Justification for diversion of Forest land for non-Forest Purpose

Preface:

Status of forest Land diversion for this project.

Stage-I Clearance accorded:

1. Forest Land already Diverted for Main Work: 86.6255 Ha.

Forest Land diverted for Construction of Main Tunnels, Bridges, Access Road to Tunnel Portals & Muck Yard: 86.6255 Ha.

In-Principal approval for diversion of 86.6255 Ha of Forest Land has already been accorded in connection with the construction of Sivok-Rangpo New BG Rail Line Project vide No.5-WBA072/2014-BHU, dated: 28.11.2017. The said 86.6255 Ha of forest land is to be used for the construction of Main Tunnels, Bridges, Access road to Tunnel portals and dumping of muck excavated from Tunnels and other ancillary purposes related to the project works. Applied for Stage -II clearance, State Government has forwarded the file to MoEF, RO Bhubaneshwar with their recommendation, and Stage -II approval is expected at the earliest.

2. Forest land diverted for Ancillary works: T4 Adit: 0.9294 Ha.
Proposal No. FB/WB/RAIL/19711/2016 dated 02.07.2016

Stage-I approval accorded on 31.07.2020 vide letter no. 5-WBB109/2020-BHU.

Proposal Submitted:

3. Proposal No. FP/WB/RAIL/40708/2019 Dated 17.06.2019 Area proposed 12.3786 Ha.

For construction of adits/ Escape tunnels from the main tunnels, to be used as a passage or escape route in case of any eventuality in the main tunnels, one comprehensive proposal of 12.3786 Ha has been submitted. Part of this proposal falls in wildlife Sanctuary 1.5278 Ha, for which wildlife clearance is also to be obtained.

This proposal is with RO Bhubaneshwar for Stage -I Forest clearance.

4. Proposal No. FP/WB/RAIL/45359/2020 Dated 09.05.2020 Area proposed 0.5089 Ha.

A proposal for diversion of forest land 0.5089 Ha from Kurseong Forest division required for an alternate access road from NH 10 to T3P1. This proposal has been examined by Nodal officer for its completeness. Thereafter, as per procedure, we had submitted 5 copies of this proposal to DFO, Kurseong and one copy to DM, Darjeeling for processing the case from their end by filling relevant parts.

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Divisional Forest officer, Kurseong vide letter no. 1662/17-10 dated 20.07.2020, have suggested that actual requirement of forest land may be determined after detailed study as proposal in bits and pieces will result in overall delay of project.

5. Proposal No. FP/WB/RAIL/47649/2020 Dated 18.07.2020 Area proposed 10.8186Ha.

In the meantime, one more proposal of 10.8186 Ha forest land [10.2086 Ha in Kalimpong Forest division and 0.610 Ha in Darjeeling forest division] has been submitted online on 18.07.2020. However, Nodal officer has returned the proposal on 27.07.2020 with a suggestion to combine the recently submitted proposal for diversion of 0.5089 Ha forest land mentioned at para 4 above with this proposal.

Amalgamation of small proposals to form a single comprehensive proposal:

Considering the observations made at para 4 & 5 above by DFO & Nodal officer and after carrying out a detail study on requirement of land for this project, a single proposal of 13.512 Ha for diversion of forest land has been worked out that is amalgamation of:

i) 0.5089 Ha (proposal submitted earlier vide FP/WB/RAIL/45359/2020 dtd. 09.05.2020)
ii) 10.8186 Ha (proposal submitted earlier vide FP/WB/RAIL/47649/2020 dtd. 18.07.2020)
iii) and 2.1845 Ha new additional area.

Bifurcation of 13.512 Ha on the basis of forest division wish is as under:

(A) 0.5089 Ha in Kurseong Forest Division.

(B) 2.7945 Ha in Darjeeling Forest Division,

(C) 10.2086 Ha in Kalimpong Forest Division

Total 13.512 Ha

Justification on diversion of forest land for non-forest purpose forest division wise is as follow:

(A) Under Kurseong forest division: 1 patch of 0.5089 Ha. Justification is same as submitted earlier with this proposal no. 45359/2020 Dated 09.05.2020. Same is being reproduced here:

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We encounter a unique situation at site during the process of construction for access road to tunnel portal of a particular tunnel with in the diverted forest land. We observed that, deep cutting of hill is involved in making this access road within this given land boundary. If, we resort to that much deep cutting then the stability of the side slopes of hill in question will be at stake and no amount of protective measures taken for stability of slope may be effective in the long run.

