en o o en

बिहार सरकार, पर्यावरण, वन एवं जलवायु परिवर्त्तन विभाग कार्यालय, प्रधान मुख्य वन संरक्षक, बिहार, पटना।

(कैम्पा एवं वन संरक्षण संभाग) तृतीय तल, अरण्य भवन, शहीद पीर अली खाँ मार्ग, पटना—800 014

संख्या व.सं / 169 / 2020 — 🥎 🖫

प्रेषक,

अरविन्दर सिंह, भा०व०से०, अपर प्रधान मुख्य वन संरक्षक (कैम्पा) –सह–नोडल पदाधिकारी (वन संरक्षण), बिहार, पटना।

सेवा में,

उप वन महानिदेशक (केन्द्रीय), पर्यावरण, वन एवं जलवायु परिवर्त्तन मंत्रालय, एकीकृत क्षेत्रीय कार्यालय, राँची, द्वितीय तल, झारखंड राज्य आवास बोर्ड मुख्यालय हरमू चौक, राँची, (झारखंड) 834002

पटना 14, दिनांक- 07 /02/2023

विषय – बक्सर एवं रोहतास जिलान्तर्गत विक्रमगंज—डुमरॉव (201.665—245.665 कि॰मी॰) पथांश के चौड़ीकरण एवं सुदृढ़ीकरण कार्य हेतु वन (संरक्षण) अधिनियम, 1980 के तहत 41.01 हे॰ वन भूमि अपयोजन प्रस्ताव पर पृच्छा अनुपालन के संबंध में।

प्रसंग — वन प्रमंडल पदाधिकारी, रोहतास का पत्रांक 257 दिनांक 23.01.2023 एवं कार्यपालक अभियन्ता, राष्ट्रीय उच्च पथ प्रमंडल, पथ निर्माण विभाग, गया का पत्रांक 20 अनु0 दिनांक 10.01.2023 (छायाप्रति संलग्न)।

महाशय,

उपर्युक्त विषय के संबंध में सूचित करना है कि भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्त्तन मंत्रालय, एकीकृत क्षेत्रीय कार्यालय, राँची के पत्रांक FP/BR/ROAD/46901/2020/774 दिनांक 21.12.2022 द्वारा मांगी गयी सूचनाओं का निराकरण प्रतिवेदन निम्नलिखित है—

क्रम सं.	पृच्छा	निराकरण
1	Toposheet map of the proposed CA land is not uploaded. Therefore, toposheet map with delineation of the CA land on high resolution coloured toposheet map should be uploaded.	क्षतिपूरक वनीकरण के लिये चिन्हित स्थल को रंगीन टोपोशीट मानचित्र पर अंकित कर परिवेश पोर्टल पर अपलोड कर दिया गया है।
2	Cost Benefit analysis of the proposed project.	प्रयोक्ता एजेंसी के पत्रांक 20 अनु0 दिनांक 10.01. 2023 द्वारा Cost Benefit analysis उपलब्ध कराया गया है जो इस पत्र के साथ संलग्न है। Cost Benefit analysis प्रतिवेदन को परिवेश पोर्टल पर अपलोड कर दिया गया है।
3	Proposed forest land for diversion is 41.01 ha but as per GIS analysis, total proposed forest land is 44.404 ha (base on uploaded kml file). The ambiguity may be explained.	परियोजना निर्माण में अपयोजित होने वाली वन भूमि का संशोधित KML file परिवेश पोर्टल पर प्रयोक्ता एजेंसी द्वारा अपलोड कर दिया गया है।

4	Some place of the proposed alignment are not in line with the existing alignment. The differential areas and their future fate may be explained.	प्रयोक्ता एजेंसी के पत्रांक 20 अनु0 दिनांक 10.01. 2023 द्वारा तत्संबंधित प्रतिवेदन उपलब्ध कराया गया है जो इस पत्र के साथ संलग्न है।
5	The given CA (DFL) land is not suitable for planation because as per DSS analysis only approx. 30-40% area is feasible for plantation. The DFO Rohtas, who was present in the meeting through video conferencing, also acknowledged that the area has gregarious vegetation and needs further supplements. Therefore a new CA site may be explored.	वन प्रमंडल पदाधिकारी, रोहतास के पत्रांक 525 दिनांक 07.02.2023 (छायाप्रति संलग्न) द्वारा क्षतिपूरक वनीकरण के लिये तिउरा सुरक्षित वन को चिन्हित करते हुए संशोधित प्राक्कलन उपलब्ध कराया गया है जो इस पत्र के साथ संलग्न है। वन प्रमंडल पदाधिकारी, रोहतास द्वारा प्रतिवेदित किया गया है कि चिन्हित स्थल क्षतिपूरक वनीकरण के लिये उपर्युक्त है।
6	Generation of permanent/ temporary employment of 125/25 man-days for 36.965 Km road appear erroneous. This needs to be re-examined and resubmitted afresh.	परियोजना निर्माण के क्रम में स्थाई एवं अस्थाई रूप से सृजित होने वाले रोजगार को संशोधित करते हुए अपलोड कर दिया गया है।
7.	Tree translocation is proposed in the proposal, therefore the translocation plan may be included in the application.	प्रयोक्ता एजेंसी के पत्रांक 20 अनु0 दिनांक 10.01.23 द्वारा Tree translocation प्रतिवेदन उपलब्ध कराया गया है जो इस पत्र के साथ संलग्न है।

उपर्युक्त तथ्यों के आलोक में अनुरोध है कि विषयगत परियोजना पर सैद्धान्तिक स्वीकृति प्रदान करने की कृपा की जाय। अनु०—यथोक्त।

> विश्वासभाजन, ह0 / –

(अरविन्दर सिंह) अपर प्रधान मुख्य वन संरक्षक (कैम्पा) –सह–नोडल पदाधिकारी (वन संरक्षण), बिहार, पटना।

ज्ञापांक- व.सं / 169 / 2020- 97 दिनांक- 7 / 02 / 2023

प्रतिलिपि— प्रधान सिचव, पर्यावरण एवं वन विभाग, बिहार, सरकार को भारत सरकार के पत्रांक FP/BR/ROAD/46901/2020/774 दिनांक 21.12.2022 के क्रम में सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

