सत्यमेव जयते

भारत सरकार
GOVT. OF INDIA
केन्द्रीय लोक निर्माण विभाग
CENTRAL PUBLIC WORKS DEPARTMENT
Office of the Executive Engineer
Indo-China Border Roads Project Division-III
CPWD, Khasra No.781/547, Peo-Kalpa Road,
In front of HPPWD Rest House, Reckong Peo, Kinnaur, HP-172107
e-mail: hpee-icbrpd3@cpwd.gov.in, Ph: 01786-292939

No. 54(6)/का.अभि./भा.ची.सी.स.परि.मं.-III/2022-23/26 Dated: 23/04/2022

To,

Deputy Conservator of Forests (DCF)
Kinnaur Forest Division
Reckong Peo
Himachal Pradesh

Subject: - Proposal for the Diversion of 50.091 ha. of Forest land in favour of ITBP and applicant as Executive Engineer, ICBRPD-III, CPWD, Khasra No. 781/547, Kalpa Road in front of HPPWD Rest House, Reckong-Peo under (FCA-1980) for the construction of Dubling Rishi Dogri-Lamche Dogri Road within the Jurisdiction of Kinnaur Forest Division. (FP/HP/ROAD/145666/2021) **Regarding the compliance to Queries.**

Reference: Your office endorsement No. 311 from dated 23/04/2022 due to EDS raised by Nodal Officer (FCA), Shimla, HP.

Respected Sir/Ma'am,

With reference to your letter and query under reference about the proposal for the diversion of 50.091 ha. Of forest land in favour ITBP. for the construction of Dubling - Rishi Dogri-Lamche Dogri Road 0/00 to 25 Km by CPWD, within the jurisdiction of Kinnaur Forest Division, Dist. Kinnaur, Himachal Pradesh has been scrutinized by your office and we have been informed of some queries on the shortcomings.

We are sending herewith the Reply/ Compliance for each of the Query raised by your office regarding the forest proposal of Dabling Rishi Dogri-Lamche Dogri Road, please look into the table depicted.

S. No.	Query	Compliances
1	The detail of employment likely to be generated as mentioned in online Part-I E(ii), (iii) and in hard copy is incorrect, necessary correction in this regard is required to be mentioned.	Query attended and employment generation detail corrected on portal as well as hard copy.
2	The purpose-wise breakup as mentioned at serial No.2 is not correct. It should match with the detail mentioned against column B-2.4 of online Part-I	Necessary correction done in hard copy same as per online Part-I.
3	The proposed area is prone to erosion, but the measure for protection of soil erosion has not been given, detail of the same may be mentioned/ attached in proposal folder.	This office is submitting Geology report (attached at apge No 42A-C) of area vetted by IIT, Roorkee and mechanism for construction is to followed for reducing soil erosion to the fullest and CPWD has ensured to put the condition in contract document to mitigate soil erosion by constructing ample No. of protection structures like gabion walls, retaining walls and breast walls to completely stop rolling down of soil/boulders.

4	The progress of the CA as mentioned point No. V(a) is 2044.06 ha. Whereas, 1787.04 ha. Has been mentioned in online Part-II, necessary correction in this regard is required to be made.	Pertains to the Forest Department.
5	The documents placed at page No. 77 and 92 of the folder-I and some of the documents of proposal folder-II are photocopies, original/authenticated copies are required to be placed in proposal folder.	Page No. 77 is for certificate Of DC regarding Non-availability of Non- Forest Land which was issued for two roads Namely Namgia Dogri- Lukma I and Dubling -Rishi Dogri in single copy. It was placed in FCA folder of Namgia Road but now photocopy of same is being used here in this proposal Rest you can confirm it from office of DC, Kinnaur for authenticity of certificate. Page No.92 and other pages are in original in Master file and in other 2 folders it is photocopy, may be authenticated by DFO, Kinnaur.
6	The detail of length and width of proposed road has not been found placed in proposal folders.	Already placed at Page No. 108 of proposal folder. Also new copy is being enclosed with this letter and being placed at page 108-A.
7	All uploaded and related documents in original/authenticated copies (complete folder) are required to be uploaded in one PDF file against additional information detail of online Part-I.	This reply letter is being uploaded on Parivesh Portal.

This road is situated within 100Km of aerial distance from LAC with China and sanctioned by the Cabinet Committee on Security in Sep 2020. Please go through this. We hope you will find these compliances acceptable. It is requested that forest clearance may be accorded at an earliest please.

Encl: 3 Nos Proposal folder.