Ideally a gentle side slope with minimum effective protection work is needed to ensure the stability of the hill. In order to achieve such an ideal stable slope a wide area is needed, which in turn necessitate more area of forest land diversion.

After extensive study of the area by our experts recommended that with a little shifting original alignment of access road along with a wider area as could be seen from the attached drawing, would result in lesser cutting of hill. Thus, side slopes could be made stable with minimum protective work.

We could not avoid or drop construction of any access road proposal as because access roads are main artery which connects highway with tunnel and is being used to mobilize resources such as man, machine and construction material during execution of tunnel work and same is retain for future connectivity between highway and tunnel in operational phase.

(B) Under Darjeeling forest division [4 patches i) 0.29 Ha, ii) 0.32 Ha iii) 1.1245 Ha & iv) 1.060 Ha]: 2.7945 Ha.

Four different patches of Forest land have been identified in Darjeeling Forest Division, under Teesta Forest range for above purposes. A brief description of these four patches of land and purpose for which they are proposed is as below:

Patch-i: Area: 0.290 Ha, Alternate Access road for T7P1 Tunnel near Gail khola.

Approach road for T7P1 was initially considered to be taken up by using initial 60 mtr common access of T6P1 and then by constructing temporary bridge or culvert on Gail khola river to enter the Tunnel T7P1.

However, considering the amount of movement of construction equipment and machineries that will utilize the access road for construction of Tunnel 6, Tunnel 7 and Gail khola bridge, the common 60 m length of access road to T6P1 whose width is not sufficient to cater movement of those construction E&M i.e. equipment & machineries, thus would always create a bottleneck for construction of these tunnels and bridge.

Therefore, to enhance movement of construction E& M as well as other vehicles during construction phase an alternate access road has been planned that will take off from Sikkim end of existing Gail khola Bridge on NH-10. The alternate access road so planned will passing through the area where there is no requirement of felling of any tree.

Alternate studies if any: This access road alignment has been planned from the NH 10 to Tunnel 7 P1 portal through the forest land (as no other land is available to reach the T7P1 Portal). There is no tree along this proposed access road and the land required is bare minimum land for construction of an access road.

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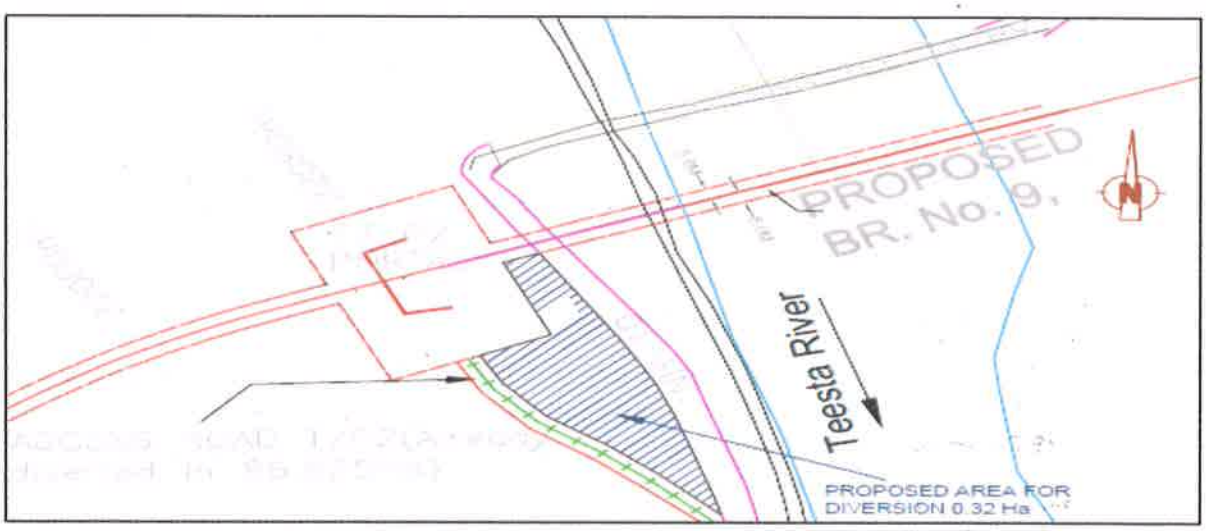
31/8/20

Patch-ii: Area: 0.320 Ha, between T7P2 portal & it's Access Road.