(अरविन्दर सिंह) अपर प्रधान मुख्य वन संरक्षक (कैम्पा) –सह–नोडल पदाधिकारी (वन संरक्षण),

बिहार, पटना।

कार्यपालक अभियंता का कार्यालय राष्ट्रीय उच्च पथ प्रमंडल, गया ।

Mail ID- ee_nh_gaya@yahoo.com

पत्रांक:-...थे० ५५७०

गया, दिनांक :- 10/01/2023

प्रेषक,

कार्यपालक अभियंता राष्ट्रीय उच्च पथ प्रमंण्डल, गया।

सेवा में,

उप वन संरक्षक, पर्यावरण वन एवं जलवायु परिवर्तन विभाग, बिहार, पटना।

विषय:— रोहतास एव बक्सर जिलान्तर्गत रा० उ० पथ सं0—120 के कि0मी० 201.665 से कि0मी० 245. 665 पथांशः के चौड़ीकरण एवं सुदृढीकरण कार्य में वन संरक्षण अधिनियम 1980 के तहत 41.01 हे0 वन भूमि अपयोजन प्रस्ताव पर पृच्छा के संबंध में।

प्रसंग:- 1. आपका पत्रांक - 16 दिनांक- 06.01.2023,

2. भारत सरकार , पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय ,क्षेत्रीय कार्यालय रॉची का पत्रांक—FP/BR/ROAD/46901/2020/774 दिनांक—21.12.2022,

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के संबंध में कहना है कि रोहतास एवं बक्सर जिलान्तर्गत राठ उठ पथ संठ—120 के किठमीठ 201.665 से किठमीठ 245.665 पथांशः के चौड़ीकरण एवं सुदृढीकरण कार्य में वन संरक्षण अधिनियम 1980 के तहत 41.01 हेठ वन भूमि अपयोजन प्रस्ताव पर पृच्छा की गयी है।

भारत सरकार , पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय ,क्षेत्रीय कार्यालय रॉची द्वारा इस कार्यालय से संबंधित कमांक सं0 02 , 03, 04, 06 एवं 07 पर की गयी पृच्छाओं का निराकरण कर अनुपालन प्रतिवेदन तैयार कर आवश्यक एवं अग्रेतर कार्रवाई हेतु समर्पित की जाती है। परिवेश पोर्टल पर प्रयोक्ता एजेन्सी का आई0 डी0 एवं पासवर्ड Log in नहीं हो पा रहा है और न ही Recover हो पा रहा है।

अतः अनुरोध है कि अनुपालन प्रतिवेदन को परिवेश पोर्टल पर Upload कराने की कृपा की जाये।

अनु०:- यथोक्त ।

गा. ठा. २०२३ कार्यपालक अभियंता,

राष्ट्रीय उच्च प्रथ प्रमंडल, गया।

विश्वासभाज

	Compliance	
SI.No	Observation	Reply
1	Toposheet map of the proposed CA land is not uploaded. Therefore, toposheet map with delineation of the CA land on high resolution colored toposheet map should be uploaded.	Compliance to be done by concerned DFO.
2	Cost Benefit analysis of the proposed project.	Attached
3	Proposed forest land for diversion is 41.01 ha but as per GIS analysis, total proposed forest land is 44.404 ha (base on uploaded kml file). The ambiguity may be explained.	Revised KML is being uploaded excluding Dawath portion from CH- 210.830 to 212.400 (where bypass is proposed to justify 41.01 ha for diversion of forest land)
4	Some places of the proposed alignment are not in line with the existing alignment. The differential areas and their future fate may be explained.	Dawath Bypass from CH-210.830 to CH- 212.400 and Dumraon Bypass Ch- 240.200 to CH-245.665 is not included in proposal.
5	The given CA (DFL) land is not suitable for planation because as per DSS analysis only approx. 30-40% area is feasible for plantation. The DFO Rohtas, who was present in the meeting through video conferencing, also acknowledged that the area has gregarious vegetation and needs further supplements. Therefore, a new CA site may be explored.	Compliance to be done by concerned DFO.
6	Generation of permanent/ temporary employment of 125/25 man-days for 36.965 Km Road appear erroneous. This needs to be re-examined and re-submitted afresh.	Generation of permanent/ temporary employment is revised 25/140-man day for project stretch.
7	Tree translocation is proposed in the proposal; therefore the translocation plan may be included in the application.	Attached

1201 2023 AE.



Cost Benefit Analysis as per Guidelines for forest land diversion -2017

Table-A: Cases under which a cost-benefit analysis for forest diversion are required

Sl. No.	Nature of proposal	Applicable/not applicable	Remarks
1	All categories of proposals involving forest land upto 20 hectares in plains and upto 5 hectare in hills.	Not applicable	These proposals may be considered on a case to case basis and value judgement.
2	Proposal for defence installation purposes and oil prospecting (prospecting only).	Not applicable	In view of national Priority accorded to these sectors, the proposals would be critically assessed to help ascertain that the utmost minimum forest land is diverted for non-forest use.
3	Habitation, establishment of industrial units, tourist lodges complex and other building construction.	Not applicable	These activities being detrimental to protection and conservation of forest, as a matter of policy, such proposals would be rarely entertained.
4	All other proposals involving forestland more than 20 hectares in plains and more than 5 hectares in hills including roads, transmission lines, minor, medium and major irrigation projects, hydro projects, mining activity, railway lines, location specific installations like micro-wave stations, auto repeater centres, To towers etc.	(Roads)	Diversion of 41.01 Ha PF land for Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Bikramganj – Dawath – Maliyabagh – Nawanagar – Dumraon of NH– 120 (Ch. 201.665 to Ch 245.665) excluding Dawath (Ch 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) in the state of Bihar.