OK Adarsh 23/9/22

Executive Engineer
ICBRPD-III, Reckong Peo

Copy to:

1. CPM, ICBRPZ, CPWD, Nirman Kuteer, Choglamsar (Khasra No. 981), Near District jail, Leh, UT of Ladakh-194104
2. SE, ICBRPC, Reckong Peo, Himachal Pradesh-172107.
3. AE-II, ICBRPD-III, CPWD, Reckong Peo for necessary pursuance please in forest department and Revenue department (for FRA certificate).

OK Adarsh 23/9/22
(Executive Engineer)

No.Ft.48-5451/2021(FCA),
H.P. Forest Department.

Dated Shimla-1, the 11 APR 2022

From: Nodal Officer-cum-APCCF (FCA)
O/o Pr.CCF, H.P. Shimla-1.

To: CCF Rampur

Subject: **Diversion of 50.091 ha. of forest land in favour of ITBP Floor 03 Block 02, CGO Complex, Lodhi Road New Dehli for the construction of Dubling-Rishi Dogri-Lamche Dogri road within the jurisdiction of Kunnaur Forest Division, Distt. Kinnaur, HP.**

Memo:

Please refer to your office memo. No. 7311 dated 28-03-2022 on the subject cited above.

2. The following shortcomings are noticed which may be attended in all respect:-

1. The detail of employment likely to be generated as mentioned in online Part-I E(ii),(iii) and in hard copy is incorrect, necessary correction in this regard is required to be mentioned.

2. The purpose-wise breakup as mentioned at serial No. 2 is not correct. It should match with the detail mentioned against column B-2.4 of online Part-I.

3. The proposed area is prone to erosion, but the measure for protection of soil erosion has not been given, detail of the same may be mentioned / attached in proposal folders.

4. The progress of the CA as mentioned point NO. V(a) is 2044.06 ha. whereas, 1787.04 ha. has been mentioned in online Part-II, necessary correction in this regard is required to be made.

5. The documents placed at page No. 77 and 92 of the folder-I and some of the documents of proposal folder-II are photocopies, original/ authenticated copies are required to be placed in proposal folders.

6. The detail of length and width of the proposed road has not been found placed in proposal folders.

7. All uploaded and related documents in original/ authenticated copies (complete folder) are required to be uploaded in one PDF file against additional information detail of online Part-I.

You are, therefore, requested to make proper scrutiny of the proposal folders and submit the same after placing all requisite documents either in original or authenticated copies in it. However, the proposal folders as received with the memo are returned herewith for uploading in online portal.

Encls. As above.

Nodal Officer-cum-APCCF (FCA)
O/o Pr.CCF, H.P, Shimla-1.

P.T.O.

Endst. No.Ft.48-5451/2021(FCA), Dated Shimla-1, the

Copy is forwarded to Executive Engineer, ICBRPD-III,CPWD, Reckong Peo, Distt. Kinnaur, H.P. for information and necessary action.

Nodal Officer-cum-APCCF (FCA)
O/o Pr.CCF, H.P, Shimla-1.

Endst.No./FCA/ 254 Dated Rampur, 19-4-2022

Copy alongwith its enclosures is forwarded to DFO Kinnaur for information and necessary action. He is requested to attend the point wise observations as raised by the Nodal Officer-cum- APCCF (FCA() Shimla and submit reply to this office immediately.

Encl: - As above (3Nos Proposal Folders)

Chief Conservator of Forests,
Rampur Bsr. H.P.

Endst No: 311 Dated 23-4-2022

The observation raised vide above Endst No. is forwarded to Exp. Engineer CPWD Near PWD Rest House Reckong Peo for favour of information and further n/action. He is requested to attend the above observations pertaining to you and submit the observations reply immediately under intimation to this office without any delay.

Deputy Conservator of Forest
Kinnaur Forest Division
at Reckong Peo, H.P

KINNAUR FOREST DIVISION
Dy. No. 357
Dated 21-4-22
AT RECKONG PEO.