Portal T7P2 is located at an elevation very adjacent to NH-10 at a hill side. At the time of submitting our main proposal of 86.6255 Ha, there existed only a few small shops at the road side. Recently, many temporary huts/ small vegetables & Fruits shops have come up just below the Portal where tourists as well as local people shops parking their vehicles along the highway immediately below the portal. A passenger shed/ bus shelter has also been constructed by some department in the recent pass just below the portal.

So, there seems a potential safety hazard to the highway user during construction of tunnel and railway bridge over river Teesta. In order to facilitate both the construction of Tunnel and use of highway below, it is proposed that the area between the Portal, access road to portal and NH10 may be diverted to install some protective measures in the proposed diverted land that will take care the safety of the road user below.

This patch of land is void of any tree that may even be diverted on a temporary basis required during construction period only.



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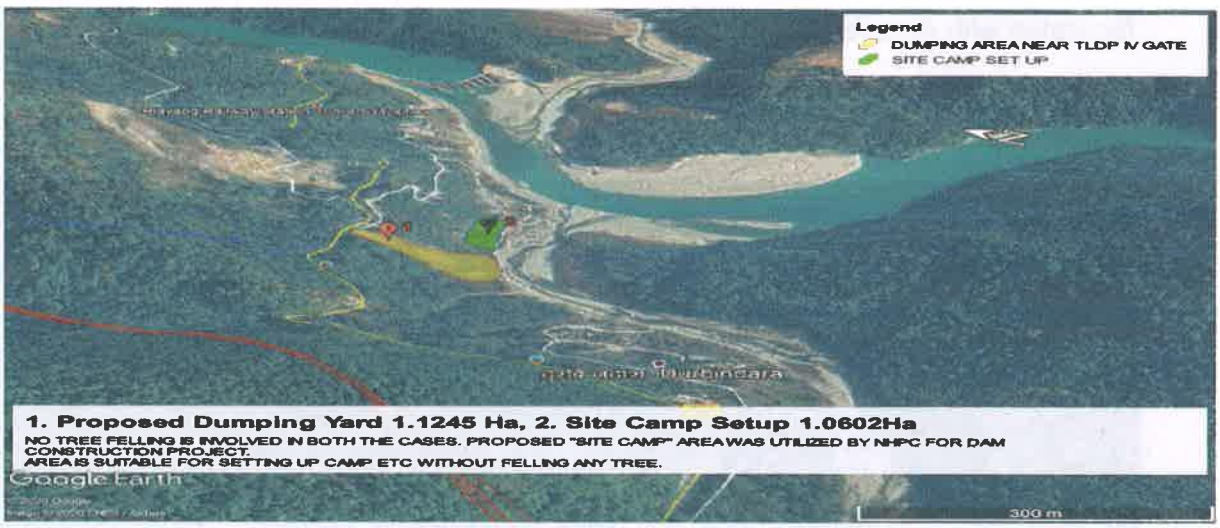
This patch of land is located in between already diverted land for access road to T7P2 portal and existing NH10 as shown in above figure. The portal is at very high elevation than the road below.

Alternate studies if any: Considering safety issue of road user, we are proposing this land diversion.

Patch-iii & iv: Area: 1.1245 Ha+ 1.060 Ha = 2.1845 Ha at 27th Mile adjacent to NH-10 and in between Teesta River & NH-10 low land area (Near TLDP –IV, NHPC Gate) for Muck Dumping & Camp Set-up.



In our main proposal of 86.6255 Ha, an area of only 0.1 Ha could then be identified to be used as a dumping yard for Tunnel 6. This 0.1 Ha area is located at a valley and access road is not available, to construct access road another patch of land shall be required wherein, felling of trees, huge earth cutting is required and quantum of muck can be accommodated is very less and huge environmental impact is there.

Therefore, 1.1245 Ha land is identified for dumping of muck that will be generated from T6 & T7P1& Adits work. The area identified is near NHPC Gate, TLDP- IV in-between NH-10 & Rambi jhora. At this location there is no tree and on dumping of muck at this location, strengthening of NH 10 side slope is anticipated which will have a positive impact on the stability of NH 10.