S.No.	Parameters	Quantity	Rate	of forest Diversion Amount (Rs. Lakh.)	Remarks
1	Eco-system Services Losses Due to proposed forest Diversion	41.01	957780	392.79	APCCF(Campa)-cum-Nodal Officer (Forest Conservation) letter No. 280 dt. 04.04.2022
2	Loss of animal husbandry productivity, including loss of fodder			39.279	To be Quantified and expressed in monetory terms or 10% of NPV applicable whichever is maximum
3	Cost of human resettlement.			0	The cost of Human resettlement for diversion of
4	Loss of public facilities and administrative infrastructure (Roads, building School, dispensaries, electric lines, Railways etc.) on forest land, or witch would require forest land if these facilities were diverted due to the project.			1171.01	Electric lines & poles, Water pipe lines, Water Tank etc. public facilities which are being affected have been considered in the budget. Also the budgets for affected CPRs have been considered.
5	Possession Value of forest Land Diverted	41.01	287334	117.84	30% of Npv
6	Suffering to oustees	-		0	The Widening and strengthening of the project road is to be undertaken on the adjoining land of the existing road. So there are no sufferings to oustees
7	Habitat Fragmentation Cost			196.395	Taken as 50% of NPV
8	Compensatory Afforestation	82.02	146600	120.24	Rate deduced from APCO (Campa)-cum-Nodal Offic (Forest Conservation) letter N 280 dt. 04.04.2022
	Project Cost (Civil & Project Clearance)			17863.00	
			Total	199.00	Crore

	Tau	ne C :- raramet	ers for Evalua	Benefits	ts notwithstanding loss of forests.
SI.	Parameters	Quantity	Rate	Amount (Rs.Cr.)	Remark
1	Increase in Productivity and Economics			408.00	Due to Upgradation of existing highway to two lane with pave shoulder configuration there will be overall development of the project area there would be easy and fast movement of the traffic, so that it will save time save fuel and maintenance cost of the vehicle. This will also result in reduction in congestion on road saving in travel time and reduction in accident. It is assume that due to widening of road will result in improved traffic conditionand saving in travel time will result in economic benefit of Rs. 40 crore.
2	Benefits to economy due to the specific project			7.86	Thr project usually contributes the growth of local economy by increased commercial, agricultural and tourist activities due to improvement of highway Following economic benefit due project are enlisted below: 1. Reduce pollution level due to better surface quality and traffic speed will be increased 80 Km/Hr. 2. Fuel Consumption is estimated to be reduce and saving in travel time 3. Provision of safety measures, Road furnitures along the road and truck lay bye and bus bays, necessary amenities provide reduction in accident 4. Vehicle operation cost will be reduced due to better transportation 5. Social economic growth of people unconnected in remote areas will take place Based on the economic analysis of the project, Economic Internal Rate of Return (EIRR) is as follws 2 times of NPV = 2 x 3.93 = 7.86 Cr
3	No. of Population benefitted due to specific project			4,88,691	This road project directly benefits the people of Rohtas and Buxar District ie 488691(as per census 2011) .
4	Economic Benefits due to direct and indirect employment due to the project			4.82	Permanent employment of 25 peopole and temprory employment of 140 peopole for project duration of 548 days. (25x548xRs.1000 per day) + (140x548xrs.450 per day)= 4.82 crore
5	Benefit from Compensatory	82.02	957780	7.86	NPV has been taken at the same rate as taken for calculation of cost
	Afforestation		Total	428.54	Crore

Benefit/Cost

2.153

. 1. INTRODUCTION

The Authority has awarded the project "Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Bikramganj - Dawath - Maliyabagh - Nawanagar - Dumraon of NH- 120 (Ch. 201.665 to Ch 245.665) excluding Dawath (Ch. 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) in the state of Bihar. To the EPC contractor.

This report explains Avenue Tree Translocation Planning & its Estimate for Bikramganj -Dumraon of NH-120 Ch. 201.665 to Ch 245.665) excluding Dawath (Ch. 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) which is part of above project.

For this purpose, the total 3018 number of trees are found within proposed toe line of the project highway. Out of that 1122 nos are proposed for translocation, 1518 nos of trees are saved at site and 378 nos of trees are to be felled.

To counterbalance the loss of trees and other changes resulted into the surroundings; there is a need to follow the approach of "Corridor Development & Management", rather than "Highway Development". Apart from mitigating the environmental losses, it must plan to enhance the aesthetics of the highway corridor from all possible angles. Highways should not be looked upon merely as a means of transportation, but as a part and parcel of the environmental and socioeconomic milieu.

TRANSLOCATED TREE PROTECTION PLAN

Project Name: - Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Bikramganj - Dawath - Maliyabagh - Nawanagar - Dumraon of NH- 120 (Ch. 201.665 to Ch 245.665) excluding Dawath (Ch. 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) in the state of Bihar

Brief Information about the Project: -

The Government of Bihar has decided to take up the development of various road stretches/Corridors in the various parts of the State to upgrade the road network to meet the growing traffic requirement in of the State by augmenting the road capacity for safe and efficient movement of the traffic of selected road stretches for NH connectivity.

In pursuance of the above the Road Construction Department on behalf of MORTH have decided to take up "Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Bikramganj - Dawath - Maliyabagh - Nawanagar - Dumraon of NH- 120 (Ch. 201.665 to Ch 245.665) excluding Dawath (Ch. 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) in the state of Bihar. Total length is 36.965 km under EPC Mode" to improve the efficiency of freight movement having a total length 44.00 km and proposed Right of Way (ROW) varies between 20 m to 30 m.

Project stretch falls in the state of Bihar an Indian state considered to be a part of South Bihar Gaya to Buxar.

The Project will result in fast economic growth to the region as it will connect to capital Patna and generally traverses in the East-West direction and start from Bikramganj and traverses through Dawath, Maliyabagh and Finally terminates at NH-922 at Purana Bhojpur (Bihar).

Absence of alternative mode of travel in the region between Bikramganj to Buxar leaves this Highway as the only means of communication.

This proposed project road will provide uninterrupted free flow of traffic and shall result in: -

- 1. Saving in travel time, cost and Natural resources (Fuel).
- 2. Saving in foreign exchange due to less consumption of fuel.
- 3. Increase in income of truck, bus, taxi etc. Owners as they will be able to communicate maximum distance in short time.
- Reduction in accidents as it will provide safe travel.
- 5. Will act as catalyst to the Infrastructural & Industrial development.