FCA-
[illegible] 21/4

FORM – 'A'

Form for seeking prior approval under section 2 of the proposals by the State Governments and other authorities

PART-I

(To be filled up by user agency)

PROPOSAL NUMBER: - FP/HP/ROAD/145666/2021

1.	**Project details:**	
	i. Short narrative of the proposal and project/scheme for which the forest land is required.	Construction of Dubling – Rishi Dogri – Lamche Dogri Road under ITBP phase – II Indo – China Border Roads in the State of Himachal Pradesh has been entrusted to Central Public Works Department (CPWD) by Ministry of Home Affairs, Department of Border Management, and Govt. of India. The work is of National Importance having strategic in nature from Border security aspects. The total length of the project is 25 Km. The total land required is 50.091 ha.
	ii. Map showing the required forest land, boundary of adjoining forest on a 1:50,000 scale map.	The counter map on 1:50000 scale showing the required area, boundary of adjoining forest is attached on Page No 38.
	iii. Cost of the project	The total cost of the project been estimated to Rs. 45503 (Rupees in Lacs)
	iv. Justification for locating the project in forest area.	This road is strategically very important for the safety of the nation and will be used by the ITBP and Military Personnel to reach the border and for carriage goods and ammunitions etc. to protect Indian Territory. Therefore, diversion of required forest land will be essential for construction of this strategic border road.
	v. Cost-benefit analysis (to be enclosed).	This proposal is for Defence perspective; as such no cost benefit analysis is required.
	vi. Employment likely to be generated.	Yes i. Permanent/ Regular Employment (Number of Persons) :- 20 ii. Temporary Employment (Number of Persons-Days):-91250, considering 100 person per day for 2.5 years effectively.
2.	**Purpose-wise break-up of the total land required:**	Total land required for the construction of this project is 50.091 hectare: i) Total Forest Land = 50.091 ii) Total non – forest land = 0

Component Wise Breakup

S.No	Component	Forest Land (ha.)	Non-Forest Land (ha.)
1	Proposed Road Alignment before stream	2.7	0
2	Proposed Road Alignment after stream	42.2395	0
3	Proposed Bridge on the stream	0.18	0
4	Proposed Muck Dumping area	4.9715	0
	Total	50.091	0

3.	**Details of displacement of people due to the project, if any:**	No displacement of people is involved Not Applicable
	i. Number of families. ii. Number of Scheduled Castes/Scheduled Tribe families	
	iii. Rehabilitation plan. (to be enclosed)	NA
4.	**Whether clearance under Environment (Protection) Act, 1986 required? (Yes/No).**	NA
5.	**Undertaking to bear the cost of raising and maintenance of compensatory afforestation and/or penal compensatory afforestation as well as cost for protection and regeneration of Safety Zone, etc. as per the scheme prepared by the State Government (undertaking to be enclosed).**	Enclosed
6.	**Details of Certificates/documents enclosed as required under the instructions.**	Enclosed

Date: - 23/04/2022

Place: - Reckong Peo

Adarsh 23/04/22

आदर्श कुमार मिश्रा
कार्यपालक अभियन्ता

Adarsh Kumar Mishra
Executive Engineer
ICBRPD-III, Reckong Peo

State serial No. of proposal_____

(To be filled up by the Nodal Officer with date of receipt)

4-3-A

A REPORT ON GEOLOGY AND SLOPE STABILITY ALONG RISHI DOGRI TO DUBLING ROAD SECTION, HIMACHAL PRADESH

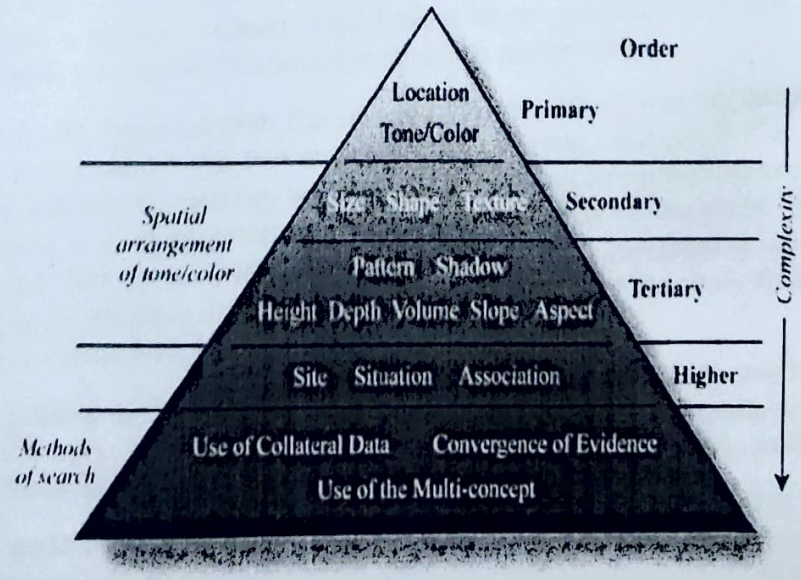
Dr. R. Anbalagan* & Dr. Ajanta Goswami**

INTRODUCTION

The present report deals in detail the methodology and the results of satellite image interpretation of the Rishi Dogri to Dubling Road Section road section and its adjoining areas in Himachal Pradesh.

