#### 7.2.3. No. of man-days [X] = [A] \* [B]

939510

#### 7.2.4. Total [X] + [Y]

939510

## Others

### 8. Whether Rehabilitation and Resettlement (R&R) Involved?

NO

### 9. Whether project area involves shifting of watercourse/road/rail/Transmission line/water pipeline, etc. required?

NO

### 10. Whether any alternative site(s) examined or part thereof for the non-site-specific component?

Not applicable as the project or activity is site specific

### 11. Whether there is any Government Order or Policy/ Court order relevant or restricting to the site?

NO

### 12. Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up?

NO

### 13. Whether the proposal involves violation of Act/Rule/Regulation/Notification of Central/State Government?

NO

## Wildlife Clearance

14 State

MADHARATHA

15 Whether proposal is for investigation/survey?

Justification Note - MH portion-4 Feb 2023.pdf

16 Upload a copy of note containing justification for locating the project in protected area

Ref: 25

17 Category of the project

Tiger Corridor

18 Category of area (PA, TSZ)

19 Whether any proposal seeking prior approval of Central Government (under the Forest

(Conservation) Act for diversion of forest land required for this project has been submitted in the past?

No

## Proposed Land

20. Location of project / activity with respect to Protected Area

Partially in TSZ and partially in non-Protected Area

20.1 Location of Project Area

21. Detailed breakup of land required for the project

21.1 No. of Divisions involved in Protected Areas

21.2.1 Details of the proposed land

Xml

Division

Total Patches

21.2.2 Location Details

Division

Topsheet No.

District

Village

Range

Proposed area inside PA (ha)

Proposed area outside PA (ha)

21.3 Remarks Details

Remarks

21.4.1 Division-wise breakup of land required

Name of the District	Name of the Division	Name of the protected area/ Tiger Reserve	Project area under Protected Area/Tiger Reserve (Ha)			Project area outside Protected Area (Ha)		
			Forest	Non-Forest	Total	Forest	Non-Forest	Total

Total Area (ha)

45.4

21.4.2 Component-wise breakup of land required

Linear

Sr No.	Component	Name of the PA	Project area under PA (X) (ha)			Project area outside PA (Y) (ha)			Component Area (X + Y) (ha)
			Forest	Non-Forest	Total	Forest	Non-Forest	Total	

Total Component Area (ha)

45.4

21.4.2.1 Upload animal passage plan

Animal Passage Plan.pdf

21.5 Total period for which land is required (years)

99

21.6 Aerial distance of the project from the boundary of the PA (km)

250

21.7 Project area under PA / Tiger Corridor / Tiger Reserve / TSZ (ha)

N/A

21.10 Scanned copy of the Geo-referenced map of the project area with respect to the protected area prepared by using In-situ Total Station (if any)

DGPS-Geo-Referenced MAP-4 Feb 2023\_compressed.pdf

21.12 Information on the projects undertaken by the proponent

22 Cost-benefit analysis of the project in the context of the conservation of the project area and the surrounding area



## 24. Additional Information

S. No.

Document Name

Remark

Document

## 25. Undertaking

I hereby give undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information is found to be false or misleading at any stage, the project will be rejected and clearance given if any to the project will be revoked at our risk and cost. In addition to the above, I hereby give undertaking that no activity/construction/expansion has been taken up.

Name

Panthagani Shiva Ram

Designation

Deputy Chief Engineer

Company

SOUTH CENTRAL RAILWAY

Address

At by side of Hanuman Temple

District

MAHARASHTRA

State

Pin

06-03-2023

Date

DOWNLOAD

  
उप मुख्य अभियंता  
Dy. Chief Engineer  
निर्माण/Construction  
Deputy Construction  
द.म.रेल्वे/S.C.R., अकोला/AKOLA



  
Deputy Conservator of Forest  
Buldana Division Buldana

# Forest Land Kapatol

## Form-A (Part-I): Diversion of Forest Land

68  
15



**Project Name:** AKOLA-KHANDWA GAUGE CONVERSION WORK  
**Single Window Number:** SW/119645/2023  
**Proposal Number:** PP/MH/RA/1/119645/2023  
**State:** MAHARASHTRA  
**Current Status:**  
**Submission Date:** 21/02/2023

### Common Application Form

#### Project Details

##### 1. Details of Project

1.1. Name of the Project AKOLA-KHANDWA GAUGE CONVERSION WORK  
1.2. Project Proposal For New  
1.3. Project ID (Single Window Number) SW/119645/2023  
1.4. Description of Project Akola - Khandwa gauge conversion work

##### 2. Details of the Company/Organization/User Agency making application

2.1. Legal Status of the Company/Organization/User Agency Central Government (Department/Autonomous body)  
2.2. Name of the Company/Organization/User agency SOUTH CENTRAL RAILWAY.

##### Registered address

2.3. Address Roli nirman Bhawan SC railway Secunderabad  
2.4. Village /Town / City Shaiguda  
2.5. State TELANGANA  
2.6. District HYDERABAD  
2.7. Pin Code 500025  
2.8. E-mail address cec5ecrailway@gmail.com  
2.9. Mobile number 9701372175

##### 3. Details of the person making application

3.1. Name Panthagani Shiva Ram  
3.2. Designation Deputy Chief Engineer

##### Correspondence address

3.3. Address At by side of Hanuman Temple  
3.4. Village /Town / City Romdashpet  
3.5. State MAHARASHTRA  
3.6. District AKOLA  
3.7. Pin Code 444001  
3.8. Landmarks Near Railway station  
3.9. E-mail address dycecak@gmail.com  
3.10. Mobile number 9701372175

#### Project Location

##### 4. Location of the Project or Activity

4.1. Upload KML MH forest kml 18.02.23 kml  
4.2. Whether the project/activity falling in the state/UT sharing international border



# 5. Shape of the Project

## Location Details

Toposheet No	State/UT	District	Sub District	Village	Plot/Survey/Khasra No.
E-43Q12	MAHARASHTRA	Eldandga	Jalgaon (Jameda)	RT	

## Remarks

N/A

## 6. Land Requirement (in Ha) of the project or activity

6.1. Nature of Land involved	
6.2. Non-Forest Land [A]	310.701
6.3. Forest Land [B]	45.4
6.4. Total Land [A+B]	356.101

## Project Activity Cost

### 6. Project/Activity Cost

207251

Amount in Words : Two Lakh Seven Thousand Two Hundred Fifty One Lakh(s) Only

Total Cost of the Project at current price level (in Lakhs)

## 7. Employment likely to be generated

### 7.1. During construction phase

7.1.1. No. of permanent employment (No.s) [A]	11
7.1.2. Period of employment (No. of days) [B]	1460
7.1.3. No. of man-days [X] = [A] * [B]	16060
7.1.4. Temporary / Contractual employment (No. of Man days) [Y]	200
7.1.5. Total [X] + [Y]	16260

### 7.2. During operational phase

7.2.1. No. of permanent employment (No.s) [A]	26
7.2.2. Period of employment (No. of days) [B]	36135
7.2.3. No. of man-days [X] = [A] * [B]	939510
7.2.4. Total [X] + [Y]	939510

## Others

8. Whether Rehabilitation and Resettlement (R&R) involved?	NO
9. Whether project area involves shifting of watercourse/road/rail/Transmission line/water pipeline, etc. required?	NO
10. Whether any alternative site(s) examined or part thereof for the non-site-specific component?	Not applicable as the project or activity is site specific
11. Whether there is any Government Order or Policy/ Court order relevant or restricting to the site?	NO
12. Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up?	NO
13. Whether the proposal involves violation of Act/Rule/Regulation/Notification of Central/State Government?	NO

## Project Details

### 1. Forest Clearance

- 1.1. State MAHARASHTRA
1. Upload a copy of note containing justification for locating the  
2. Project in forest land Justification Note\_MH portion-4 Feb 2023.pdf
- 1.3. Project Category Railway
- 1.4. Whether any proposal seeking prior approval of Central Government under the Forest (Conservation) Act, 1980 for diversion of forest land required for this project has been submitted in the past? No

## Proposed Land

### 2. Details of Forestland proposed to be diverted (Village / Division / District Wise Breakup)

- 2.1. Total area of forestland proposed for diversion (ha.) 45.4
- 2.2. Total area of non- forestland required for this project (ha.) 310.701

### 2.3. Legal Status of forest land proposed for diversion

Area (ha)	Legal Status of Forest Land
45.4	Reserve Forest

2.3.1. Total Area (ha) 45.4

2.4. Total period for which the forestland is proposed to be diverted (No. of years) 99

## KML Details

Division	Buldhana Division
No. of Patches	2
KML	3156829_FC_KML_1676874047015_MH forest KMLkml

## Location Details

Toposheet No.	District	Village	Range	Forest land proposed for diversion Area (ha)	Non Forest Land Area (ha)
F43Q12	Buldhana	RF	Jalgaon Jamod	45.40	0

## Patch Details

Patch/ Segment ID	Forest Area (ha)	Non-Forest Area (ha)	Remarks if any
1	35.4	0	
2	10	0	

## Remarks Details

Total Patch-wise Forest Land in the division (ha)

2.5. Total Forest Land Area (ha) 45.4000

2.6. Total Non Forest Land Area (ha) 0.0000

Total KML-wise Forest Land in the division (ha.)