Section from km 201.665 (Bikramganj chowk) to km 219.265 (Maliyabagh) falls under the jurisdiction of Forest Division Rohtas having a effective length of 17.080 km (excluding Dawath bypass) and km 219.265 (Maliyabagh) to km 240.200 (Dumraon) of proposed road falls under the jurisdiction of Forest Division Bhojpur having a length of 20.935 km. Sufficient care has been taken during the design stage to keep the alignment along the existing road/highway to utilize its ROW. There is no forest areas located along the project road in view of the above.

The proposed alignment passing through the notified protected forest land from km 201.665 to km 240.200

The trees present in the proposed alignment have been jointly visited and the numeration list has been prepared. In total 3018 number of trees are found within proposed toe line of the project highway. Out of that 1122 nos are proposed for translocation. E518 nos of trees are saved at site and 378 nos of trees are to be felled.

Details of trees affected and to be translocated:

Details including species, name and the size of the trees after joint enumeration and verification has been prepared and attached herewith separately. Affected trees would be translocated in the ROW of the Project Bikramganj to Dumraon.

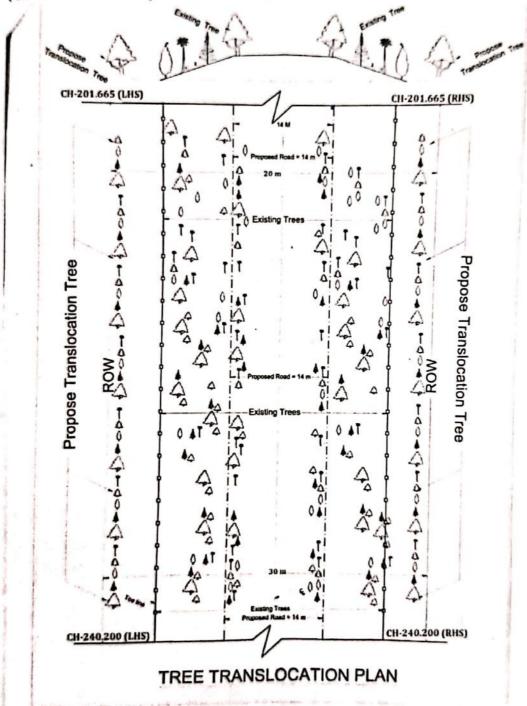
Tree protection:

Project Period: 2022-23 to 2023-24

Tree Protection Period: 2022-23 to 2024-25

Exercutive Engineer
Number Division, Gaya

Project Name: - Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Bikramganj - Dawath - Maliyabagh - Nawanagar - Dumraon of NH- 120 (Ch. 201.665 to Ch 245.665) excluding Dawath (Ch. 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) in the state of Bihar



	Al	BSTRACT OF TR	EES TO BE T	RANSLOCA	TED (ROH	AS DISTRIC	T)	
SI. No	Side	Girth (0-30 cm) count	Girth (31- 60 cm) count	Girth (61- 90 cm) count		The second secon	Girth (>150cm) count	Total
1	LHS	10	236	16	7	7	7	283
2	RHS	29	237	28	8	9	6	317
							Total	600

		ABSTRACT	OF TREES T	O BE CUT (ROHTAS DI	STRICT)		
SI. No	Side	Girth (0-30 cm) count	Girth (31- 60 cm) count	Girth (61- 90 cm) count	Girth (91- 120 cm) count	Girth (121-150 cm) count	100	Total
1	LHS	1	23	3	7	8	25	67
2	RHS	10	23	9	16	19	24	101
			•				Total	168

		ABSTRACT C	F TREES TO	BE SAVED	(ROHTAS E	DISTRICT)		
SI. No	Side	Girth (0-30 cm) count	Girth (31- 60 cm) count	Girth (61- 90 cm) count	120 cm)	Girth (121-150 cm) count		Total
1	LHS	60	592	29	7	8	38	734
2	RHS	82	499	42	38	30	90	781
							Total	1515

	AB	STRACT OF	TREES TO B	E TRANSLO	CATED (BU	XAR DISTR	ICT)	
SI. No	Side	Girth (0- 30 cm) count	Girth (31- 60 cm) count	Girth (61- 90 cm) count	120 cm)		Girth (>150cm) count	Total
1	LHS	3	25	35	36	30	90	219
2	RHS	1	53	75	67	38	69	303
							Total	522

		ABSTRAC	T OF TREE	S TO BE CU	T (BUXAR (DISTRICT)		
SI. No	Side	Girth (0- 30 cm) count	Girth (31- 60 cm) count	Girth (61- 90 cm) count			Girth (>150cm) count	Total
1	LHS	0	13	13	18	23	36	103
2	RHS	0	8 -	5	19	19	56	107
				10			Total	210

12.		ABSTRACT	OF TREES	TO BE SAV	ED (BUXAR	DISTRICT)		
Sl. No	Side	Girth (0- 30 cm) count	Girth (31- 60 cm) count	Girth (61- 90 cm) count	1000	Girth (121-150 cm) count	3. C.	Total
1	LHS	0	0	0	0	1	2	3
2	RHS	0	0	0	0	0	0	0
	4 9		·				Total	3

10/01/23 10/01/23

10/01/2023 AZ.