OBJECTIVE: Study of Geology along the road side (approx. 500 m buffer) and slope stability of adjoining hills using high resolution satellite image

METHODOLOGY. In the proposed study, image interpretation of high resolution GeoEye image was carried out. Image interpretation involves extraction of qualitative and / or quantitative information from an image, which in the present context includes Geology and slope stability. The methodology involved is Deductive Approach which is based on Interpretation Elements (Image Elements & Terrain Elements) coupled with "Convergence of Evidences" criteria. The image elements considered are shape, size, tone, texture, pattern, shadow and association in addition to considering terrain elements such as landforms, drainage, vegetation, land use and soil. The ancillary data used in the study includes geological maps of the area published in refereed journals and GSI maps which are available at 1:50,000 scale. Since the spatial resolution of the ancillary data available is coarse, it was used as supportive information for deduction of Geology and slope stability.



The figure above shows the steps considered for image element interpretation.

* Emeritus Fellow Professor, Dept. of Earth Sciences, IIT Roorkee
** Assistant Professor, Dept. of Earth Sciences, IIT Roorkee

(Dr. R. ANBALAGAN)

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Slope stability study can be accomplished successfully using satellite images as shown by McKean et al.(1991), Westen (1993), Soeters and vanWesten, (1996) and Westen (et al., 2008). With reference to the methodology demonstrated by the above mentioned researchers, active landslides in the study area are mapped which were seen with characteristic spectral response, mostly show up as bright pixels, typical oval/ elongated shape and association such as close to the river bank/ ridge or at the initiation point of 1st order stream. Many of the old slide zones were interpreted from their triangular/ crescent pattern, fresh vegetation growth and barrenness on the crest region indicating active mass wasting due to head ward erosion.

RISHI DOGRI TO DUBLING ROAD SECTION IN HIMACHAL PRADESH

The Rishi Dogri to Dubling Road Section road section in Himachal Pradesh extends from Rishi Dogri with an aerial extent of 78°36'44"E 31°36'22"N and 78°48'51"E 31°43'8"N. This road has a design length of 52.85 kms (Fig 1).

The road offtakes from Rishi Dogri and runs in an upslope gradient towards north westerly direction initially. It traverses through the right bank of a south-easterly flowing stream course. In this stretch it has a zig-zag road alignment in the upper reaches of the valley where the gradients are very steep (more than 50°). From the top level of the valley, the road takes westerly turn with numerous zig-zag turns towards the ridge, where it intercepts thick glaciers. The further course of the road is mainly located on thick glaciers seen on the slopes. Though the overall alignment is westerly close to the top of the ridge and further down, later it takes turn towards NW and WNW through the valley glaciers. The road maintains a consistent WNW trend through the glaciers for sometimes and later it passes a hard rock, which is inclined roughly towards south. Though the road is nearly linear in the rocky terrain it has numbers of loops to accommodate the local gradients. From the glaciated terrain, the road follows a consistent down gradient. Towards the end reaches of the slope, the road is highly zig-zag with many hairpin bends before it reaches Dubling. The location Dubling is situated above a steeply inclined slope having higher landslide potential, however Dubling is safely located much above the landslide prone area.

Denudational hills, seen on both the side of the valley shows coarse texture due to weathering and erosion. The thin strip of image covering road and buffer area is a challenge to interpret the geology and lithology of the area. Ancillary data used defines the confidence level of interpretation which again depends on the scale. The image provided is partially covered with snow making it difficult to interpret the Geology and slopes. However ancillary data (Geological map and DEM) of the study area could be studied for the deductive approach.

The break in lithology on either side of river valley could be well deciphered from break in slope, changes in resistance to erosion, changes in drainage pattern and tonal changes. Because of Weathering at places, it becomes soft and fragile locally.

The road starts at Rishi Dogri and passes through Lilang Formation. This Formation is of Triassic in age and mainly consists of carbonate rocks. Further WNW the road passes through Kuling Formation. The major rock types of this Formation are shales. These rocks are succeeded towards NW by Kunzum La Formation of Hemanta Group.

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It extends for a considerable distance of about 6 km towards NE. The rock types of this section dominantly include deltaic sedimentary rocks such as sandstone with subordinate shales and carbonate rocks. The road towards the end is located within Batal Formation of Hemanta Group for an aerial distance of nearly ~7 kms. This entire stretch consists of hard to medium hard rocks made up of medium to high grade metamorphic rocks including phyllites, slates and quartzites.

