कार्यालय प्रभागीय वनाधिकारी, बागेश्वर वन प्रभाग बागेश्वर

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पत्रांक 6654 / 12-1-2 बागेश्वर दिनांक : 03 / 6 / 2026

सेवा में,

वन संरक्षक,
उत्तरी कुमाऊ वृत्त,
उत्तराखण्ड अल्मोड़ा।

विषयः— **जनपद बागेश्वर के अन्तर्गत बालीघाट–धरमघर–खन्तोली पुल से गुरगुच्चा प्रा0पा0 स्कूल तक मोटर मार्ग के निर्माण हेतु 0.63 है0 वन भूमि के प्रत्यावर्तन के सम्बन्ध में।** (Online Proposal No. FP/UK/ROAD/12710/2015).

संदर्भः— भारत सरकार क्षेत्रीय कार्यालय देहरादून के पत्रांक सं0 8बी / यू0सी0पी0 / 06 / 242 / 2015 / एफ0सी0 दिनांक 17.03.2026।

महोदय,

उपरोक्त विषयक संदर्भित पत्र के क्रम में अवगत कराना है कि भारत सरकार पर्यावरण एवं जलवायु परिवर्तन क्षेत्रीय कार्यालय देहरादून द्वारा उक्त प्रस्ताव में जो आपत्तिया लगायी गयी थी। प्रस्तावक विभाग द्वारा आपत्तियों का बिन्दुवार निराकरण कर अग्रिम आवश्यक कार्यवाही हेतु प्रेषित किया जा रहा है।

क्र0 सं0	ई.डी.एस. आपत्ति	उत्तरालेख
1	The State Government is requested to Submit a geologist report from a reputed institute in support of the proposed alignment	प्रस्तावक विभाग द्वारा प्रस्तावित समरेखण का प्रतिष्ठित संस्थान के भू–वैज्ञानिक से निरीक्षण कराकर भू–वैज्ञानिक रिपोर्ट संलग्न कर प्रस्ताव अग्रिम आवश्यक कार्यवाही हेतु प्रेषित किया जा रहा है।

संलग्नक –उपरोक्तानुसार।

भवदीय,

(आदित्य रत्न)
प्रभागीय वनाधिकारी
बागेश्वर वन प्रभाग बागेश्वर

पत्रांक 6654 / 12-1-2 दिनांकित ।

प्रतिलिपि :— अधिशासी अभियन्ता, निर्माण खण्ड, लो0नि0वि0, कपकोट को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

(आदित्य रत्न)
प्रभागीय वनाधिकारी
बागेश्वर वन प्रभाग बागेश्वर

UTTARAKHAND

उत्तराखण्ड शासन

कार्यालय अधिशासी अभियन्ता
निर्माण खण्ड, लो0नि0वि0, कपकोट

E.Mail . eepwdkapkot@rediffmail.com Ph./ Fax No. – 05963.253385 (O)

पत्रांक 1189 / 2ई0 दिनांक 01 / 06 / 2026

सेवा में,

प्रभागीय वनाधिकारी
वन प्रभाग बागेश्वर।

विषयः– **जनपद बागेश्वर के अन्तर्गत बालीघाट–धरमघर–खन्तोली पुल से गुरगुच्चा प्रा0पा0 स्कूल तक मोटर मार्ग के निर्माण हेतु 0.63 है0 वनभूमि के प्रत्यावर्तन के सम्बन्ध में।** (FP/UK/ROAD /12710/2015)

सन्दर्भः– भारत सरकार क्षेत्रीय कार्यालय देहरादून के पत्रांक सं0 8बी0 / यू0सी0पी0 / 06 / 242 / 2015 / एफ0सी0 दिनांक 17.03.2026

महोदय,

उपरोक्त विषयक सन्दर्भित पत्र के कम में अवगत कराना है कि भारत सरकार, पर्यावरण एवं मत्रालय क्षेत्रीय कार्यालय एफ0आरफ0ए0 उत्तराखण्ड देहरादून द्वारा उक्त प्रस्ताव में आपत्तियॉ लगायी गयी हैं। उक्त क्रम में निम्नानुसार आपत्ति का निराकरण कर अग्रिम आवश्यक कार्यवाही हेतु प्रेषित किया जा रहा है।

बिन्दु सं0	लगायी गयी आपत्तियॉ	आख्या
1	The State Government is requested to Submit a geologist report from a reputed institute in support of the proposed alignment	प्रस्तावित समरेखण का प्रतिष्ठित संस्थान के भू–वैज्ञानिक से निरीक्षण कराकर भू–वैज्ञानिक रिपोर्ट संलग्न कर प्रस्ताव अग्रिम आवश्यक कार्यवाही एवं सैद्वान्तिक स्वीकृति हेतु प्रेषित किया जा रहा है।