Another patch of land measuring 1.060 Ha has been identified nearby above location at down side having almost plane area and there is also no involvement of felling of any trees at this location. It came to our knowledge that during construction of NHPC dam, this area was being used as a site camp by other agencies.

We also proposed this area for establishment of our construction site yard/Camp office. Advantage of setting up such establishment at this location is that there is no need to construct any access road to reach the location as existing access road may be used for that purpose. Secondly, this location is not having any tree and area was used by earlier agencies for such facilities only.

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Hence, area required under this patch iii & iv is : 1.1245 Ha + 1.060 Ha = 2.1845 Ha.

And total area under **Darjeeling Forest Division**: i) 0.29 Ha. + ii) 0.32Ha + iii) 1.1245Ha + iv 1.060 Ha= **2.7945Ha.**

(C) Under Kalimpong forest division [4 patches i) 0.9278 Ha, ii) 1.4156 Ha, iii) 1.3093 & iv) 6.5559 Ha]: 10.2086 Ha.

Four different patches of Forest land have been identified under Kalimpong Forest Division for above purposes. A brief description of these three patches of land and infrastructure proposed therein are as below:

Patch-i: Area: (0.9278Ha: Local name of area-Labar Kote)

The purpose for diversion of this Forest Land is for various structural development works for the project such as central storageand establishment of Public Health centre and other facilitates with Ambulance services.

Alternate studies carried out to select a suitable area.

Option-1

This land is located in between existing Teesta Bridge and Melli Road Bridge at LHS of NH 10 while heading towards Gangtok, bounded by Teesta River and NH10. Here, the distance between the NH10 and Teesta river is only 35 M, few small trees covers this area and density of tree is very low.

This narrow and isolated strip of forest land bounded by highway on one side and river on the other side having a maximum width of 35 m is situated outside the main forest and would not affect the ecology of the region.

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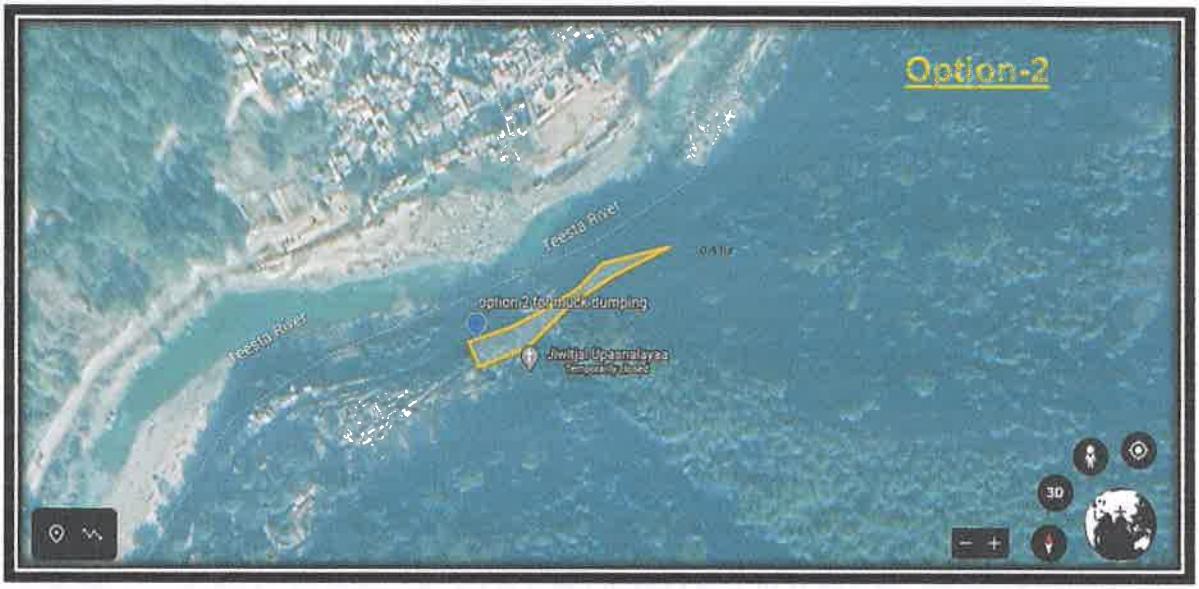
Option-2



This land is located in between existing Teesta Bridge and Melli Road Bridge at RHS of NH 10 while heading towards Gangtok, this area having many trees and it is situated up right side of NH10 i.e. in hill slope area, for this land deep cutting for access road is required. At same time this land is directly connected to main forrest so that by choosing this it seems affect wildlife living system and forest eco-system.

