No.FCA/ 6015 /
H.P. Forest Department.

Dated D/Shala, the/ 12-02-2024 /

From: D.F.O. Dharamshala. To: C.C.F. (T) Dharamshala.

Subject:- Diversion of 7.2834 hectare forest land for Rehabilitation and up-gradation to four lane configuration and Strengthening of Sihuni to Rajol from Kms 51.00 to Km 72.00 (Package IIA) (Design Length 18.450 Kms) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the State of Himachal Pradesh within the jurisdiction of Nurpur, Dharamshala & Dalhousie Forest Divisions in District Kangra & Chamba, Himachal Pradesh. (Online Proposal No. FP/HP/ROAD/152261/2022).

Memo :

Please refer to the Govt. of India, MoEF&CC Integrated Regional Office, Shimla letter No. FC/HPC/06/155/2022 dated 05.04.2023 on the subject cited above where in the "Stage I Approval" for diversion of 7.2834 ha. of Forest Land has been accorded. In this regards, it is intimated that the User Agency has submitted the Compliance Report of conditions of Stage I Approval and amount of NPV, CA and SMCP stands deposited in respective heads. The point wise reply of conditions of 'in-Principal' approval are as under:-

क्रमांक संख्या	सैद्धांतिक स्वीकृति कि शर्तें	प्रयोक्ता अभिकरण द्वारा स्वीकृति / उत्तर
1.	वन भूमि की विधिक स्थिति अपरिवर्तित रहेगी।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि वन भूमि की विधिक स्थिति को परिवर्तित नही किया जाएगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
2.	परियोजना के लिए आवश्यक गैर वन भूमि प्रयोक्ता अभिकरण को सौंपे जाने के बाद ही वन भूमि सौंपी जाएगी।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि परियोजना के लिए आवश्यक गैर वन भूमि प्रयोक्ता अभिकरण को सौंपे जाने के बाद ही वन भूमि सौंपी जाये । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
3.	**प्रतिपूरक वनीकरणः** **(क)** प्रयोक्ता अभिकरण की लागत पर वन विभाग द्वारा 4.17 हैo वन क्षेत्र Block /Compartment / Survey No. UP-26, K-Nerti C7C, Shahpur Forest Range, Dharamshala Forest Division, Distt. Kangra, H.P. तथा 11 हैo वन क्षेत्र Block /Compartment / Survey No. U-84 Dole, C-10, 52D/3 Bhali Block, Kotla Forest Range, Nurpur Forest Division, Distt. Kangra, H.P. में प्रतिपूरक वनीकरण किया जाएगा । जहां तक व्यावहारिक हो, स्थानीय स्वदेशी प्रजातियों को लगाया जाए तथा प्रजातियों की एकल प्लांटेशन से बचा जाए ।	**(क)** प्रयोक्ता अभिकरण की लागत पर वन विभाग द्वारा 4.17 हैo वन क्षेत्र Block /Compartment / Survey No. UP-26, K-Nerti C7C, Shahpur Forest Range, Dharamshala Forest Division, Distt. Kangra, H.P. तथा 11 हैo वन क्षेत्र Block /Compartment / Survey No. U-84 Dole, C-10, 52D/3 Bhali Block, Kotla Forest Range, Nurpur Forest Division, Distt. Kangra, H.P. में प्रतिपूरक वनीकरण किया जाएगा । एवं दस वर्षों तक रखरखाव हेतु आवश्यक धनराशी (वर्तमान दरों को समाहित करते हुए यथासंशोधित) **Rs. 46,13,574/- & Rs. 2,30,679/- (5% Contingency)** CAMPA कोष में जमा कर दी गई है। जहां तक व्यावहारिक होगा, स्थानीय स्वदेशी प्रजातियों को लगाया जाएगा तथा प्रजातियों की एकल प्लांटेशन से बचा जाएगा ।
	(ख) प्रतिपूरक वनीकरण की भूमि पर, यदि आवश्यक हो, तो प्रतिपूरक वनीकरण योजना के अनुसार प्रचलित मजदूरी दरों पर प्रतिपूरक वनीकरण की लागत एवं सर्वेक्षण, सीमांकन और स्तंभन की लागत परियोजना प्राधिकरण द्वारा अग्रिम रूप से वन विभाग के पास जमा की जाएगी। प्रतिपूरक वनीकरण 10 वर्षों तक अनुरक्षित एवं	प्रतिपूरक वनीकरण योजना के अनुसार प्रचलित मजदूरी दरों पर प्रतिपूरक वनीकरण की लागत एवं सर्वेक्षण, सीमांकन और स्तंभन एवं 10 वर्षों के अनुरक्षण की लागत जमा कर दी गई है। इस योजना में भविष्य में निर्धारित कार्यो के लिए प्रत्याशित लागत वृद्धि हेतु उपयुक्त जो भी प्रावधान शामिल किए जाएगे प्रयोक्ता अभिकरण को मान्य होंगे। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।

Sale

	संधारित किया जाएगा। इस योजना में भविष्य में निर्धारित कार्यो के लिए प्रत्याशित लागत वृद्धि हेतु उपयुक्त प्रावधान शामिल किए जा सकते हैं।	
4.	**शुद्ध वर्तमान मूल्यः-** **(क)** इस संबंध में भारत के माननीय सर्वोच्च न्यायालय के WP (C) संख्या: 202/1995 में IA नंबर 556 दिनांक 30.10.2002, 01.08,2003, 28.03.2008, 24.04.2008 एवं 09.05.2008 तथा मंत्रालय द्वारा पत्रांक 5-1 /1998-एफ.सी. (Pt.2). दिनांक 18.09.2003, 5-2/2006-एफ.सी. दिनांक 03.10.2006 एवं 5-3 / 2007-एफ.सी. दिनांक 05.02.2009 एवं 5-3/2011-FC (Vol.-I) दिनांक 06.01.2022 में जारी दिशा-निर्देशानुसार राज्य सरकार प्रयोक्क्ता अभिकरण से इस प्रस्ताव के तहत 7.2834 हैo वन क्षेत्र के प्रत्यावर्तन के लिए शुद्ध वर्तमान मूल्य वसूल करेगी।	**(क)** प्रयोक्ता अभिकरण दवारा शुद्ध वर्तमान मूल्य की निर्धारित राशि रूपए **88,17,679 /-** online portal के माधयम से दिनांक 08.05.2023 को जमा कर दी गयी है।
	(ख). विशेषज्ञ समिति से रिपोर्ट प्राप्त होने पर माननीय सर्वोच्च न्यायालय द्वारा प्रत्यावर्तित वन भूमि के शुद्ध वर्तमान मूल्य की अतिरिक्त राशि, यदि कोई हो, जो अंतिम रूप देने के बाद देय हो, को राज्य सरकार द्वारा प्रयोक्ता अभिकरण से वसूला जाएगा। प्रयोक्ता अभिकरण इस आशय का एक शपथपत्र प्रस्तुत करेगा ।	**(ख).** माननीय सर्वोच्च न्यायालय द्वारा भविष्य में निर्धारित वन भूमि के शुद्ध वर्तमान मूल्य की अतिरिक्त राशि जमा करवाने के लिए प्रयोक्ता अभिकरण द्वारा वचनबद्धता प्रस्तुत की गई है। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
5.	राज्य सरकार माननीय उच्चतम न्यायालय, नई दिल्ली के WP (C) No. 202/1995 के अंतर्गत दिनांक 08.02.2023 को जारी आदेशों की अनुपालना भी सुनिश्चित करेगी।	माननीय उच्चतम न्यायालय. नई दिल्ली के WP (C) No. 202/1995 के अंतर्गत दिनांक 08.02.2023 को जारी आदेशों की अनुपालना सुनिश्चित की जाएगी तथा प्रयोक्ता अभिकरण को मान्य होगी । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
6.	The State Government shall ensure that the KML files of the area to be diverted, the CA areas, the proposed SMC work, the proposed Catchment Area Treatment Area and the WLMP area shall be uploaded on the e-Green watch portal with all requisite details before issuing working permission towards linear projects or submitting compliance report for seeking Stage-II approval, as the case may be.	**The KML files of the area to be diverted, the CA Areas, the proposed SMC work, the proposed Catchment Area Treatment area and the WLMP area will be uploaded on the e-Green watch portal as soon as it is available on the portal. At present the proposal is not available / displaying on e-Green portal.**
7.	Since the proposed project is located in hilly/slopy area and the proposed area is prone to Soil erosion / landslide, therefore as per the recent directions of MOEF & CC vide letter dated 07 June, 2002 Soil and Moisture Conservation Plan along with detail cost of its implementation into the account of CAMPA is required to be submitted along with Stage I compliance. However, in cases where it a not possible for the State Govt. to submit the compliance due to delay in preparation of such Plan, a lump-sum amount of 0.5% of the project cost shall be realized from the User Agency and submitted along with the Stage-I compliance. The deficit amount, as per sad Plan, if any, from the money already realized to the tune of 0.5% of project cost shall be deposited in the CAMPA account prior to actual working on	The Soil and Moisture Conservation Plan (SMCP) has been prepared and same is enclosed herewith. As per the Soil & Moisture Conservation Plan Rs. 47,29,500/- in Nurpur Forest Division, Rs. 33,800/- in Dalhousie Forest Division and Rs. 18,58,400/- in Dharamshala Forest Division, total Rs. 66,21,700/- has been deposited in the CAMPA Account through online mode. The copy of the Soil and Moisture Conservation Plan is enclosed herewith.

	the forest area An Undertaking to this effect may also be submitted.	
8.	State Government shall comply with the Orders of the Hon'ble High Court of Himachal Pradesh and on dated 13.01.2023 CWPIL NO 13/2021 title as Kusum Bali Vs States and others. Accordingly NOC from PCB shall be submitted before Stage-II approval.	The User Agency has submitted an Undertaking to comply with the Orders of the Hon'ble High Court of Himachal Pradesh and on dated 13.01.2023 CWPIL NO 13/2021 title as Kusum Bali Vs States and others. The Undertaking in this regard is enclosed herewith. The NOC from the Pollution Control Board is enclosed herewith.
9.	State Government shall ensure that "No extra forest land" shall be proposed in future for dumping of muck produced in this project.	The User Agency has submitted an Undertaking stating that "no extra forest land" will be proposed in future for the dumping of muck produced in this project and same is enclosed herewith.
10.	State Govt shall submit the plantation model mentioning the site specific plant species which have capacity of the absorptions of CO^2 and other pollutants along the RoW as per Guidelines of MoEF & CC vide letter no.FC-11/39/2020-FC dated 08.09.2021 before stage-II approval.	The User Agency has submitted a Copy of Plantation Model for absorption of CO^2 and other pollutants along the RoW. The copy of the Plantation Model and undertaking in this regard is enclosed herewith.
11.	The State Government shall ensure settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (No. 2 of 2007) before issuance of order for diversion at their level.	The User Agency has submitted that the rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 for proposed 7.2834 ha of forest land have been settled. The copy of FRA Certificate is enclosed herewith.
12.	प्रयोक्ता अभिकरण आईoआरoसीo मानदंडों के अनुसार यथासंभव, सड़क के दोनों किनारों पर पौधों कि संख्या बढ़ाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि आईआरसी मानदंडों के अनुसार सड़क के दोनों किनारों पर पौधों कि संख्या को बढ़ाया जाएगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
13.	संरक्षित क्षेत्रों / वन क्षेत्रों में निश्चित दूरी पर सड़क के साथ गति विनियमन साइनेज लगाए जाएंगे।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि वन क्षेत्रों में निश्चित दूरी पर सड़क के साथ गति विनियमन साइनेज लगाए जाएंगे। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
14.	User agency shall restrict the felling of trees to maximum 2444 Trees (Dharamshala 784 trees, Nurpur 1645 trees and Dalhousie 15 trees) in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department and the cost of felling of trees shall be deposited by the User Agency with the State Forest Department, However, the possibility to reduce the number of tree (Emblica spp., Terminalia spp., Bauhinia spp., Acacia spp., Cordia spp and Ficus spp etc.) must be explored and the State Forest Department shall constitute a Committee comprising Range Officer and Site Engineer In- charge and headed by the DFO concerned. The Committee shall examine the alignment at the time of execution of work and will recommend the removal of trees on case to case basis along the Row of road after looking into the possibility of reducing the total number of trees to be affected. The DFO shall verify the enumeration and accordingly grant felling permission based on the actual requirement. DFO will submit the list of	The User Agency has submitted an Undertaking that felling of trees shall be restricted to maximum 2444 Trees (Dharamshala 784 trees, Nurpur 1645 trees and Dalhousie 15 trees) in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department and the cost of felling of trees shall be deposited the State Forest Department. All possibilities will be explored to reduce the felling of Emblica spp., Terminalia spp., Bauhinia spp., Acacia spp., Cordia spp and Ficus spp etc. The Committee comprising of Range Officer and Site Engineer In-charge, headed by the DFO concerned shall examine the alignment at the time of execution of work and will recommend the removal of trees on case to case basis along the Row of road after looking into the possibility of reducing the total number of trees to be affected. The enumeration shall be verified by the DFO concerned and felling permission shall be issued accordingly based on actual requirement. The Undertaking in this regard is enclosed herewith.

	trees to IRO Shimla, granted felling permission by him and trees to be retained with a period of two (2) months after execution of the Project. The Undertaking for the same duly authenticated by the concerned DFO may be provided.	
15.	इस अनुमोदन में प्रत्यावर्तन की अवधि को प्रयोक्ता अभिकरण के पक्ष में मिली लीज की अवधि के साथ अथवा परियोजना की पूर्ण अवधि के साथ, जो भी कम हो, लक्षित किया जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि इस अनुमोदन में प्रत्यावर्तन की अवधि को प्रयोक्ता अभिकरण के पक्ष में मिली लीज की अवधि के साथ अथवा परियोजना की पूर्ण अवधि के साथ, जो भी कम हो, लक्षित किया जाएगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
16.	आसपास के क्षेत्र के वनस्पतियों तथा जीवो को कोई नुकसान नही पहुचाया जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि आसपास के क्षेत्र के वनस्पतियों तथा जीवो को कोई नुकसान नही पहुचाया जाएगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
17.	परियोजना के तहत प्रयोक्ता अभिकरण से प्राप्त धन केवल ई-पोर्टल (https://parivesh-nic-in/) के माध्यम से क्षतिपूरक वनीकरण कोष प्रबंधन और योजना प्राधिकरण फंड में स्थानांतरित / जमा किए जाएंगे।	प्रयोक्ता अभिकरण द्वारा क्षतिपूरक वनीकरण कोष प्रबंधन और योजना प्राधिकरण फंड की निर्धारित राशि Net Present Value (NPV) **Rs. 88,17,679/-**. Compensatory Afforestation **Rs. 46,13,574/-**, Contingency @ 5% on CA **Rs. 2,30,679/-**, Cost of SMCP **Rs. 66,21,700/-** only, Total=(**88,17,679 + 46,13,574 + 2,30,679 + 66,21,700**) = **2,02,83,632/-** online portal के माधयम से **08 May, 2023** को जमा कर दी गयी है।
18.	पर्यावरण (संरक्षण) अधिनियम, 1986 के प्रावधानों के अनुसार, प्रयोक्ता अभिकरण पर्यावरणीय स्वीकृति (EC) यदि लागू हो तो प्राप्त करेगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि पर्यावरण (संरक्षण) अधिनियम, 1986 के प्रावधानों के अनुसार, प्रयोक्ता अभिकरण पर्यावरणीय स्वीकृति (EC) यदि भविष्य में लागू होती है तो प्राप्त करेगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
19.	केंद्र सरकार की पूर्वानुमति के बिना प्रस्ताव का ले-आउट प्लान नहीं बदला जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि केंद्र सरकार की पूर्वानुमति के बिना प्रस्ताव का ले-आउट प्लान नहीं बदला जाएगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
20.	वन भूमि एवं आस - पास की भूमि पर कोई भी श्रमिक शिविर स्थापित नहीं किया जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि वन भूमि पर कोई भी श्रमिक शिविर स्थापित नहीं किया जाएगा । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
21.	प्रयोक्ता अभिकरण द्वारा मजदूरों को राज्य वन विभाग अथवा वन विकास निगम अथवा वैकल्पिक ईंधन के किसी अन्य कानूनी स्रोत से पर्याप्त लकड़ी, विशेषतः वैकल्पिक ईंधन दिया जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि मजदूरों को राज्य वन विभाग अथवा वन विकास निगम अथवा वैकल्पिक ईंधन के किसी अन्य कानूनी स्रोत से पर्याप्त लकड़ी, विशेषतः वैकल्पिक ईंधन उपलब्ध करवाया जाएगा । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
22.	संबंधित वन मंडल अधिकारी के निर्देशानुसार, प्रत्यावर्तित वन भूमि की सीमा को परियोजना लागत पर आर.सी.सी. पिलर्स द्वारा सीमांकन किया जाएगा। जिस पर Forward/ Backward bearing अंकित हों।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि संबंधित प्रभागीय वनाधिकारी के निर्देशानुसार,प्रत्यावर्तित वन भूमि की सीमा को परियोजना लागत पर आर.सी.सी. पिलर्स द्वारा सीमांकन किया जाएगा जिस पर Forward/ Backward bearing अंकित किए जाएंगे । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
23.	परियोजना कार्य के निष्पादन के लिए निर्माण सामग्री के परिवहन के लिए वन क्षेत्र के अंदर कोई अतिरिक्त या नया मार्ग नहीं बनाया जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि परियोजना कार्य के निष्पादन के लिए निर्माण सामग्री के परिवहन के लिए वन क्षेत्र के अंदर कोई अतिरिक्त

		या नया मार्ग नहीं बनाया जाएगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
24.	वन भूमि का उपयोग परियोजना के प्रस्ताव में विनिर्दिष्ट प्रयोजनों के अतिरिक्त अन्य किसी प्रयोजन हेतु नहीं किया जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि वन भूमि का उपयोग परियोजना के प्रस्ताव में विनिर्दिष्ट प्रयोजनों के अतिरिक्त अन्य किसी प्रयोजन हेतु नहीं किया जाएगा | प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
25.	केंद्र सरकार की पूर्वानुमति के बिना प्रत्यावर्तन हेतु प्रस्तावित वन भूमि किसी भी परिस्थिति में किसी भी अन्य एजेंसियों, विभाग अथवा व्यक्ति को हस्तांतरित नहीं की जाएगी।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि केंद्र सरकार की पूर्वानुमति के बिना प्रत्यावर्तन हेतु प्रस्तावित वन भूमि किसी भी परिस्थिति में किसी भी अन्य एजेंसियों, विभाग अथवा व्यक्ति को हस्तांतरित नहीं की करेगी | प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
26.	पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा वन एवं वन्यजीवों के संरक्षण व विकास के हित में समय- समय पर निर्धारित शर्ते लागू होगी।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा वन एवं वन्यजीवों के संरक्षण व विकास के हित में समय - समय पर जो भी निर्धारित शर्ते लागू होंगी प्रयोक्ता अभिकरण द्वारा उनका पालन किया जायेगा । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
27.	परियोजना निर्माण से उत्सर्जित अधिकतर मलवे का निस्तारण प्रयोक्ता अभिकरण द्वारा केवल परियोजना स्थल पर ही किया जाएगा तथा इसके अलावा अन्यत्र मलबा नही फेंका जाएगा।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि परियोजना निर्माण से उत्सर्जित मलवे का निस्तारण प्रयोक्ता अभिकरण द्वारा केवल परियोजना स्थल पर ही किया जाएगा तथा इसके अलावा अन्यत्र मलबा नही फेंका जाएगा । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
28.	यदि कोई अन्य सम्बन्धित अधिनियम / अनुच्छेद्र / नियम / न्यायालय आदेश / अनुदेश आदि इस प्रस्ताव पर लागू होते है तो उनके अधीन जरूरी अनुमति लेना राज्य सरकार प्रयोक्ता एजेंसी की जिम्मेवारी होगी।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि यदि कोई अन्य सम्बन्धित अधिनियम / अनुच्छेद / नियम / न्यायालय आदेश / अनुदेश आदि इस प्रस्ताव पर लागू होते है तो उनके अधीन जरूरी अनुमति प्रयोक्ता अभिकरण के द्वारा ली जाएगी । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
29.	इनमें से किसी भी शर्त का उल्लंघन वन (सरक्षण) अधिनियम, 1980 का उल्लंघन होगा एवं पर्यावरण पन एवं जलवायु परिवर्तन मंत्रालय के दिशानिर्देश फाइल संख्या 11-12/2017- FC दिनांक 28.01.2018 को अनुसार उस पर कार्रवाई होगी।	प्रयोक्ता अभिकरण के द्वारा इस सन्दर्भ में वचन बद्धता प्रस्तुत की गई है कि इनमें से किसी भी शर्त का उल्लंघन और वन (संरक्षण) अधिनियम, 1980 का उल्लंघन नही किया जायेगा। प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।
30.	सम्पूर्ण अनुपालना रिपोर्ट ई-पोर्टल (https://parivesh.nic.in/ पर अपलोड की जाएगी।	प्रयोक्ता अभिकरण के द्वारा अनुपालना रिपोर्ट ई-पोर्टल के माध्यम से (https://parivesh.nic/in/) पर अपलोड कर दी गई है । प्रयोक्ता अभिकरण द्वारा प्रस्तुत वचन बद्धता कि प्रतिलिपि पत्र के साथ संलग्न है।

It is therefore, requested that the necessary Final Approval for the diversion of 7.2834 ha of forest land for the construction of above mentioned project may kindly be obtained from the Govt. of India under Forest (Conservation) Act, 1980 and conveyed to this office.

Encl: As above

Divisional Forest Officer
Forest Division
Dharamshala

Divisional Forest Officer,
Dharamshala Forest Division,
Dharamshala.

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
National Highways Authority of India
(Ministry of Road Transport and Highways, Govt. of India)
परियोजना कार्यान्वयन इकाई पालमपुर
Project Implementation Unit – Palampur

NHAI/PIU-PALM/HP/11016/12/Forest-IIA/2023-24/3950 30/ Nov, 2023

To

Divisional Forest Officer,
Dharamshala, Forest Division,
Distt. Kangra (H.P.)

Subject:- Diversion of 7.2834 hectare forest land for Rehabilitation and up-gradation to four lane configuration and Strengthening of Sihuni to Rajol from Kms 51.00 to Km 72.00 (Package IIA) (Design Length 18.450 Kms) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the State of Himachal Pradesh within the jurisdiction of Nurpur, Dharamshala & Dalhousie Forest Divisions in District Kangra & Chamba, Himachal Pradesh. (Online **Proposal No.** FP/HP/ROAD/152261/2022).

