

**Site Inspection Report of Divisional Forest Officer, Nandyal WL Division
for diversion of forest land between Diguvametta and Gajulapalli stations
for doubling and electrification of Guntur-Guntakal Railway track**

Background: The user agency Indian Railways – South Central Railway (SCR) has applied for diversion of 29.26 ha. forest land for doubling and electrification of existing Guntur – Guntakal railway track between Diguvametta and Gajulapalli Railway Stations. Out of 29.26 ha. 21.53 ha. area falls in the jurisdiction of Nandyal Wildlife Division.

The Site Inspection: The site inspection was carried out on 20-11-2021 and 24-11-2021 by the undersigned along with concerned forest staff and railway representative. Already a single broad guage track exist and the proposed area for diversion is selected alongside the existing railway track. The area statement for the proposed diversion area is as follows:-

Range	Beat	Section	Compt. No.	R.F.	Proposed area (ha.)
Chelama	Pacherla	Pacherla	487	Sirvel	21.53
	Dongabavi		523	Nandyal	
			524	Nandyal	
			525	Nandyal	
			520	Nandyal	
	Basavapuram	Chelama	519	Nandyal	
			510	Nandyal	
			511	Nandyal	
			512	Nandyal	
			508	Nandyal Extension-I	
			506	Nandyal Extension-I	

Location and Requirement of land: The proposed diversion area is situated alongside the existing railway line. At some patches alongside existing railway line, the land has been not demanded as already sufficient land exist and that wherever requirement is there it is minimum. Also since the project is doubling of existing railway track, the nature of requirement is site specific.

Nature of land: On verification during field inspection the land proposed for diversion is found as reserved forest (RF). The proposed area for diversion 21.53 ha. falls in Eco Sensitive Zone (ESZ) of Gundla Brahmeswaram Wildlife Sanctuary (GBM). The proposed area does not fall in any protected area i.e., National Park and Wildlife Sanctuary. However, the proposed diversion area falls in Tiger Corridor connecting Nagarjunasagar Srisailem Tiger Reserve (NSTR) in Nallamala forest and Sri Venkateswara National Park (SVNP) in Seshachalam hills. Further, there are no protected archeological / heritage sites / defense establishment or any other important monument in the proposed diversion area.

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Nature of Terrain, Vegetation: The proposed area is running across hills, valleys and plains. The soil is mostly Red sandy loamy. As per working plan prescriptions the part of area proposed for diversion is managed under Forest Conservation Working Circle and part under Degraded Forest Management Working Circle and remaining under Plantation Working Circle. The forest type is predominantly Southern dry mixed deciduous forest (5A/C3) as per champion & sesh classification. The crown density is 0.3 to 0.7 in majority of the areas inspected. The flora existing in the proposed area includes Yegisa (*Pterocarpus marsupium*), Chirumanu (*Anogeissus latifolia*), Narayepi (*Hardwickia binnata*), Billudu (*Chloroxylon swietenia*), Sandra (*Acacia sandra*), Gotika (*Zizyphus xylopyrus*), Pachara (*Dalbergia paniculata*), Tada (*Grewia tilaraefolia*), Kodisa (*Cleistanthus collinus*), Gumpena (*Lannea grandis*), Bikki (*Gardenia gummifera*), Jitregi (*Dalbergia latifolia*) etc.

Wildlife & fauna: The fauna noticed indirectly includes Tiger (*Panthera tigris*) Leopard (*Panthera pardus*), Sloth Bear (*Melursus ursinus*), Spotted Deer (*Axis axis*), Sambar (*Rusa unicolor*) Wild dog (*Cuon alpinus*), Grey Jungle fowl (*Gallus sonneratii*), Chowsingha (*Tetracerus quadricornis*) Peacock (*Pavo cristatus*), Wild Boar (*Sus scrofa*), etc. Among these endangered species observed indirectly includes Tiger (*Panthera tigris*). The area proposed for diversion and surrounding forest hence, seems to harbour rich diversity of flora and fauna and hence is important from point of conservation.

During site inspection no defence establishment, archeological and historical or any other important monument was observed in the proposed diversion area.

Since the land is required for doubling existing railway line it is site specific and land identified by user agency seems to be minimum requirement for the proposed project. Further no violation of Forest Conservation Act, 1980 by user agency is observed during site inspection.

Site inspection report of District Forest Officer, Nandyal for the area for diversion of forest land for tunnel area between Diguvametta and Gajulapalli stations for doubling and electrification of Guntur-Guntakal railway track.

Background:

The user agency Indian Railways-South Central Railway (SCR) has applied for diversion of 32.25 ha. forest area between Diguvametta and Gajulapalli railway stations for the purpose of doubling and electrification of existing railway track. This area includes two tunnels at Bogada and Chelama and the area requirement as measured by DGPS survey authenticated by Prl. Chief Conservator of Forests & Head of Forest Force, AP, Guntur vide Ref.No.EFS02-15022/8/2018-FCA-SEC-PCCF/FCA-1 Dt. 01-09-2022 is 2.99 ha., out of this 2.99 ha. an area of 1.51 ha. falls in Nandyal Division. Out of 32.25 ha. remaining area of 29.26 ha., out of which 21.53 ha. falls in Nandyal Division is already inspected on 24-11-2021 by undersigned along with concerned forest staff and railway staff. This inspection pertains to 1.51 ha. of area identified for the tunnel portion.