2.8. Total Non Forest Land Area (ha)

0

45.4

131

2.9. Total Area (ha)

3. Component Wise Break Up

Component Forest Land Proposed for Diversion (ha)

Non-forest Land (ha)

233.311

A 45.4

45.4

4. Total Forest Land (ha)

233.3110

5. Total Non Forest Land (ha)

6. Upload map of the forest land proposed to be diverted prepared by using DGPS or Total Station (pdf only)

DGPS-Geo - Referenced MAP- 4 Feb 2023\_compressed.pdf

#### Afforestation Details

7. Details of land identified for Compensatory Afforestation

Whether Compensatory Afforestation is applicable or not?

Yes

Degraded Forest Land

7.1.1. Type of Compensatory Afforestation

Others

8. Cost-Benefit analysis

8.1. Whether Cost-Benefit analysis for the Project has been made?

Yes

8.1. Total Loss (Against the proposed forest land Diversion in crore)

2130.239

8.2. Estimated Benefits of Forest Diversion (in crore)

20393.644

8.3. Cost Benefit Ratio

0.1045

8.4. Upload a copy of Cost-Benefit analysis

MH portion - Cost Benefit-Cost Ratio - 4 Feb 2023.pdf

9. Environmental clearance Details

9.1. Whether the Project requires Clearance under the Environment (Protection) Act 1986 (Environmental clearance)?

No

10. Wildlife clearance Details

10.1. Whether the Project or a part thereof is located in any Protected Area or their Eco sensitive zone?

Yes

10.1.1. Whether Project or a part thereof is located within a Protected Area?

No

10.1.1.1. Status of approval of the Standing Committee of National Board for Wildlife (NBWL) to the Project

Application yet to be submitted

10.1.1.2. Whether approval of the Standing Committee of National Board for the Wildlife (NBWL) required?

Yes

10.1.1.2.1. Reasons there for

It is submitted

# Annexure Specific Details

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Copy of Additional information, if any

S. No.	Document Name	Remark	Document
1	Index map	Index map submitted.	Index map.pdf
2	Administrative & Technical approval	Administrative & Technical approval submitted	Administrative & Technical approval.pdf
3	Topo sheet	topo sheet submitted	Topo sheet & Index Map_compressed (1).pdf
4	Area statement	area statement submitted.	Area statement.pdf

## Undertaking

I hereby give undertaking that the data and information given in the application and enclosures are true to be best of my knowledge and belief and I am aware that if any part of the data and information is found to be false or misleading at any stage, the project will be rejected and clearance given if any to the project will be revoked at our risk and cost. In addition to the above, I hereby undertake that no activity/construction/expansion has been taken up

12. Name Panthagani Shiva Ram  
 13. Designation Deputy Chief Engineer  
 14. Company SOUTH CENTRAL RAILWAY.  
 15. Address At by side of Hanuman Temple  
 16. Date 21/02/2023

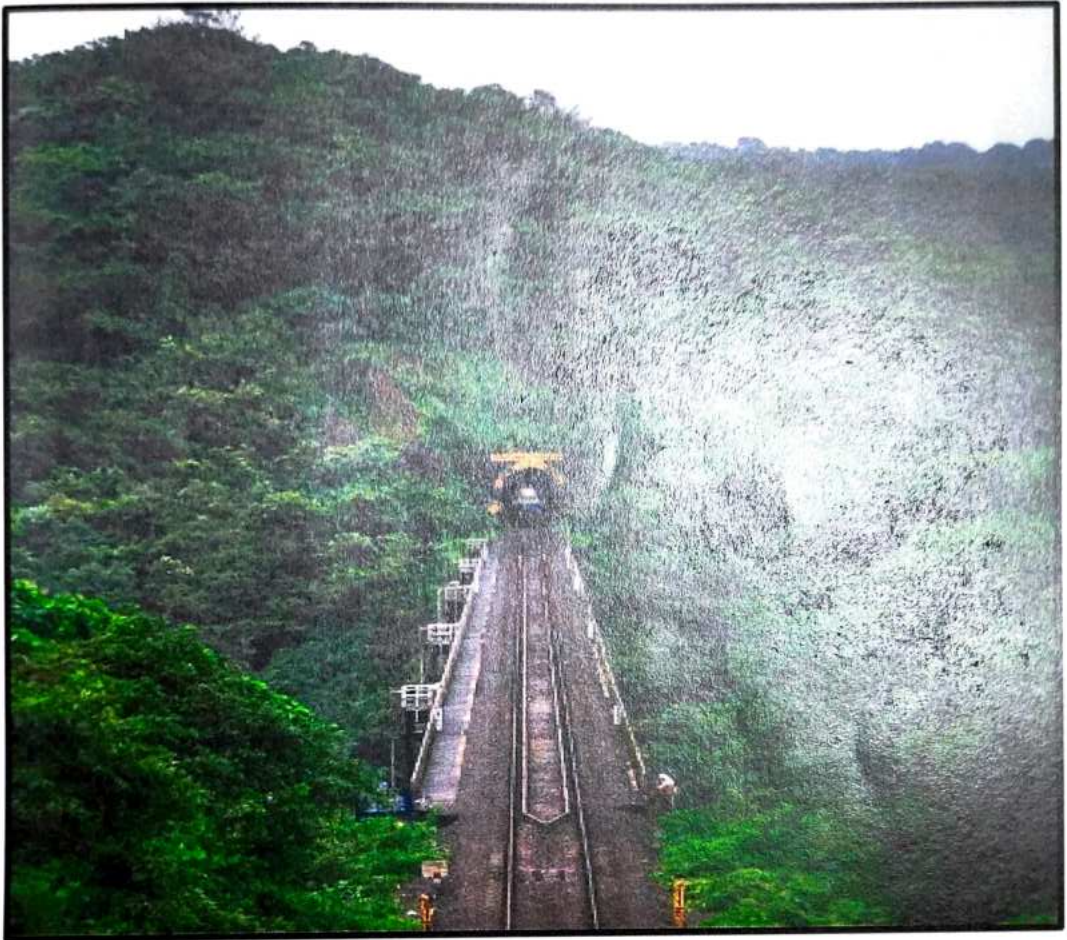
*[Signature]*  
 उप मुख् अभियंता  
 Deputy Chief Engineer  
 Deputy Engineer Construction  
 द.म.रेल्वे / S.C.R., अकोला / AKOLA



*[Signature]*  
 Deputy Conservator of Forest  
 Buldana Division, Buldana



# ANIMAL PASSAGE PLAN



**Akola–Khandwa section–Gauge Conversion of track  
from MG to BG between Akot–Amlakurdh section  
(Phase – III)**

**Prepared by :- M/S SAVE GREEN**

**Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal -  
462042**





# ANIMAL PASSAGE PLAN

## ANIMAL PASSAGE PLAN

FOR

### AKOLA – KHANDWA NEW RAIL GAUGE CONVERSION

<b>PROJECT:</b>	<b>AKOLA – KHANDWA NEW RAIL GAUGE CONVERSION</b>
<b>PROPOSAL NO.</b>	<b>WL/MH/RAIL/421075/2023</b>
<b>PROJECT PROPONENT</b>	<b>SOUTH CENTRAL RAILWAY</b>
<b>DETAILS OF PA INVOLVED.</b>	<b>NO PA AREA FALL BUT IN THE TUNEEL AND SOME PART OF OPEN RAILLINE FALLS UNDER TELEPATHY TIGER CORIDOR AND ESZ OF WAN WILDLIFE SANCTUARY (EXTENDED OF MALGHAT TIGER WILDLIFE SANCTUARY)</b>