Sir,

Please refer to the Govt. of India, MoEF&CC Integrated Regional Office, Shimla letter No. FC/HPC/06/155/2022 dated 05.04.2023 on the subject cited above where in the "Stage I Approval" for diversion of 7.2834ha. of Forest Land has been accorded. In this regards, it is intimated that the amount of NPV, CA and SMCPstands deposited in respective heads. The detail of same along with point wise reply to the conditions of 'in-Principal' approval are as under:-

क्रमांक संख्या	सैद्धांतिक स्वीकृति कि शर्तें	प्रयोक्ता अभिकरण द्वारा स्वीकृति / उत्तर
1.	वन भूमि की विधिक स्थिति अपरिवर्तित रहेगी ।	प्रयोक्ताअभिकरण यह वचन बद्धता प्रस्तुत करती है कि वन भूमि की विधिक स्थिति को परिवर्तित नही किया जाएगा।
2.	परियोजना के लिए आवश्यक गैर वन भूमि प्रयोक्ता अभिकरण को सौंपे जाने के बाद ही वन भूमि सौंपी जाएगी।	प्रयोक्ताअभिकरण यह वचन बद्धता प्रस्तुत करती है कि परियोजना के लिए आवश्यक गैर वन भूमि प्रयोक्ता अभिकरण को सौंपे जाने के बाद ही वन भूमि सौंपी जाये ।
3.	**प्रतिपूरकवनीकरणः** **(क)** प्रयोक्ता अभिकरण की लागत पर वन विभाग द्वारा 4.17 हैo वन क्षेत्र Block /Compartment / Survey No. UP-26, K-Nerti C7C, Shahpur Forest Range, Dharamshala Forest Division, Distt. Kangra, H.P. तथा 11 हैo वन क्षेत्रBlock /Compartment / Survey No. U-84 Dole, C-10, 52D/3 Bhali Block, Kotla Forest Range, Nurpur Forest Division, Distt.	**(क)**प्रयोक्ता अभिकरण की लागत पर वन विभाग द्वारा 4.17 हैo वन क्षेत्र Block /Compartment / Survey No. UP-26, K-Nerti C7C, Shahpur Forest Range, Dharamshala Forest Division, Distt. Kangra, H.P. तथा 11 हैo वन क्षेत्र Block /Compartment / Survey No. U-84 Dole, C-10, 52D/3 Bhali Block, Kotla Forest Range, Nurpur Forest Division, Distt. Kangra, H.P. मेंप्रतिपूरक वनीकरणकिया जाएगा I एवं दस वर्षों तक रखरखाव हेतु आवश्यक धनराशी (वर्तमान दरों को समाहित करते हुए यथासंशोधित) **Rs. 46,13,574/-&**

1st& 2nd Floor, Dayal Ji Niwas, Opp. Govt. Primary School, Chimbalhaar, Palampur (HP) 176061,
Email: - pdpiupalampur@gmail.com & piupalampur@nhai.org - 01894-230122/01894-292938
Head Office: G-5&6, Sector-10, Dwarka, New Delhi – 110075

	Kangra, H.P. मेंप्रतिपूरक वनीकरणकिया जाएगा 1 जहां तक व्यावहारिक हो, स्थानीय स्वदेशी प्रजातियों को लगाया जाए तथा प्रजातियों की एकल प्लांटेशन से बचा जाए ।	Rs. 2,30,679/- (5% Contingency)जमा कर दी गई है।
	(ख)प्रतिपूरक वनीकरण की भूमि पर, यदि आवश्यक हो, तो प्रतिपूरक वनीकरण योजना के अनुसार प्रचलित मजदूरी दरों पर प्रतिपूरक वनीकरण की लागत एवं सर्वेक्षण, सीमांकन और स्तंभन की लागत परियोजना प्राधिकरण द्वारा अग्रिम रूप से वन विभाग के पास जमा की जाएगी। प्रतिपूरक वनीकरण 10 वर्षों तक अनुरक्षित एवं संधारित किया जाएगा। इस योजना में भविष्य में निर्धारित कार्यो के लिए प्रत्याशित लागत वृद्धि हेतु उपयुक्त प्रावधान शामिल किए जा सकते हैं।	प्रतिपूरक वनीकरण योजना के अनुसार प्रचलित मजदूरी दरों पर प्रतिपूरक वनीकरण की लागत एवं सर्वेक्षण, सीमांकन और स्तंभन एवं 10 वर्षों के अनुरक्षण की लागत जमा कर दी गई है। इस योजना में भविष्य में निर्धारित कार्यो के लिए प्रत्याशित लागत वृद्धि हेतु उपयुक्त जो भी प्रावधान शामिल किए जाएगे प्रयोक्ता अभिकरण को मान्य होंगे। इस आषय में वचनबद्धता प्रस्तुत है।
4.	**शुद्ध वर्तमान मूल्य:-** **(क)**इस संबंध में भारत के माननीय सर्वोच्च न्यायालय के WP (C) संख्या: 202/1995 में IA नंबर 556 दिनांक 30.10.2002, 01.08,2003, 28.03.2008, 24.04.2008 एवं 09.05.2008 तथा मंत्रालय द्वारा पत्रांक 5-1 /1998-एफ.सी. (Pt.2). दिनांक 18.09.2003, 5-2/2006-एफ.सी. दिनांक 03.10.2006 एवं 5-3 / 2007-एफ.सी. दिनांक 05.02.2009 एवं 5-3/2011-FC (Vol.-I) दिनांक 06.01.2022 में जारी दिशा-निर्देशानुसार राज्य सरकार प्रयोक्क्ता अभिकरण से इस प्रस्ताव के तहत 7.2834 हे० वन क्षेत्र के प्रत्यावर्तन के लिए शुद्ध वर्तमान मूल्य वसूल करेगी।	**(क)** प्रयोक्ताअभिकरण दवारा शुद्ध वर्तमान मूल्य की निर्धारित राशि रूपए 88,17,679/-online portal के माधयम से दिनांक 08.05.2023 को जमा कर दी गयीहै ।
	(ख).विशेषज्ञ समिति से रिपोर्ट प्राप्त होने पर माननीय सर्वोच्च न्यायालय द्वारा प्रत्यावर्तित वन भूमि के शुद्ध वर्तमान मूल्य की अतिरिक्त राशि, यदि कोई हो, जो अंतिम रूप देने के बाद देय हो, को राज्य सरकार द्वारा प्रयोक्ता अभिकरण से वसूला जाएगा। प्रयोक्ता अभिकरण इस आशय का	**(ख).**माननीय सर्वोच्च न्यायालय द्वारा भविष्य में निर्धारित वन भूमि के शुद्ध वर्तमान मूल्य की अतिरिक्त राशि जमा करवाने के लिए प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है । इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।

	एक शपथपत्र प्रस्तुत करेगा ।	
5.	राज्य सरकार माननीय उच्चतम न्यायालय, नई दिल्ली के WP (C) No.202/1995के अंतर्गत दिनांक 08.02.2023 को जारी आदेशों की अनुपालना भी सुनिश्चित करेगी।	माननीयउच्चतमन्यायालय. नईदिल्लीके WP (C) No.202/1995के अंतर्गत दिनांक 08.02.2023 को जारी आदेशों की अनुपालना सुनिश्चितकी जाएगी तथा प्रयोक्ताअभिकरणकोमान्यहोगी।
6.	The State Government shall ensure that the KML files of the area to be diverted, the CA areas, the proposed SMC work, the proposed Catchment Area Treatment Area and the WLMP area shall be uploaded on the e-Green watch portal with all requisite details before issuing working permission towards linear projects or submitting compliance report for seeking Stage-II approval, as the case may be.	The KML files of the area to be diverted, the CA Areas, the proposed SMC work, the proposed Catchment Area Treatment area and the WLMP area will be uploaded on the e-Green watch portal as soon as it is available on the portal. At present the proposal is not available / displaying on e-Green portal.
7.	Since the proposed project is located in hilly/slopy area and the proposed area is prone to Soil erosion / landslide, therefore as per the recent directions of MOEF & CC vide letter dated 07 June, 2002Soil and Moisture Conservation Plan along with detail cost of its implementation into the account ofCAMPA is required to be submitted along with Stage I compliance. However, in cases where it a notpossible for the State Govt. to submit the compliance due to delay in preparation of such Plan, a lump-sum amount of 0.5% of the project cost shall be realized from the User Agency and submitted along withthe Stage-I compliance. The deficit amount, as	The Soil and Moisture Conservation Plan (SMCP) has been prepared and same is enclosed herewith. As per the Soil & Moisture Conservation Plan Rs. 47,29,500/- in Nurpur Forest Division, Rs. 33,800/- in Dalhousie Forest Division and Rs. 18,58,400/- in Dharamshala Forest Division, total Rs. 66,21,700/- has been deposited in the CAMPA Account through online mode. The copy of the Soil and Moisture Conservation Plan is enclosed herewith.

	per sad Plan, if any, from the money already realized to the tune of 0.5% of project cost shall be deposited in the CAMPA account prior to actual working on the forest area An Undertaking to this effect may also be submitted.	
8.	State Government shall comply with the Orders of the Hon'ble High Court of Himachal Pradesh and on dated 13.01.2023 CWPIL NO 13/2021 title as Kusum Bali Vs States and others, Accordingly NOC from PCB shall be submitted before Stage-ll approval.	The User Agency shall comply with the Orders of the Hon'ble High Court of Himachal Pradesh and on dated 13.01.2023 CWPIL NO 13/2021 title as Kusum Bali Vs States and others. An Undertaking in this regard is enclosed herewith. The NOC from the Pollution Control Board is enclosed herewith.
9.	State Government shall ensure that "No extra forest land" shall be proposed in future for dumping ofmuck produced in this project.	The Undertaking stating that "no extra forest land" will be proposed in future for the dumping of muck produced in this project is enclosed herewith.
10.	State Govt shall submit the plantation model mentioning the site specific plant species which havecapacity of the absorptions of CO^2 and other pollutants along the RoW as per Guidelines of MoEF & CCvide letter no.FC-11/39/2020-FC dated 08.09.2021 before stage-II approval.	The Copy of Plantation Model for absorption of CO^2 and other pollutants along the RoW is enclosed herewith. An undertaking in this regard is enclosed herewith.
11.	The State Government shall ensure settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (No. 2 of 2007) before issuance of order for diversion at their level.	The rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 for proposed 7.2834 ha of forest land have been settled. The copy of FRA Certificate is enclosed herewith.
12.	प्रयोक्ता अभिकरण आईoआरoसीo मानदंडों के अनुसार यथासंभव,सड़क के दोनों किनारों पर पौधों कि संख्या बढ़ाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है किआईआरसी मानदंडों के अनुसार सड़क के दोनों किनारों पर पौधों कि संख्याको बढ़ाया जाएगा ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
13.	संरक्षित क्षेत्रों / वन क्षेत्रों में निश्चित दूरी पर सड़क के साथ गति विनियमन साइनेज लगाए जाएंगे।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है किवन क्षेत्रों में निश्चित दूरी पर सड़क के साथ गति विनियमन साइनेज लगाए जाएंगे ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।

14.	User agency shall restrict the felling of trees to maximum 2444 Trees (Dharamshala 784 trees, Nurpur 1645 trees and Dalhousie 15 trees) in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department and the cost of felling of trees shall be deposited by the User Agency with the State Forest Department, However, the possibility to reduce the number of tree (Emblica spp., Terminalia spp., Bauhinia spp., Acacia spp., Cordia spp and Ficus spp etc.) must be explored and the State Forest Department shall constitute a Committee comprising Range Officer and Site Engineer In- charge and headed by the DFO concerned. The Committee shall examine the alignment at the time of execution of work and will recommend the removal of trees on case to case basis along the Row of road after looking into the possibility of reducing the total number of trees to be affected. The DFO shall verify the enumeration and accordingly grant felling permission based on the actual requirement. DFO will submit the list of trees to IRO Shimla, granted felling permission by him and trees to be retained with a period of two (2) months after execution of the Project. The Undertaking for the same duly authenticated by the concerned DFO may be provided.	It is hereby undertaken that felling of trees shall be restricted to maximum 2444 Trees (Dharamshala 784 trees, Nurpur 1645 trees and Dalhousie 15 trees) in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department and the cost of felling of trees shall be deposited the State Forest Department. All possibilities will be explored to reduce the felling of Emblica spp., Terminalia spp., Bauhinia spp., Acacia spp., Cordia spp and Ficus spp etc. The Committee comprising of Range Officer and Site Engineer In- charge, headed by the DFO concerned shall examine the alignment at the time of execution of work and will recommend the removal of trees on case to case basis along the Row of road after looking into the possibility of reducing the total number of trees to be affected. The enumeration shall be verified by the DFO concerned felling permission shall be issued accordingly based on actual requirement. The Undertaking in this regard is enclosed herewith.
15.	इस अनुमोदन में प्रत्यावर्तन की अवधि को प्रयोक्ता अभिकरण के पक्ष में मिली लीज की अवधि के साथ अथवा परियोजना की पूर्ण अवधि के साथ, जो भी कम हो, लक्षित किया जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि इस अनुमोदन में प्रत्यावर्तन की अवधि को प्रयोक्ता अभिकरण के पक्ष में मिली लीज की अवधि के साथ अथवा परियोजना की पूर्ण अवधि के साथ, जो भी कम हो, लक्षित किया जाएगा।इस आशय की वचनबद्धता

		पत्र के साथ संलग्न है ।
16.	आसपास के क्षेत्र के वनस्पतियों तथा जीवो को कोई नुकसान नही पहुचाया जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि आसपास के क्षेत्र के वनस्पतियों तथा जीवो को कोई नुकसान नही पहुचाया जाएगा ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
17.	परियोजना के तहत प्रयोक्ता अभिकरण से प्राप्त धन केवल ई-पोर्टल (https://parivesh-nic-in/)के माध्यम सेक्षतिपूरक वनीकरण कोष प्रबंधन और योजना प्राधिकरण फंड में स्थानांतरित/ जमा किए जाएंगे ।	प्रयोक्ता अभिकरण दवारा क्षतिपूरक वनीकरण कोष प्रबंधन और योजना प्राधिकरण फंड की निर्धारित राशि Net Present Value (NPV) **Rs.88,17,679/-**. Compensatory Afforestation **Rs.46,13,574/-**, Contingency @ 5% on CA **Rs.2,30,679/-**, Cost of SMCP **Rs.66,21,700/-only**, Total=(**88,17,679+46,13,574+2,30,679 + 66,21,700**)=**2,02,83,632/-** online portal के माधयम से **08May, 2023** कोजमा कर दी गयी है।
18.	पर्यावरण (संरक्षण) अधिनियम, 1986 के प्रावधानों के अनुसार, प्रयोक्ता अभिकरण पर्यावरणीय स्वीकृति (EC) यदि लागू हो तो प्राप्तकरेगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि पर्यावरण (संरक्षण) अधिनियम, 1986 के प्रावधानों के अनुसार, प्रयोक्ता अभिकरण पर्यावरणीय स्वीकृति (EC) यदि भविष्य में लागू होती है तो प्राप्त करेगा।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
19.	केंद्र सरकार की पूर्वानुमति के बिना प्रस्ताव का ले-आउट प्लान नहीं बदला जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है किकेंद्र सरकार की पूर्वानुमति के बिना प्रस्ताव का ले-आउट प्लान नहीं बदला जाएगा।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।`
20.	वन भूमि एवं आस - पास की भूमि पर कोई भी श्रमिक शिविर स्थापित नहीं किया जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है किवन भूमि पर कोई भी श्रमिक शिविर स्थापित नहीं किया जाएगा।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
21.	प्रयोक्ता अभिकरण द्वारा मजदूरों को राज्य वन विभाग अथवा वन विकास निगम अथवा वैकल्पिक ईंधन के किसीअन्य कानूनी स्रोत से पर्याप्त लकड़ी, विशेषतः वैकल्पिक ईंधन दिया जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है किमजदूरों को राज्य वन विभाग अथवा वन विकास निगम अथवा वैकल्पिक ईंधन के किसीअन्य कानूनी स्रोत से पर्याप्त लकड़ी, विशेषतः वैकल्पिक ईंधनउपलब्ध करवाया जाएगा ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
22.	संबंधितवन मंडल अधिकारी के निर्देशानुसार,प्रत्यावर्तित वन भूमि की सीमा को परियोजना लागत पर आर.सी.सी. पिलर्स द्वारा सीमांकन किया जाएगा।जिस पर Forward/ Backward bearing	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि संबंधित प्रभागीय वनाधिकारी के निर्देशानुसार,प्रत्यावर्तित वन भूमि की सीमा को परियोजना लागत पर आर.सी.सी. पिलर्स द्वारा सीमांकन किया जाएगाजिस पर Forward/

	अंकित हों।	Backward bearing अंकित किए जाएंगे। इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
23.	परियोजना कार्य के निष्पादन के लिए निर्माण सामग्री के परिवहन के लिए वन क्षेत्र के अंदर कोई अतिरिक्तया नया मार्ग नहीं बनाया जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि परियोजना कार्य के निष्पादन के लिए निर्माण सामग्री के परिवहन के लिए वन क्षेत्र के अंदर कोई अतिरिक्तया नया मार्ग नहीं बनाया जाएगा।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
24.	वन भूमि का उपयोग परियोजना के प्रस्ताव में विनिर्दिष्ट प्रयोजनों के अतिरिक्त अन्य किसी प्रयोजन हेतुनहीं किया जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि वन भूमि का उपयोग परियोजना के प्रस्ताव में विनिर्दिष्ट प्रयोजनों के अतिरिक्त अन्य किसी प्रयोजन हेतु नहीं किया जाएगा ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
25.	केंद्र सरकार की पूर्वानुमति के बिना प्रत्यावर्तन हेतु प्रस्तावित वन भूमि किसी भी परिस्थिति में किसी भी अन्य एजेंसियों, विभाग अथवा व्यक्ति को हस्तांतरित नहीं की जाएगी।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि केंद्र सरकार की पूर्वानुमति के बिना प्रत्यावर्तन हेतु प्रस्तावित वन भूमि किसी भी परिस्थिति में किसी भी अन्य एजेंसियों, विभाग अथवा व्यक्ति को हस्तांतरित नहीं की करेगी ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
26.	पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा वन एवं वन्यजीवों के संरक्षण व विकास के हित मेंसमय- समय पर निर्धारित शर्ते लागू होगी।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय द्वारा वन एवं वन्यजीवों के संरक्षण व विकास के हित में समय-समयपर जो भी निर्धारित शर्तें लागू होंगी प्रयोक्ता अभिकरण द्वारा उनका पालन किया जायेगा । इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
27.	परियोजना निर्माण से उत्सर्जित अधिकतर मलवे का निस्तारण प्रयोक्ता अभिकरण द्वारा केवल परियोजना स्थल पर ही किया जाएगा तथा इसके अलावा अन्यत्र मलबा नही फेंका जाएगा।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि परियोजना निर्माण से उत्सर्जित मलवे का निस्तारण प्रयोक्ता अभिकरण द्वारा केवल परियोजनास्थल पर ही किया जाएगा तथा इसके अलावा अन्यत्र मलबा नही फेंका जाएगा। इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
28.	यदि कोई अन्य सम्बन्धित अधिनियम / अनुच्छेद्र / नियम / न्यायालय आदेश / अनुदेश आदि इस प्रस्ताव पर लागू होते है तो उनके अधीन जरूरी अनुमति लेना राज्य सरकार प्रयोक्ता एलसी की जिम्मेवारी होगी।	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि यदि कोई अन्य सम्बन्धित अधिनियम / अनुच्छेद / नियम / न्यायालय आदेश / अनुदेश आदि इस प्रस्ताव पर लागू होतेहै तो उनके अधीन जरूरी अनुमतिप्रयोक्ता अभिकरणके द्वारा ली जाएगी ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
29.	इनमें से किसी भी शर्त का उल्लंघन वन (सरक्षण) अधिनियम, 1980 का उल्लंघन होगा एवं पर्यावरण पन एवं जलवायु परिवर्तन मंत्रालय के दिशानिर्देश फाइल	प्रयोक्ता अभिकरण यह वचनबद्धता प्रस्तुत करती है कि इनमें से किसी भी शर्त का उल्लंघन और वन (संरक्षण) अधिनियम, 1980 का उल्लंघन नही किया

	संख्या 11-12/2017- FC दिनांक 28.01.2018 कोअनुसार उस पर कार्रवाई होगी।	जायेगा ।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।
30.	सम्पूर्ण अनुपालना रिपोर्ट ई-पोर्टल (https://parivesh.nic.in/ पर अपलोड की जाएगी।	अनुपालना रिपोर्ट ई-पोर्टलके माध्यम से(https://parivesh.nic/in/) पर अपलोड की जाएगी।इस आशय की वचनबद्धता पत्र के साथ संलग्न है ।

This is for your kind information and further action.

DA/- As above

With Regards,

(Vikas Surjewala)
GM (T) Cum Project Director

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh	
FILE NO.	: FP/HP/Road/152261/2022
DATE OF PROPOSAL	: 15.07.2022

UNDERTAKING AS PER CLAUSE – 1

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that the legal status of the forest land for above mentioned road will not be changed.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dhar Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh
FILE NO. : FP/HP/Road/152261/2022
DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 2

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that the possession of forest land diverted will only be taken after the Non Forest Land is transferred in favour of NHAI.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 3 (A)

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Submit that Compensatory Afforestation with 10 year maintenance Rs. 46,13,574/- and 5% Contingency on CA Rs. 2,30,679/-, Total Rs. 48,44,253/- has been deposited in the CAMPA Account.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kangra (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 3 (B)

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby undertake to pay the additional cost of CA as per the prevailing wage rates at the time of undertaking the plantation activities in the future.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 4 (A)

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby submit that Cost of NPV Rs. 88,17,679/- has been deposited in CAMPA Account.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 4 (B)

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake to pay the additional amount of NPV, if so determined as per decision of the Hon'ble Supreme Court.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 5

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby undertake that the we will abide by the orders of the Hon'ble Supreme Court of India in WP(c) No. 202/1995 dated 08.02.2023.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 7

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby submit that the Cost of Soil and Moisture Conservation Plan amounting to Rs. 66, 21, 700/- has been deposited in the CAMPA account on 08.05.2023. It is further undertaken that any additional amount of SMCP, as decided by the State Govt. / Central Govt. shall be deposited by the User Agency.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

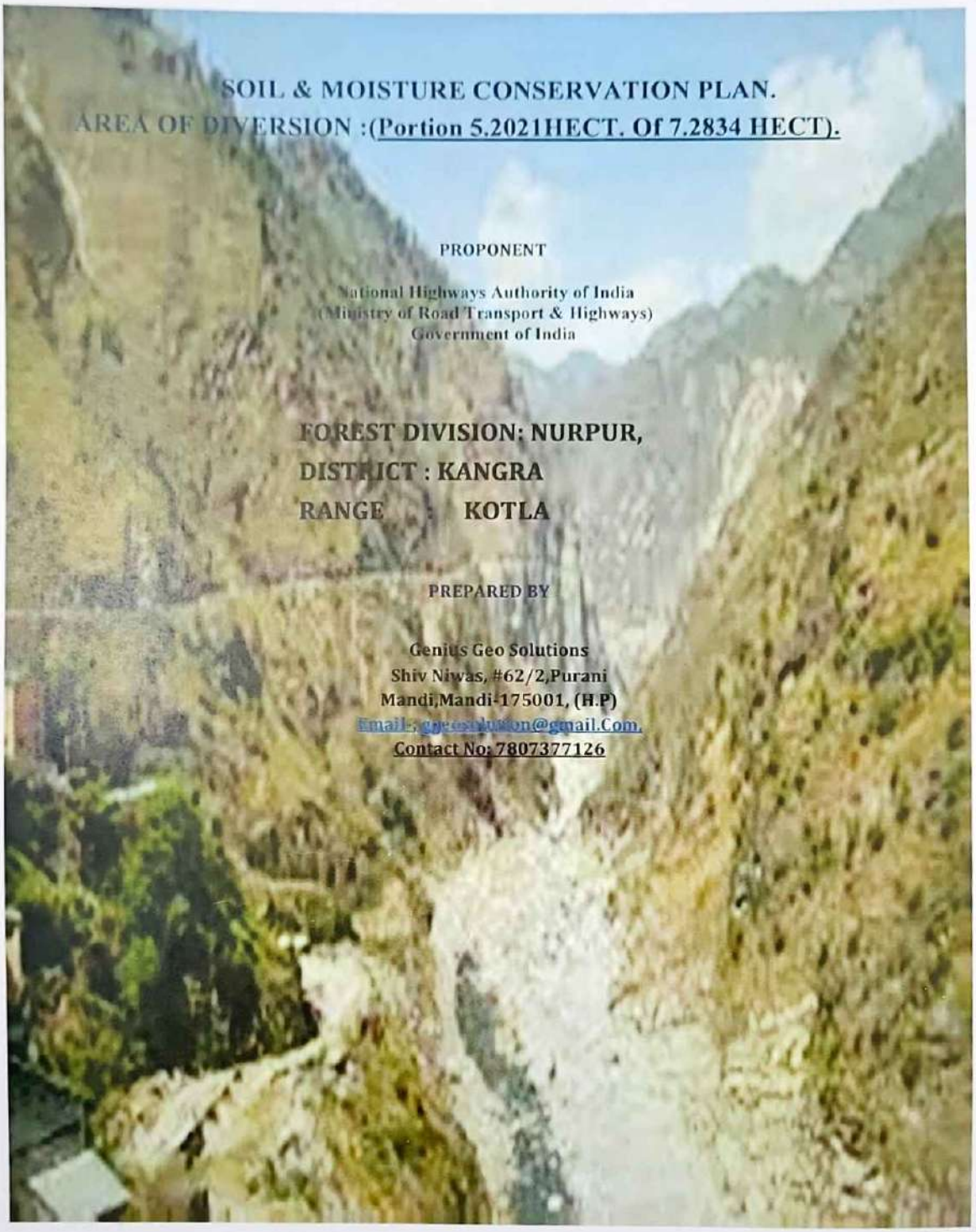
Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Rehabilitation and Upgradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).