संलग्न–भू–वैज्ञानिक आख्या।

भवदीय
01/06/26
(अमित कुमार पटेल)
अधिशासी अभियन्ता
नि0ख0लो0नि0वि0,कपकोट

पत्रांक / 2ई0 दिनांक / 06 / 2026

प्रतिलिपिः–

1. प्रमुख वन संरक्षक एवं नोडल अधिकारी, वन संरक्षण, इन्दिरानगर फारेस्ट कालौनी उत्तराखण्ड, देहरादून को सादर सूचनार्थ प्रेषित।
2. सहायक अभियन्ता प्रथम को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

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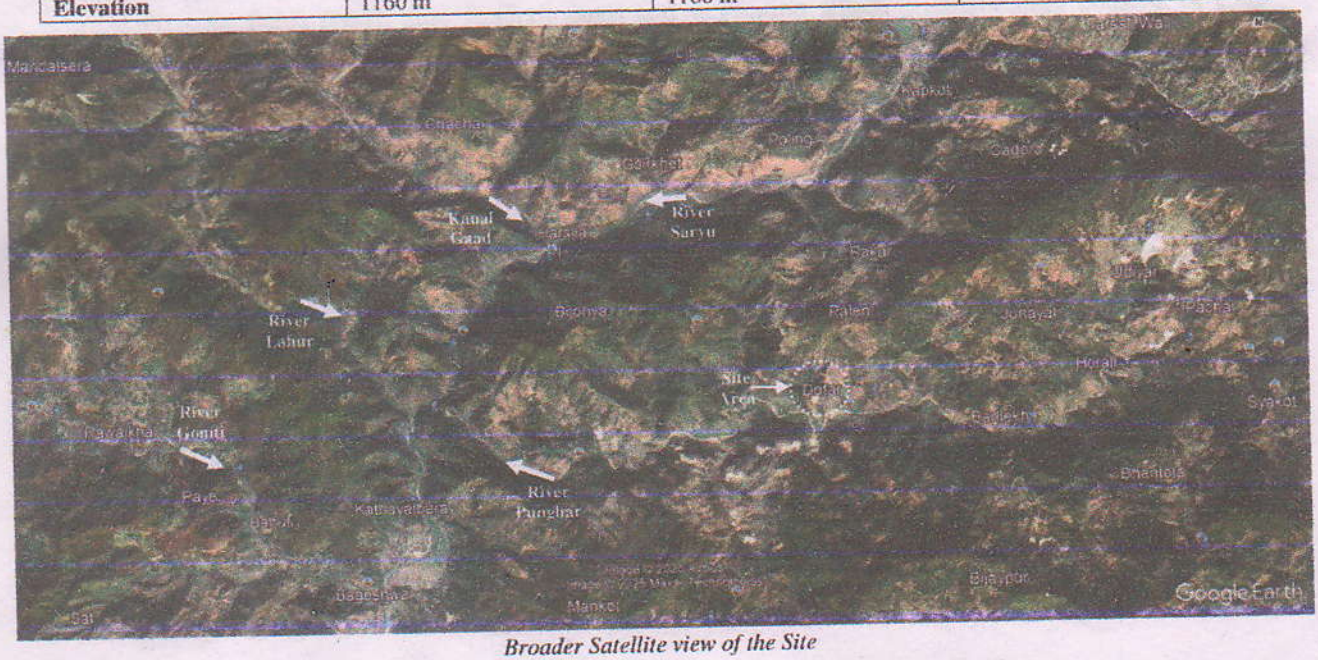
अधिशासी अभियन्ता
नि0ख0लो0नि0वि0,कपकोट

Geological Site Assessment of 3.0 Km long Khitoli Bridge to Gurkucha Motor Road Alignment Corridor between CH 0.0-3.0 Km, Kapkot Block, District Bageshwar (Kumaon)