Prepared by :- **M/S SAVE GREEN**

Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal -  
462042







# **ANIMAL PASSAGE PLAN**

## **TABLE OF CONTENTS**

**1. INTRODUCTION**

**2. SCOPE OF THE PROJECT**

**3. GENERAL DESCRIPTION OF PROJECT AREA**

**4. BACKGROUND**

**5. OBJECTIVES OF ANIMAL PASSAGE PLAN STUDY**

**6. PASSAGE PLAN**

**7. DESIGN GUIDELINES**



**Prepared by :- M/S SAVE GREEN**

**Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042**



# ANIMAL PASSAGE PLAN

## INTRODUCTION:-

Indian Railway has been converting erstwhile meter gauge sections into uniform broad-gauge sections. Accordingly, as a part of 'uni-gauge' concept, gauge conversion project was sanctioned between Akola (in Maharashtra) – Khandwa (in Madhya Pradesh) section for 175 km in 2008-09. The Akola– Khandwa Gauge Conversion project has been taken up by South Central Railway (SCR) as part of the Ratlam – Mhow – Khandwa – Akola gauge Conversion project in 2008. The execution of the project is taken up in 3 phases i.e. • Akola-Akot (43.369 kms) • Akot-Amlakhurd (75.60 kms) • Amlakhurd-Khandwa (54.50 kms) From this the first section between Akola - Akot for a distance of 44 km has been completed in all aspects and formal authorisation has been given for running the trains. The Amlakhurd - Khandwa for a distance of- 54.50 km is also completed in Feb-2024. For the remaining section the Introssoft Solutions has been appointed as consultant for the final location survey for gauge conversion from MG to BG for Akot – Amlakurd section – 75.60 Km and execute survey, design and geotechnical investigation for proposed tunnel (6.70 Km) between Ursani and Jamod.

## SCOPE OF THE PROJECT:-

The existing MG line between Akola - Khandwa stations was laid during 1959 –1961. The survey report for this section was updated during June 2007 and sent to Western Railway. As per the Uni-Gauge policy of Ministry of Railways, Gauge Conversion work between Ratlam– Mhow- Khandwa–Akola GC (472.64 Kms) was sanctioned by Railway Board in 2008-2009. As the track between Akot and Amlakhurd (75.60 Kms) passing through the Melghat Tiger Reserve (38.20 Kms) and the clearance for Wildlife and Reserve Forest was not received, it was decided to execute this work in 3 phases: 1. Phase-I (Akola-Akot) - 43.369km -

**Prepared by :- M/S SAVE GREEN**

**Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042**







# ANIMAL PASSAGE PLAN

Completed and commissioned in 2020. 2. Phase-II (Amlakhurd-Khandwa) - 54.50 kms - Completed and commissioned in Feb-2024. 3. Phase-III (Akot-Amlakhurd) - 75.60 km - Not Yet Started due to forest and wildlife issues. Railway board has given Approval for considering alternate alignment avoiding Melghat tiger reserve vide Lt. 93/W-1/GC/W/12/RTM-Part3/Akot-Amlakhurd (FTS3265456) dt. 01.06.2022 and 2014/W-2/SCR/NL/03(FTS-3104986) dt.29.09.2022. This project involves development of alternate alignment using topographical survey, geotechnical investigation, geophysical investigation and design of tunnel. In this assignment, design of the best feasible alignment option between two points Akot and Amlakhurd is to be developed. The design of alignment is to be based on inputs drawn from site observations, survey and the geological mapping of the area.

## GENERAL DESCRIPTION OF THE PROJECT AREA :-

The existing MG alignment distance between AMX-AOT is 75.60 kms. The new proposed alignment is 107.035 kms. 26.24 kms of Existing MG Alignment is being converted to BG and 80.795 kms are proposed for Diversion of Tiger Reserve. Detouring of Alignment is necessary because the section between km 652000 to 677500 that about 25.50 km length is coming in reserved forest of M.P. and Maharashtra, out of which 6.04 km is coming in tiger zone (Wild life sanctuary) in Maharashtra.. The diverted railway line has been planned to take off after 3km of Tukaithad station and terminate at the Adgaon-Buzurg station. A tunnel of length 6.700 km is proposed between Usarani and Jamod station which includes 650 m of cut and cover tunnel due to continuous low ground cover and drains at P-2 portal.

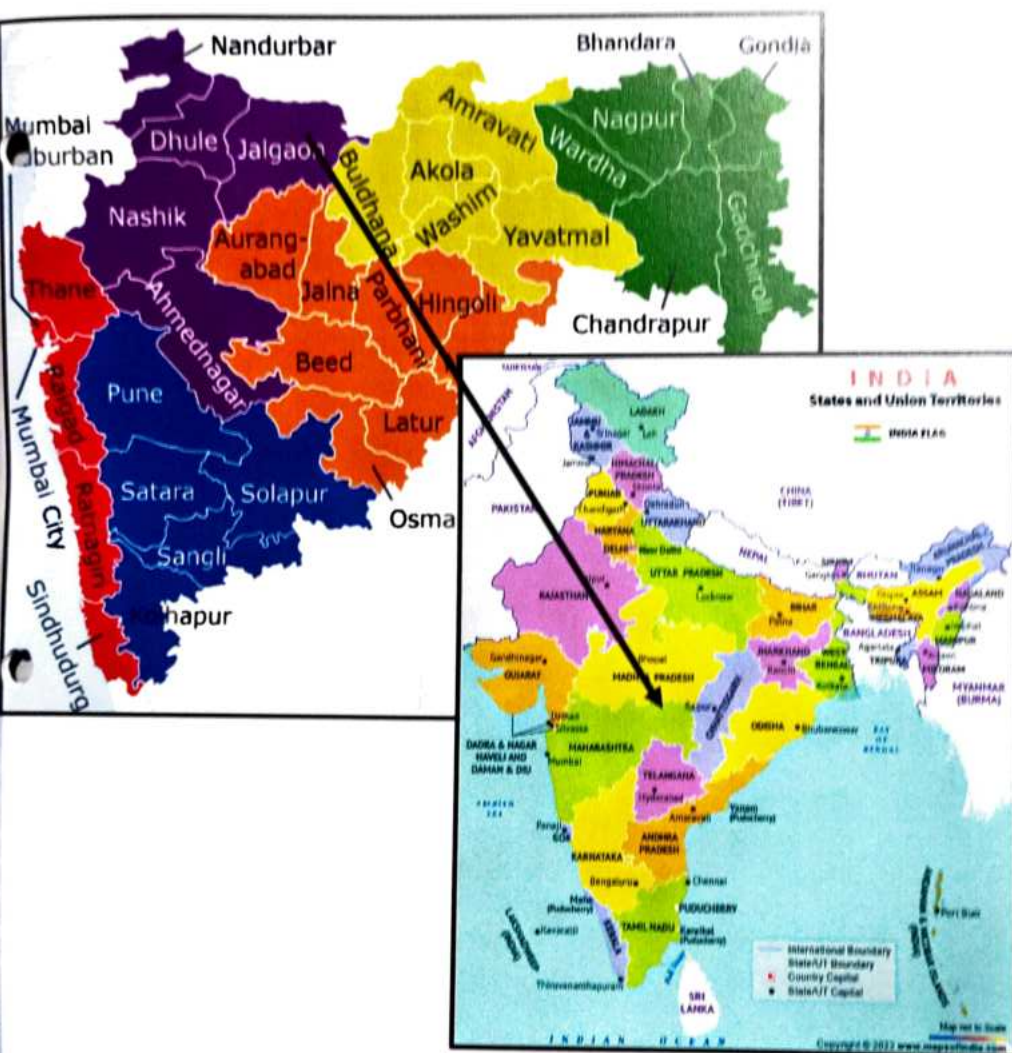
**Prepared by :- M/S SAVE GREEN**

**Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042**





# ANIMAL PASSAGE PLAN



Prepared by :- **M/S SAVE GREEN**

Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042





# ANIMAL PASSAGE PLAN

## BACKGROUND:-

The Indian Railways network is the fourth largest railway in the world and an important component of the transportation infrastructure of the country. With 19000 trains per day, of which 12000 ferry over 23 million passengers across 8000 railway stations across the country. The network is also important for transportation of goods, with about 7000 trains carrying 3 million tonnes of freight every day. Since these figures are expected to increase in the future, modernization plans are in the pipeline, with aims for complete gauge conversion from meter gauge to broad gauge and complete electrification by 2023-24.