CALCULATION OF TREE TRANSLOCATION AT AVAILABLE/VACANT LOCATION BEYOND ORNAMENTAL PLANTATION LINE

SI.No.	Chainage	Chainage	Length		hade tree	Remark
J40.	From	То	(M)	LHS	RHS	
1	201665	201900	235			BUILTUP AREA
2	201900	202100	200	4	3	BUILTUP AREA
3	202100	202415	315	5	2	BUILTUP AREA
4	202415	202810	395	18	25	
5	202810	203215	405	15	30	
6	203215	203350	135	2	3	BUILTUP AREA
7	203350	203510	160	8	7	
8	203510	203900	390	35	18	
9	203900	204150	250	5	5	
10	204150	204250	100	3	2	
11	204250	204400	150	3	2	
12	204400	204500	100	5	2	
13	204500	204610	110			
14	204610	204700	90			
15	204700	205900	1200		26	
16	205900	206150	250	3		BUILTUP AREA
17	206150	206600	450	12	15	DOILIOI AREA
18	206600	206720	120		4	
19	206720	207150	430	12	15	
20	207150	207400	250	2	15	BRIDGE APPROACH
21	207400	207700	300	4		BUILTUP AREA
22	207700	207900	200	5		BOILTOF AREA
23	207900	208330	430	10	4	
24	208330	208700	370			
25	208700	208900	200	5	10	
26	208900	209200	300	6	12	
27	209200	209500	300	8	16	
28	209500	209700	200		7	
29	209700	210000	300		8	
30	210000	210350	350		9	
31	210350	210830	480		5	
32	210830	211200	370		3	
33	211200	211400	200			
34	211400	211600	200			
35	211600	211900				DAWATH BYPASS
36	211900	212150	300			
37	212150	212400	250			
38			250			
_	212400	212600	200	8	5	
39	212600	212900	300	7	8	
40	212900	213250	350	10	9	
41	213250	213400	150	3	4	
42	213400	213625	225			

	_					
43	213625	213700	75	1	1	
44	213700	214000	300			
45	214000	214450	450	18	16	
46	214450	214670	220			CANAL CROSSING
47	214670	214800	130			
48	214800	215350	550	8	9	
49	215350	215600	250		3	
50	215600	215900	300	4	4	
51	215900	216050	150	1	1	
52	216050	216415	365	3	3	
53	216415	216500	85		2	
54	216500	216750	250			DIWITUD ADS 4
55	216750	217000	250			BUILTUP AREA
56	217000	217300	300		-	BUILTUP AREA
57	217300	217500	200		3	BUILTUP AREA
58	217500	217800			7	BUILTUP AREA
59	217800	218000	300	8	15	
60	218000	218200	200	5	12	
61	218200	218500	200			BUILTUP AREA
62	218500		300			BUILTUP AREA
63	218810	218810	310			BUILTUP AREA
- 03	210010	219100	290	10	12	
64	219100	219500	400		y	MAJOR BRIDGE AND APPROACH
65	219500	219800	300			
66	219800	220100	300			
67	220100	220210	110	4	5	
68	220210	220350	140	2	3	BUILTUP AREA
69	220350	220700	350			BUILTUP AREA
70	220700	220900	200	5	6	
71	220900	221100	200	5	10	
72	221100	221300	200	3	3	DINITID ADEA
73	221300	221600	300			BUILTUP AREA BUILTUP AREA
74	221600	221900	300			
75	221900	222150	250			BUILTUP AREA
76	222150	222350	200	4	2	BUILTUP AREA
77	222350	222700	350	10	8	BUILTUP AREA
78	222700	222900	200	8	7	
79	222900	223100		0	/	CANAL CROSSING
80	223100	223400	200	10	0	CANAL CROSSING
81	223400		300	10	8	
		223750	350	11	18	
82	223750	224150	400	8	5	
83	224150	224400	250	5	7	
84	224400	224600	200	8	7	
85	224600	224800	200	8	6	



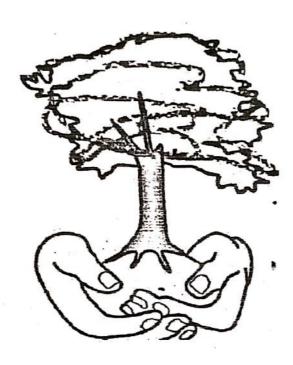
86	224800	225100	300	6	6	
87	225100	225350	250	10	8	
88	225350	225530	180	9	8	
89	225530	225800	270	2	2	BUILTUP AREA
90	225800	226000	200			BUILTUP AREA
91	226000	226120	120			BUILTUP AREA
92	226120	226250	130			BUILTUP AREA
93	226250	226400	150			BUILTUP AREA
94	226400	226700	300			BUILTUP AREA
95	226700	227000	300	3	3	BUILTUP AREA
96	227000	227200	200	10	12	
97	227200	227500	300	12	12	
98	227500	227800	300	10	10	
99	227800	228000	200	8	7	
100	228000	228200	200	4	3	
101	228200	229000	800	10	12	
102	229000	229220	220	12	10	
103	229220	229580	360			BUILTUP AREA
104	229580	230200	620	12	12	
105	230200	230900	700	22	20	
106	230900	231150	250			BUILTUP AREA
107	231150	231400	250			BUILTUP AREA
108	231400	231800	400			BUILTUP AREA
109	231800	232250	450			BUILTUP AREA
110	232250	232600	350	3	3	
111	232600	232900	300			
112	232900	233750	850			
113	233750	234100	350			BUILTUP AREA
114	234100	234600	500			
115	234600	234850	250			
116	234850	236000	1150	3	3	
117	236000	236770	770	13	11	
118	236770	236900	130	10000000		BUILTUP AREA
119	236900	237500	600	8	7	7,000
120	237500	238000	500	4	2	
121	238000	238200	200			BUILTUP AREA
122	238200	238500	300	7	7	
123	238500	239000	500			
124	239000	239300	300		 	
125	239300	239600	300		 	
	239600	239800	200			
126		240000				
127	239800		200	5	5	
128	240000	240200	200		602	
		ength= tion of	38535	520	122	
	I Doduc	tion of	1570	1 1	1//	



3. METRODOLOGY OF TREE TRANSLOCATION

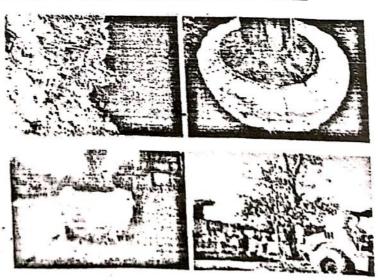
Project Name: - Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Bikramganj - Dawath - Maliyabagh - Nawanagar - Dumraon of NH- 120 (Ch. 201.665 to Ch 245.665) excluding Dawath (Ch. 210.830 to Ch.212.400) & Dumraon bypass (Ch 240.200 to 245.665) in the state of Bihar