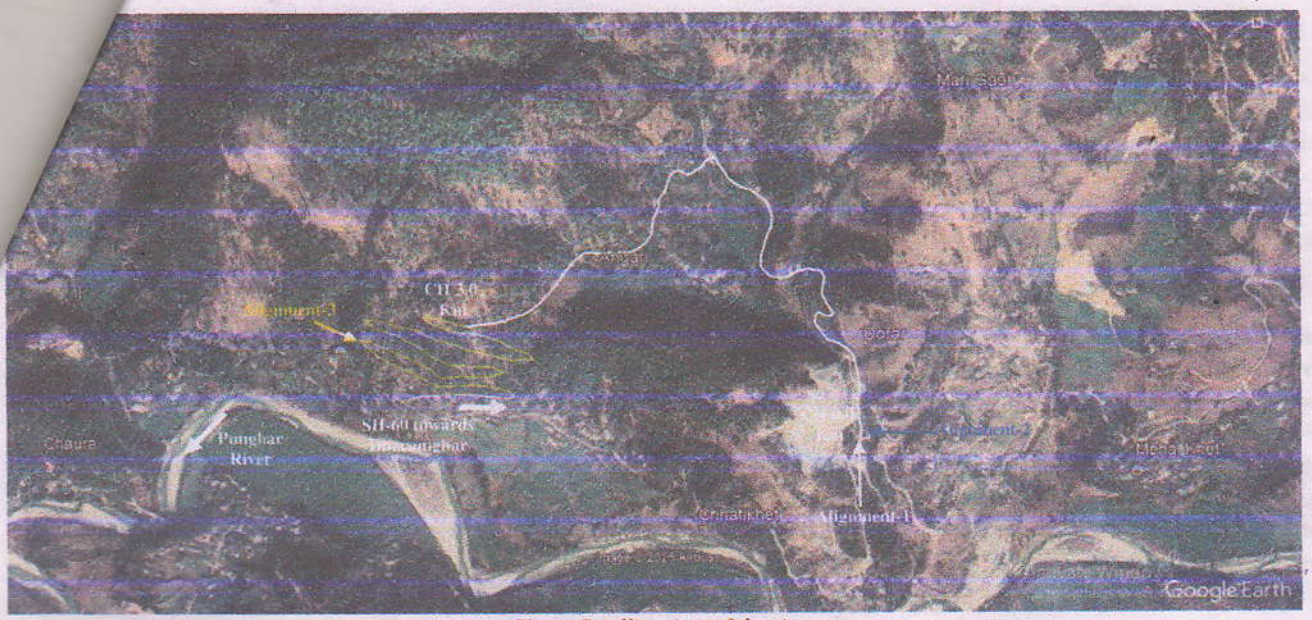
1- **Introduction:** The Construction Division, PWD Kapkot, has undertaken survey and construction of Khitoli Bridge to Gurkucha motor road. Three different priliminary alignment surveys were carried out for 3 different possible options. Alignment-1 (shown in white) is 3.0 Km, Alignment-2 (shown in blue) is also 3.0 Km and Alignment-3 (shown in yellow) which is 2.0 Km long. Alignment-1 was found geologically suitable by Mr. Vijay Dangwal (Ex. Senior Geologist PWD) and Dr. Tushar Sharma (Geologist, PWD Almora Zone) for which reports was submitted to the division **(Letter No.: SG-112/Road Alignment/Kumaon; Dated: 07/02/2013)** & **(Letter No.: G(AZ)-55/2025; Dated: 20/11/2025)** respectively. In order to assess the geological feasibility of all three alignment surveys for selecting the best site, Er. Amit Kumar Patel (Executive Engineer) Construction Division, PWD, Kapkot asked for undersigned to make a site visit for which a visit to the proposed road alignment site was made on 18/05/2026; Er. Deepak Upreti (Junior Engineer) CD PWD, Kapkot was present during the site visit.

2- **Topographical Information/Location:** The first two alignments (1&2) of above mentioned motor road alignments divert from the same point ie; Km 59 of SH-60 (Dangoli-Balighat-Dofaad-Dharamgarh-Kotmanya motor road) near Khitoli motor bridge whereas the third alignment (3) diverts from Km 57 of (SH-60) and terminates near Gorment Public School Palson in Kapkot block, district Bageshwar. The co-ordinates and elevation, masl of all 3 sites at their CH 0.0 Km are as follows:-

Location	Alignemnt-1 (White)	Alignemnt-2 (Blue)	Alignemnt-3 (Yellow)
Latitude	29° 52' 32.90"	29° 52' 33.00"	29° 52' 33.90"
Longitude	79° 52' 34.20"	79° 52' 34.75"	79° 51' 53.00"
Elevation	1160 m	1160 m	1140 m



Broader Satellite view of the Site



Closer Satellite view of the site

3- **Geological Assessment:** Geologically, the site area falls under Inner Lesser Himalayan region of Kumaon region in the vicinity of thrust contact between Deoban (in the West) & Berinag (in the East) formations of Tejam & Jaunsar groups respectively. Lithologically, the area consists of folded, jointed and fractured thinly laminated dolomitic lime stone, calcareous shale/slate, quartzite and slaty quartzite belonging to Deoban & Berinag formations of Tejam & Jaunsar groups respectively. However, the motor road alignment intersects the hill slope which is mostly draped with thick to thin cover of overburden (OB) which consists of slope wash material (SWM) over which there is cultivation fields (Naap khet & Civil land) and vegetation which predominantly consists of Pine trees (Forest land) with patches of folded & jointed bed rock.