SOIL & MOISTURE CONSERVATION PLAN.

AREA OF DIVERSION :(Portion 5.2021HECT. Of 7.2834 HECT).

PROPONENT

National Highways Authority of India
(Ministry of Road Transport & Highways)
Government of India

FOREST DIVISION: NURPUR,
DISTRICT : KANGRA
RANGE : KOTLA

PREPARED BY

Genius Geo Solutions
Shiv Niwas, #62/2,Purani
Mandi,Mandi-175001, (H.P)
Email : geosolution@gmail.Com,
Contact No: 7807377126

REPORT ON

SOIL CONSERVATION PLAN

1.0 INTRODUCTION:

THE STATE:

1.INTRODUCTION:

Himachal Pradesh having world's mightiest mountain ranges is one of the hilly States situated in the Northern part of India. It is blessed with some of the most spectacular and beautiful landscapes. It came into being in November, 1966 after the re-organization of States. Earlier, it was part of the combined State of Punjab. The various hill towns in the State not only provide visitors reprieve from the heat of the planes, but offer beautiful scenic sites which are real treat to the eyes. Kullu and Kangra valleys offer natural beauty which is no less than Kashmir Valley. Valleys and streams, snow clad mountains and temperate forests offer tourists and sportsmen all they want. Earlier the economy of the State mostly depended on tourism and a large number of tourist sites had been developed by the State. However, after the re-organization, the State has made big strides in the field of industrialization also. The State has good deposits of minerals like gypsum, lime stone and slate etc. It has big reserve of minerals which can be used in various types of industries. Mining of minor minerals is also, therefore, an extensive Industry in the State. Industries like Cement, Electronics, Fertilizers, Pharmaceuticals and Liquor can be found in good number at different places in the State. Hydel Power in the State has given a big boost tithe Industries. A number of Industrial areas have been developed in the State, where all facilities are provided to the entrepreneurs. Parwanoo, Barotiwala, Baddi, Paonta Sahib and Raja Ka Bagare some of the important industrial areas developed by the State in the last two decades.

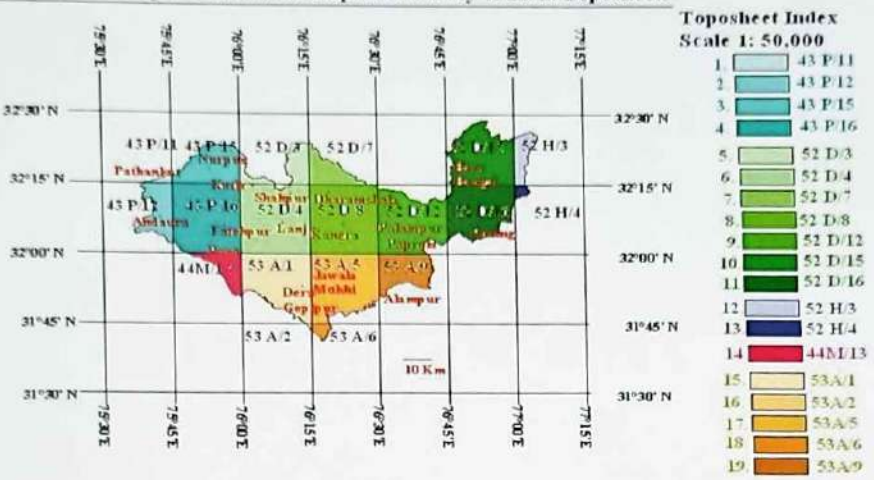
KANGRA DISTRICT:

Kangra is the most populous district of the state of Himachal Pradesh. Dharamshala is the administrative headquarters of the district. The modern Kangra district was founded on the 1stSeptember, 1972 by the Government of Himachal Pradesh. Kangra district is situated in Western Himalayas between 31°2 to 32°5 N and 75° to 77°45 E. The district has a geographical area of 5,739 km2 which constitutes 10.31 % of geographical area of the State. The district is bounded by Chamba to the North, Lahaul and Spiti to the Northeast, Kullu to the East, Mandi to the Southeast, and Hamirpur and Una to the South. The district shares a border with the states of Punjab on the Southwest, and Jammu and Kashmir on the North West. Due to the hilly terrain, not very much of the land is cultivated. The region is covered with uniform patches of barren land, as well as small forests. There is a reasonably good network of roads across the district.

As per 2011 census, Kangra has population of 1,507,223 persons of which male and female were 7, 48,559 and 7, 58,664 respectively. There was increase of 12.56 percent in the population compared to population as per 2001.

The Kangra district is located on the 19 Survey of India Top sheets (1:50,000) as given below in the figure 1.

Location of Kangra District with respect to Survey of India Toposheets



1) **Land use pattern and Social aspect of the area:**

Kangra District is spread over deep small valleys and ridges and cultivation is possible only in small terraces of holdings along the hill slope as contour farming in the basins of streams/khads. Sloppy areas are most suitable for cultivations. The statistical outline of H.P. 2001-2002. Department of Economics and Statistics has classified the following utilization of the land.

Table-3:

Sr No.	Category	Area (in Sq.kms)	percentage
1	Area under forest, dense and open forest	2030	35.37
2	Culturable waste	268	4.53
3	Not available for cultivation ,barren and un-culturable land	155	2.70
4	Land put to Non Agricultural uses	752	13.10
5	Permanent pastures	876	15.26
6	Land under miscellaneous tree crops etc.	82	1.42
7	Other cultivated waste	1576	27.46

8	Total Area	5739	100%

Forests:

The forests play a vital role in shaping the characteristic conditions of an area. Besides, these also influence the economic and social life of the people considerably. The forests provide valuable timber, medicinal herbs, and raw material for industries and also provide employment and play a vital role in conserving the soil and ensure timely rains. The forests of Kangra district have a great variety of vegetation due to variations in altitude, geological formations and climatic factors. The vegetation varies from dry scrub forests at lower elevation to alpine pasture at higher altitude. In between two extremities occur distinctive vegetation zones of chil, ban-oak, mixed coniferous (kail, spruce. fir) and kharsu, oak forests. Kangra forests have a large number of aromatic and medicinal plants which can be utilized for the pharmaceutical and ayurvedic medicines like dhoop, karu/kour, brahmi, kuth/khuth, bankakni etc.

The forests of Kangra can be classified into seven main groups.

(i) **Ban-Oak Forests:**

These forests occur at elevation from 1,600 meters to 2,300 meters. There are, however, a few exceptions like the oak forests of Dhalun near Yol Cantonment, Shahpur, Manjgran and Khaniara where these forests have gone down to about 800metres elevation.

(ii) **Chil Forests:**

The chil forests occur between elevations of 800 metres to 1,700 metres. Thebest growth is, however, between 1,200 meters to 1,700 meters.

(iii) **Deodar Forests:**

Deodar forests are only found in Dharamkot forests near McLeod gang town andare exclusively of artificial origin.

(iv) **Kharsu Oak Forests:**

These forests are found between the altitudinal zone of 2,300 metres to 3,800 metres, the upper most limit of tree growth. This oak generally occurs as a pure cropspruce and fir is found scattered individually or in small groups of sites suitable for these species.

(v) **Mixed Coniferous (Kail, Spruce and Fir):**

These forests are only patchy between 2,100 metres to 3,000 metres elevation.Kail forests are practically absent. Towards the upper most extremities Kharsu Oak isfound intimately mixed with fir and spruce. The common associates are walnuts, horse chestnut, dun, acar species, ulmus species etc.

(vi) **Alpine Scrub and Alpine Pastures:**

This type extends in this division above 3,800 meters elevation and is represented by

extensive alpine meadows with a few scattered patches of ever green branchy scrub of juniperus acurva and rhododendron. The meadows are mostly composed of perennial herbs and grasses.

(Vii) **Miscellaneous Scrub Forests** :

These forests are mainly found between 600 and 1,200 meters elevation and are composed mainly of tree/scrubs of khâir, kachnar, sins, kakrain, thingan, bil, etc.The under-growth consists of garna, mander. basuti, gandla etc. The forests are generally open, degraded due to over grazing and excessive exercise of various rights.

Important Lakes of Kangra District:

Maharana Pratap Sagar:

It is made on Beas River. In 1960, a dam was built on the Beas River and this dam resulted in a large Maharana Pratap Sagar Lake (once known as Pong Lake). This huge mass of water varies from 180 sq. km. to 400 sq. km. This lake was declared sanctuary in 1983. Maharana Pratap Sagar Lake has emerged as favorite place of many migratory birds. About 16 to 20 thousand migratory birds, belonging to 54 species, visit the lake every year. The Dam was completed in 1976. Its reservoir has an area of about 45,000 hectares at maximum possible flooding - the level varies with every season and averages around 30,000 hectares. Over 200 villages with a population of over 85,000 people live along the wetland.

Dal Lake:

Dal Lake is a small mid-altitude lake (1,775 m above sea level) near the village of Total Rani in Kangra district (Himachal Pradesh) in northern India. The lakeis surrounded by deodar trees and is considered as a sacred spot as there is small Shiva mandir (shrine) on its bank.

13 GEOLOGY:-

Geologically Himachal Pradesh can be broadly divided into two major geo- tectonic zones viz, the Lesser Himalayan tectogen in the south and the Tethys Himalayan Tectogen in the North. These two tectonic zones are juxtaposed with each other along a major tectonic break collectively designated as Main Central Thrust inthe sense defined by Srikantia (1988). Kangra district lies in the Siwalik lesser Himalayan zone and its topography is well defined by a series of almost parallel hill ranges which rise in height towards North-East. **(Geological Map of Kangra District is enclosed –Plate-1)** The rocks of Shivalik group occur as several kilometers wide hill ranges with steeper scraps towards the north and can be studied around Ranital, Nurpur, Kotla, Kangra, Jawalamukhi and Dehra Gopipur. The valleys are filled withalluvial sand, slate and recent boulder material. Besides, the rock facies commonly seen in the district are green shales and fossils rich limestone of Subathu formation, shale, clay and sandstone of Siwalik group, gneissic and granatic rock of Dhauladhargroup, slate, phyllites, schist, quartzite's, basic lava flows and dolomites belonging toJutogh group of rocks. The sediments of the Dharamshala Group unconformably overlie the Subathu group. These sediments consist of claystone, siltslones, calcareous shales and sandstones. The Dharamshala group is divisible into Lower and Upper Dharamshala. The Lower Dharamshala sediments were deposited under transitional brackish water environment and upper Dharamshala mainly represent fluvial system.The equivalent of Dharamshala group is known as Murree Group in Jammu and Kashmir. The Jutogh formation is one of the oldest groups of rocks and is seen in thenorth of Bandla and in a long stretch from the east of Bir to Dharamkot.The Sundar Nagar formation is well exposed between Luni and Sansal khad and north of Tundi khad in Chakki nallha. The basic lava flows known as Mandi-Darla volcanics occur insmall patches in Bir khad, Sansal khad and Luni khad. The cement grade limestone and salt grits of Dharamkot belong to Shalli formation. The rocks of major formation can be seen between Bara Banghal and Kakrani Jot along the pedestrian track. The Saluni formation is exposed at Thamsar pass near Palachak Bridge at Jalta and in the east of Kakrani Jot. The rocks of Sabathu formation are observed between Majir andManuni near Rakh, Bhanjeri and Karti.

Tertiary RocksSIWALIK SYSTEM:

The Siwalik deposits are one of the most comprehensively studied fluvial sequences in the world. They comprise mudstones, sandstones, and coarsely bedded conglomerates laid down when the region was a vast basin during Middle Miocene, to Upper Pleistocene. Following this deposition, the sediments were uplifted through intense tectonic regimes (commencing in Upper Miocene times deposited by rivers flowing southwards from the Greater Himalayas, resulting in extensive), subsequentlyresulting in a unique topographical entity the Siwalik Hills.

The Shivaliks are divided stratigraphically into three major Subgroups - Lower, Middle, and Upper. These Subgroups are further divided into individual formations that are all laterally and vertically exposed today in varying linear and random patterns. Ongoing erosion and tectonic activity has greatly affected the topography of the Shivaliks. Their present-day morphology is comprised of hogback ridges, consequent, subsequent, obsequent, and resquent valleys of various orders, gullies, choes (seasonal streams), and earth-pillars, filled earth buttresses of conglomerate formations, semicircular choe-divides, talus cones, colluvial cones, water-gaps, and choe terraces. Associated badlands features include the lack of vegetation, steep slopes, high drainage density, and rapid erosion rates. The Siwalik Group comprisies conglomerates friable micaceous sandstone, siltstone and clay-stone. The conglomerates in general are poorly cemented but at places they are very hard. These consist mainly of pebbles and cobbles of quartzite. The stray pebbles of granite, limestone, sandstone, breccias and lumps of clay-stone are also observed at places. Often the size of pebbles is large enough to be called as Boulders. The conglomeratesnot only occur as regular band but also as lenticular bands alternative with micaceoussandstone and clay-beds.

The Siwalik Group is divisible into three sub-groups respectively the Lower, Middleand Upper on the basis of the lithostratigraphy as given in the table.

Lower Siwalik: -

The lower Siwalik consists essentially of a sandstone-clay alternation. In district Kangra the lower sequence of the lower Siwalik consists of medium grained subgraywacke interbedded with thick red clay, but higher up in sequence, sandstonesare coarser and clasts become more frequent while the clays are less developed. The uppermost horizon consists of conglomerate with well-rounded clasts of grey quartzite possible derived from the Shale. The total thickness is about1600 Meters.

Middle Siwalik: -

The Middle Siwalik Sub group comprises of large thickness of coarse micaceous sandstone along with some inter-beds of earthy clay and conglomerate. Itnormally succeeds the Lower Shivalik along a gradational contact. The sandstone is less sorted than those in Lower Siwalik. Clay bends are

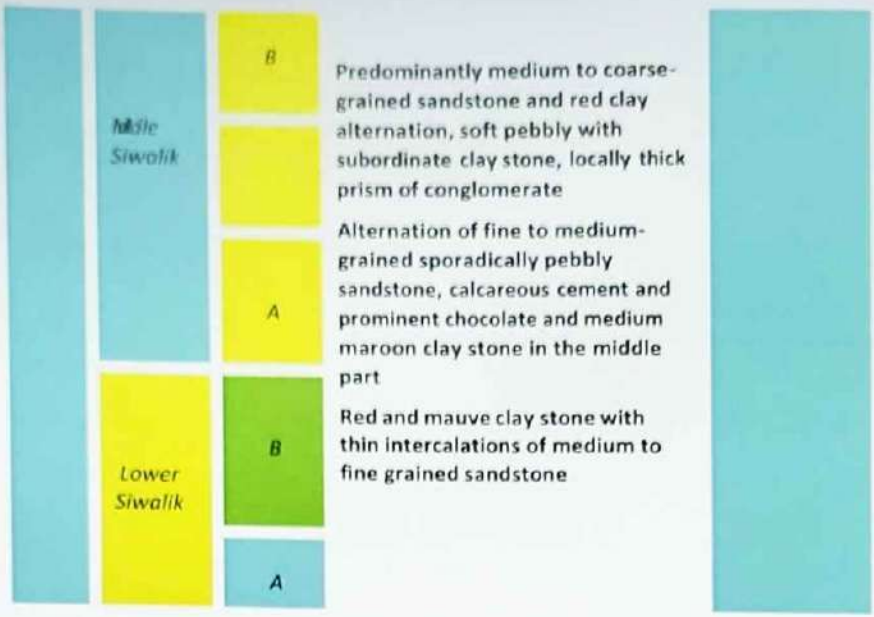
Dull coloured and silty. The general thickness is 1400 to 2000 Meters

Upper Siwalik-

The upper Siwalik subgroup can be easily separated from the underlying Middle Siwalik on the basis of a distinct lithological change. In the Kangra district, where the Middle Siwalik is overlain by massive conglomerates of Upper Siwalik, theconglomerates contain class of basic volcanic rocks of the Mandi-Darla volcanic witha very transitional zone between them which may even suggest a local break between Middle and upper Siwalik.The Siwalik sediments were primarily derived from the rising Himalayan front. The stages of elevation in the Himalayan provenance are reflected in the composition of the sediments and the size of the grains. Among the rock fragments in the Siwalik basin, sedimentary rock makes up the bulk. Lithologicalclassification of the group is as follows

Lithostratigraphy of Siwalik System in Kangra District.

Group			Lithology	Age
Newer Alluvium			Sand, silt, gravel and Pebbles	Quaternary
Siwa ik	Upper Siwalik	B	**Predominantly massive conglomerate with red and orange clay as matrix and minorsandstone and earthy buff and brown calystone**	Neog ene
		A	**Sandstone, clay and conglomerate alternation**	
			Sandstone with minor conglomerate and local variegated clay stone	



Pre-Tertiary Rocks :

Jutogh Group:

This group of rock consists of black, carbonaceous, garnetiferous phyllites, slates, quartzites and dolomites intercalated with biotite schists and hornblende gneisses. The exposures are known from Lesser Himalayas.

Shimla Group:

This group comprises of bluish grey slate, micaceous shale, sandstone, quartzite's intercalated with microcrystalline and oolitic limestone. These rocks are exposed around Shimla hills. At places in the field mapping, these have been clubbed togetherwith Chail Group of rocks which represent slightly higher grade of metamorphism.

Shali Group:

This is dominantly a carbonate sequence made up of dolomite, shale, stromatolitic limestone and occasional magnesite and quartzite. Rocks of Deoban Group and Bilaspur/ Bandla Limestone are considered equivalent to Shali Group. These rocks occur in tectonic windows under nappe of metamorphic rocks. At places thin Nummulitic outliers are found on these rocks. These rocks are broadly considered to be homotaxial to Shimla slates. Bandla limestone forms the basement of Subathu sediments mapped in Bilaspur unit.

Jaunsar Group:

This group of rocks is exposed north of Main Boundary Thrust (MBT). It is composed or low grade metamorphics such as slate, phyllites and quartzites.

Mandhali Formation:

This formation consists of quartzites, shale's, crystalline limestone and marble interbedded with slates, phyllites, and gritty quartzite's and boulder beds.

Nagthat Formation

This formation comprises sandstones, grits, quartzites, conglomerates, purple and green slates and phyllites. The top of the group represents a strong unconformity followed by a succession of rocks classified as Mussoorie Group.

Blaini Formation

It mainly consists of boulder beds, limes tones and shale with characteristics of a glacial till. The boulder bed consists of dark grey to greenish grey clay matrix withpebbles of dark slate, greenish quartzite, grey sandstone and green siltstone. Lime stones are characteristically pink, dolomitic and siliceous grade into pink and purple calcareous shale and slates. These rocks along with Infra-Krol and Krol are exposed north of MBT.

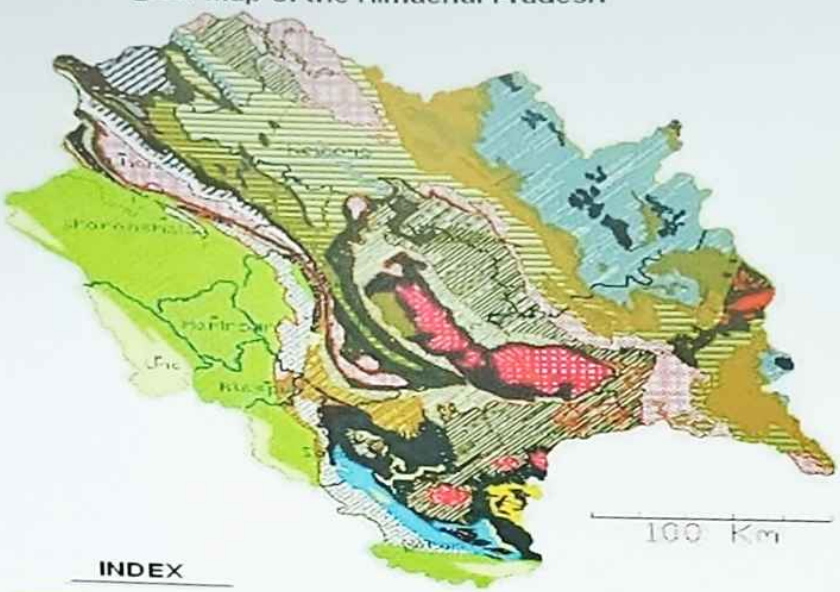
Krol Formation

Krol formation mainly consists of limestone, often stromatolitic, shale and sandstone. The limestone is grey to greyish white, dolomitic, cherty and at places microcrystalline. The shales are red, orange and dark gray in color. The sandstones are dirty white, poorly bedded with orange stained quartz grains.

Tal Formation

These rocks are composed of calcareous greywacke, carbonaceous shale, micaceous shale, arkosic quartzite and grey limestone.

Geological Map of the Himachal Pradesh



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Project Description at Glance

2. DESCRIPTION OF THE PROJECT ROAD:

The National Highways Authority of India (NHAI) under Ministry of Road Transport & Highways, Government of India has decided to take up the up-gradation of existing NH-20 from Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) in the state of Himachal Pradesh. It is worthwhile to mention here that the Package is a part of the project road which is a major link for the movement of traffic from the Pathankot (Punjab) to Centre City of Mandi as well as tourist destination of Kangra/Dharmshala. Also, it is strategically important route from defense point of view as it connects the international boundaries.

Package-IIA starts from the Sihuni and ends at Rajol in Kangra District in the state of Himachal Pradesh. The major built-up sections along the Project Road are Dramman, Shahpur, Rait and Rajol. The details of the Road are given below.

1	Total Length	18.450
2	Location	District Kangra & Chamba
3	Terrain	Plain , Rolling, Hilly and Steep
4	Name of the Protected Area within 10 km of protected zone(Buffer Zone)	Nil

The area is covered in the Survey of India Toposheet No. I43W4 (R.F. 1:50,000) and is bounded by the co-ordinates shown in table below.

Site Coordinates

Sr.No	Latitude	Longitude
A	32°13'17.10"N	76° 7'29.66"E
B	32°13'22.62"N	76° 7'16.26"E
C	32°13'14.79"N	76° 7'2.42"E
D	32°13'26.04"N	76° 6'24.86"E

Figure1.1LocationMap

TOPO-SHEET NO: I43WW4

2.0 CLIMATE & RAINFALL

The climate of the district varies from semi-tropical to semi-arctic. Winter varies from December to February and summer extends from March to June while July to September is rainy months. The maximum rainfall in the district occurs between July to September. The rainfall in the district during 2012 was 1106 mm. Snowfall is received in the higher reaches.

The minimum and maximum temperature at Saloni in 2011 was 1.1°C and 32.9°C in January and May respectively.

3.0 GEOMORPHOLOGY&SOILTYPES

Chamba district presents an intricatemosaic of mountain ranges, hills and valleys. It is primarily a hilly district with altitudes ranging from 600 m amsl to 6400 mamsl. Physiographically the area forms part of middle Himalayas with high peaks ranging in height from 3000 to 6000 m amsl.It is a region of complex folding, which has under gone many oogenesis. The topography of the area is rugged with high mountains and deep dissected by river Ravi and its tributaries.Physiographically the district can be divided into two units-*viz.*

(i) high hills,which cover almost entire district

(ii) Few valley fills.