Subject:- Methodology of Tree Translocation within ROW



Methodology of Tree Translocation

1.General 2.Soil Testing 3.Tree Preparation 4.Root Excavation Method 5.Transport 6.Planting Procedure 7. Tree Support 8. Watering 9. Maintenance



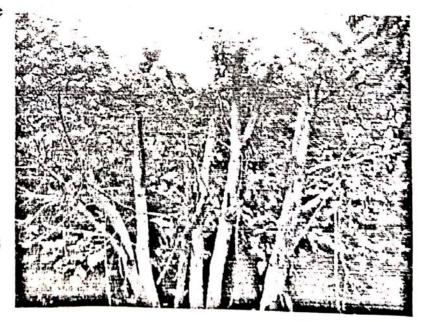
CONTENTS

- 1 General: Translocation or Transplantation of trees from one location to another site is a major operation. The work shall be executed & supervised by a well experienced person in this type of work. Roots investigation. Diagnosis of health & Treatment of infected area must be executed before initiation. The most difficult job is production of root ball by digging mechanically and manually all around the tree, carefully cutting the roots, then wrapping the root ball in netting. The difficulty is to handle the root ball without causing deformation.
- 2. Soil Testing: The work shall be executed supervised by a well experienced person in this type of work. Analysis of the soil at the proposed transplant site where the tree has to be translocated and if require any, import backfill materials so that appropriate amendments applied. Analysis may include pH. Organic Matter, Major and Trace Elements and Exchangeable Cations.

3.Tree Preparation:

3.1 Formative Pruning - Selectively remove specific branches to enhance form and improve structure, and to directionally shape the tree. With smaller

diameter branches it may be necessary to reduce the branch to a dormant bud. Formative pruning shall aim to reduce the development of structural weaknesses and to accommodate site constraints and reduce encroachment on utilities as the tree grows.



3.2 Root Preparation Requirements and Responsibilities -

In all cases a preparation of the root system, that is to say, a circular partial cutting of the roots all around the tree is strongly recommended one to two months before

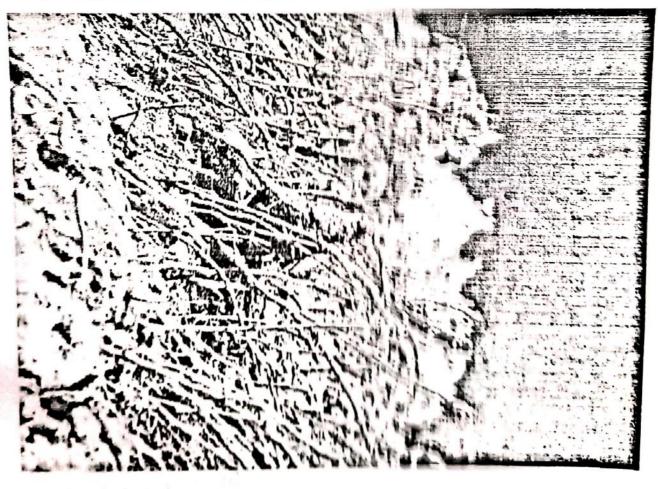
transplanting.

This ring cutting has the objective of spreading the period of trauma to which the tree is subjected so as to permit it to react in the best way.

Root pruning and soaking shall be carried out a minimum of 1 months before transplanting.



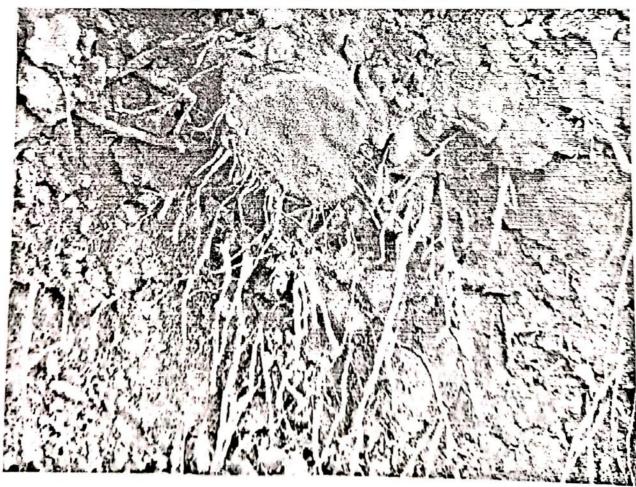
The pruning trench shall be backfilled with a said will mixture and kept moise



leading up to the transplant date. The soil moisture content shall be maintained to adequately support the health of the tree. The remaining soil shall be used to build a water holding berm around the outside of the backfilled trenshes.

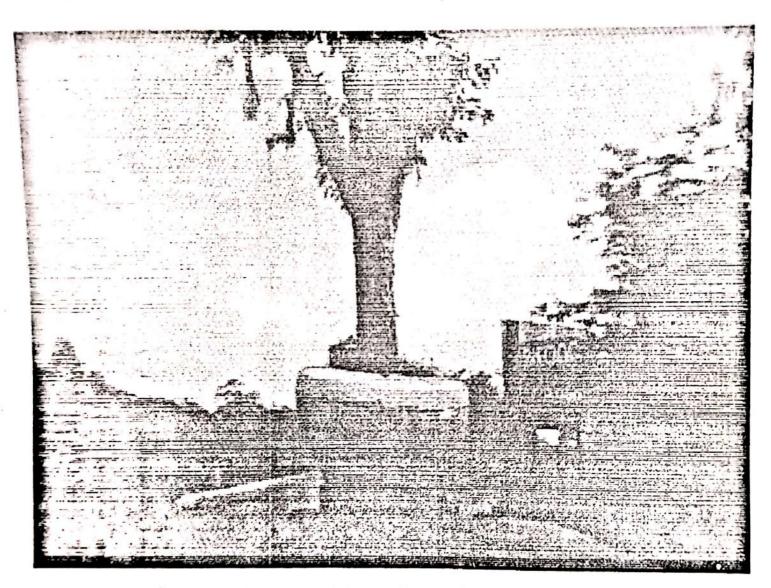
4. Root Excavation Method: Prior to digging, the soil around the root system shall be thoroughly moistened to help keep the root ball together.