The rocks seem to be deformed and weathered at places along the road alignment. During road construction, suitable precaution may be adopted to minimize slope instability problems due to excavation. Over all the alignment seems to be stable.

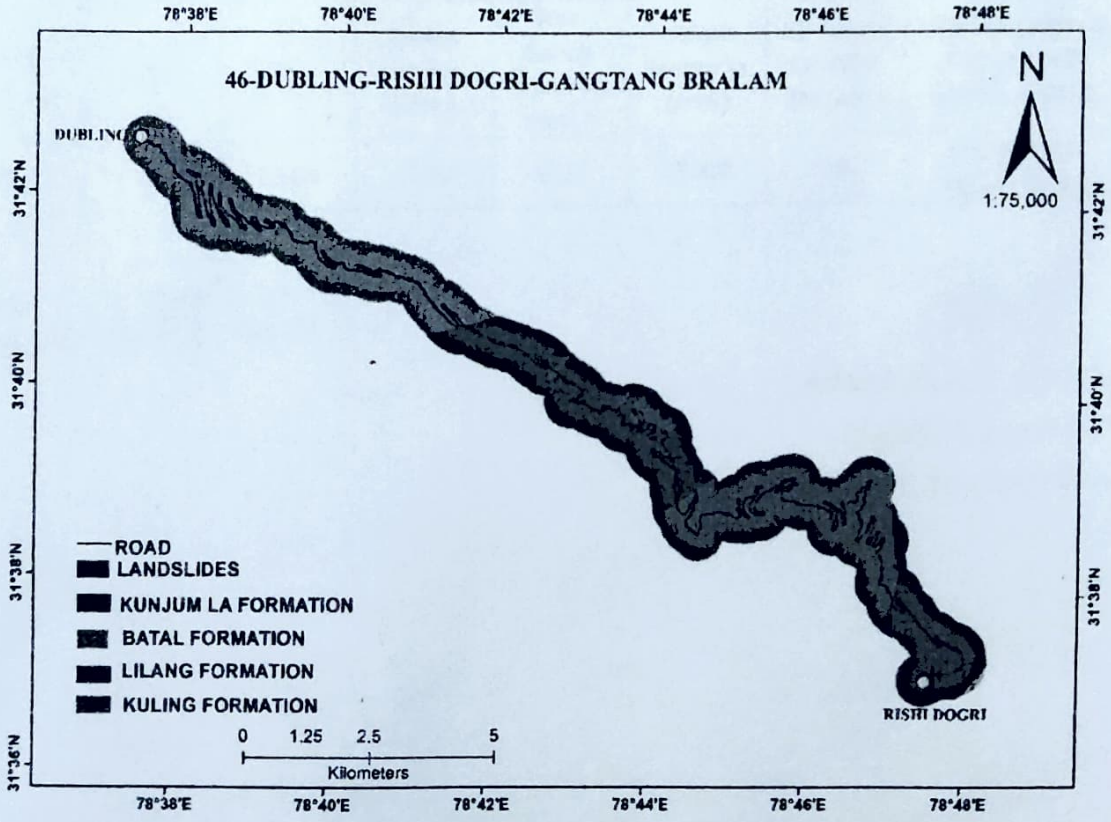

Figure 1: Location and geology along the road section

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Full Title of the Project:- Construction of Dubling Rishi Dogri – Lamche Dogri Road from 0.00 km to 25.00 km in Kinnaur District of Himachal Pradesh.

File No: - FP/HP/ROAD/145666/2021

Date of Proposal: - 05/08/2021

STATEMENT SHOWING THE ROAD/CANAL/RAILWAY LINE TO BE CONSTRUCTED FROM CONSTRUCTION OF DUBLING RISHI DOGRI – LAMCHE DOGRI ROAD FROM 0.00 TO 25.00 KM IN KINNAUR DISTRICT OF HIMACHAL PRADESH.

S.NO	RD (km)		LENGTH IN MTR.			WIDTH OF RIGHT OF WAY (in mtr.)	NAME OF VILLAGE/MOHAL AND FOREST AREA NEARLY
	From.	To.	Forest Land in (mtr.)	Non Forest Land in (mtr.)	Total length in (mtr.)		
1.	0.00	25.00	25000	0.00	25000	18	Pooh/ Pooh Forest Range

Date:- 23/4/22

Place:- Reckong Peo

Adarsh Kumar Mishra
Executive Engineer
ICBRPD-III, Reckong Peo