Three types of soils observed in the district are 1.SandyLoam 2.Loam 3. Sandy Clay Loam.

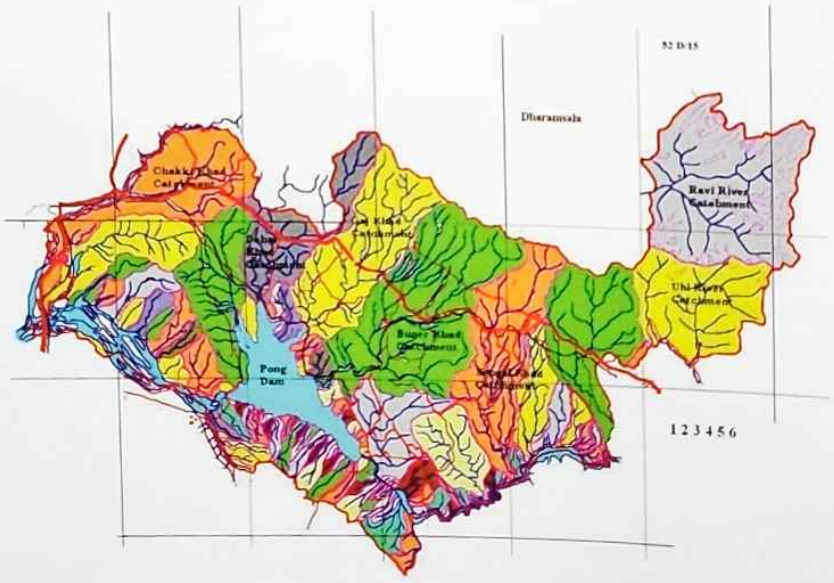
4.0 GROUND WATER SCENARIO

4.1 Hydrogeology

The rock formations occupying the district range from pre-Cambrian to Quaternaryperiod.The generalized geological succession in the district is given below.

Age	Formation	Lithology
Pleistocene	Upper Shivaliks	Boulder conglomerate,Sandstone
Pliocene	Middle Shivaliks	Sandstone,gravelbeds,clays etc.
Miocene	Lower Shivaliks	Shales, Hard Sand stone etc.
Triassic	Kalhel formation	Light and dark grey limestone with banks of Phyllite and slate
Permian	Salooni formation	Inter bedded phyllite, light and dark grey limestone, Phyllis, black carbonaceous slate with schistose quartzite and chert band
Carboniferous	Manzir formation	Pebblyphyllite, grey green slate with limestone
Lower to MiddlePaleozoic	Dalhousie/D hauladhar Formation	Granite and granitegneiss
Lower Paleozoic	Chamba formation	Metasilt stones, grey wackes ,slate sand phyllites.

Detail of Hydrology:



Most part of the area is underlain by hard rock formation ranging in age from Paleozoic to Triassic. These older rocks are devoid of any primary porosity. Groundwater movement in these rocks takes place through joints, fractures and other structural features like schistose plane etc. In the younger rocks of Tertiary age and in terrace deposits along the major rivers and khads, pore spaces between sand gravel and tallus material also form the avenues for ground water movement.

Due to steep rising hills with intervening dissected valleys together with the consolidated nature and disposition of rock disposition of rock formation leads to conclusion that no ground water reservoir of any appreciable magnitude within the hill region exists. Whatever quantity of water this mountainous terrain receives through rainfall and snowfall soon tends to flow down to lower level due to steep slopes and the water goes out of the areas through a dense network of streams Nallah. However, a part of the water percolates into the underlying formations during this process. This water moves underground due to gravitational force and at favorable points it emerges as springs on down slopes. During the course of survey it was also noticed that with the advent of dry season springs located on downstream side i.e. on lower level dry out later than those located on upstream side. The concentration of springs was found more along the rivers and khads. Usually the springs contribute water to the base flow of these khads and rivers, which in turn is utilized at favourable places for irrigation and domestic purposes.

Ground water generally occurs under unconfined to semi-confined conditions. State Irrigation and Public Health Department has drilled hand pumps fitted with the motors somewhere. The average depth of these hand pumps varies from 35.00 to 70.12 m bgl.Average depth to water level varies from 10 m bgl to 30 mbgl with variable discharges ranging from .25 to .75 lps. Water table follows the topography and the formations encountered are localized valley fill deposits consisting of sand, gravels, pebbles &cobbles.

4.2 Groundwater Resources

Snowfall / rainfall is the major source of groundwater recharge apart from the influent seepage from the rivers and inflow from upland areas whereas discharge from groundwater mainly takes place from effluent seepages of ground water in the form of springs and base flow in streams etc.

The district has a hilly terrain having very high slopes. The valley areas are deep, narrow and isolated.Theareas therefore not considered for estimation of the ground water resources due to their discontinuous aquifer systems.

4.3 Groundwater Quality

National Hydrograph Network Stations has not been established in the district so far. However, the water samples collected from various sources like spring and hand pumps during the various hydrogeological studies revels that the overall groundwater quality is good and are suitable for all type of uses.

4.4 Status of Ground Water Development

The district is full of perennial springs. They differ considerably in their discharges. By and large these springs are used for domestic, livestock and irrigation purpose.

For domestic purpose water has been drawn at source where ready arrangement exist for filling containers or elsewhere water channels have been dug to carry water from springhead to the village concerned. With the progress of development, pipelines are increasingly laid down, thus improving the convenience and efficient water supply.

The drinking water supply for Chamba town is met with mainly from two nallahs viz.,Sarotha and sal nallah.

The Dalhousie town is situated at an average height of 2200 m amsl. The main source of water supply for the town is from Ahla Khad, Dain Khad and Panjpulla.During summer season the requirement is more and the supply is less as discharge of the khads dwindles.

Scope of Work:

I. Preparation Soil Conservation Plan:

- Proper mitigate measures to minimize soil erosion and choking of streams shall be prepared.
- Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.
- Study of construction of check dam, retention/Breast walls to arrest sliding down of the excavated material along the contour.
- Additional measures to avoid the soil Erosion.

1.2 Location of the Project:

The Rehabilitation and Up gradation to 4 Lane configuration & Strengthening of Shun to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA). Comprising total area of 7.2834 Hectare of Forest Land and 27.7882 Hectare of Non Forest Land (5.2021 Hectare under Nurpur Division) has been Proposed by National Highway Authority of India (Ministry of Roads Transport & Highways) PIU-PALAMPUR.The Location of the project is The area is covered in the Survey of India ToposheetNo.I43W4 (R.F.1:50,000))and is bound by

Latitude: Longitude:

32°13'28.21"N	76° 5'20.11"E
32°13'17.10"N	76° 7'29.66"E

1.3 Location of Study Area :

INTRODUCTIOIN TO DIVISION/ RANGEWISE LOCATION SPECIFIC SMC PLAN:

It is important that a SOIL AND MOISTURE CONSERVATION PLAN should provide site specific

SLOPE MAP

1.4 Need for Soil Conservation Plan:

Soil Conservation Plan is normally applicable for Hydroelectric and Irrigation Projects where impounding of water is proposed by construction of Barrage, Dam etc. This project is Road Project and the part of project falling Under Bahtiyat Range does not fall near to any major river.

1.5 Objective of SC Plan: The objective of SC Plan is to rejuvenate various potential and degraded ecosystems in the Mine area. The opencast Road activities disturb large tracts of land and produced greatly increased down stream sediment load.

The objective of this report is to present the outline of Road surface erosion problem, method of modeling sediment yield, measures to be taken for reducing or controlling sediment discharges. The action plans is to be prepared for this purpose with the following objectives.

- Conservation of soil cover and to arrest the soil erosion, flood and siltation of the Project area and its tributaries if any.
- Soil conservation through biological & engineering measures to reduce sediment load in river and tributaries, thus improving quality of water.
- Increase vegetative cover and water retaining properties.

SOIL CONSERVATION PLAN

Mitigative Measures

Mitigative measures to minimize soil erosion can be undertaken by two plan–

1) Biological Conservation Plan,

2) Engineering Conservation Plan

5.1 Biological Conservation Plan:

5.1.1 Approach Plan

The following biological conservation plan can be adopted to mitigate soil erosion.

- Proper Dumping of Muck Generated. Dumping of soil and clayey material should be done away from the working area that is on farther end of the dump so that formation of weak planes is avoided.
- Afforestation by planting trees will help a lot in improving stability of dumps by preventing erosion.
- Provision of jute mesh for facilitating grass or vegetative growth on slopes, Provision of good soil mixed with manure and subsequent irrigation for growth of grass for anchorage on slopes. Plantation mixed with indigenous and fast growing plant species
- The degraded area can be reclaimed and rehabilitated with local species of plantation in a phased manner;
- Plantation should be carried out on waste dumps;
- The haulage roads should be flanked by trees on either side; and
- A belt of trees with thick canopy should be created along the mine boundary to intercept dust, gaseous pollutants and noise.

6.0 COST ESTIMATE

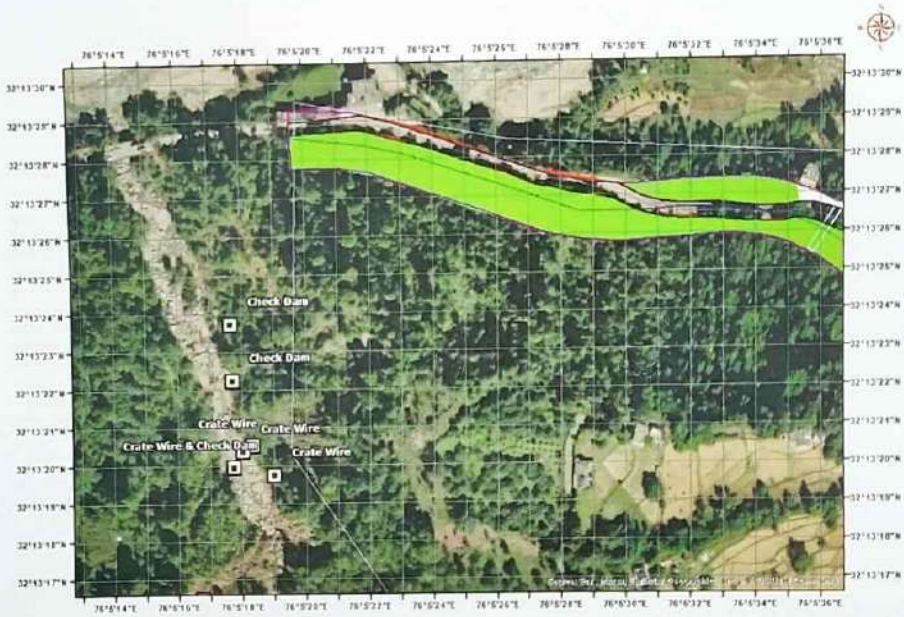
Cost of Mitigative Measures to arrest Soil Erosion & Top Soil Management Plan in respect of both Biological and Engineering plans are as proposed.

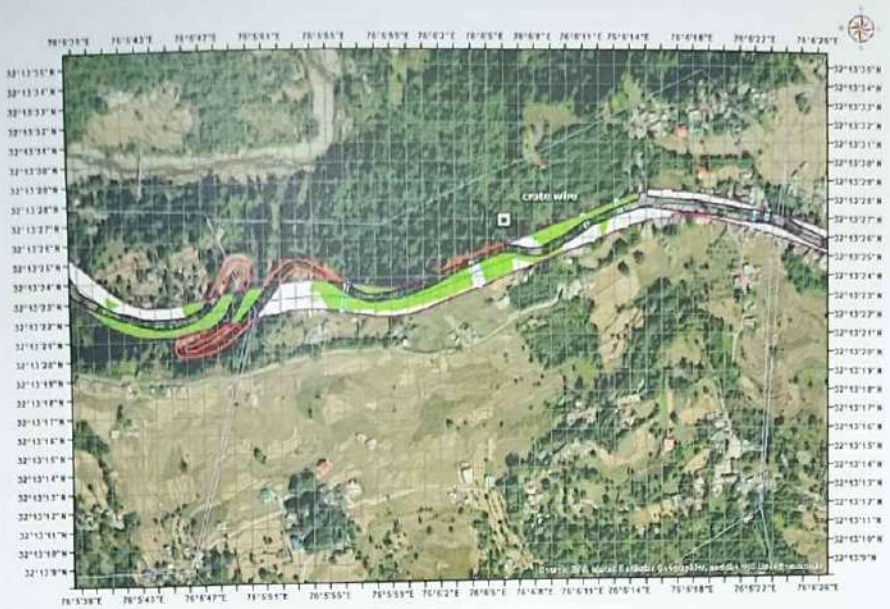
Cost estimate for Engineering Plan:

6.1 Total cost of Mitigative Measures for Soil Conservation:

The area of Diversion falling under Nurpur Division, Kotla Range is 5.2021 Hectare (part of 7.2834 hectare of Rehabilitation and Up gradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Km 51.00 to Km 72.00 (Package IIA) (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.). The area falling under the project is prone to Landslides and the Nallha flowing (as shown in the below mentioned google map) will be treated and various SMC related activities are proposed, the detail and site maps of which are mentioned below.


LOCATION OF SMC ACTIVITY
Legend
Crate Wire & Check Dam
Existing Centre Line
Proposed Road
Proposed Centre Line
Crate Wire & Check Dam
Check Dam
Check Dam
Google Earth
90 m
N


Check Dam
Check Dam
Crate Wire
Crate Wire
Crate Wire & Check Dam
Crate Wire



After proper site visit the below mentioned SMC related activities have been proposed.

Sr.No	Name of Components and Activities	Qty	Budgeted Amount
1	Crate Wire Work	22 No's	16,50,000/-
2	Check Dam	9 No's	9,30000/-

3	Plugging Gullies	210 No's	1,89,500/-
4	WHS	4	19,60,000/-
		TOTAL	47,29500/-

Hence as decided by the recent Guidelines of MoEFCC dated 07-06-2022 , sum of Rs. 47,29,500/ has been deposited as per the cost of SMC accordingly to the %age of the Forest Land Diverted. The detail of payment is being submitted as below.

REFERENCE AND DATA SOURCE

- Government of India Ministry Of Water Resources, CENTRAL GROUND WATER BOARD, GROUND WATER INFORMATION BOOKLET,CHAMBA DISTRICT, HIMACHAL PRADESH.
- Survey of India.

Divisional Forest Officer
Nurpur Forest Division
Nurpur, H.P.

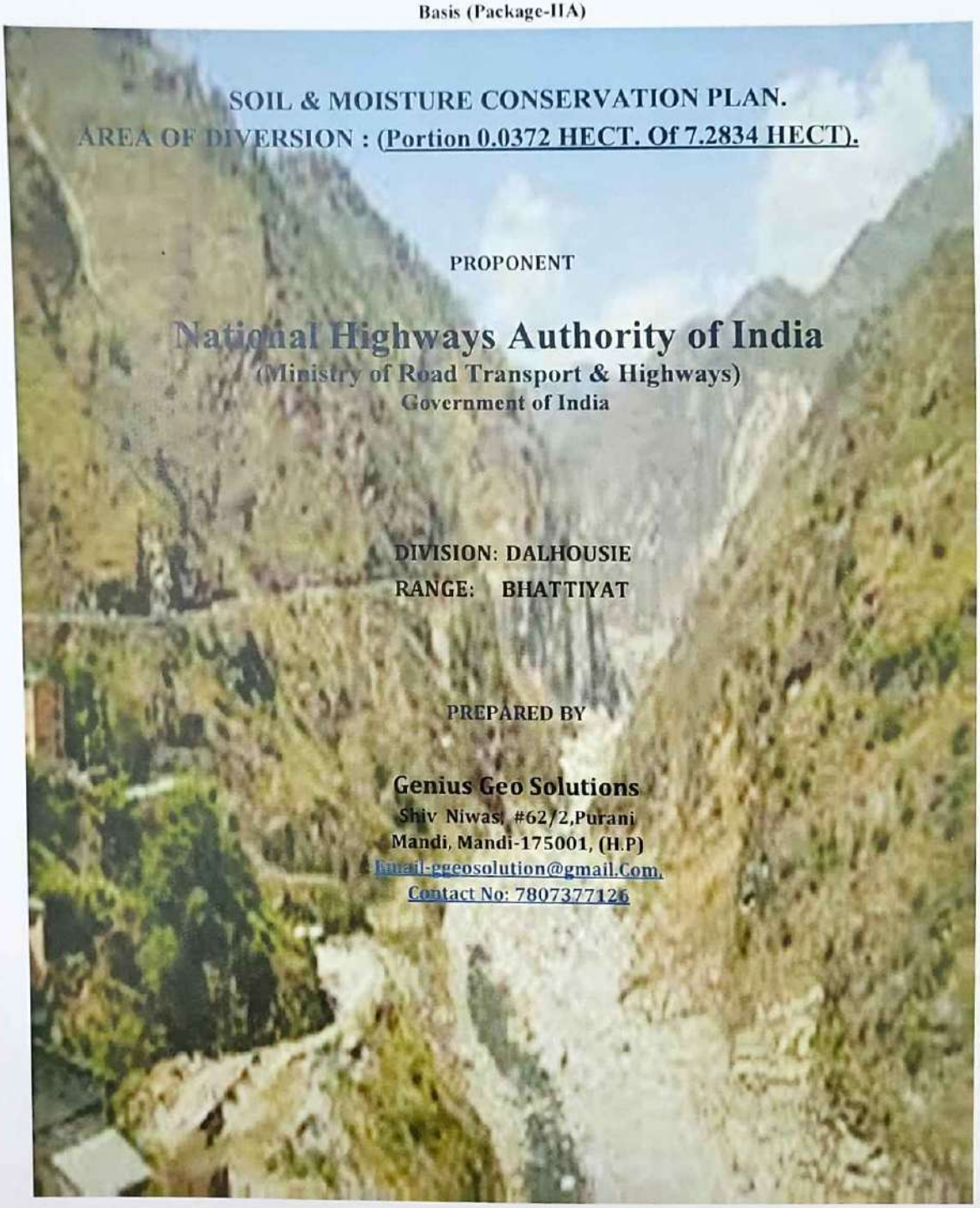
Calculation Sheet of Soil & Moisture Conservation Plan (SMCP) for Diversion of 5.2021 hac. of Forest Land under Nurpur Forest Division for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

Sr. No.	Description		Units	Total
1	Total Land Involved (A)		ha.	35.0716
2	Forest Land Involved (B)		ha.	7.2834
3	Non Forest Land Involved (A - B)		ha.	27.7882
4	% Age of Forest Land Involved	7.2834 / 35.0716 x 100	%	20.77%
5	Total Cost of Project		Rs in Lakh	63761.700
6	Proportionate Cost on Forest Land in ~~Dharamshala~~ Nurpur Forest Division	(63761.7 x 20.77%) / (7.2834 x 5.2021)	Rs in Lakh	9458.906
7	0.5% Soil & Moisture Conservation Plan in Nurpur Forest Division	9458.906 x 0.5%	Rs in Lakh	47.295
8	Cost of Soil & Moisture Conservation Plan (SMCP) to be deposited in Nurpur Forest Division		Rs in Lakh	47.295
Rupees Forty Seven Lakh, Twenty Nine Thousand and Five Hundred Only				

Divisional Forest Officer
Nurpur Forest Division
Nurpur

Divisional Forest Officer
Nurpur Forest Division
Nurpur, H.P.

Rehabilitation and Upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM Basis (Package-IIA)



SOIL & MOISTURE CONSERVATION PLAN.

AREA OF DIVERSION : (Portion 0.0372 HECT. Of 7.2834 HECT).

PROPONENT

National Highways Authority of India
(Ministry of Road Transport & Highways)
Government of India

DIVISION: DALHOUSIE
RANGE: BHATTIYAT

PREPARED BY

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REPORT ON

SOIL CONSERVATION PLAN

1.0 INTRODUCTION:

Background :

1.INTRODUCTION:

The Chamba district in the present form came in to existence on 1st November 1966 which is bounded on north-west by Jammu and Kashmir, on the north-east and east by Ladakh area of Jammu and Kashmir state and Lahaul and Bara-Bangal area of Himachal Pradesh, on the south-east and south by the District Kangra of Himachal Pradesh and Gurdaspur District of Punjab. The district is Situated between north latitude 32° 11' 30" and 33° 13' 06", and east longitude 75° 49' 00" and 77° 03' 30".

The area of the district is 6,522 sq. km with Chamba as its Headquarters. There are 1591 villages in the district. The district has been divided into 6 Sub-divisions [Chamba, Churah, Pangi, Bharmaur, Dalhousie, Chowari. There are 7 tehsils [Chamba, Churah, Salooni, Pangi, Bharmaur, Dahlhousie, **Bhatiyat** & 3 sub-tehsils [Bhallai, Holi, Sihunta]. Further, for development purposes the district has been subdivided in 7 CD blocks viz., Chamba, Mehla, Bharmour, Tissa, Salooni, Pangi, Bhatiyat.

As per 2011 census, the district has a population of 5,19,080 persons with density of population 80 person per sq km. The male and female population in the district is 2,61,320 and 2,57,760 respectively with a female/male sex ratio of 986 females per 1000 males. The schedule cast population in the district is 21.52% and the schedule tribe population is 26.10%.

The Ravi is the main river of Chamba district and is the heart and soul of the Chambyals. With its tributaries, it drains the whole of Chamba valley proper between Dhauladhar and Pangi range and thus commands the largest and most important part of the district. The river originates from Bara Bangahal area of Dhauladhar. The Main tributaries of Ravi are Budhil, Tundah, Beljedi, Sal, Siul, Siowa The river Chenab or Chandrabhaga rises from the mountains of Baralacha pass by two heads, the stream withits source on south-eastern side of the pass being called the Chandra and the other one which rises from north-western side is called the Bhaga. After the confluence of these two sister streams at Tandi, the river is generally known as Chenab.

There are no large-sized lakes in Chamba district. However, a few water bodies namely Khajjiar Lake, Manimahesh Lake, Chamera Lake, Lama Dal, Gadasru Lake, Maha Kali Dal exists.

2. DESCRIPTION OF THE PROJECT ROAD:

The National Highways Authority of India (NHAI) under Ministry of Road Transport & Highways, Government of India has decided to take up the up-gradation of existing NH-20 from Sihuni to Rajol

(Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) in the state of Himachal Pradesh. It is worthwhile to mention here that the Package is a part of the project road which is a major link for the movement of traffic from the Pathankot (Punjab) to Centre City of Mandi as well as tourist destination of Kangra/Dharmshala. Also,it is strategically important route from defense point of view as it connects the international boundaries.

Package-IIA starts from the Sihuni and ends at Rajol in Kangra District in the state of Himachal Pradesh. The major built-up sections along the Project Road are Dramman, Shahpur, Rait and Rajol. The details of the Road are given below.

Project Description at Glance

1	Total Length	18.450
2	Location	District Kangra & Chamba
3	Terrain	Plain , Rolling, Hilly and Steep
4	Name of the Protected Area within 10 km of protected zone(Buffer Zone)	Nil

The area is covered in the Survey of India Toposheet No. I43W4 (R.F. 1:50,000) and is bounded by the co-ordinates shown in table below.