The root ball shall be excavated around the outside of the root trench. All exposed roots shall be pruned flush with the face of the root ball. Sharp Blades shall be used to cut roots. Roots shall be cut in a way that will not jar and loosen the soil in the root ball. The depth of the root ball is depend on each individual tree species. Digging below the root ball shall occur when the amount of roots reduce considerably within the root ball trench. This will determine the depth of the root ball. Tension shall be applied by the crane while undercutting the root ball



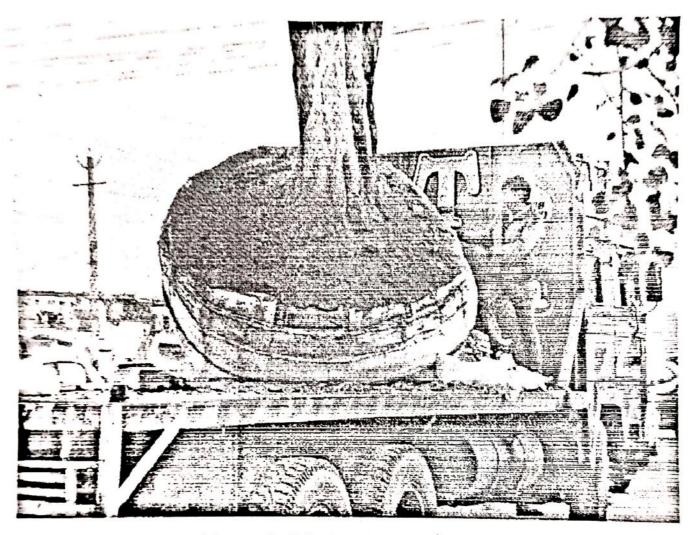
5. Transportation:

Lifting Technique - Lifting of trees shall be carried out or supervised by a qualified and/or suitably experienced person and crane operator using a crane and supports



Appropriate lifting equipment shall be used. Suitable slings shall be attached around a balance point of the trunk and shall provide a support system around the root ball. When a sling is attached to the trunk, padding and protection is required to reduce possible damage. A qualified crane operator shall determine the support system to be used.

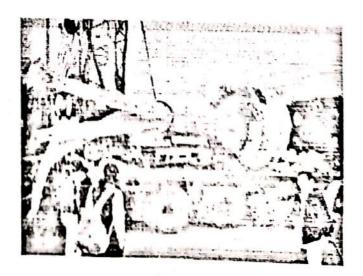
Preparation for Transport - Only natural fibre materials that have not been chemically treated shall be used to support the root ball. Synthetic materials shall not be used. Burlap shall be applied before moving the tree to protect the



shape and structure of the root ball during transport. Once the tree is lifted burlap shall be used to cover the base of the root ball.

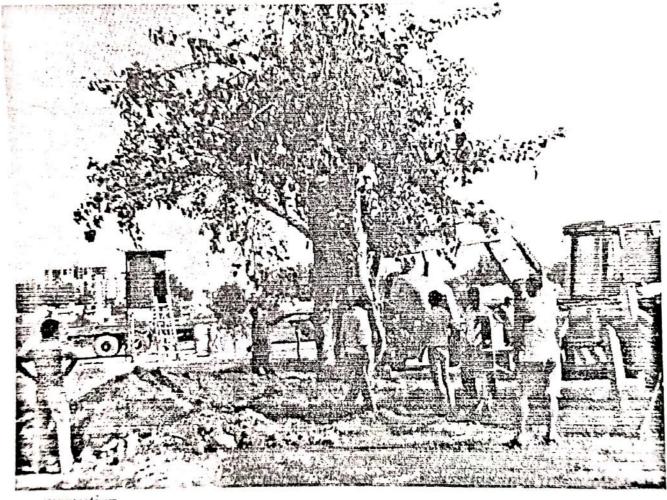
5.3 Transport Vehicle - The transport vehicle shall be adequate to transport the tree without damage.

6. Planting Procedure:



Preparation of Planting Hote - Excavated soil may be used as backfill if it is free of weeds, deleterious materials and particles larger than 25 mm. When backfilling, sedimentary layers in soil shall be observed so topsoil remains above the subsoil.

Remove from site any unsuitable material brought to the surface during



excavation.

The planting hole shall be excavated by spade. The hole shall be 600 mm wider than the diameter of the root ball and no deeper than the height of the proposed root ball. If the depth of the hole exceeds the root ball height, compacted soil shall be added to the hole to prevent settling after transplanting. The sides of the hole shall be roughened to create an irregular surface that will facilitate root penetration

The bottom of the hole shall be decompacted to a depth of 150 mm and lightly compacted.

6.2 Orientation - The tree shall be orientated at the new site in the same direction as at the original site.



The bottom of the hole shall be decompacted to a depth of 150 mm and lightly compacted.

6.2 Orientation - The tree shall be orientated at the new site in the same direction as at the original site.



Backfill - If excavated material is unsuitable for backfill, imported soil shall be used. Imported soil shall be as closely as practicable to the existing site soil. Organic matter shall not be added to the backfill material.

Any soil deficiencies shall be rectified prior to placing backfill.

6.4 Fertilizer and Soil Additives - Requirements of fertilizer and/or other soil additives as per experienced person.

(a)TerraCottem

TerraCottem shall be applied as required.

(b)Gypsum

Gypsum shall be applied in accordance with the requirements.