Gauge-conversion of the Akola-Khandwa Gauge Conversion new railline, falling under the purview of the South Central Railway (SCR), has been approved in 2019. The alignment of the proposed track is nearly the same as that of the existing narrow gauge. Ministry of Railway has been entrusted to take up the work of gauge conversion.

Ministry of Railway started functioning since July 2018 with the Objective as,

- (i) To provide a boost to Rail Infrastructure Projects in the State of Maharashtra by providing critical connectivity and capacity enhancement.
- (ii) Address long pending demands for construction of new Railway lines in the State of Maharashtra.
- (iii) Identify traffic potential of different regions within the State of Maharashtra including Rail connectivity to neighbouring States.
- (iv) Evaluate economically viable projects and implement with fast track construction and commissioning.



Prepared by :- **M/S SAVE GREEN**

Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042



# ANIMAL PASSAGE PLAN

The proposed track Passing through telepathy tiger corridor and the Eco-Sensitive Zone of the Wan and Ambaburwa sanctuaries. it is an extension of the Melghat Tiger Reserve biogeographic and provides an important corridor between Akola, Amravati and Buldhana districts. As per telepathy survey tiger corridor by WII, dehradun, the area of tiger corridor falls in the tunnel 5+043 KM portion and 997.39 Mtr in open line, A part of this about 1+439 KM part of railline fall in ESZ of the most important tiger reserve of the central Indian landscape – The Melghat, nestling in the Satpuda hill ranges of Forsyth's and Dunbar's Central India's vast tracts of inviolate natural forests, consisting of unique and representative ecosystems with rich biodiversity and varied habitats offered by deep valleys (locally known as khoras) and high hills (locally known as Ballas), daunted with rivers and nallahs having water all the year round in the 'doh', was the natural choice for the community of foresters in Maharashtra, when it came to choose an area for preserving it for posterity and for ensuring that the 'Tiger' the most magnificent and flagship of the Indian wild species, could sustain a viable population and survive for the eternity. The fascinating landscape, its enchanting beauty and richness leave everlasting imprints on people visiting the area.

In such a situation, it becomes imperative to integrate landscape connectivity requirements and measures to reduce wildlife mortality on railway tracks into infrastructure development and upgradation plans for long-term viable conservation in this important landscape.

## OBJECTIVES OF ANIMAL PASSAGE PLAN STUDY:-

The objectives of animal passage plan are:

- To incorporate the needs of wildlife into transportation projects.
- To maintain the habitat connectivity
- The project length in Maharashtra portion is about 6.040 Km (5.043 Tunnel and 997.39 mtr in opne railline) passing through telepathy tiger corridor and the length of 1400 Mtr.

**Prepared by :- M/S SAVE GREEN**

**Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042**







# ANIMAL PASSAGE PLAN

- To aid in the reduction of human wildlife conflict, improving awareness, safety and reducing collisions.

Achieving these goals will include restoring connections where they have been removed and ensuring that existing connections remain as the project road expands.

## PASSAGE PLAN:-

Necessity Animals move between habitats in order to survive by finding food, mates and areas of refuge. As rural areas continue to expand and road network and traffic increase there is a threat to animals while crossing the roads. All proposals for roads, railway tracks, canals and power lines will now have to include a plan to provide for safe movement of wildlife and allocate budget for animal passages as per NBWL proceedings dated 25 January 2018.

### **Adverse effect associated with Linear Project vis-à-vis present project**

The linear projects passing through wildlife protected areas are associated with:

- Loss of habitat resulting reduced carrying capacity.
- Fragmentation of habitat into spatially isolated parts.
- Injury/mortality to animals.
- Presence of construction camps.
- Deprive animals from using their entire habitat.
- Increased human wildlife conflict.
- Pollution due to liquid or solid waste.

### **Project Corridor**

The present project under discussion, through a linear project has very negligible or null ill effect to the project. On critical analysis/ observation of this project is seen that:

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## ANIMAL PASSAGE PLAN

is passing through ESZ of Wan Wildlife Sanctuary (It is an extension of Malghat tiger Sanctuary).

- The land required for this project is 1439 mtr length in ESZ area.
- The problem of wildlife movement, depriving free flow of habitats will be avoided by the provision of under passages in the form of RCC Culverts.

In this corridor the rail passing through about 6.040 Km (5.043 Tunnel and 997.39 mtr in open railline) Passage to the wildlife habitats will be provided in the form of under passages by means of RCC Culverts already proposed in the DPR. 6 No. RCC culverts i.e. 5.5 M x 3M are proposed under the railway line. The locations of animal passage are not sure in particular area but we will provide Six Box culverts as per alignment elevation.

The land use of the project area and the adjacent lands will play a large role in determining the type and extent of mitigation required. As the area surrounding the project is slated for Agriculture and forest area, facilitating wildlife movement through this area is likely not feasible or desired. As per observation made in the site visits and during different survey proceedings, no wildlife crossings were found in the project stretch. Common land uses in the project road include the following:

- Agricultural
- Natural Area
- Drainage Channels
- It is important to not only consider present development, but also consider future development. The land use pattern is mostly open. Farming is found in many stretches. Few stretches come under the forest region.

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# ANIMAL PASSAGE PLAN

- Identify Potential Mammals

The detail of mammals present in Wildlife Sanctuary is as under:

S. No.	Scientific Name	Common Name	Family
1	Panthera Tigris	Tiger	Felidae
2	Canis Aureus	Jackal, Indian	Canidae
3	Felis Chaus	Cat, Jungle	Felidae
4	Funambulus Pennant	Squirrel, five-striped	Sciuridae
5	Hystrix edwardsii	Indian grey mongoose	Herpestidae
6	Hystrix indica	Porcupine, Indian	Hystriidae
7	Macaca Mulatta	Macaque, Rhesus	Cercopithecidae
8	Muntiacus muntjak	Barking Deer	Cervidae
9	Panthera pardus	Leopard, Indian	Felidae
10	Paradoxurus hermaphroditus	Asian palm civet	Viverridae
11	Rousettus leschenaultia	Bat, Fulvous fruit	Pteropodidae
12	Sus Scrofa	Wild boar	Suidae
13	Viverricula Indica	Civet, small Indian	Viverridae

Identify conflicts with wildlife

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# ANIMAL PASSAGE PLAN

During the planning stages of the project, it is important to identify the surroundings and/or conflicting regional and local land uses.

## **Conflict with Habitats**

Generally, there may be conflicts between local wildlife and the transportation projects if Wetland and wetland habitat is bisected. If wetlands are located on either side of the proposed rail, there will likely be impacts to the historical hydrology and wildlife movement. But as per observations and information collected from the forest department, no passage of land animals are seen to cross the project rail as the project corridor is full with patches of agriculture and human interference. The project has no traffic volume. Different species will be less affected. But as mentioned above, there is no crossing across the project railline.

## **Conflict with rail characteristics**

Traffic volume and speed play an important role in determining whether a rail will impact wildlife movement. Because rail behaves as a filter to movement rather than an absolute barrier, the number of species both attempting and successfully crossing the rail will be reduced at greater traffic volume and speeds. The majority of wildlife-vehicle collisions occur on the rail track with immediate traffic volume. while providing Tunnel and Under passes for animals have essentially no incidents.

## **Conflicts with Existing Infrastructure**

Many existing natural drainage is in the project area so railways are designed for wildlife. In order to avoid hindrance for wildlife, the followings are need to be kept in mind:

- Removal of physical barriers
- Structures that incorporate both pedestrian and wildlife into the same structures
- No perched culverts
- Structures with insufficient water depth for aquatic passage

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# ANIMAL PASSAGE PLAN

- Structures with excessive water velocities

## DESIGN GUIDELINES

The design of the rail track can help to reduce the effects of transportation infrastructure on wildlife. Some simple principles that should be considered in the rail track design include:

- Consider the slope of the rail side
- Consider potential/known areas of higher wildlife activity
- Consider impact of drainage ditches
- Consider the implications of the rail track design for emergency response access and maintenance access.