Site Coordinates

Sr.No	Latitude	Longitude
A	32°13'36.49"N	76°10'11.80"E
B	32°13'33.79"N	76°10'14.47"E
C	32°13'31.70"N	76°10'16.75"E
D	32°13'29.04"N	76°10'18.74"E
F	32°13'26.71"N	76°10'21.12"E

Project Location(District Chamba Patch)

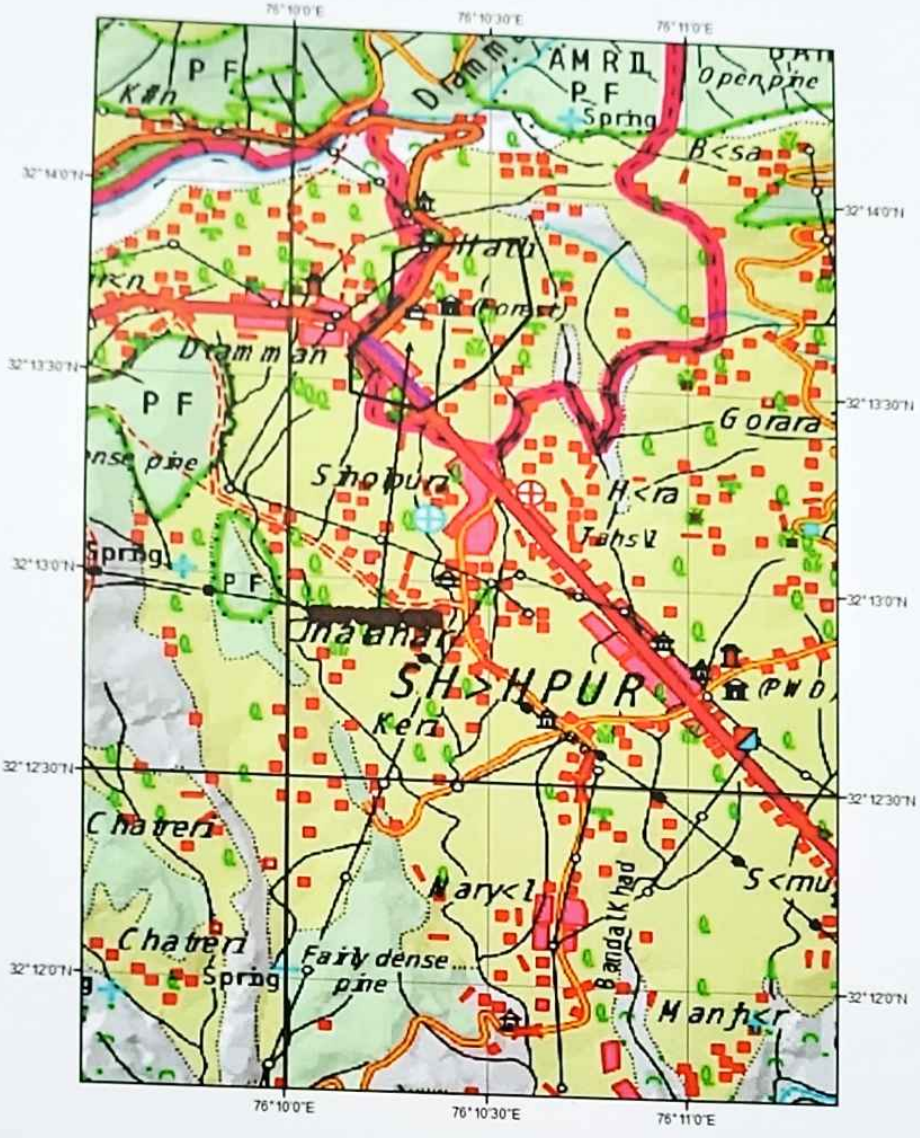
Sr.No.	Aspect	Description
1.	Project	Rehabilitation and Upgradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).
2.	Location	
(i)	State	HIMACHAL PRADESH
(ii)	District	CHAMBA
(iii)	Tehsil	DALHOUSIE
(iv)	Villages	Bohrka, Chichar, Thakniar, Hatli, Paid, Kholi, Chhatrunh, Mohr Dramman, Shahpur, Chandroon, Haara, Majhiar, Pohara, Bag Upahu, Mahakali, Har ,Kakroh, Thara, Behkari, Rajol.
3.	Nearest Location	
(i)	Nearest Town	DALHOUSIE
(ii)	District Headquarters	CHAMBA

1.1 General

The Rehabilitation and Upgradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).Comprising total area of 7.2834 Hectare of Forest Land and 27.7882 Hectare of Non Forest Land (0.0372 Hectare under Dalhousie Division) has been Proposed by National Highway Authority of India (Ministry of Roads Transport & Highways) PIU-PALAMPUR.

National Highway Authority of India (Ministry of Roads Transport & Highways) PIU-PALAMPUR has been accorded Stage-I approval under FC A 1980.Now for Final Approval Soil Conservation Plan (SMC) is to be submitted. The proposed Road passes through Three Forest Divisions (Dalhousie, Nurpur, Dharamshala). The location map of road passing through area of Dalhousie Division, Range Bhatiyyat is given in **Figure 1.1.**

Figure 1.1 Location Map



TOPO-SHEET NO: I43WW4

2.0 CLIMATE & RAINFALL

The climate of the district varies from semi-tropical to semi-arctic. Winter varies from December to February and summer extends from March to June while July to September are rainy months. The maximum rainfall in the district occurs between July to September. The rainfall in the district during 2012 was 1106 mm. Snowfall is received in the higher reaches.

The minimum and maximum temperature at Saloni in 2011 was 1.1°C and 32.9°C in Januaryand May respectively.

3.0 GEOMORPHOLOGY & SOIL TYPES

Chamba district presents an intricate mosaic of mountain ranges, hills and valleys. It is primarily a hilly district with altitudes ranging from 600 m amsl to 6400 m amsl. Physiographically the area forms part of middle Himalayas with high peaks ranging in height from 3000 to 6000 m amsl. It is a region of complex folding, which has under gone many orogeneses. The topography of the area is rugged with high mountains and deep dissected by river Ravi and its tributaries. Physiographically the district can be divided in to two units-*viz.*

(i) high hills, which cover almost entire district

(ii) few valley fills.

Three types of soils observed in the district are **1.** Sandy Loam 2. Loam 3. Sandy Clay Loam.

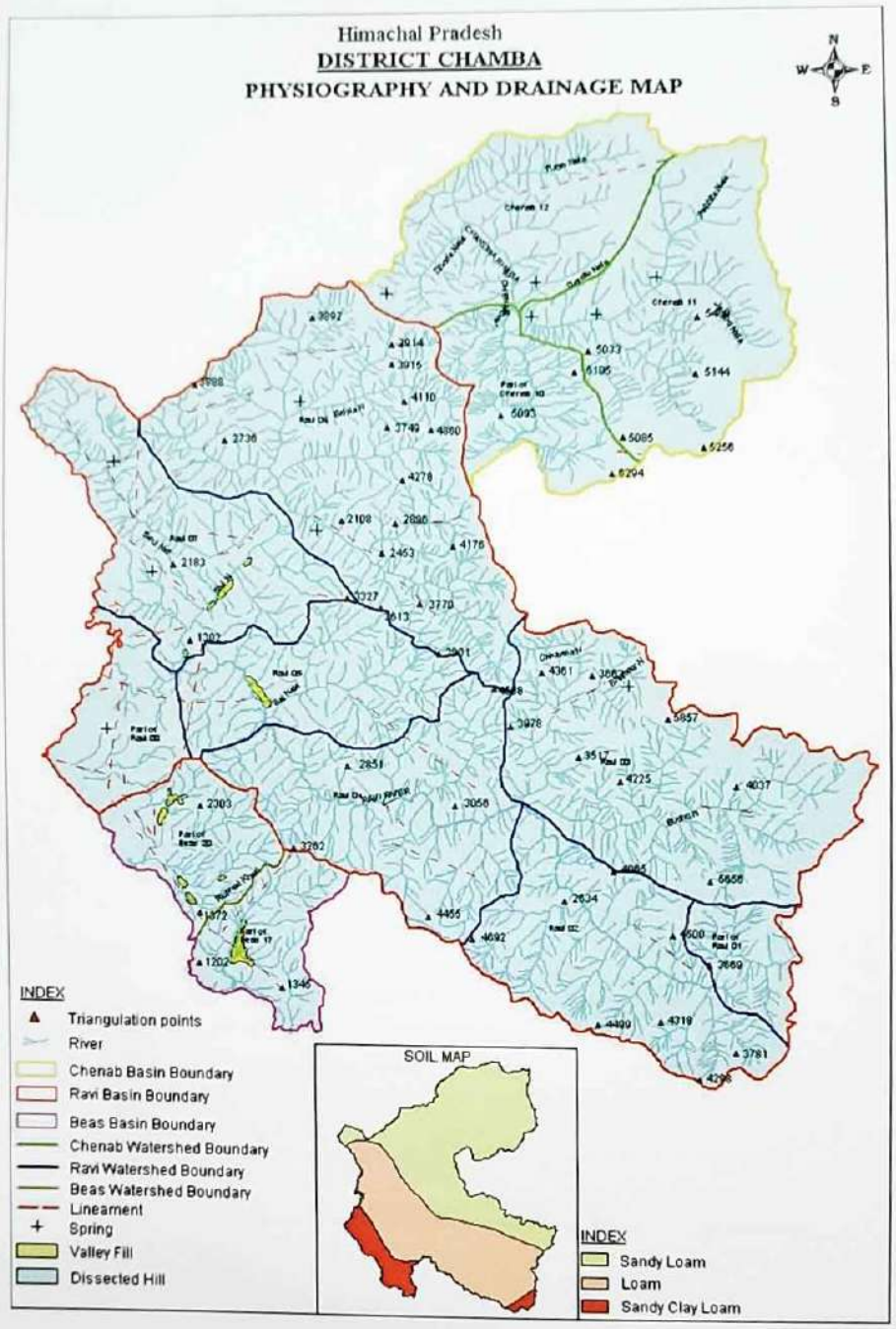
4.0 GROUND WATER SCENARIO

4.1 Hydrogeology

The rock formations occupying the district range from pre-Cambrian to Quaternary period. The generalized geological succession in the district is given below.

Age	Formation	Lithology
Pleistocene	Upper Siwaliks	Boulder conglomerate, Sandstone
Pliocene	Middle Siwaliks	Sandstone, gravel beds, clays etc.
Miocene	Lower Siwaliks	Shales, Hard Sandstone etc.
Triassic	Kalhel formation	Light and dark grey limestone with banks of phyllite and slate
Permian	Salooni formation	Inter bedded phyllite, light and dark grey limestone, phyllite, black carbonaceous slatewith schistose quartzite and chert band
Carboniferous	Manzir formation	Pebbly phyllite, grey green slate with limestone
Lower to Middle Paleozoic	Dalhousie/ Dhauladhar Formation	Granite and granite gneiss
Lower Paleozoic	Chamba formation	Meta siltstones, greywackes, slates and phyllites.

Detail of Hydrology :


Himachal Pradesh
DISTRICT CHAMBA
PHYSIOGRAPHY AND DRAINAGE MAP
N
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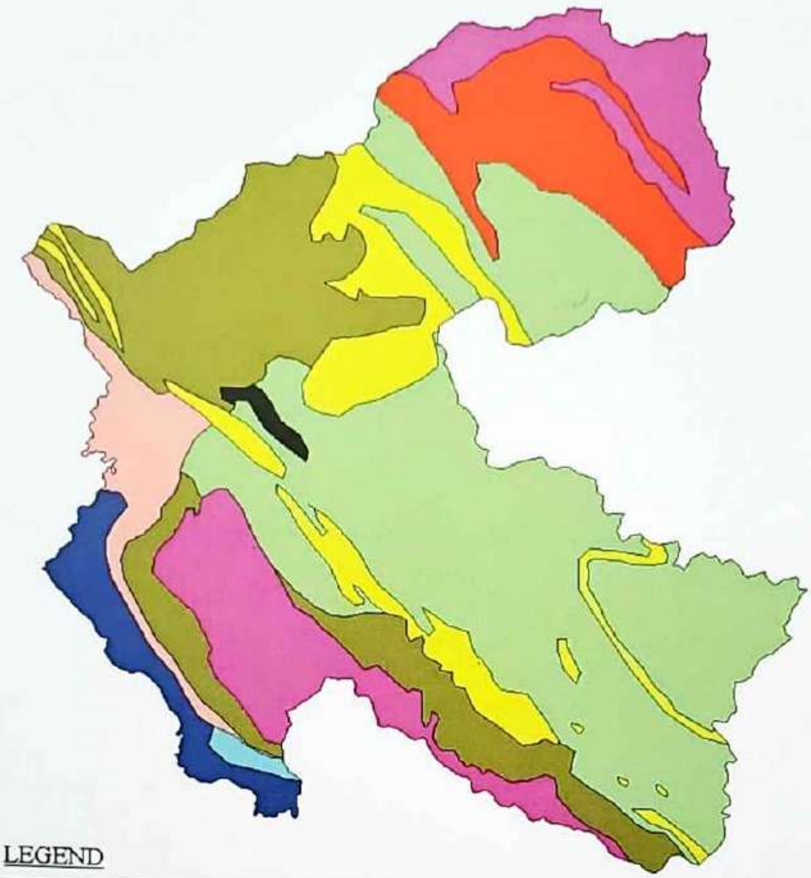
INDEX
Triangulation points
River
Chenab Basin Boundary
Ravi Basin Boundary
Beas Basin Boundary
Chenab Watershed Boundary
Ravi Watershed Boundary
Beas Watershed Boundary
Lineament
Spring
Valley Fill
Dissected Hill
SOIL MAP
INDEX
Sandy Loam
Loam
Sandy Clay Loam

Himachal Pradesh

DISTRICT CHAMBA

GEOLOGY MAP



LEGEND

	AGE	FORMATION	LITHOLOGY
	Middle Miocene to Lower Pleistocene	Siwalik	Conglomerate Sandstone Shale and Clay
	Lower Miocene to Middle Miocene	Murree - Dagshai - Kasauli and Dharamshala Formation	Sandstone Clay and Shale
	Triassic	Quartzite Beds / Kanishi Shale / Coral Limestone / Krol Formation	Shale Slate Quartzite Limestone and Schist
	Permian	Kalhel / Salooni Formation	Limestone, Shale and Quartzite
	Carboniferous	Lipak / Manjir / Ghatti Formation	Conglomerate Quartzite Limestone Slate Dolomitic bed limestone
	Pre-Cambrian to Devonian	Jutogh Group / Simla Group / Kangra Group	Phyllite, Slate Quartzite
	Pre-Cambrian	Jutogh / Vaikrita / Central Crystalline / Older Formations / Chamba Formation / Chail	Slate Phyllite Quartzite Sandstone Schist and Dolerite Gneiss
	Age not known	Chor / Dalhousie / Rohtang / Rindal Granite Gneiss and Equivalent	Granite
	Pre-Cambrian intrusives	Mandi / Darla / Manikaran volcanic	Basic Volcanic Rocks

Most part of the area is underlain by hard rock formation ranging in age from Paleozoic to Triassic. These older rocks are devoid of any primary porosity. Ground water movement in these rocks takes place through joints, fractures and other structural features like schistose plane etc. In the younger rocks of Tertiary age and in terrace deposits along the major rivers and khads, pore spaces between sand gravel and tallus material also form the avenues for ground water movement.

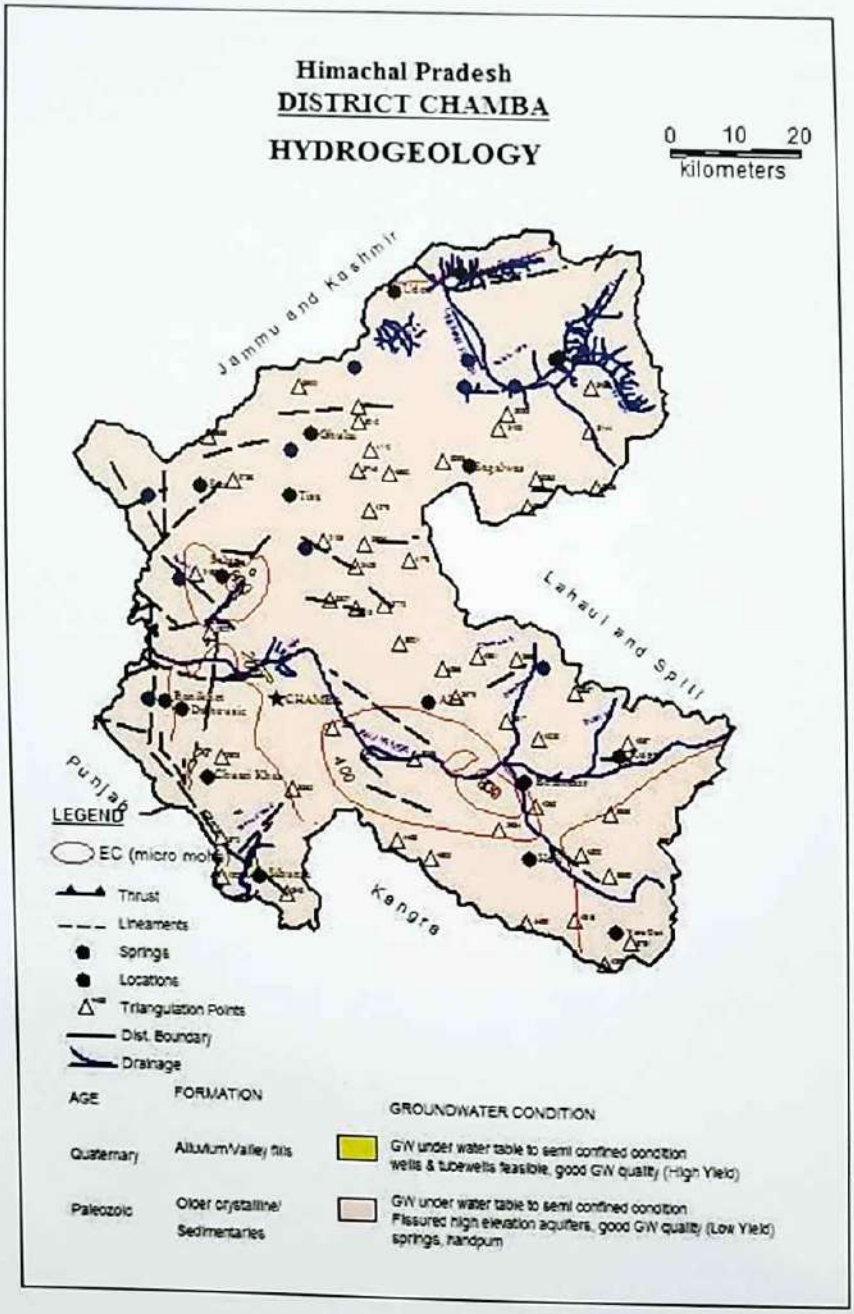
Due to steep rising hills with intervening dissected valleys together with the consolidated nature and disposition of rock disposition of rock formation leads to conclusion that no ground water reservoir of any appreciable magnitude within the hill region exists. Whatever quantity of water this mountainous terrain receives through rainfall and snowfall soon tends to flow down to lower level due to steep slopes and the water goes out of the areas through a dense network of streams nallahs. However, a part of the water percolates into the underlying formations during this process. This water moves underground due to gravitational force and at favourable points it emerges as springs on down slopes. During the course of survey it was also noticed that with the advent of dry season springs located on downstream side i.e. on lower level dry out later then those located on upstream side. The concentration of springs was found more along the rivers and khads. Usually the springs contribute water to the base flow of these khads and rivers, which in turn is utilized at favourable places for irrigation and domestic purposes.

Ground water generally occurs under unconfined to semi-confined conditions. State Irrigation and Public Health Department has drilled hand pumps fitted with the motors somewhere. The average depth of these hand pumps varies from 35.00 to 70.12 m bgl. Average depth to water level varies from 10 m bgl to 30 mbgl with variable discharges ranging from .25 to .75 lps. Water table follows the topography and the formations encountered are localised valley fill deposits consisting of sand, gravels, pebbles & cobbles.

4.2 Ground Water Resources

Snowfall / rainfall is the major source of groundwater recharge apart from the influent seepage from the rivers and inflow from upland areas whereas discharge from ground water mainly takes place from effluent seepages of ground water in the form of springs and base flow in streams etc.

The district has a hilly terrain having very high slopes. The valley areas are deep, narrow and isolated. The areas therefore not considered for estimation of the ground water resources due to their discontinuous aquifer systems.


Himachal Pradesh
DISTRICT CHAMBA
HYDROGEOLOGY
0 10 20
kilometers
Jammu and Kashmir
Lahaul and Spiti
Punjab
Kangra
LEGEND
EC (micro mohs)
Thrust
Lineaments
Springs
Locations
Triangulation Points
Dist. Boundary
Drainage
AGE
FORMATION
GROUNDWATER CONDITION
Quaternary
Alluvium/Valley fills
GW under water table to semi confined condition
wells & tubewells feasible, good GW quality (High Yield)
Paleozoic
Older crystalline/
Sedimentaries
GW under water table to semi confined condition
Fissured high elevation aquifers, good GW quality (Low Yield)
springs, handpum

4.3 Ground Water Quality

National Hydrograph Network Stations has not been established in the district sofar. However, the water samples collected from various sources like spring and hand pumps during the various hydrogeological studies revels that the overall ground water quality is good and are suitable for all type of uses.

4.4 Status of Ground Water Development

The district is full of perennial springs. They differ considerably in their discharges. By and large these springs are used for domestic, livestock and irrigation purpose.

For domestic purpose water has been drawn at source where ready arrangement exist for filling containers or elsewhere water channels have been dug to carry water from springhead to the village concerned. With the progress of development, pipelines are increasingly laid down, thus improving the convenience and efficient water supply.

The drinking water supply for Chamba town is met with mainly from two nallahsviz., Sarotha and sal nallah.

The Dalhousie town is situated at an average height of 2200 m amsl. The main source of water supply for the town is from Ahla Khad, Dain Khad and Panjpulla. During summer season the requirement is more and the supply is less as discharge of thekhads dwindles.

Scope of Work:

I. Preparation Soil Conservation Plan:

- Proper mitigate measures to minimize soil erosion and choking of streams shall be prepared.
- Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.
- Study of construction of check dam, retention/Breast walls to arrest sliding down of the excavated material along the contour.
- Additional measures to avoid the soil Erosion.

1.2 Location of the Project:

The Rehabilitation and Up gradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).Comprising total area of 7.2834 Hectare of Forest Land and 27.7882 Hectare of Non Forest Land (0.0372 Hectare under Dalhousie Division) has been Proposed by National Highway Authority of India (Ministry ofRoads Transport & Highways) PIU-PALAMPUR.The Location of the project is The area is covered in the Survey of India Toposheet No. 143W4 (R.F.1:50,000)) and is bound by

Latitude:	Longitude:
32°13'36.49"N	76°10'11.80"E
32°13'33.79"N	76°10'14.47"E

1.3 Location of Study Area :

INTRODUCTIOIN TO DIVISION/ RANGEWISE LOCATION SPECIFIC SMC PLAN:

It is important that a SOIL AND MOISTURE CONSERVATION PLAN should provide site specific prescription for the activities to be undertaken under each heading of the SMC Plan components.

Objective of Study.