Alignment-1 diverts from CH 59 Km of SH-60 near right abutment site of Khitoli motor bridge and turns left towards upstream direction of Kintoli gadera valley along the right bank slope (till 0.500 Km) after which the alignment crosses the gadera and moves along its left bank slope and further crosses the gadera at Km 02 finally ending near GPD Palson. The total length of the alignment is 3.0 Km and it does not have any hairpin bends. The gradient of this alignment is level to 1:20, 1:24 & 1:60 of rising gradient and 1:40 of falling gradient. This alignment has already been found geologically suitable by Mr. Vijay Dangwal (Ex. Senior Geologist, PWD) & Dr. Tushar Sharma (Geologist, PWD). Except that the alignment intersects an old muck dumping zone (initial ~50-100 m) for which suitably designed protection measures are to be taken. The advantage of this alignment is that it will connect Khitoli, Gurguccha, Dhapola, Kumaiyan villages ending near GPS Palson.

The hill slope of the alignment-1 site area is gentle to moderate to steep which declines at ~10-40° initially towards west direction followed by South-East & south-West direction. The approximate strength of exposed rock mass is around ~80-100 MPa and has undergone W_0 to W_3 weathering grade. It intersects 02 small perennial streams/naalas at Km 01 (~ CH 0.500 Km) & Km 02 which in the absence of scuppers/culverts/bridge may damage the motor road especially during monsoon season.

Alignment-2 diverts from CH 59 Km of SH-60 near left abutment site of Khitoli motor bridge and runs parallel to the alignment-1. It is also 3.0 Km in length and it has 01 hairpin bend with level to 1:15 and 1:20 of rising & 1:20 of falling gradient and 1:40 gradient at the hairpin bend. This alignment also connects Khitoli, Gurguccha, Dhapola, Kumaiyan villages and GPS Palson but the the initial slope that this alignment intersects is steep and the alignment at its CH 0.040 Km intersects a temple. Therefore, alignmnet-2 also does not seem to be suitable for the construction of the motor road.

Alignment-3 diverts from CH 57 Km of SH-60 ~1.8 Km before Khitoli motor bridge. It is 2.0 Km in length and it has as many as 06 hairpin bends which repeat on the same slope one over the other. Also the gradient of this alignment is very steep. In order to improve the gradient and to decrease the no. of hairpin bends the arms of the alignment are to be streched after which the alignment will have to cross the naap land of village Chaura for which the residents of the village did not agree. Also, the alignment at given length of 2.0 Km would only connect GPS Palson with SH-60 and in order to connect remaining villages of the valley it will require atleast another ~1.50 Km length of motor road increasing the existing survey length 2.0 Km to ~3.50 Km. Therefore, alignment-3 does not seem to be suitable for the construction of the motor road.

4- **Seismicity of the area:** According to Indian Standard code the site falls in seismic zone V of seismic zoning Map of India (IS 1893, part 1, 2002) which corresponds to intensity IX and above on MM scale.

On the basis of the geological inspection of the site studies carried and the facts given above, the following recommendations are being made for the construction of the proposed motor road failing to these recommendations this report will be automatically treated as cancelled.

5- **Recommendations:**

1. Blasting by explosives for the road construction is to be avoided as far as it is possible as use of explosives will render the slope unstable. Instead excavation & cutting must be carried out by skilled manual workers or mechanized methods with utmost care.

2. At places where the hill slope is steep and is covered with thick OB & SWM construction of suitably designed retaining wall/breast wall with proper weep holes is to be made sure on either sides of the motor road especially at initial ~50 m where the alignment intersects an old muck dumping zone.

3. Construct two small bridges at Km 01 & 02 where the motor road alignment intersects two small perennial streams/naalas.

4. Construct large U-shaped longitudinal concrete lined drain all along the hill side of the road with adequate provision of cross drains.

5. Construct the road by cutting/excavating to its full width which is very important for long term stability of the motor road. At places where the hill slope is steep, half cut and half fill techniques should be applied by proper dynamic compaction of the fill material.

6. At places the motor road alignment passes quite near to rural residential buildings therefore utmost care is to be taken while carrying construction/excavating work in that area along with provisions of retaining and breast walls for maintain the stability of the hill slope around the area.

7. Disposal of muck and excavated waste on the lower slopes of this road is to be strictly avoided; failing to which will increase the weight of the lower slope resulting in the increase in driving forces. It is advised to dispose the muck on the identified site for muck disposal.

8. All the construction activities ought to be carried out as per the standard codes of practice laid by the BIS and MORTH.

6- **Conclusion:** On the basis of the geological observations/studies carried at the site and with the above recommendations, the alignment-1 site proposed for 3.0 Km long Khitoli Bridge to Gurkucha motor road was found geologically suitable construction between CH 0.0 to 3.0 Km.

Date: 31/05/2026

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