## Identify Ecological Design Group

The vast biodiversity in nature provides a challenge when attempting to maintain connectivity and reduce genetic isolation. Each species within an area will have slightly different habitat requirements and behavior making it difficult to design a corridor that will satisfy the requirements of all the species. In addition, there is insufficient data for many species which provides a challenge when attempting to understand their life history strategy and to design a corridor that will satisfy the requirements. The category of species which special attention are as follows:

- Species that require dispersal for survival
- Species that are integral to ecological processes

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# ANIMAL PASSAGE PLAN

- Species that are dominant but could become less important if connectivity is lost
- Species that need connectivity to prevent genetic divergence
- Species experiencing high vehicle associated mortality in or near the study area
- Rare, endangered or vulnerable species.

## • Identify Mitigation

Mitigation for the purpose of this passage plan, is intended to be site specific and practical.

The details of the crossings provided are as under:

### Specifications of 5.50 m Span RCC Culvert

- Length= 20.0m Approx
- Width= 5.50m
- Height= 3.00m



Deputy Conservator of Forest  
Buldana Division, Buldana

Deputy Conservator of Forest  
Buldana Division, Buldana

वाई.योगानंद बाबु, आईआरएसई  
Y. YOGANANDA BABU, IRSE  
उप मुख्य इंजीनियर/Deputy Chief Engineer  
निर्माण/अकोला/Construction/Akola  
दक्षिण मध्य रेलवे/South Central Railway

उप मुख्य अभियंता  
निर्माण/द.म.रे./अकोला  
Deputy Chief Engineer  
Construction/S.C.R./AKOLA

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# MITIGATION PLAN



Akola-Khandwa section-Gauge Conversion of track from MG to BG between Akot-  
Amlakurdh section (Phase – III)

Mitigation Measures for the AKOLA -KHANDWA GAUGE CONVERSION Project  
passing through Telepathy tiger corridor and Eco-Sensitive Zone of Wan Sanctuary .

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# MITIGATION PLAN

## Background

The Indian Railways network is the fourth largest railway in the world and an important component of the transportation infrastructure of the country. With 19000 trains per day, of which 12000 ferry over 23 million passengers across 8000 railway stations across the country. The network is also important for transportation of goods, with about 7000 trains carrying 3 million tonnes of freight every day. Since these figures are expected to increase in the future, modernization plans are in the pipeline, with aims for complete gauge conversion from narrow to broad gauge and complete electrification by 2023-24.

Gauge-conversion works of the Akola-Khandwa Gauge Conversion rail line, falling under the purview of the South-Central Railway (SCR). Akola to Khandwa GC Works have been sanctioned in 3 parts

- Phase I (Akola – Akot) -43.369 Km sanctioned in May-2010, completed and commissioned in Oct-2020 and presently regular passenger train services are running from Akola to Akot section.
- Phase II (Amlakhurd – Khandwa) -54.50 Km sanctioned in February-2018. Gauge conversion works completed and commissioned in Feb-2024
- Phase III (Akot – Amlakhurd) – 75.60 Km sanctioned in Feb-2019.
- The section between Akot – Amlakhurd (75.60Km) passes through the Melghat Tiger Reserve. Detailed Estimate for this section sanctioned in Feb-2019 on the existing alignment, but as the Wildlife Clearances for Melghat Tiger Reserve not given by the Govt. of Maharashtra, works could not be taken up. Railway Board vide Letter dated 01.06.2022 communicated “In Principle Approval” for alternate alignment (80.562Km) bypassing the Melghat Tiger Reserve. Proposals for land acquisition have been submitted to Govt of MP and MH and proposals for diversion of Forest land uploaded on Parivesh portal for both MP and MH states.

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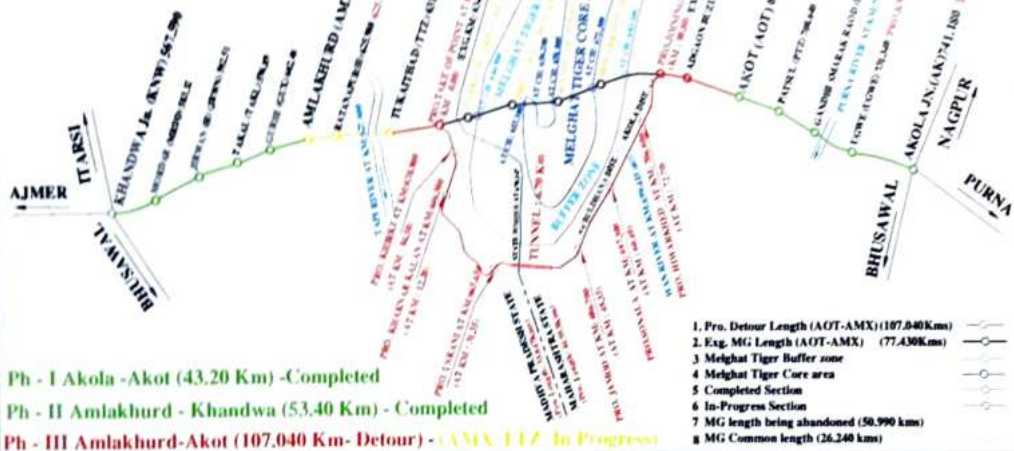


# MITIGATION PLAN

## Akola - Khandwa GC (202.990 Km)-On Detour Alignment

Proposed Diversion Length : 80.551 Kms

- a. Madhya Pradesh state : 35.900 Kms  
b. Maharashtra state : 44.651 Kms  
i) Buldhana District : 28.718 Kms  
ii) Akola District : 15.933 Kms



Total Forest Land requirement accessed for Realignment portion in Mahasatra and Madhya Pradesh state as follows.

State	Forest. Land (Approx. in Ha)	Type of Approval	Remarks
Maharastra	49.6 Ha	Forest diversion	Proposal submitted on 21.02.2023. Presently proposal with REC,Nagpur.
		Wildlife approval	Proposal submitted on 06.03.2023
Madhya Pradesh	153 Ha	Forest diversion	Stage-I approval granted.

"Ministry of Railways" sanctioned project with the Objective as:-

- (i) To provide a boost to Rail Infrastructure Projects in the State of Maharashtra by providing critical connectivity and capacity enhancement.

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## MITIGATION PLAN

- (ii) Address long pending demands for construction of new Railway lines in the State of Maharashtra.
- (iii) Identify traffic potential of different regions within the State of Maharashtra including Rail connectivity to neighbouring States.
- (iv) Evaluate economically viable projects and implement them with fast track construction and commissioning.

The proposed rail track passing through the Elphinstone tiger corridor and the Eco-Sensitive Zone of the Wan and Ambaburwa sanctuaries. It is an extension of the Melghat Tiger Reserve biogeographic and provides an important corridor between Akola, Amravati and Buldhana districts. The alignment falls in Tiger corridor and about 1439 mtr. Falls in ESZ of the most important tiger reserve of the central Indian landscape – The Melghat, nestled in the Satpura hill ranges of Forsyth's and Dunbar's Central India's vast tracts of inviolate natural forests, consisting of unique and representative ecosystems with rich biodiversity and varied habitats offered by deep valleys (locally known as khoras) and high hills (locally known as Ballas), daunted with rivers and nallahs having water all the year round in the 'doh', was the natural choice for the community of foresters in Maharashtra, when it came to choose an area for preserving it for posterity and for ensuring that the 'Tiger' the most magnificent and flagship of the Indian wild species, could sustain a viable population and survive for the eternity. The fascinating landscape, its enchanting beauty and richness leave everlasting imprints on people visiting the area. Melghat Tiger Reserve is one of the earliest 9 Tiger Reserves established by the Government of India and is the First Tiger Reserve to be declared in the State of Maharashtra. It came into being on 22nd February, 1974..

Wan Sanctuary is mainly an extension of the Melghat Tiger Reserve. This sanctuary also comes under the Amravati District in the state of Maharashtra and is well-known for its dense and dry deciduous forests. The Wan Sanctuary is inhabited by different species of

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## MITIGATION PLAN

animals, including leopards, tigers, sambar, barking deer and wild dogs. This wildlife sanctuary is situated approximately 325 km from the Nagpur Airport and around 80 km from Akola Railway Station. The sanctuary is the only place in Maharashtra, where coffee is grown. The Chikhaldara Wildlife Sanctuary is full of waterfalls and lakes, which lend an enchanting look to the place.