1. The broad objectives for preparation of Soil and Moisture Conservation are outlined as under:
2. Checking soil erosion and land degradation by taking up adequate and effective soil conservation measures, both engineering as well as biological, in erosion prone areas (mainly under very severe and severe erosion intensity categories)
3. ii) Rehabilitation of degraded forest areas through afforestation and facilitation natural regeneration.
4. iii) Rehabilitation of degraded slopes and landslide areas.
5. SOIL AND MOISTURE CONSERVATION PLAN is the optimal use of Soil and water resources within a given geographical area so as to enable sustainable production. It implies changes in land use, vegetative cover, and other structural and non structural action that are taken in SMC. The overall objectives of SOIL AND MOISTURE CONSERVATION PLAN are to;

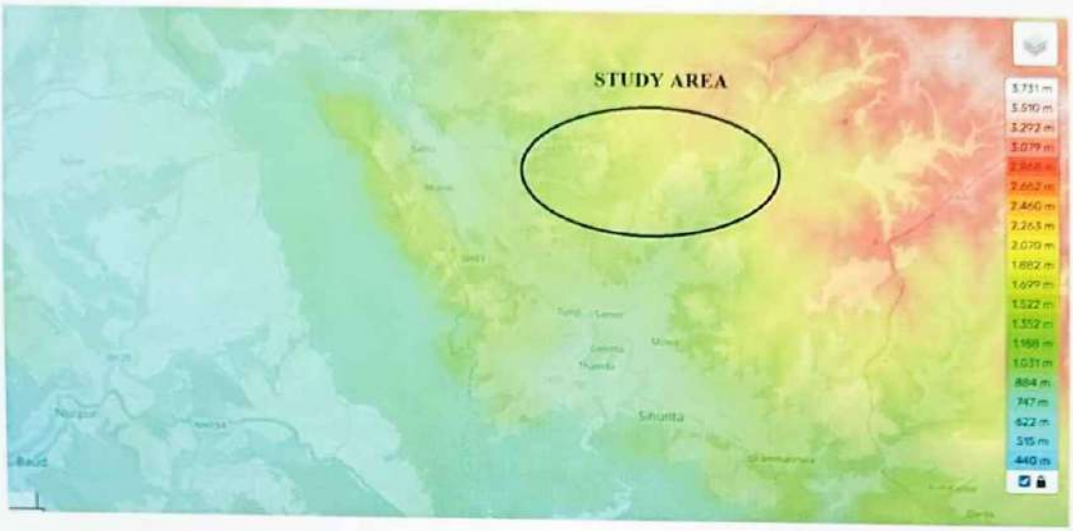
a. Increase infiltration into soil
b. Control excessive runoff
c. Manage & utilize runoff for useful purpose
d. Shrub Plantation:-
e. Grazing and Development:-
f. Grazing land development can be undertaken for treatment under silvo-pastoral model. Areas should be closed and staggered trenching should be dug over the area to be treated. Trenches should be dug per hectare. Improved variety of grass should be sown on the berm of the tranches. In the space between the reaches, fodder tree species should be raised. Suggested species for grazing land development are andrpogon squarrosus (Khas-Khas), apluda mutica, arthraxon prionodes, Brachiaria mutica, Cenchrus ciliaris, Cenchrus ciliaris chloris gayana (Rhodes grass), Cyondon dactylon Desmostachya bipinnata, Digitaria decumbens (Pagnola grass) etc.

Engineering measures:-

I. Moisture Retention measures
II. ii) Drainage Line Treatment Stabilization of landslide/landslips
III. Slope
IV. The slope has a great influence on the soil and water loss from the area and thereby influences the landuse capability. The slope determines the erosion susceptibility of the soil depending on its nature. This helps in classifying various lands in suitable capability classes which enables us to formulate suitable conservation

measures for the prevention of soil erosion. The degree slope was divided into different slope classes as per Soil and Land Use Survey of India (SLUSI). The areas falling under various standard slope categories in the catchment area have been tabulated below in Table. The slope map is enclosed in Figure. As seen from the table and map, maximum of the slope falls under 2,4660 to 622 mtr slope range..The degree of Slope is explained in the below mention map.

SLOPE MAP



1.4 Need for Soil Conservation Plan :

Soil Conservation Plan is normally applicable for Hydroelectric and Irrigation Projects where impounding of water is proposed by construction of Barrage, Dam etc. This project is Road Project and the part of project falling Under Bahtiyat Range does not fall near to any major river.

1.5 Objective of SC Plan : The objective of SC Plan is to rejuvenate various potential and degraded ecosystems in the Mine area. The opencast Road activities disturb large tracts of land and produced greatly increased downstream sediment load.

The objective of this report is to present the outline of Road surface erosion problem, method of modeling sediment yield, measures to be taken for reducing or controlling sediment discharges. The action plans is to be prepared for this purpose with the following objectives.

- Conservation of soil cover and to arrest the soil erosion, flood and siltation of the Project area and its tributaries if any.
- Soil conservation through biological & engineering measures to reduce sediment loadin river and tributaries, thus improving quality of water.

- Increase vegetative cover and water retaining properties.

SOIL CONSERVATION PLAN

Mitigative Measures

Mitigative measures to minimize soil erosion can be undertaken by two plan –

1) Biological Conservation Plan,

2) Engineering Conservation Plan

5.1 Biological Conservation Plan:

5.1.1 Approach Plan

The following biological conservation plan can be adopted to mitigate soil erosion.

- Proper Dumping of Muck Generated. Dumping of soil and clayey material should be done away from the working area that is on farther end of the dump so that formation of weak planes is avoided.
- Afforestation by planting trees will help a lot in improving stability of dumps by preventing erosion.
- Stabilization of overburden dumps
- Provision of jute mesh for facilitating grass or vegetative growth on slopes, Provision of good soil mixed with manure and subsequent irrigation for growth of grassfor anchorage on slopes. Plantation mixed with indigenous and fast growing plant species
- The degraded area can be reclaimed and rehabilitated with local species of plantation in a phased manner;
- Plantation should be carried out on waste dumps;
- The haulage roads should be flanked by trees on either side; and
- A belt of trees with thick canopy should be created along the mine boundary to interceptdust, gaseous pollutants and noise.

6.0 COST ESTIMATE

Cost of Mitigative Measures to arrest Soil Erosion & Top Soil Management Plan in respect of both Biological and Engineering plans are to be proposed.

Cost estimate for Engineering Plan :

6.1 Total cost of Mitigative Measures for Soil Conservation:

The area of Diversion falling under Dalhousie Division, Bhatiyaat Range is only 0.0372 Hectare (part of 7.2834 of Rehabilitation and Up gradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Km 51.00 to Km 72.00 (Package IIA) (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.). The area falling under the project is an densely populated area (as shown in the below mentioned google map, so there is no scope to carry out any SMC activity in and around the vicinity of the Project area .

Hence no SMC related activity has been undertaken for this patch. But as decided by the recent Guidelines of MoEFCC dated 07-06-2022 , sum of Rs. 33,800 has been deposited as per the cost of SMC accordingly to the %age of the Forest Land Diverted. The detail of payment is being submitted as below.

REFERENCE AND DATA SOURCE

- Government of India Ministry Of Water Resources, CENTRAL GROUND WATER BOARD, GROUND WATER INFORMATION BOOKLET,CHAMBA DISTRICT, HIMACHAL PRADESH.
- Survey of India.

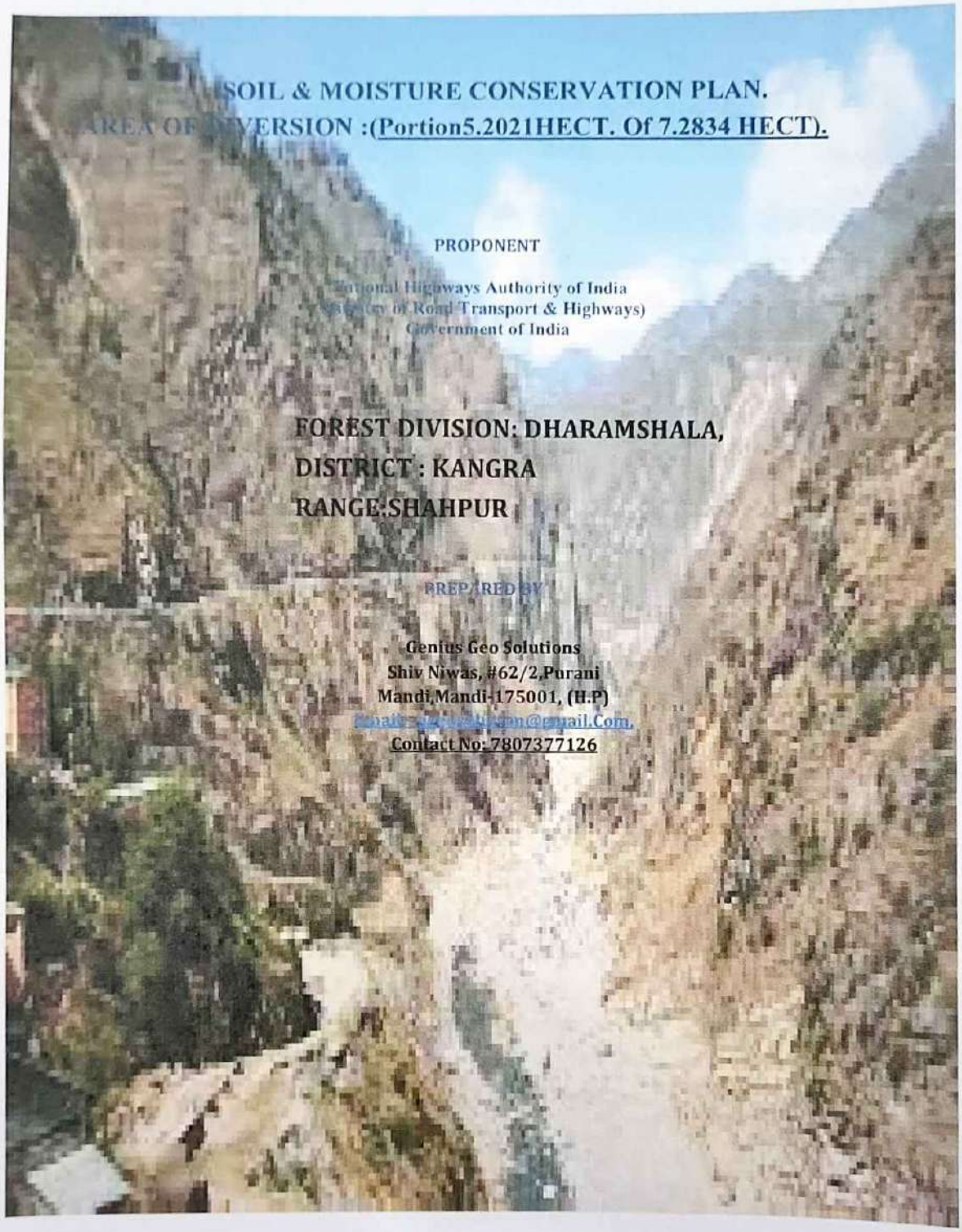
Divisional Forest Officer
Dalhousie Forest Division
Dalhousie

Calculation Sheet of Soil & Moisture Conservation Plan (SMCP) for Diversion of 0.0372 hac. of Forest Land under Dalhousie Forest Division for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

Sr. No.	Description		Units	Total
1	Total Land Involved (A)		ha.	35.0716
2	Forest Land Involved (B)		ha.	7.2834
3	Non Forest Land Involved (A - B)		ha.	27.7832
4	% Age of Forest Land Involved	7.2834 / 35.0716 x 100	%	20.77%
5	Total Cost of Project		Rs in Lakh	63761.700
6	Proportionate Cost on Forest Land in Dharamshala Forest Division	(63761.7 x 20.77%) / (7.2834 x 0.0372)	Rs in Lakh	67.640
7	0.5% Soil & Moisture Conservation Plan in Dalhousie Forest Division	67.640 x 0.5%	Rs in Lakh	0.338
8	Cost of Soil & Moisture Conservation Plan (SMCP) to be deposited under Dalhousie Forest Division		Rs in Lakh	0.338
Rupees Thirty Three Thousand and Eight Hundred Only				

Divisional Forest Officer
Dalhousie Forest Division
Dalhousie

Rehabilitation and Upgradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).



SOIL & MOISTURE CONSERVATION PLAN.

AREA OF DIVERSION :(Portion5.2021HECT. Of 7.2834 HECT).

PROPONENT

National Highways Authority of India
(Ministry of Road Transport & Highways)
Government of India

FOREST DIVISION: DHARAMSHALA,
DISTRICT : KANGRA
RANGE:SHAHPUR

PREPARED BY

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REPORT ON

SOIL CONSERVATION PLAN

INTRODUCTION:

THE STATE:

1. INTRODUCTION:

Himachal Pradesh having world's mightiest mountain ranges is one of the hilly States situated in the Northern part of India. It is blessed with some of the most spectacular and beautiful landscapes. It came into being in November, 1966 after the re-organization of States. Earlier, it was part of the combined State of Punjab. The various hill towns in the State not only provide visitors reprieve from the heat of the planes, but offer beautiful scenic sites which are real treat to the eyes. Kullu and Kangra valleys offer natural beauty which is no less than Kashmir Valley. Valleys and streams, snow clad mountains and temperate forests offer tourists and sportsmen all they want. Earlier the economy of the State mostly depended on tourism and a large number of tourist sites had been developed by the State. However, after the re-organization, the State has made big strides in the field of industrialization also. The State has good deposits of minerals like gypsum, lime stone and slate etc. It has big reserve of minerals which can be used in various types of industries. Mining of minor minerals is also, therefore, an extensive Industry in the State. Industries like Cement, Electronics, Fertilizers, Pharmaceuticals and Liquor can be found in good number at different places in the State. Hydel Power in the State has given a big boost tithe Industries. A number of Industrial areas have been developed in the State, where all facilities are provided to the entrepreneurs. Parwanoo, Barotiwala, Baddi, Paonta Sahib and Raja Ka Bagare some of the important industrial areas developed by the State in the last two decades.

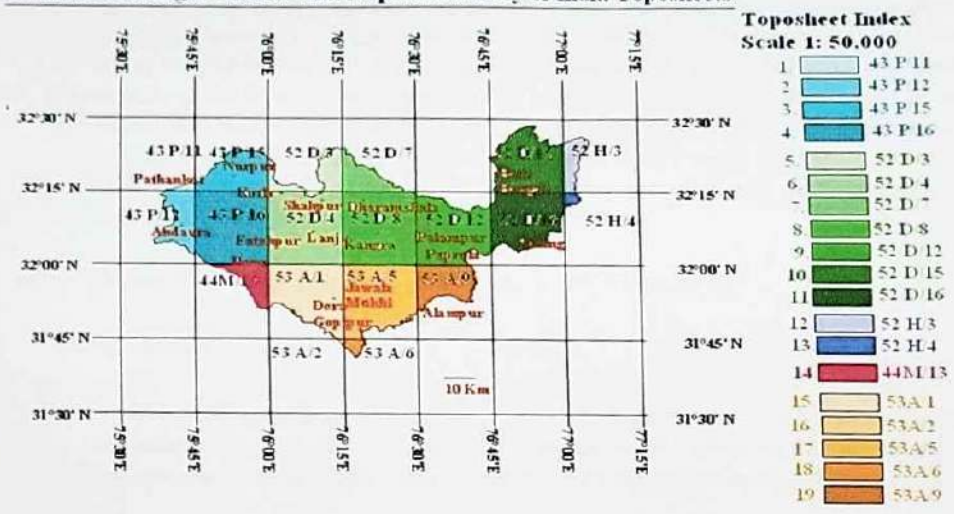
KANGRA DISTRICT:

Kangra is the most populous district of the state of Himachal Pradesh. Dharamshala is the administrative headquarters of the district. The modern Kangra district was founded on the 1st September, 1972 by the Government of Himachal Pradesh. Kangra district is situated in Western Himalayas between 31°2 to 32°5 N and 75° to 77°45 E. The district has a geographical area of 5,739 km2 which constitutes 10.31 % of geographical area of the State. The district is bounded by Chamba to the North, Lahaul and Spiti to the Northeast, Kullu to the East, Mandi to the Southeast, and Hamirpur and Una to the South. The district shares a border with the states of Punjab on the Southwest, and Jammu and Kashmir on the North West. Due to the hilly terrain, not very much of the land is cultivated. The region is covered with uniform patches of barren land, as well as small forests. There is a reasonably good network of roads across the district.

As per 2011 census, Kangra has population of 1,507,223 persons of which male and female were 7, 48,559 and 7, 58,664 respectively. There was increase of 12.56 percent in the population compared to population as per 2001.

The Kangra district is located on the 19 Survey of India Top sheets (1:50,000) as given below in the figure 1.

Location of Kangra District with respect to Survey of India Toposheets



1) Land use pattern and Social aspect of the area:

Kangra District is spread over deep small valleys and ridges and cultivation is possible only in small terraces of holdings along the hill slope as contour farming in the basins of streams/khads. Sloppy areas are most suitable for cultivations. The statistical outline of H.P. 2001-2002. Department of Economics and Statistics has classified the following utilization of the land.

Table-3:

Sr No.	Category	Area (in Sq.kms)	percentage
1	Area under forest, dense and open forest	2030	35.37
2	Culturable waste	268	4.53
3	Not available for cultivation ,barren and un-culturable land	155	2.70
4	Land put to Non Agricultural uses	752	13.10
5	Permanent pastures	876	15.26
6	Land under miscellaneous tree crops etc.	82	1.42
7	Other cultivated waste	1576	27.46

8	Total Area	5739	100%

Forests:

The forests play a vital role in shaping the characteristic conditions of an area. Besides, these also influence the economic and social life of the people considerably. The forests provide valuable timber, medicinal herbs, and raw material for industries and also provide employment and play a vital role in conserving the soil and ensure timely rains. The forests of Kangra district have a great variety of vegetation due to variations in altitude, geological formations and climatic factors. The vegetation varies from dry scrub forests at lower elevation to alpine pasture at higher altitude. In between two extremities occur distinctive vegetation zones of chil, ban-oak, mixed coniferous (kail, spruce. fir) and kharsu, oak forests. Kangra forests have a large number of aromatic and medicinal plants which can be utilized for the pharmaceutical and ayurvedic medicines like dhoop, karu/kour, brahmi, kuth/khuth, bankakni etc.

The forests of Kangra can be classified into seven main groups.

(i) **Ban-Oak Forests:**

These forests occur at elevation from 1,600 meters to 2,300 meters. There are, however, a few exceptions like the oak forests of Dhalun near Yol Cantonment, Shahpur, Manjgran and Khaniara where these forests have gone down to about 800metres elevation.

(ii) **Chil Forests:**

The chil forests occur between elevations of 800 metres to 1,700 metres. Thebest growth is, however, between 1,200 meters to 1,700 meters.

(iii) **Deodar Forests:**

Deodar forests are only found in Dharamkot forests near McLeod gang town andare exclusively of artificial origin.

(iv) **Kharsu Oak Forests:** _

These forests are found between the altitudinal zone of 2,300 metres to 3,800 metres, the upper most limit of tree growth. This oak generally occurs as a pure crop spruce and fir is found scattered individually or in small groups of sites suitable for these species.

(v) **Mixed Coniferous (Kail, Spruce and Fir):**

These forests are only patchy between 2,100 metres to 3,000 metres elevation.Kail forests are practically absent. Towards the upper most extremities Kharsu Oak isfound intimately mixed with fir and spruce. The common associates are walnuts, horse chestnut, dun, acar species, ulmus species etc.

(vi) **Alpine Scrub and Alpine Pastures:**

This type extends in this division above 3,800 meters elevation and is represented by

extensive alpine meadows with a few scattered patches of ever green branchy scrub of juniperus acurva and rhododendron. The meadows are mostly composed of perennial herbs and grasses.

(Vii) Miscellaneous Scrub Forests :

These forests are mainly found between 600 and 1,200 meters elevation and are composed mainly of tree/scrubs of khâir, kachnar, sins, kakrain, thingan, bil, etc.The under-growth consists of garna, mander. basuti, gandla etc. The forests are generally open, degraded due to over grazing and excessive exercise of various rights.

Important Lakes of Kangra District:

Maharana Pratap Sagar:

it is made on Beas River. In 1960, a dam was built on the Beas River and this dam resulted in a large Maharana Pratap Sagar Lake (once known as Pong Lake). This huge mass of water varies from 180 sq. km. to 400 sq. km. This lake was declared sanctuary in 1983. Maharana Pratap Sagar Lake has emerged as favorite place of many migratory birds. About 16 to 20 thousand migratory birds, belonging to 54 species, visit the lake every year. The Dam was completed in 1976. Its reservoir has an area of about 45,000 hectares at maximum possible flooding - the level varies with every season and averages around 30,000 hectares. Over 200 villages with a population of over 85,000 people live along the wetland.

Dal Lake:

Dal Lake is a small mid-altitude lake (1,775 m above sea level) near the village of Total Rani in Kangra district (Himachal Pradesh) in northern India. The lakeis surrounded by deodar trees and is considered as a sacred spot as there is small Shiva mandir (shrine) on its bank.

13 GEOLOGY:-

Geologically Himachal Pradesh can be broadly divided into two major geo- tectonic zones viz, the Lesser Himalayan tectogen in the south and the Tethys Himalayan Tectogen in the North. These two tectonic zones are juxtaposed with each other along a major tectonic break collectively designated as Main Central Thrust inthe sense defined by Srikantia (1988). Kangra district lies in the Siwalik lesser Himalayan zone and its topography is well defined by a series of almost parallel hill ranges which rise in height towards North-East. **(Geological Map of Kangra District is enclosed –Plate-1)** The rocks of Shivalik group occur as several kilometers wide hill ranges with steeper scraps towards the north and can be studied around Ranital, Nurpur, Kotla, Kangra, Jawalamukhi and Dehra Gopipur. The valleys are filled withalluvial sand, slate and recent boulder material. Besides, the rock facies commonly seen in the district are green shales and fossils rich limestone of Subathu formation, shale, clay and sandstone of Siwalik group, gneissic and granatic rock of Dhauladhargroup, slate, phyllites, schist, quartzite's, basic lava flows and dolomites belonging toJutogh group of rocks. The sediments of the Dharamshala Group unconformably overlie the Subathu group. These sediments consist of claystone, siltslones, calcareous shales and sandstones. The Dharamshala group is divisible into Lower and Upper Dharamshala. The Lower Dharamshala sediments were deposited under transitional brackish water environment and upper Dharamshala mainly represent fluvial system.The equivalent of Dharamshala group is known as Murree Group in Jammu and Kashmir. The Jutogh formation is one of the oldest groups of rocks and is seen in thenorth of Bandla and in a long stretch from the east of Bir to Dharamkot.The Sundar Nagar formation is well exposed between Luni and Sansal khad and north of Tundi khad in Chakki nallha. The basic lava flows known as Mandi-Darla volcanics occur insmall patches in Bir khad, Sansal khad and Luni khad. The cement grade limestone and salt grits of Dharamkot belong to Shalli formation. The rocks of major formation can be seen between Bara Banghal and Kakrani Jot along the pedestrian track. The Saluni formation is exposed at Thamsar pass near Palachak Bridge at Jalta and in the east of Kakrani Jot. The rocks of Sabathu formation are observed between Majir andManuni near Rakh, Bhanjeri and Karti.

Tertiary RocksSIWALIK SYSTEM:

The Siwalik deposits are one of the most comprehensively studied fluvial sequences in the world. They comprise mudstones, sandstones, and coarsely beddedconglomerates laid down when the region was a vast basin during Middle Miocene, to Upper Pleistocene. Following this deposition, the sediments were uplifted through intense tectonic regimes (commencing in Upper Miocene times deposited by rivers flowing southwards from the Greater Himalayas, resulting in extensive), subsequentlyresulting in a unique topographical entity the Siwalik Hills.

The Shivaliks are divided stratigraphically into three major Subgroups - Lower, Middle, and Upper. These Subgroups are further divided into individual formations that are all laterally and vertically exposed today in varying linear and random patterns. Ongoing erosion and tectonic activity has greatly affected the topography of the Shivaliks. Their present-day morphology is comprised of hogback ridges, consequent, subsequent, obsequent, and resquent valleys of various orders, gullies, choes (seasonal streams), and earth-pillars, filled earth buttresses of conglomerate formations, semicircular choe-divides, talus cones, colluvial cones, water-gaps, and choe terraces. Associated badlands features include the lack of vegetation, steep slopes, high drainage density, and rapid erosion rates. The Siwalik Group comprisies conglomerates friable micaceous sandstone, siltstone and clay-stone. The conglomerates in general are poorly cemented but at places they are very hard. These consist mainly of pebbles and cobbles of quartzite. The stray pebbles of granite, limestone, sandstone, breccias and lumps of clay-stone are also observed at places. Often the size of pebbles is large enough to be called as Boulders. The conglomeratesnot only occur as regular band but also as lenticular bands alternative with micaceoussandstone and clay-beds.

The Siwalik Group is divisible into three sub-groups respectively the Lower, Middleand Upper on the basis of the lithostratigraphy as given in the table.