On comparing above two options, it is found that option-1 is more suitable for diversion as this is a narrow and isolated strip of forest land bounded by highway on one side and river on the other side having a maximum width of 35 m is situated outside the main forest and would not affect the ecology of the region and where density of trees are very less in compare to the option 2..

Patch-ii Area: 1.4156 Ha: Local name of Melli)

Please refer the google map attached below. Two spots adjacent to proposed Melli Station one on hill side and another on NH 10 side, which are at present in deep gorge, shall be developed by filling suitable filling material and earth retaining structure so that the area can be utilised for construction of Staff quarters and other facilities for proper functioning of the yard.

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Patch-iii: Area: 1.3093 Ha: Local name of BhaluKhola)

The purpose for diversion of this Forest Land is for dumping of muck which generated from tunnels during the time of construction.

Alternate studies carried out to select a suitable area.

Option-1

This land is located near the left bank of Teesta river, bounded by Teesta river and NH 10. This is a low laying area and construction of any project infrastructure is not suitable being on the low laying area, however, this low land fill can be developed in to a beautiful landscape by filling the area with the tunnel muck after constructing suitable retaining structure for that

purpose. This way, it may ensure the safety of nearby inhabitants/villagers from flash flood as well as safeguard to environment. This will also protect the existing highway from being eroded due to action of river which is flowing very near the highway. After filling and levelling the top soil, land can be used as flat ground or tree plantation can be done as per forest department's guideline. At present, this patch is barren land without any standing tree.

Option-2

This land is located in between existing Tarkhola and Kirney location LHS of NH 10 while heading towards Gangtok, this area having many trees and it is too much down from existing National Highway, which may difficult to reach. Apart from this it may affect wildlife living system and forest eco-system due to the dense forest.

On comparing above two options it was found that option-1 may be suitable for diversion because there is minimal felling of tress involved and area is flat, low laying land.

Patch-iv: Area: 6.5559 Ha, Local name of Tar khola Near NHPC bridge)

The purpose for diversion of this Forest Land is for dumping of muck which generated from tunnels during the time of construction.

This land is located near to Tarkhola NHPC temporary bridge towards NHPC Hydro Project. Its located in between Tarkhola and Tumlung khola at LHS of NH 10 while heading towards Gangtok. There is alternative option for muck dumping initially proposed.

Option-1

In above photo (Google Map) shows that in Option-1, area is having very less trees and vegetation. The area as measured is 6.5559 Ha. The area is situated in low land and having small ditches, resulting water logged situation arisen during monsoon. The land can be developed and level can be high by dumping of muck and further vegetation and forestation can be done. Apart from this it is isolated from main forest area which may not affect eco system of forrest land. However, it is better connectivity to reach that area by NHPC existing kaccha road.

Option -2

In above map shows that in Option-2 area is having dense forest and vegetation. The area as measured is 8.765 Ha. This area has near up to within 200 m from Option -1 area which is described above. However, this area has dense forrest whichis clearly shown on above map. As such there is possibility for wild life movement may affect.

On comparing above two options it was found that option-1 seems most suitable for diversion because there is minimal tress and the area is a low laying land. Local disposal of muck will help in reducing transportation emissions and cost, reuse at surface sites to raise grade or to prevent flooding.

Conclusion:

Generally, tunnelling projects are much more eco-friendly. In this project 86% of the alignment is passing through the deep tunnels (13 Nos. in West Bengal, 1 In Sikkim) and there is one underground station in the alignment that will further reduce the impact of surface degradation. Being a tunnelling project, here fragmentation of wildlife habitation is also eliminated to a large extend.

We are exploring all possibilities to avoid use of forest land and trying our best to get other than forest land for many of our ancillary work. A copy of letter dated 30.06.2020 is enclosed for ready reference, wherein we sought NOC from District Magistrate to use such land for the interest of public and national project.

We are very much concern with regards to minimum use of forest land and avoidance of felling of trees, however as there is no other type of land available except forest land for construction of access road from nearest highway to tunnel entrance/exit, site camp set up and dumping of muck generated from tunnelling process, adits i.e. means of rescue in case of any eventuality during operational stage, we submit this single proposal of 13.512 Ha only for kind consideration in order to implement this vital and strategic project of national importance.

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