The area is also home to other carnivores such as Tiger (*Panthera tigris*), leopard (*Panthera pardus*), wild dog (*Cuon alpinus*), jackal (*Canis aureus*), wild ungulates and important prey species such as spotted deer or chital (*Axis axis*), sambar (*Rusa unicolor*), gaur (*Bos gaurus*), wild pig (*Sus scrofa*). In addition to the threat of compromised connectivity, the presence of linear infrastructure like railway lines are responsible for the mortality of wild animals attempting to cross these structures by collision with vehicles and trains.

In such a situation, it becomes imperative to integrate landscape connectivity requirements and measures to reduce wildlife mortality on railway tracks into infrastructure development and upgradation plans for long-term viable conservation in this important landscape.

### Wild life Warden involvement

The Railway board has given Approval for considering alternate alignment avoiding Melghat tiger

reserve vide Lt. 93/W-1/GC/W/12/RTM-Part3/Akot-Amlakhurd (FTS3265456) dt. 01.06.2022 and 2014/W-2/SCR/NL/03(FTS-3104986) dt. 29.09.2022. So, Railway board has decided the proposed alignment will be outside the wildlife zone. In this connection, South Central Railway requested CCF/Amravathi to conduct a study to suggest mitigation measures for the proposed

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# MITIGATION PLAN

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broad gauge. CCF/Amravathi visited the site on 16/01/2023. The proposed Railway Track passing through reserve forest and telepathy tiger corridor with 5.700 km tunnel and 993 mtr

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## MITIGATION PLAN

broad gauge. CCF/Amravathi visited the site on 16/01/2023. The proposed Railway Track passing through reserve forest and telepathy tiger corridor with 5.043 km tunnel and 997.39 mtr Open Railway Track. A part of this open Railway track alignment is 1439 mtr. passing through the Eco-Sensitive zone. CCF/Amravathi has suggested in open line where tiger corridor provide **three number of box culvert** for crossing wild animals, Although we have provided **six box culvert** for passing animals.

### Field survey

Subsequently, a team from Wild life warden and South central railway officials undertook a survey of the proposed alignment. The entire Proposed alignment of the Railway track was surveyed and sensitive locations of animal presence and movement were identified using structural maps of the landscape. In this alignment three patches, first two patches falls in forest area with tiger corridor, one part is 5.043 Km Tunnel and second part 997.39 mtr. Open line that is not of ESZ, and the Third part open Railway Track 1439 mtr falls in ESZ. Subsequently, 1439 mtr segment of the proposed railway alignment was identified as not important from the mitigation point-of-view because there is agriculture land.

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# MITIGATION PLAN

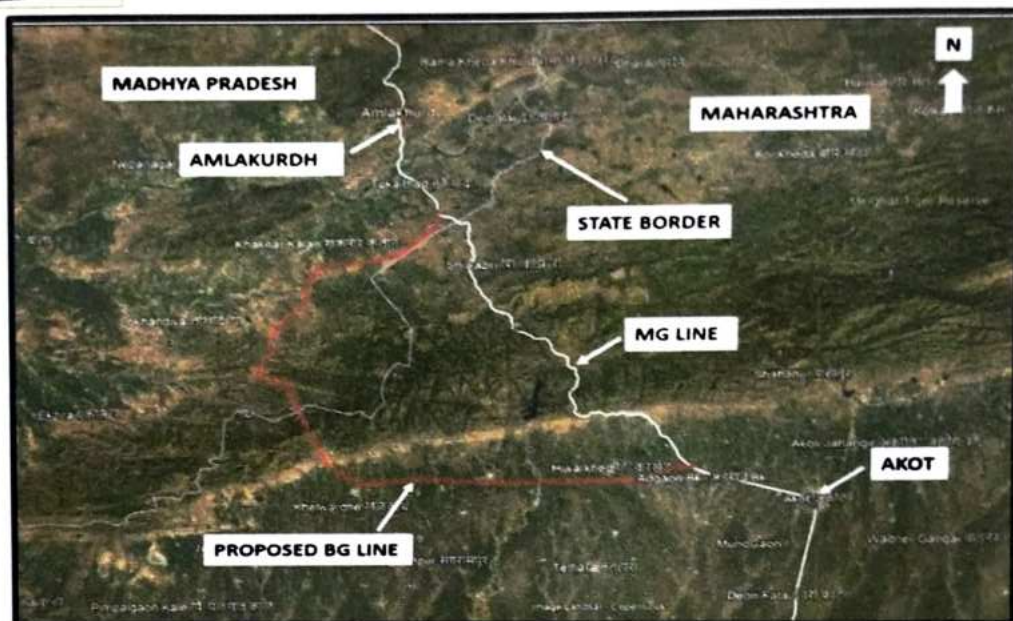


Fig 1: Proposed BG line in Red colour and Existing rail in white colour.

These were identified based on proposed Railway Track alignment locations by field staff of wild life department, in addition to the viability of movement for connectivity in the landscape. The details of these segments are given on Table 1.

Table 1: Details of segments of the proposed Akola – Khandwa new railline falling within important Telepathy Tiger Corridor and eco-sensitive zones.

Segment ID	Chainage(KM)	Length (M)	Remark
Tunnel	671+800 to 676+500	5043.08	In reserve forest and Telepathy tiger corridor
Open railine	676+500 to 677+593	997.39	
Open Line	701+100 to 702+500	1439	In Eco Sensitive zone

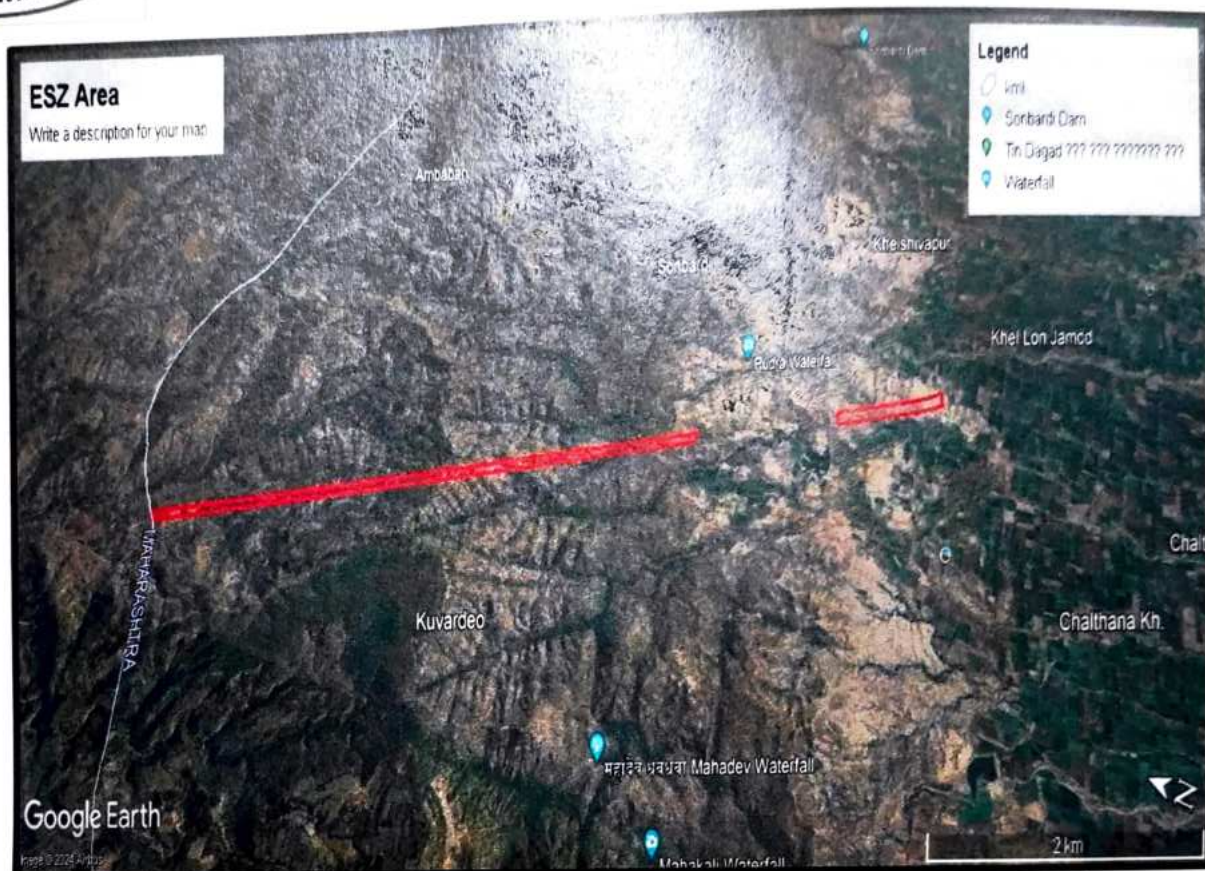
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# MITIGATION PLAN



**Fig 2: The Two segments (In Red) along the proposed Akola-Khandwa broad gauge railway line**

Each segment i.e. Tunnel and Open line of the proposed alignment was categorized according to the formation height of the railway track at that point. The survey was focused on railway track segments falling within areas important with respect to animal presence and movement, Site-based mitigation measures were then decided based on height of the proposed railway track formation, proposed structures and functional animal movement. Given below are details of these segments with respect to site characteristics and proposed mitigation measures.