Lower Siwalik: -

The lower Siwalik consists essentially of a sandstone-clay alternation. In district Kangra the lower sequence of the lower Siwalik consists of medium grained subgraywacke interbedded with thick red clay, but higher up in sequence, sandstonesare coarser and clasts become more frequent while the clays are less developed. The uppermost horizon consists of conglomerate with well-rounded clasts of grey quartzite possible derived from the Shale. The total thickness is about1600 Meters.

Middle Siwalik: -

The Middle Siwalik Sub group comprises of large thickness of coarse micaceous sandstone along with some inter-beds of earthy clay and conglomerate. Itnormally succeeds the Lower Shivalik along a gradational contact. The sandstone is less sorted than those in Lower Siwalik. Clay bends are

Dull coloured and silty. The general thickness is 1400 to 2000 Meters

Upper Siwalik-

The upper Siwalik subgroup can be easily separated from the underlying Middle Siwalik on the basis of a distinct lithological change. In the Kangra district, where the Middle Siwalik is overlain by massive conglomerates of Upper Siwalik, theconglomerates contain class of basic volcanic rocks of the Mandi-Darla volcanic witha very transitional zone between them which may even suggest a local break between Middle and upper Siwalik.The Siwalik sediments were primarily derived from the rising Himalayan front. The stages of elevation in the Himalayan provenance are reflected in the composition of the sediments and the size of the grains. Among the rock fragments in the Siwalik basin, sedimentary rock makes up the bulk. Lithologicalclassification of the group is as follows

Lithostratigraphy of Siwalik System in Kangra District.

Group			*Lithology*	*Age*
Newer Alluvium			**Sand, silt, gravel and Pebbles**	**Quaternary**
	Upper Siwalik	*B*	**Predominantly massive conglomerate with red and orange clay as matrix and minorsandstone and earthy buff and brown calystone**	
		A	**Sandstone, clay and conglomerate alternation**	
			Sandstone with minor conglomerate and local variegated clay stone	

Pre-Tertiary Rocks :

Jutogh Group:

This group of rock consists of black, carbonaceous, garnetiferous phyllites, slates, quartzites and dolomites intercalated with biotite schists and hornblende gneisses. The exposures are known from Lesser Himalayas.

Shimla Group:

This group comprises of bluish grey slate, micaceous shale, sandstone, quartzite's intercalated with microcrystalline and oolitic limestone. These rocks are exposed around Shimla hills. At places in the field mapping, these have been clubbed together with Chail Group of rocks which represent slightly higher grade of metamorphism.

Shali Group:

This is dominantly a carbonate sequence made up of dolomite, shale, stromatolitic limestone and occasional magnesite and quartzite. Rocks of Deoban Group and Bilaspur/ Bandla Limestone are considered equivalent to Shali Group. These rocks occur in tectonic windows under nappe of metamorphic rocks. At places thin Nummulitic outliers are found on these rocks. These rocks are broadly considered to be homotaxial to Shimla slates. Bandla limestone forms the basement of Subathu sediments mapped in Bilaspur unit.

Jaunsar Group:

This group of rocks is exposed north of Main Boundary Thrust (MBT). It is composed or low grade metamorphics such as slate, phyllites and quartzites.

Mandhali Formation:

This formation consists of quartzites, shale's, crystalline limestone and marble interbedded with slates, phyllites, and gritty quartzite's and boulder beds.

Nagthat Formation

This formation comprises sandstones, grits, quartzites, conglomerates, purple and green slates and phyllites. The top of the group represents a strong unconformity followed by a succession of rocks classified as Mussoorie Group.

Blaini Formation

It mainly consists of boulder beds, limes tones and shale with characteristics of a glacial till. The boulder bed consists of dark grey to greenish grey clay matrix withpebbles of dark slate, greenish quartzite, grey sandstone and green siltstone. Lime stones are characteristically pink, dolomitic and siliceous grade into pink and purple calcareous shale and slates. These rocks along with Infra-Krol and Krol are exposed north of MBT.

Krol Formation

Krol formation mainly consists of limestone, often stromatolitic, shale and sandstone. The limestone is grey to greyish white, dolomitic, cherty and at places microcrystalline. The shales are red, orange and dark gray in color. The sandstones are dirty white, poorly bedded with orange stained quartz grains.

Tal Formation

These rocks are composed of calcareous greywacke, carbonaceous shale, micaceous shale, arkosic quartzite and grey limestone.

Geological Map of the Himachal Pradesh

INDEX

- Alluvium Deposit
- Siwalik Group
- Nako Granitoid
- Sirmour Group
- Guimal- Chikam Formation
- Spitti Formation
- Lilang Group
- Tandi Group
- Kalhel Group
- Panjal Volcanics
- Lipak/Po/Gamchidam/Takcha/ Muth/Thango
- Salooni Formation
- Tal Formation
- Kunzam La Formation
- Infra Krol- Krol
- Katargali Formation
- Batal Formation
- Dalhousie-Mandi-Karsog-Rohtang-Rackcham-Hanuman Tibba-Dhauladhar Granitoid
- Blaini Formation
- Manjir Formation
- Shimla Group
- Chamba Formation
- Jaunsar Formation
- Salkhala Formation
- Shali Group
- Largi Group
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- Mandi Darla Volcanics
- Sundernagar Group
- Dharagad Group
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- Kharsali
- Kullu Group
- Chaur - Kainchawa Granitoid
- Jutog Group
- Jeori Wangtu basement Complex

Project Description at Glance

2. **DESCRIPTION OF THE PROJECT ROAD:**

The National Highways Authority of India (NHAI) under Ministry of Road Transport & Highways, Government of India has decided to take up the up-gradation of existing NH-20 from Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) in the state of Himachal Pradesh. It is worthwhile to mention here that the Package is a part of the project road which is a major link for the movement of traffic from the Pathankot (Punjab) to Centre City of Mandi as well as tourist destination of Kangra/Dharmshala. Also, it is strategically important route from defense point of view as it connects the international boundaries.

Package-IIA starts from the Sihuni and ends at Rajol in Kangra District in the state of Himachal Pradesh. The major built-up sections along the Project Road are Dramman, Shahpur, Rait and Rajol. The details of the Road are given below.

1	Total Length	18.450
2	Location	District Kangra & Chamba
3	Terrain	Plain , Rolling, Hilly and Steep
4	Name of the Protected Area within 10 km of protected zone(Buffer Zone)	Nil

The area is covered in the Survey of India Toposheet No. I43W4 (R.F. 1:50,000) and is bounded by the co-ordinates shown in table below.

Site Coordinates

Sr.No	Latitude	Longitude
A	32°13'17.10"N	76° 7'29.66"E
B	32°13'22.62"N	76° 7'16.26"E
C	32°13'14.79"N	76° 7'2.42"E
D	32°13'26.04"N	76° 6'24.86"E

F	32°13'26.62"N	76° 5'26.20"E

Project Location(District Kangra Patch)

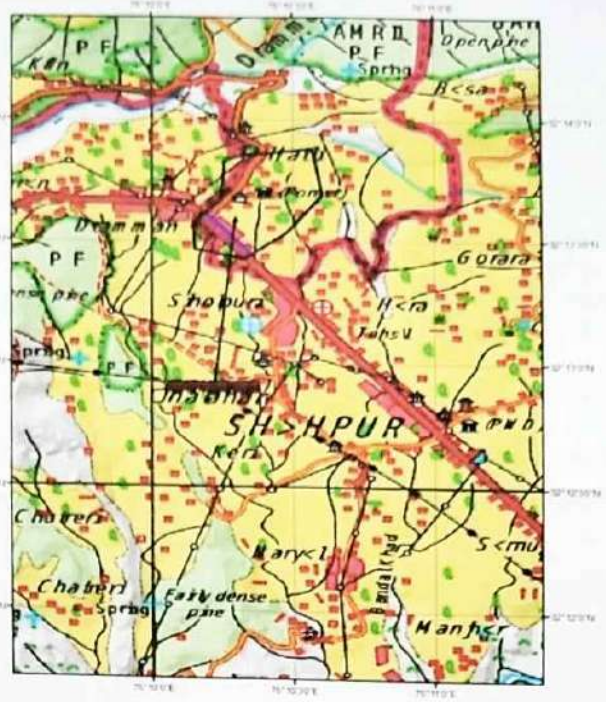
Sr.No.	Aspect	Description
1.	Project	Rehabilitation and Upgradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).
2.	Location	
(i)	State	HIMACHAL PRADESH
(ii)	District	KANGRA
(iii)	Tehsil	NURPUR
(iv)	Villages	Bohrka, Chichar, Thakniar, Hatli, Paid, Kholi, Chhatrunh, Mohr Dramman, Shahpur, Chandroon, Haara, Majhiar, Pohara, Bagr Upahu, Mahakali, Har ,Kakroh, Thara, Behkari, Rajol.
3.	Nearest Location	
(i)	Nearest Town	NURPUR, SHAHPUR,DRAMMAN
(ii)	District Headquarters	KANGRA AT DHARAMSHALA

General

The Rehabilitation and Upgradation to 4 Lane configuration & Strengthening of Sihuni to Rajol from Km toKm 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA).Comprising total area of 7.2834 Hectare of Forest Land and 27.7882 Hectare of Non Forest Land (0.0372 Hectare under Dalhousie Division) has been Proposed by National Highway Authority of India (Ministry of Roads Transport & Highways) PIU-PALAMPUR.

National Highway Authority of India (Ministry of Roads Transport & Highways) PIU-PALAMPUR has been accorded Stage-I approval under FCA 1980.Now for Final Approval Soil Conservation Plan (SMC) is to be submitted. The proposed Road passes through Three Forest Divisions (Dalhousie, Nurpur, Dharamshala). The location map of road passing through area of Dalhousie Division, Range Bhatiyyat is given in **Figure1.1.**

Figure1.1LocationMap



TOPO-SHEET NO. I43WW4

2.0 CLIMATE & RAINFALL

The climate of the district varies from semi-tropical to semi-arctic. Winter varies from December to February and summer extends from March to June while July to September is rainy months. The maximum rainfall in the district occurs between July to September. The rainfall in the district during 2012 was 1106 mm. Snowfall is received in the higher reaches.

The minimum and maximum temperature at Saloni in 2011 was 1.1°C and 32.9°C in January and May respectively.

3.0 GEOMORPHOLOGY& SOILTYPES

Chamba district presents an intricatemosaic of mountain ranges, hills and valleys. It is primarily a hilly district with altitudes ranging from 600 m amsl to 6400 mamsl. Physiographically the area forms part of middle Himalayas with high peaks ranging in height from 3000 to 6000 m amsl.It is a region of complex folding, which has under gone many oogenesis. The topography of the area is rugged with high mountains and deep dissected by river Ravi and its tributaries.Physiographically the district can be divided into two units-*viz.*

(i) high hills,which cover almost entire district

(ii) Few valley fills.

Three types of soils observed in the district are 1.SandyLoam 2.Loam 3. Sandy Clay Loam.

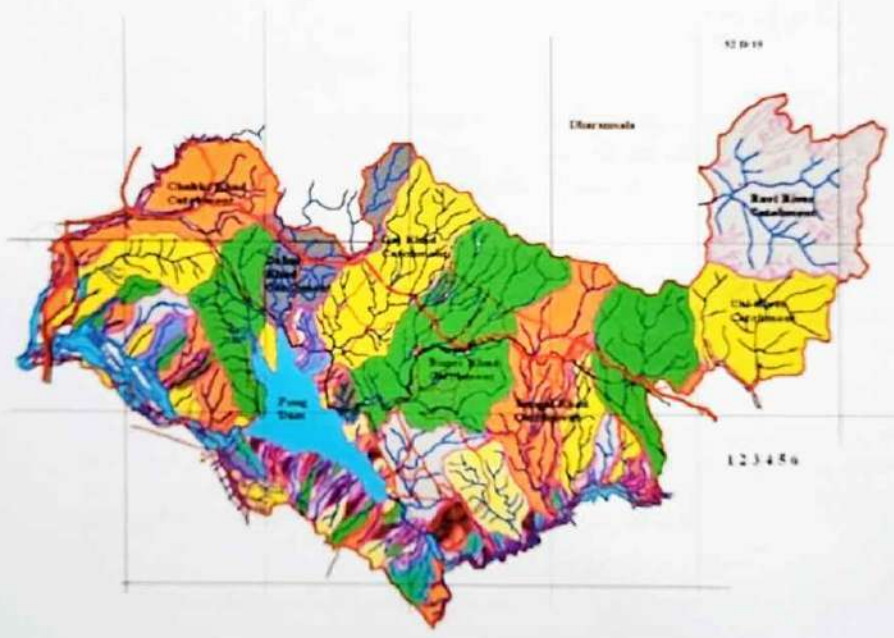
GROUND WATER SCENARIO

Hydrogeology

The rock formations occupying the district range from pre-Cambrian to Quaternaryperiod.The generalized geological succession in the district is given below.

Age	Formation	Lithology
Pleistocene	Upper Shivaliks	Boulder conglomerate,Sandstone
Pliocene	Middle Shivaliks	Sandstone,gravelbeds,clays etc.
Miocene	Lower Shivaliks	Shales, Hard Sand stone etc.
Triassic	Kalhel formation	Light and dark grey limestone with banks of Phyllite and slate
Permian	Salooni formation	Inter bedded phyllite, light and dark grey limestone, Phyllis, black carbonaceous slate with schistose quartzite and chert band
Carboniferous	Manzir formation	Pebblyphyllite, grey green slate with limestone
Lower to MiddlePaleozoic	Dalhousie/D hauladhar Formation	Granite and granitegneiss
Lower Paleozoic	Chamba formation	Metasilt stones, grey wackes ,slate sand phyllites.

Detail of Hydrology:



Most part of the area is underlain by hard rock formation ranging in age from Paleozoic to Triassic. These older rocks are devoid of any primary porosity. Groundwater movement in these rocks takes place through joints, fractures and other structural features like schistose plane etc. In the younger rocks of Tertiary age and in terrace deposits along the major rivers and khads, pore spaces between sand gravel and tallus material also form the avenues for ground water movement.

Due to steep rising hills with intervening dissected valleys together with the consolidated nature and disposition of rock disposition of rock formation leads to conclusion that no ground water reservoir of any appreciable magnitude within the hill region exists. Whatever quantity of water this mountainous terrain receives through rainfall and snowfall soon tends to flow down to lower level due to steep slopes and the water goes out of the areas through a dense network of streams Nallah. However, a part of the water percolates into the underlying formations during this process. This water moves underground due to gravitational force and at favorable points it emerges as springs on down slopes. During the course of survey it was also noticed that with the advent of dry season springs located on downstream side i.e. on lower level dry out later than those located on upstream side. The concentration of springs was found more along the rivers and khads. Usually the springs contribute water to the base flow of these khads and rivers, which in turn is utilized at favourable places for irrigation and domestic purposes.

Ground water generally occurs under unconfined to semi-confined conditions. State Irrigation and Public Health Department has drilled hand pumps fitted with the motors somewhere. The average depth of these hand pumps varies from 35.00 to 70.12 m bgl.Average depth to water level varies from 10 m bgl to 30 mbgl with variable discharges ranging from .25 to .75 lps. Water table follows the topography and the formations encountered are localized valley fill deposits consisting of sand, gravels, pebbles &cobbles.

Groundwater Resources

Snowfall / rainfall is the major source of groundwater recharge apart from the influent seepage from the rivers and inflow from upland areas whereas discharge from groundwater mainly takes place from effluent seepages of ground water in the form of springs and base flow in streams etc.

The district has a hilly terrain having very high slopes. The valley areas are deep, narrow and isolated.Theareas therefore not considered for estimation of the ground water resources due to their discontinuous aquifer systems.

Groundwater Quality

National Hydrograph Network Stations has not been established in the district so far. However, the water samples collected from various sources like spring and hand pumps during the various hydrogeological studies revels that the overall groundwater quality is good and are suitable for all type of uses.

Status of Ground Water Development

The district is full of perennial springs. They differ considerably in their discharges. By and large these springs are used for domestic, livestock and irrigation purpose.

For domestic purpose water has been drawn at source where ready arrangement exist for filling containers or elsewhere water channels have been dug to carry water from springhead to the village concerned. With the progress of development, pipelines are increasingly laid down, thus improving the convenience and efficient water supply.

The drinking water supply for Chamba town is met with mainly from two nallahs viz.,Sarotha and sal nallah.

The Dalhousie town is situated at an average height of 2200 m amsl. The main source of water supply for the town is from Ahla Khad, Dain Khad and Panjpulla.During summer season the requirement is more and the supply is less as discharge of the khads dwindles.

Scope of Work:

I. Preparation Soil Conservation Plan:

- Proper mitigate measures to minimize soil erosion and choking of streams shall be prepared.
- Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.
- Study of construction of check dam, retention/Breast walls to arrest sliding down of the excavated material along the contour.
- Additional measures to avoid the soil Erosion.

Location of the Project:

The Rehabilitation and Up gradation to 4 Lane configuration & Strengthening of Shun to Rajol from Km 51.000 to Km 72.00 of NH-20 (New NH-154) (Design Length 18.450 KM) of Pathankot-Mandi Section under NH(O) in HP on HAM basis (package-IIA). Comprising total area of 7.2834 Hectare of Forest Land and 27.7882 Hectare of Non Forest Land (2.0441 Hectare under Dharamshala Division) has been Proposed by National Highway Authority of India (Ministry of Roads Transport & Highways) PIU-PALAMPUR.The Location of the project is The area is covered in the Survey of India ToposheetNo.I43W4 (R.F.1:50,000))and is bound by

Latitude: Longitude:

32°13'28.21"N	76° 5'20.11"E
32°13'17.10"N	76° 7'29.66"E

Location of Study Area :

INTRODUCTIOIN TO DIVISION/ RANGEWISE LOCATION SPECIFIC SMC PLAN:

It is important that a SOIL AND MOISTURE CONSERVATION PLAN should provide site specific

prescription for the activities to be undertaken under each heading of the SMC Plan components.

Objective of Study.

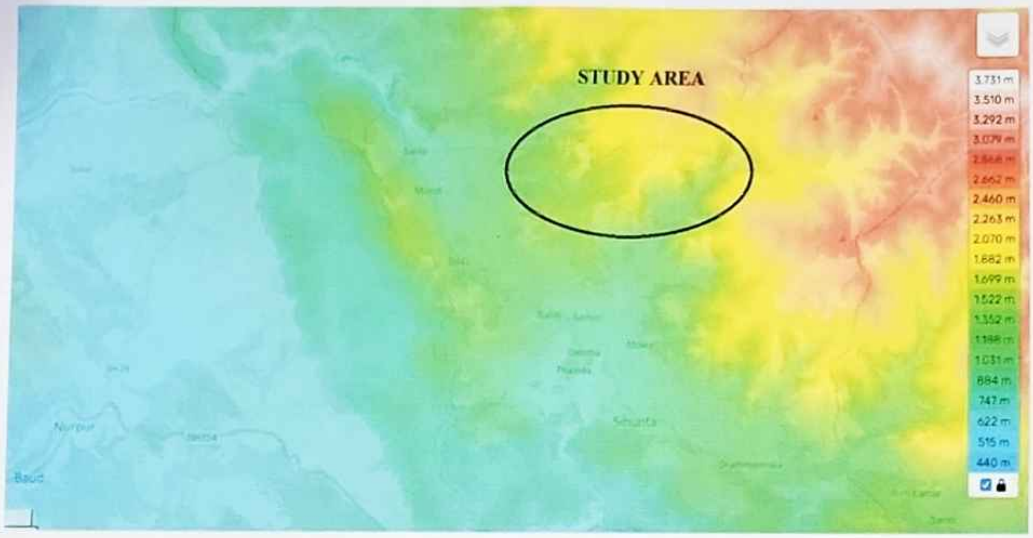
1. The broad objectives for preparation of Soil and Moisture Conservation are outlined as under:
2. Checking soil erosion and land degradation by taking up adequate and effective soil conservation measures, both engineering as well as biological, in erosion prone areas (mainly under very severe and severe erosion intensity categories)
3. ii) Rehabilitation of degraded forest areas through afforestation and facilitation natural regeneration.
4. iii) Rehabilitation of degraded slopes and landslide areas.
5. SOIL AND MOISTURE CONSERVATION PLAN is the optimal use of Soil and water resources within a given geographical area so as to enable sustainable production. It implies changes in land use, vegetative cover, and other structural and non-structural action that are taken in SMC. The overall objectives of SOIL AND MOISTURE CONSERVATION PLAN are to;

a. Increase infiltration into soil
b. Control excessive run off
c. Manage & utilize run off for useful purpose
d. Shrub Plantation:-
e. Grazing and Development:-
f. Grazing land development can be undertaken for treatment under silvo-pastoral model. Areas should be closed and staggered trenching should be dug over the area to be treated. Trenches should be dug per hectare. Improved variety of grass should be sown on the berm of the tranches. In the space between the reaches, fodder tree species should be raised. Suggested species for grazing land development are and rpogons quarrosus (Khas-Khas), apluda mutica, arthraxon prionodes, Brachiaria mutica, Cenchrus ciliaris, Cenchrusciliarischlorisgayana (Rhodes grass), Cyondondactylon Desmostachya bipinnata, Digitaria decumbens (Pagnola grass) etc.

Engineering measures:-

I. Moisture Retention measures
II. ii) Drainage Line Treatment Stabilization of landslide/landslips
III. Slope
IV. The slope has a great influence on the soil and water loss from the area and thereby influences the land use capability. The slope determines the erosion susceptibility of the soil depending on its nature. This helps in classifying various lands in suitable capability classes which enables us to formulate suitable conservation measures for the prevention of soil erosion. The degree slope was divided into different slope classes as per Soil and Land Use Survey of India (SLUSI). The areas falling under various standard slope categories in the catchment area have been tabulated below in Table. The slope map is enclosed in Figure. As seen from the table and map, maximum of the slope falls under 2, 4660 to 622 mtr slope range. The degree of Slope is explained in the below mention map.

SLOPE MAP



Need for Soil Conservation Plan:

Soil Conservation Plan is normally applicable for Hydroelectric and Irrigation Projects where impounding of water is proposed by construction of Barrage, Dam etc. This project is Road Project and the part of project falling Under Bahtiyat Range does not fall near to any major river.

Objective of SC Plan: The objective of SC Plan is to rejuvenate various potential and degraded ecosystems in the Mine area. The opencast Road activities disturb large tracts of land and produced greatly increased down stream sediment load.

The objective of this report is to present the outline of Road surface erosion problem, method of modeling sediment yield, measures to be taken for reducing or controlling sediment discharges. The action plans is to be prepared for this purpose with the following objectives.

- Conservation of soil cover and to arrest the soil erosion, flood and siltation of the Project area and its tributaries if any.
- Soil conservation through biological & engineering measures to reduce sediment load in river and tributaries, thus improving quality of water.
- Increase vegetative cover and water retaining properties.

SOIL CONSERVATION PLAN

Mitigative Measures

Mitigative measures to minimize soil erosion can be undertaken by two plan–

1) Biological Conservation Plan,

2) Engineering Conservation Plan

Biological Conservation Plan:

Approach Plan

The following biological conservation plan can be adopted to mitigate soil erosion.

- Proper Dumping of Muck Generated. Dumping of soil and clayey material should be done away from the working area that is on farther end of the dump so that formation of weak planes is avoided.
- Afforestation by planting trees will help a lot in improving stability of dumps by preventing erosion.
- Provision of jute mesh for facilitating grass or vegetative growth on slopes, Provision of good soil mixed with manure and subsequent irrigation for growth of grass for anchorage on slopes. Plantation mixed with indigenous and fast growing plant species
- The degraded area can be reclaimed and rehabilitated with local species of plantation in a phased manner;
- Plantation should be carried out on waste dumps;
- The haulage roads should be flanked by trees on either side; and
- A belt of trees with thick canopy should be created along the mine boundary to intercept dust, gaseous pollutants and noise.