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The site inspection:

Both the sites of tunnel location were visited on 20-11-2021, along with concerned staff and railway representative. The site inspection was carried out on 18-01-2023 along with concerned forest staff. Already a single broad gauge track through Chelama tunnel and Bogada tunnel exist and the area for the additional tunnels is selected adjacent to existing tunnels. As explained by railways representative the offset of the width between 2 parallel tunnels will be 35 m.

Area statement for tunnel top area

Tunnel	Division	Range	Section	Beat	Compt. Nos.	Reserve Forest	Area (ha.)
Chelama	Nandyal	Chelama	Pacherla	Pacherla	487 & 532	Sirvel & Nandyal	1.09
Bogada	Nandyal	Chelama	Chelama	Basavapuram	510	Nandyal	0.42
						TOTAL	1.51

Location and Requirement of land:

The proposed diversion area is situated alongside the existing tunnels. However, it is to be noted that the area will actually not be broken from top as tunnels will go underground and as explained by railway authorities there will be no disturbance to vegetation on the tunnel top. But as per the MoEFCC guidelines and REC instructions tunnel top area also needs to be taken for the purpose of diversion. Considering this condition, even though land is required for diversion, but no damage will be there to tunnel top area and also the extent of land is site specific as the new track is to be constructed parallel to existing one. The offset between parallel tunnels will be 35 m and the width of tunnel opening will be 6 m at the base and in the shape of horse shoe. Considering this the site selected is location specific and requirement is bare minimum.

Nature of land:

The proposed land for diversion of tunnel top area is found to be reserved forest (RF). The area falls in notified Eco Sensitive Zone (ESZ) and proposed buffer of Gundla Brahmeswaram (GBM) Wildlife Sanctuary. The proposed area is outside National Park and Wildlife Sanctuary. However the proposed area falls in Tiger Corridor connecting Nagarjunasagar Srisailem Tiger Reserve (NSTR) in Nallamala forest and Sri Venkateswara National Park (SVNP) in Seshachalam hills. Further there are no protected archeological / heritage site / defence establishment or any other important monument in the proposed diversion area.

Nature of Terrain, Vegetation:

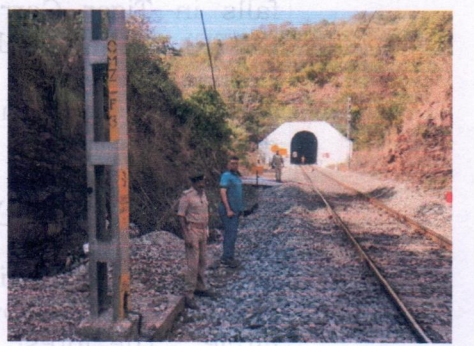
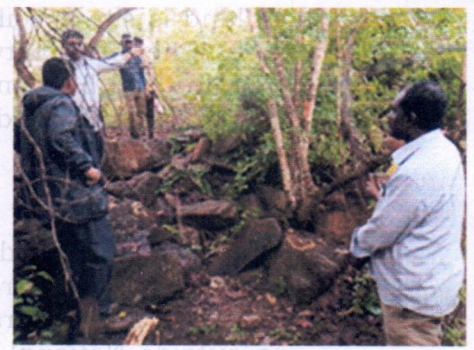
The terrain is hilly. Soil is of red sandy loamy with good content of gravels. As per working plan the area is under Wildlife Management working circle. The forest type is predominant with Southern dry deciduous forest (5A/C3) as per Champion and Seth classification. The crown density in tunnel area is dense and roughly in the range of 0.6-0.7. Flora includes Yegisa (*Pterocarpus marsupium*), Billueu (*Chloroxylon swietenia*), Narayepi (*Hardwickia binata*), Pachara (*Dalbergia paniculata*), Tada (*Grewia tiliaefolia*), Kodisa (*Cleistanthus collinus*), Jitregi (*Dalbergia latifolia*), *Dendrocalamus strictus* etc.

Wildlife and fauna:

The fauna noticed indirectly and recorded in the area includes Tiger (*Panthera tigris*), Leopard (*Panthera pardus*), Sloth Bear (*Melursus ursinus*), Spotted Deer (*Axis axis*), Sambar (*Rusa unicolor*), Wild dog (*Cuon alpinus*), Grey jungle fowl (*Gallus sonneratii*), Chowsingha (*Tetracerus quadricornis*), Peacock (*Pavo cristatus*), Wild boar (*Sus scrofa*), Nilgai (*Boselaphus tragocamelus*) etc. The area is highly rich in unique flora and fauna and endangered species are also recorded in the area its surrounding forest. Also, since the tunnel is laid underground and it cut cross a hill, a high probability is observed for wild animals to pass over the area. In this regard during site inspection it is felt that sufficient safeguards needs to be taken to allow safe passage to wild animals above tunnel and avoid entering of wild animals inside tunnel openings. Approach to tunnels also needs to be planned with mitigation measures to avoid provide safe escape for wild animals. During site inspection it is observed that both sides of Chelama tunnel as cuttings which are more prone for wildlife conflicts. Hence, special attention needs to be given for animal friendly construction like side ramps on the cuttings.

Since the land is required for a parallel tunnel for the purpose of doubling of existing railway track and tunnel construction does not disturb the ground on top and also the tunnel dimension is prespevified, the requirement is site specific and land identified by user agency seems to be bare minimum for the tunnels proposed.

Further no violation of Forest Conservation Act, 1980 by user agency is observed during site inspection.



Name: **Vineet Kumar, IFS.,**
 Designation: District Forest Officer, Nandyal
 Signature: 