## Segment I: Tunnel Layout and Open Railine

**Tunnel Chainage :- 671+800 to 676+500 KM**

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# MITIGATION PLAN

This section describes the proposed tunnel on the alignment. Explanations of design criteria and relevant decisions affecting this specific tunnel layout are given in the following sections of this report. Direction? The tunnel starts at CH: 669750 in Madhya Pradesh state and goes straight in N 155° where it crosses the state boundary at around CH: 671800 and enters into Maharashtra state. The exit portal of tunnel is proposed at CH: 675800 and cut & cover box is proposed up till CH: 676500. The maximum ground cover in the tunnel is around 400 m and after exit portal the ground cover from 15 to 30 m. Due to this low ground cover and drainage channels at the top, cut & cover box is proposed from CH: 675800 to CH: 676500 i.e. for 650m of length. The tunnel is proposed in falling gradient of 1 in 350.



Fig.3:- Tunnel segment 671800 to 677593 Km

This segment of the proposed railway line fall in reserve forest and Telepathy Tiger Corridor but not falling under ESZ. Land use along this segment is mostly Reserve forest and South Central Railway will provide tunnel in this segment. This Tunnel is underground, hence if any animal passes, they feel like forest. Further, we do not disturb natural habitat in this segment.

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# MITIGATION PLAN

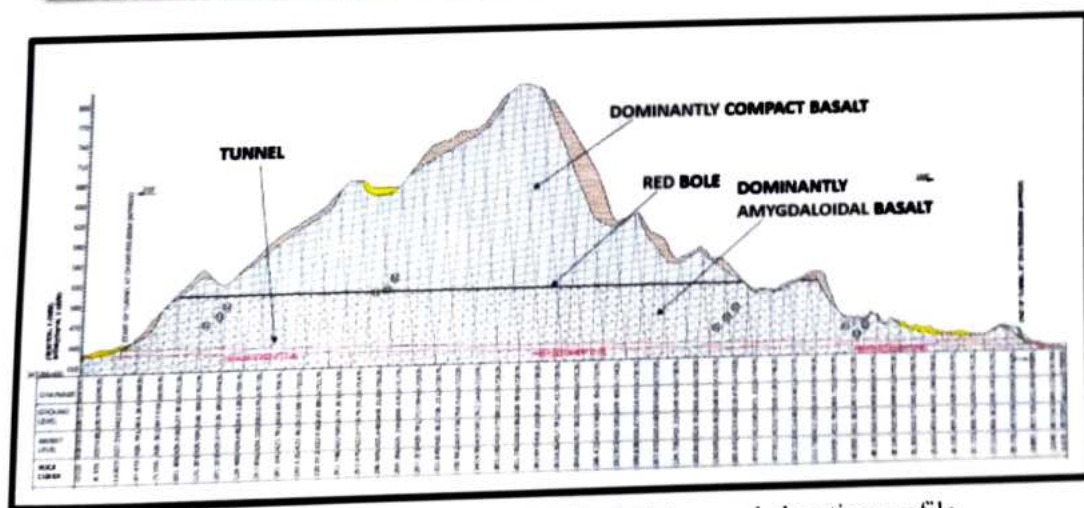


Fig 4&5 :- Proposed Tunnel look like above picture and elevation profile

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# MITIGATION PLAN

## Open Rail Track

Chainage 676+500 to 677+593.140.

This segment also falls within Telapathy Tiger corridor. Land use along this segment is mostly forests of the wan sanctuary, and agricultural fields and human settlements to the west, east, south direction. Hence no wildlife sought in this port six culvert for animal movement.

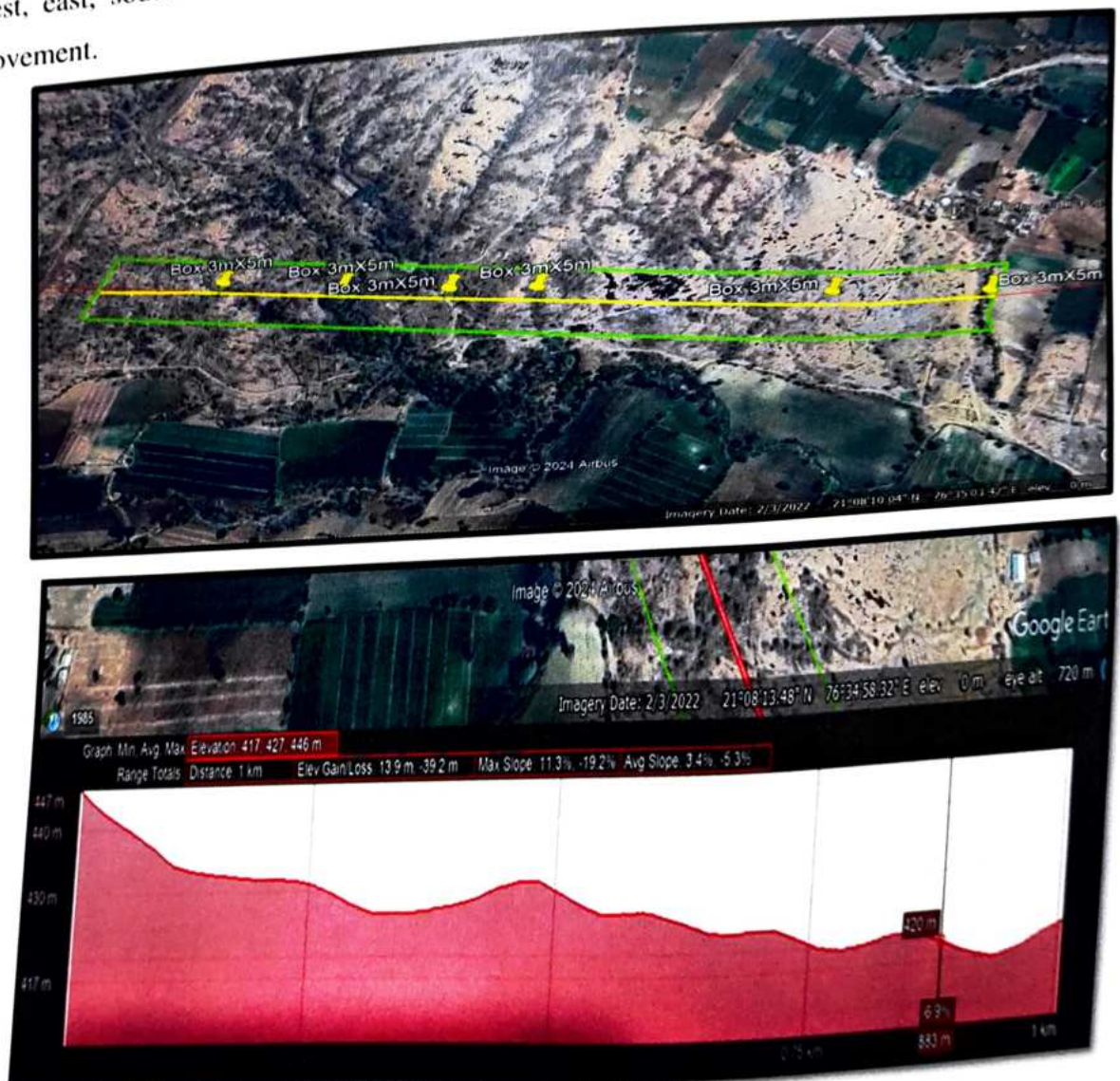


Fig 6&7: Open Railine Segment and its Elevation Profile

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## MITIGATION PLAN



Fig.8:- Box Culverts look like above picture which is proposed as a mitigation measure



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# MITIGATION PLAN



Fig.9&10 :- Tar Fencing and Noise Barrier

Open Railway Track segment 993 mtr, which falls in tiger corridor. Hence there is wildlife movement, in which we have proposed six structures (box culverts) for cross movement of Wild animals. The height of the structures ranging from 3.00 to 5.0 m is as per the height of the proposed railway track, and adequate for animal movement. No realignment or change in height is required to meet the height requirement of the mitigation measures.