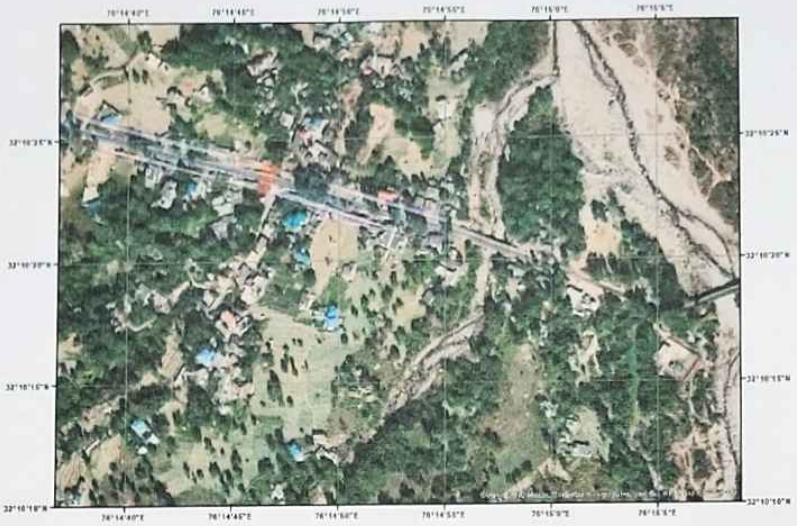
COST ESTIMATE

Cost of Mitigative Measures to arrest Soil Erosion & Top Soil Management Plan in respect of both Biological and Engineering plans are as proposed.

Cost estimate for Engineering Plan:

Total cost of Mitigative Measures for Soil Conservation:

The area of Diversion falling under Dharamshala Division, Shahpur Range is 2.0441 Hectare (part of 7.2834 hectare of Rehabilitation and Up gradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Km 51.00 to Km 72.00 (Package IIA) (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.). The area falling under the project is prone to Landslides and the Nallha flowing (as shown in the below mentioned google map) will be treated and various SMC related activities are proposed, the detail and site maps of which are mentioned below .



After proper site visit the below mentioned SMC related activities have been proposed.

Sr.No	Name of Components and Activities	Qty	Budgeted Amount
1	Crate Wire Work	8 No's	8,00,000/-
2	Stone Check Dam	20No's	9,50,000/-
3	Farm Pond	No	1,08,400/-
		TOTAL	18,58,400/-

Hence as decided by the recent Guidelines of MoEFCC dated 07-06-2022 , sum of Rs. 18,58,400/- has been deposited as per the cost of SMC accordingly to the %age of the Forest Land Diverted. The detail of payment is being submitted as below.

REFERENCEANDDATASOURCE

- Government of India Ministry of Water Resources, CENTRAL GROUND WATER BOARD, GROUND WATER INFORMATION BOOKLET, CHAMBA DISTRICT, KANGRA HIMACHAL PRADESH.
- Survey of India.

Divisional Forest Officer
Forest Division
Dharamshala

Calculation Sheet of Soil & Moisture Conservation Plan (SMCP) for Diversion of 5.2021 hac. of Forest Land under Nurpur Forest Division for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

Sr. No.	Description		Units	Total
1	Total Land Involved (A)		ha.	35.0716
2	Forest Land Involved (B)		ha.	7.2834
3	Non Forest Land Involved (A - B)		ha.	27.7882
4	% Age of Forest Land Involved	7.2834 / 35.0716 x 100	%	20.77%
5	Total Cost of Project		Rs in Lakh	63761.700
6	Proportionate Cost on Forest Land in Dharamshala Forest Division	(63761.7 x 20.77%) / (7.2834 x 5.2021)	Rs in Lakh	9458.906
7	0.5% Soil & Moisture Conservation Plan in Nurpur Forest Division	9458.906 x 0.5%	Rs in Lakh	47.295
8	Cost of Soil & Moisture Conservation Plan (SMCP) to be deposited in Nurpur Forest Division		Rs in Lakh	47.295
Rupees Forty Seven Lakh, Twenty Nine Thousand and Five Hundred Only				

Divisional Forest Officer
Nurpur Forest Division
Nurpur

Divisional Forest Officer
Nurpur Forest Division
Nurpur, H.P.

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh	
FILE NO.	: FP/HP/Road/152261/2022
DATE OF PROPOSAL	: 15.07.2022

UNDERTAKING AS PER CLAUSE – 8

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

It is hereby Undertaken that we will comply with the orders of the Hon'ble High Court of Himachal Pradesh issued on 13.01.2023 CWPIL Kusum Bali vs States and Others. The NOC from the State Pollution Control Board is enclosed herewith.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 9

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that "No extra forest land" shall be proposed in future for dumping of muck produced from this Project.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 10

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby submit that Plantation Model for absorption of $CO_2$and other pollutants along the RoW as per Guidelines of MoEF & CC vide letter No. FC-11/39/202-FC dated 08.09.2021 is enclosed herewith.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PiU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh	
FILE NO.	: **FP/HP/Road/152261/2022**
DATE OF PROPOSAL	: **15.07.2022**

CHECK LIST SERIAL NUMBER – 34 (f)

PLANTATION MODEL FOR ABSORPTION OF CO_2

1.1 INTRUDUCTION

This Chapter deals with Green Corridor planning for the propose road which includes project specific greening program consisting of avenue and median plantations, maintenance and cost estimation.

1.2 OBJECTIVES OF GREEN CORRIDOR PLANTATION PLAN

The green corridor plantation plan intends to make plantation an integral part of highway development process and to develop a systematic framework for integrated green corridor development along National Highways.

The objectives of plantation along the project road are:

- To reduce the impacts of air pollution and dust as trees and shrubs are known to be natural sink for air pollutants
- Provide shade on glaring roads during summer/sunny days
- To reduce the impact of noise pollution caused due to increase in number of vehicles
- To arrest soil erosion at the embankment slopes.
- Prevent glare from the headlight of incoming vehicles
- Moderating the effect of wind,
- Employment opportunities for local people,

Avenue Plantation, Median Plantation and maintenance have been planned in accordance with IRC SP-21:2009 quidelines for tree plantation and landscaping which provide comprehensive guidelines on landscaping of roads with respect to the physiographical, environmental climatic and operational factors

1.3 PROPOSED RIGHT OF WAY

The proposed Right of Way varies and is considered as per the applicable Typical Cross Sections. The plantation along the road side has been proposed as per the width available after earthwork or toe line.

1.4 PROJECT SITE SCENARIO.

The project road is passing through the districts of Kangrar and Chamba. The terrain of the Kangra district is mostly hilly and undulating Kangra district presents an intricate mosaic of mountain ranges, hills and valleys. The climate of the study area varies from sub-tropical to sub-humid.

1.5 PLATATION PATTERN

As per "Green Highway (Plantation Transplantat on. Beautification and Maintenance). Policy 2015" of Ministry of Road Transport and Highways Government of India, Single row of avenue plantation has been proposed on either side of the project roads at 3 m interval (333 no. trees/km). Therefore, 666 no of trees will be planted on both side of the project roads per km Number of rows of Avenue trees to be planted will depend upon the area available for avenue plantation in PROW Technical specification of avenue plantation is presented in Table 1.1

TABLE 1.1 : TECHNICAL SPECIFICATION FOR PLANTATION

Items	**Description**
No. of Rows	1 row on each side of road outside drain line
No. of Trees per km	666 trees / km (both sides)
Spacing between the plants	3 m
Size of Pits	60 x 60 x 60 cm
Height of Plants	1.5 to 2 m
Age of Plants	Not less than 2 years

Note :

- Number of rows of trees to be planted per km will depend upon the road width available for avenue plantation in PROW Avenue plantation has not been proposed where available width is less than 1m.from the toe line.
- No median plantation is proposed.

1.6 SELECTION OF SPECIES

Trees, shrubs and grasses are used to enhance the natural ambience of an area. The species for plantation have been decided as per the climate (temperature and rainfall), topography, resistance to pollutants, capacity of the absorptions of CO, and adverse environmental conditions, physical growth characteristics of trees, like form and shape. foliage pattem, canopy type. branching pattern, soil characteristics and conditions of the strip like water logged areas etc. Preference for plantation has been given to native species and provided in the table below :

Sr. No.	Common Name	Botanical Name
1.	Neem	Azadirachtaindica
2.	Kachnar	Bauhinia variegata
3.	Gulmohar	Delonixregia
4.	Banjh Oak	Quercus leacotrichophora
5.	Kumkum	Mallotus philippensis
6.	Babool	Acacia nilotica
7.	Arjun	Terminalia arjuna
8.	Amaltaas	Cassia fistula
9.	Tun	Cedrela toona
10.	Drek	Melia azadirachta
11.	Harad	Terminalia chebula
12.	Shisham	Dalbersia sissoo
13.	Demur	Ficus roxburghii
14.	Nepal Black Cedar	Alnus nepalensis

1.7 COSTING

For the purpose of calculating the cost of plantation along roadside and median with a maintenance period of 5 years, MoRDSOR under MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) has been used. The per unit tree cost of plantation and maintenance for 5 years is approximately Rs. 1500. Accordingly, the total cost worked out for the project road is as under.

Cost Component	Length available for Plantation	No. of trees Proposed	Per Unit Cost of Plant	Total Cost (in INR)
Avenue Plantation	**18.450**	**12288**	**1500**	**18432000**
Overall Cost of Plantation				**1,84,32,000**

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Place : Palampur
Date : 26-01-2023

Countersigned by :

Dr. Sanjeev Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 11

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that we will abide by the conditions of the FRA, 2006 as per Certificate issued by the District Collector. The Copy of FRA Certificate issued by District Collector is enclosed herewith.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer,
Forest Division,
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 12

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that Plantation will be done on both sides of the road as per IRC Standards at our own cost.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Place : Palampur
Date : 01/12/2023

Project Director,
N.H.A.I. PIU, Palampur

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 13

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I, hereby Undertake that Speed Control Signs will be installed at certain distances.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kangra, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 14

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that minimum felling of trees will be done which will be restricted upto 2444 number of trees. All efforts will be done to minimize the felling of species like Emblica spp., Terminalia spp., Bauhinia spp., Acacia spp., Cordia spp. and Ficus spp. etc. and all trees will be felled after taking approval from the DFO concerned on case to case basis. The Cost of tree cutting will be deposited with State Forest Department.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh
FILE NO. : FP/HP/Road/152261/2022
DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 15

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that the total period of diversion will be treated as the period of Diversion as per the proposal submitted online or period of lease in favour of the User Agency, whichever is less.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU-Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/23

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 16

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that no harm / damage will be done to the vegetation and animals in the adjacent / surrounding area.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PiU, Palampur

Place : Palampur
Date : 01/12/2022

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Dharamshala Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 17

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby submit that cost of Net Present Value (NPV) Rs.88,17,679/-, cost of Compensatory Afforestation (CA)Rs.46,13,574/-, Contingency @5% on CA Rs.2,30,679/-, Cost of Soil & Moisture Conservation Plan (SMCP) Rs.66,21,700/-, Total=(88,17,679+46,13,574+2,30,679 + 66,21,700)=2,02,83,632/- has been deposited in CAMPA Account through online portal on 08.05.2023.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh
FILE NO. : FP/HP/Road/152261/2022
DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 18

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that approval will be taken as per Provisions of Environment (Protection) Act, 1986, if applicable.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Place : Palampur
Date : 01/12/2022

Project Director,
N.H.A.I. PIU, Palampur

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 19

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that the Layout Plan will not be changed without prior Approval / Permission of Central Government.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2022

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 20

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that no labour camps will be established / installed on forest land.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 21

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that fuelwood from Forest Corporation or any other legal source, especially alternate fuel will be provided to the labour.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2022

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 22

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that RCC Pillars will be installed at the boundary of diverted forest land under the supervision of Forest Department with Forward / Backward bearing at our own cost.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 23

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

It is hereby submitted that no alternate road will be constructed for carriage of material in the forest land during the execution of the proposal.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh
FILE NO. : FP/HP/Road/152261/2022
DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 24

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that the Forest Land will be used only for the purpose specified in the proposal and no other activities will be undertaken in the diverted forest land.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kangra (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2025

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 25

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that the diverted forest land will not be transferred to any other Agency / Department or Person without prior Approval of Central Government.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2025

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 26

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that we will abide by all the conditions imposed by Ministry of Environment, Forest & Climate Change from time to time for the protection and development of Forest and Wildlife.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh	
FILE NO.	: FP/HP/Road/152261/2022
DATE OF PROPOSAL	: 15.07.2022

UNDERTAKING AS PER CLAUSE – 27

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

It is hereby undertakenthat muck will be disposed-off within the diverted land and no muck will roll down the hillside or disposed alongside the proposed area.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 28

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that if any provisions of related Act / Article / Rule / Court Order / Instruction are applicable to this proposal, necessary NOC / Permission will be taken by us.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kangra (H. P.)

Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh
FILE NO. : FP/HP/Road/152261/2022
DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 29

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake that we will abide by all the conditions of the "In-Principle Approval" and no violation of Forest (Conservation) Act, 1980 will be done during the construction of road.

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2022

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

UNDERTAKING AS PER CLAUSE – 30

It is to certify that I, Vikas Surjkewala, Project Director, PIU, National Highway Authority of India Palampur, District Kangra (H.P.) - 176061, have applied for diversion of 7.2834Ha. of forest area for Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 Km) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the state of Himachal Pradesh.

I, hereby Undertake to upload the Compliance Report of Stage I Approval on e-Portal (https://parivesh.nic.in/).

Vikas Surjewala
G.M. / Project Director
NHAI, PIU Palampur
District Kanga, (H. P.)
Project Director,
N.H.A.I. PIU, Palampur

Place : Palampur
Date : 01/12/2023

Countersigned by :

Dinesh Sharma (HPFS)
(Nodal Officer)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala

Divisional Forest Officer
Forest Division
Dharamshala

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
National Highways Authority of India
(Ministry of Road Transport and Highways, Govt. of India)
परियोजना कार्यान्वयन इकाई पालमपुर
Project Implementation Unit – Palampur

NHAI/PIU-PALM/HP/11016/12/Forest-IIA/2024-25/543 06 **Sep, 2024**

To,

Divisional Forest Officer,
Dharamshala Forest Division,
Dharamshala

Subject : Diversion of 7.2834 hectare forest land for Rehabilitation and up-gradation to four lane configuration and Strengthening of Sihuni to Rajol from Kms 51.00 to Km 72.00 (Package IIA) (Design Length 18.450 Kms) of NH – 20 (New NH – 154) of Pathankot – Mandi Section in the State of Himachal Pradesh within the jurisdiction of Nurpur, Dharamshala& Dalhousie Forest Divisions in District Kangra & Chamba, Himachal Pradesh. (Online Proposal No. FP/HP/ROAD/152261/2022).

Dear Sir,

Kindly refer to the observations raised by the Regional Office, MoEF&CC, Shimla vide letter No. FC/HPB/06/155/2022 dated 11.05.2024 on the subject cited above.

2. In this regard it is submitted that the NOC issued by H.P. State Pollution Control Board, District Kangra and Chamba are enclosed herewith for your kind reference.

3. So you are requested to reconsider our Proposal for Diversion of 7.2834 ha of forest land for above said Proposal.

Yours faithfully,

(Vikas Surjewala)
GM (T) cum Project Director
NHAI, PIU Palampur, District Kanga, (H. P.)

1st& 2nd Floor, Dayal Ji Niwas, Opp. Govt. Primary School, Chimbalhaar, Palampur (HP) 176061,
Email: - pdpiupalampur@gmail.com & piupalampur@nhai.org - 01894-292938/ +91 81300 06247
Head Office: G-5&6, Sector-10, Dwarka, New Delhi – 110075

H.P. STATE POLLUTION CONTROL BOARD
"Him Parivesh Bhawan", Regional Office Dharamshala
Near GSSS, Dari, Tehsil Dharamshala, Distt.-Kangra (H.P.), PIN 176057
Phone No. 01892-222628
Website: http://hppcb.nic.in **e-mail: pcbrojassur@gmail.com**

No: - PCB/Non Polluting (118) /RO (D/sala)/2024- 3793-95 Dated: 29/08/2024

To

The GM (T) Cum Project Director,
National Highways-Authority of India,
(Ministry of Raod Transport and Highways, Govt of India),
Tehsil Palampur, Distt. Kangra, H.P.

Sub: - **Diversion of 7.2834 Hects of Forest land for rehabilitation and upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Kms 51.00 to Kms 72.00 (Package IIA) (Design Length 18.450 Kms) of Nh-20 (New NH-154) of Pathankot-Mandi section in the State of Himachal Pradesh within the jurisdiction of Nurpur, Dharamshala & Dalhousie Forest Division in Distt. Kangra & Chamba, Himachal Pradesh.**

Sir,

With reference to the letter no. NHAI/PIU-PALM/HP/11017/PKG-IIA/06/For Clear/2024-25/5378, dated 24-08-2024 received on dated 24-08-2024 from GM (T) Cum Project Director, National Highways Authority of India, PIU Palampur, Tehsil Palampur, Distt. Kangra, H.P., vide which they have applied for the NOC for Diversion of 7.2834 Hects of Forest land for rehabilitation and upgradation to four lane configuration & Strengthening of Sihuni to Rajol from Kms 51.00 to kms 72.00 (Package IIA) (Design Length 18.450 Kms) of NH-20 (New NH-154) of Pathankot-Mandi section in the State of Himachal Pradesh on Hybrid Annuity Mode (HAM) as per the revenue record provided (detailed attached as Annexure-A) as submitted by NHAI for the diversion of 7.2462 Hect of land out of total 7.2834 Hect falling in Distt. Kangra in favour of National Highways Authority of India, office at Chimbalhaar, Tehsil Palampur, Distt. Kangra, H.P. for rehabilitation and upgradation to four lane configuration & Strengthening of Sihuni to Rajol. The Stage-I approval has already been granted vide no. FC/HPC/06/155/2022, dated 05-04-2023 for the diversion of 7.2834 Hect of forest land within the jurisdiction of Nurpur, Dharamshala and Dalhousie Forest Division. Further as per the copy of letter submitted by NHAI issued by DIGF(C), MoEF & CC, Sub Office Shimla vide no. nil, dated 11-05-2024 an observation has been raised from their office to stating "State Govt. shall provide/upload the NOC from SPCB for the extant proposal duly authenticated by DFO concerned." The State Pollution Control Board has no objection if the said land falling in Distt. Kangra is diverted in favour of National Highways Authority of India, subject to the following conditions:

(i) Prior consent of the State Board shall be obtained before undertaking any steps to establish the project under Water Act, 1974 and/or Air Act, 1981, as the case may be.

(ii) Transfer of land shall be governed only by the regulations and provisions prescribed by Revenue/Forest Department and this NOC alone shall not entitle the applicant to purchase/acquire land.

(iii) NOC so issued shall not confer any right on the applicant to establish the project unless the Revenue/Forest Department has actually allowed the acquisition of land.

(iv) This NOC is subject to prior forest clearance, if any required.

(v) The proponent shall maintain noise level equal to or less than the standard prescribed under Env. Protection Rules, 2016 for sensitive areas near its boundary walls.

(vi) The project proponent shall provide proper scientific system for the disposal of domestic effluent, kitchen waste water and Municipal Solid Waste, if any.

(vii) During the leveling if any muck is generated, the same should be stored/stacked/back filled scientifically alongwith the provision of toe walls, as required.

(viii) No muck shall be dumped adjoining to water bodies and it shall be ensured that muck should be stored/disposed off in the designated dumping sites.

Yours faithfully,

Varun Gupta

Er. Varun Gupta
Asstt. Environmental Engineer, HPSPCB

Encls: Annexure-A

Copy to:

1. The Divisional Forest Officer, Dharamshala, Tehsil Dharamshala, District Kangra H.P. for information and necessary action please.
2. The Divisional Forest Officer, Nurpur, Tehsil Nurpur, District Kangra H.P. for information and necessary action please.

Er. Varun Gupta
Asstt. Environmental Engineer, HPSPCB

Divisional Forest Officer
Forest Division
Dharamshala

HPSPCB

H.P STATE POLLUTION CONTROL BOARD

VPO Rajpura, Tehsil & District Chamba H.P 176310

Phone no. 01899-237426

Website: http://hppcb.nic.in *e-mail: pcbrochamba1@gmail.com*

No: - PCB/NOC 118 /RO (CBA)/2024- 600 - 601 Date: 31/08/2024

To

The GM (T) Cum Project Director,
National Highways-Authority of India,
(Ministry of Raod Transport and Highways, Govt of India).
Tehsil Palampur, Distt. Kangra, H.P.]

Sub: - **Diversion of 7.2834 Hects of Forest land for rehabilitation and upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Kms 51.00 to Kms 72.00 (Package IIA) (Design Length 18.450 Kms) of Nh-20 (New NH-154) of Pathankot-Mandi section in the State of Himachal Pradesh within the jurisdiction of Nurpur, Dharamshala & Dalhousie Forest Division in Distt. Kangra & Chamba, Himachal Pradesh.**

Sir,

With reference to the letter no. NHAI/PIU-PALM/HP/11017/PKG-IIA/06/For Clear/2024-25/5393, dated 29-08-2024 received on dated 24-08-2024 from GM (T) Cum Project Director, National Highways Authority of India, PIU Palampur, Tehsil Palampur, Distt. Kangra, H.P., vide which they have applied for the NOC for Diversion of 7.2834 Hects of Forest land for rehabilitation and up gradation to four lane configuration & Strengthening of Sihuni to Rajol from Kms 51.00 to kms 72.00 (Package IIA) (Design Length 18.450 Kms) of NH-20 (New NH-154) of Pathankot-Mandi section in the State of Himachal Pradesh on Hybrid Annuity Mode (HAM) as per the revenue record provided as submitted by NHAI for the diversion of 0.0372 Hect of land out of total 7.2834 Hect falling in Distt. Chamba (Village Hatli) in favour of National Highways Authority of India, office at Chimbalhaar, Tehsil Palampur, Distt. Kangra, H.P. for rehabilitation and upgradation to four lane configurations & Strengthening of Sihuni to Rajol. The Stage-I approval has already been granted vide no. FC/HPC/06/155/2022, dated 05-04-2023 for the diversion of 7.2834 Hect of forest land within the jurisdiction of Nurpur, Dharamshala and Dalhousie Forest Division. Further as per the copy of letter submitted by NHAI issued by DIGF(C), MoEF & CC, Sub Office Shimla vide no. nil, dated 11-05-2024 an observation has been raised from their office to stating "State Govt. shall provide/upload the NOC from SPCB for the extant proposal duly authenticated by DFO concerned." The HP State Pollution Control Board Chamba has no objection if the said land falling in Distt. Chamba is diverted in favor of National Highways Authority of India, subject to the following conditions:

(i) Prior consent of the State Board shall be obtained before undertaking any steps to establish the project under Water Act, 1974 and/or Air Act, 1981, as the case may be.

(ii) Transfer of land shall be governed only by the regulations and provisions prescribed by Revenue/Forest Department and this NOC alone shall not entitle the applicant to

(iii) NOC so issued shall not confer any right on the applicant to establish the project unless the Revenue/Forest Department has actually allowed the acquisition of land.

(iv) This NOC is subject to prior forest clearance, if any required.

(v) The proponent shall maintain noise level equal to or less than the standard prescribed under Env. Protection Rules, 2016 for sensitive areas near its boundary walls.

(vi) The project proponent shall provide proper scientific system for the disposal of domestic effluent, kitchen waste water and Municipal Solid Waste, if any.

(vii) During the leveling if any muck is generated, the same should be stored/stacked/back filled scientifically along with the provision of toe walls, as required.

(viii) No muck shall be dumped adjoining to water bodies and it shall be ensured that muck should be stored/disposed off in the designated dumping sites.

Yours faithfully

Er. Rahul Sharma
Asstt. Environmental Engineer
HPSPCB, Chamba

Copy to:

1. The Divisional Forest Officer, Dalhousie, Tehsil Dalhousie, District Chamba H.P. for information and necessary action please.

Er. Rahul Sharma
Asstt. Environmental Engineer
HPSPCB, Chamba

Divisional Forest Officer
Forest Division
Dharamshala