The total segment length is 997.331 mtr. Minimum length required for opening is worked out.

a Proposed structures and Level crossing openings:

- i) Structure No 3x5.5 RCC Box
- ii) Underpass structure No 3x5.5 RCC Box
- iii) Underpass structure No 3x5.5 RCC Box
- iv) Natural drain structure No 3x5.5 RCC Box

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# MITIGATION PLAN

v) Structure No 3x5.5 RCC Box

vi) Structure No 3x5.5 RCC Box

The opening of RCC Boxes of span 5.50mx3.0m should be fitted for LWR (Long Welded Rail) Track which is the requirement of the Railway Track as per Permanent Way Manual.

## Segment II: Open Railline

Chainage 701+100 to 702+500 Km.

This segment also falls within Eco Sensitive Zone. Land use along this segment is mostly agricultural fields and human settlements to the west, east, south direction. Hence no wildlife sought in this part. No mitigation will be taken expect tar fencing and noise barrier in this portion.



Fig 11:- Open line falls in ESZ

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# MITIGATION PLAN

## b. Fencing

Fences are generally provided along linear infrastructure such as railway lines to prevent animal mortality by passing vehicles or trains. Fences are best used in combination with properly located wildlife crossing structures to allow animal movement, and cattle guards to prevent instances of animals getting trapped between parallel fences.

- (i) Fencing is not proposed to be provided at that location where a high formation/embankment up to 7m height with side slope of 2:1 is available, which is difficult for the animal to access and existing openings like bridges and RUBs in this area.
- (ii) Since the region also has high human density with agricultural land on both sides of the track, the concept of fencing the entire stretch does not appear feasible.

## c. Modification of culverts in identified wildlife areas:

The height of all box culverts in the three priority mitigation zones are increased to the full extent possible i.e., additional surcharge is accommodated in the height.

### Ledges:

Additional features on crossing structures such as walkways or planks/ledges/shelves are installed on the interior walls of underpasses/crossing and/or drainage structures, to encourage

mammals to use culverts built on natural drainage sites (WII, 2016). These structures help animals use the structures in seasons when the culverts may be inundated with water.

Ledges/shelves along the inner walls of all crossing and drainage structures will be constructed for use by small mammals. These structures extend up to the exit of the structures and are brought to ground level.

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# MITIGATION PLAN

The long openings for animal crossings are already proposed. In small openings like drain and culverts meant for surface runoff/floods cannot be provided with ledges since they can obstruct the water flow and flowing trees/debris /planks etc., during flood and can be entangled within the culverts/drains which is dangerous to the Railway structure and thus potential cause for breaches.

d. No construction debris will be dumped in streams, natural drainages and water holes. Water from these natural sources will not be used for construction purposes. This will be followed.

e. The divisions between a set of two or more box culverts and underpasses are pillar type instead of wall-type. Pillar-type divisions design for culverts (Source: WII, 2016).

f. On-site construction activities should include provisions of noise-reduction measures such as noise attenuation barriers and noise-reduction devices to reduce noise from machinery, especially in the zones identified as priority zones for faunal presence. This will be ensured. The noise barrier pic in figure 7.

## Methodology Adopted for the Proposed Mitigation Measures

1. Mitigation measures mentioned above are proposed based on the Draft Report submitted by WLW/Buldhana as "Mitigation Measures for the Akola-Khandwa railway Gauge Conversion Project passing through Telepathy Tiger Corridor and Eco-Sensitive Zone of Wan Wildlife Sanctuary, It is an extension of the Melghat Tiger Reserve."

2. The minimum openings of 3.00x5.50 mtr of segment length is proposed for opening for animal crossings including the existing drain and road crossings which will be the integral part of the structures for Mitigation measure.

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# MITIGATION PLAN

3. The structures for Mitigation measures are proposed to be located such a way that the adequate height for animal movement is made available. The opening is in the form of a continuous long stretch so the animal can easily visualize the crossing path from long distance.
4. The proposed segments of wildlife and eco-sensitive zones falls on the open Railway Track portion.
5. The Opening for Animal crossings is proposed keeping in mind the rules/guidelines for laying the Railway track and Indian Railway Bridge Manual for Construction of Bridges.
6. The Noise barrier proposal for high bank is more than 7m height with side slope of 2:1 may not be required, since it is difficult for the animals to access Track due to its height. However at the required location the noise barrier will be provided.
7. The Concrete structure instead of steel structure as proposed for tiger crossings are adopted to reduce the noise pollution in the area thereby causing disturbance to the animals. (More noise is generated through steel structure during movement of train). Further, the RCC Boxes is having RDSO approved drawing, easy to construct and handle, reducing the time of construction and economical in comparison to the steel structure.
9. The openings for animal crossings are already proposed. The small openings like drain and bridges meant for surface runoff/floods cannot be provided with ledges since they reduce the waterway and they can obstruct the water flow and flowing trees/debris /planks etc., during flood and can be entangled within the bridge which is dangerous to the Railway structure and thus potential cause for breaches.

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# MITIGATION PLAN

Abstract of Compliance of wildlife Warden/Buldhana on Akola-Khandwa GC

Project

1. Structure for mitigation measures i.e. Opening for Animal Crossings.

Segment	Chainage	Segment Length in mtr.	Wild life staff Recommendation	Proposed by SCR
Tunnel	671+800- 76+500	5043.08	No recommendation	Protection with noise barrier/Tar Facing
Open Line	676+500-677+593	997.39	3 Structures (Box Culverts) proposed	6 Structures (Box Culverts) proposed
Open Line	701+100-702+500	1439	No recommendation	Protection with noise barrier/Tar Facing

S.N	Wildlife department Recommendation	Compliance by South Central Railway
1	Fencing/Noise barrier of Area entire area which is passing through ESZ.	<p>The Noise barrier proposal for high bank is more than 7m height with side slope of 2:1 may not be required, since it is difficult for the animals to access Track due to its height. However at the required location the noise barrier will be provided.</p> <p>Since the region also has high human density with agriculture land on both side of the track, the concept of fencing the entire stretch does not appear feasible</p>

Prepared by :- M/S SAVE GREEN

Add. :- B-5/403, Windsor Aralia, Opposite Holy Cross School, Kolar Road, Bhopal - 462042



## MITIGATION PLAN

2	Modification of culverts in identified wildlife areas: Increase in Dimensions-The height of all box culverts in the three priority mitigation zones are increased to the full extent possible i.e., additional surcharge is accommodated in the height.	Noted
3	Ledges to provide at drainage and culverts	The openings for animals are already proposed. In small openings like drain and culverts meant for surface runoff/floods cannot be provided with ledges since they can obstruct the water flow and flowing trees/debris/planks etc., during flood and can be entangled within the culverts which is dangerous to the Railway structures, thus, potential cause for breaches.
4	No construction debris will be dumped in streams, natural drainages and waterholes. Water from these natural sources will not be used for construction purposes. This will be followed.	Noted
5	The divisions between a set of two or more box culverts and underpasses are pillar-type instead of wall-type. This is for Roads which is noted.	Noted, this is for Roads.

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## MITIGATION PLAN

6	On-site construction activities should include provisions of noise-reduction measures such as noise attenuation barriers and noise-reduction devices to reduce noise from machinery, especially in the zones identified as priority zones for faunal presence. This will be ensured.	Noted
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# MITIGATION PLAN

6	On-site construction activities should include provisions of noise-reduction measures such as noise attenuation barriers and noise-reduction devices to reduce noise from machinery especially in the zones identified as priority zones for faunal preservation. This will be ensured.	Noted
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Deputy Conservator of Forest  
Buldana Division, Buldana

  
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