(c)Sugar

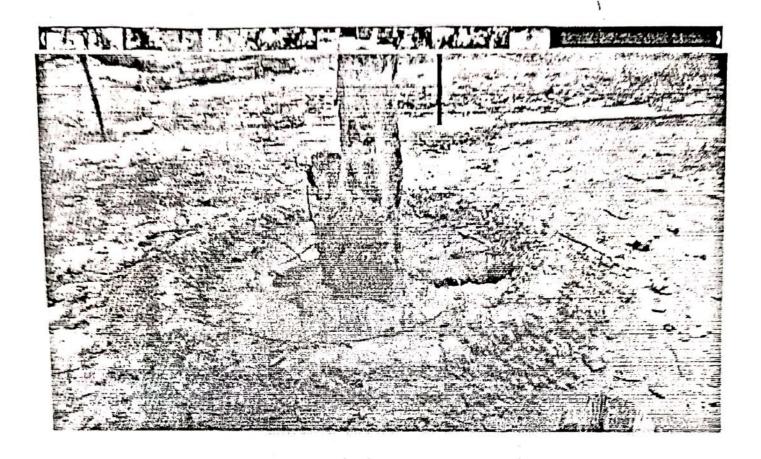
The backful shall be soil injected with a sucrose solution at 20 grams per liter of water and approximately 100 liters of solution applied per tree. Soil injections of Sucrose Solutions have been shown to improve the defence systems of stressed trees and increase the volume of new roots.

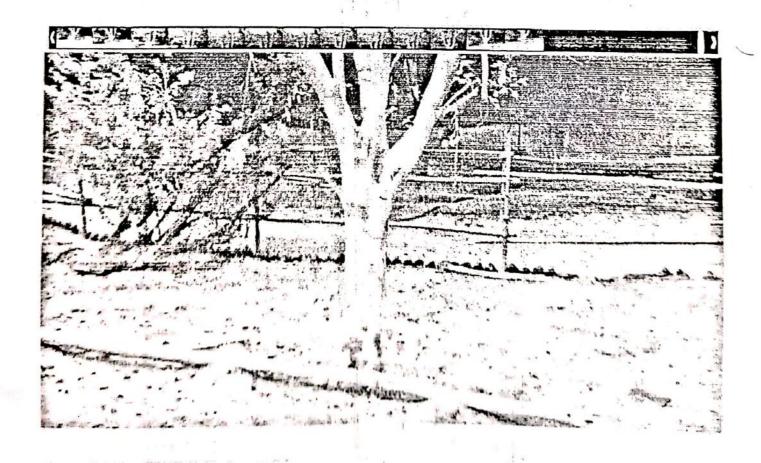
(d)N-Fix

The backfill shall be soil injected with N-Fix at 10 ml N-Fix per 1 litre of water applying approximately 100 litres of solution per tree, evenly injected ever the available root zone.

(e)Rooting Hormone

Photographs:



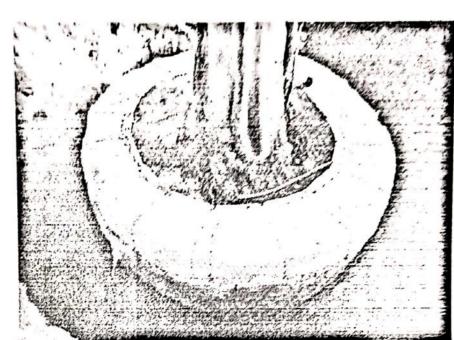


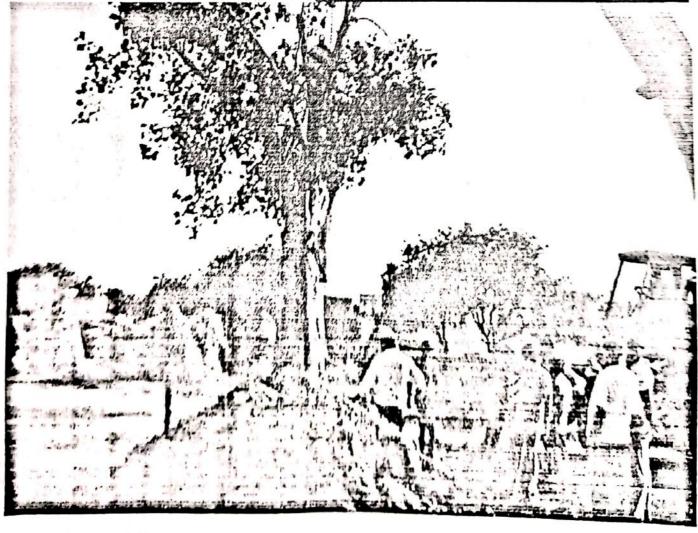
Rooting hormone shall be mixed with the backfill material before the tree is positioned

7. Tree Support:

Scatfoldings or hydraulic crane should be used to support pre and post translocation of the trees.

8. Watering: Immediately following planting, each tree shall be soaked to remove air pockets from the soil.





Ensure that trees maintain health and are free of water stress at all times.

Monitor moisture levels to determine the exact watering requirements to ensure tree survival.

Water shall be applied to the entire root area and not just the immediate trunk base.

9. Maintenance: The tree shall be maintained for a period of minimum one year.
Regular inspection & strict schedule should be followed.

Sumf 10/01/23 Pre 10401/2023



पर्यावरण, वन एवं जलवायु परिवर्तन विभाग कार्यालय:- वन प्रमंडल पदाधिकारी, रोहतास वन प्रमंडल, सासाराम। वन भवन सासाराम – 821115, Email-rohtasdfo@gmail.com

पत्रांक- 257

प्रेषक.

मनीष कुमार वर्मा, भा०व०से०, वन प्रमंडल पदाधिकारी रोहतास वन प्रमंडल, सासाराम।

सेवा में

उप वन संरक्षक, पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, बिहार, पटना।

सासाराम-दिनांक-23-01-2023 बक्सर एवं रोहतास जिलान्तर्गत विक्रमगंज-डुमराँव (201.665-245.665 कि0मी0) विषय:-पथांश के चौड़ीकरण एवं सुदृढ़ीकरण कार्य हेतु वन (संरक्षण) अधिनियम, 1980 के तहत 41.01 हेव0 वन भूमि अपयोजन प्रस्ताव पर पृच्छा के संबंध में।

भवदीय पत्रांक-व.सं. / 169 / 2020-16, दिनांक-06.01.2023. प्रसंग:-

महाशय.

उपर्युक्त विषयक प्रसंगाधीन पत्र के संबंध में सूचित करना है कि बक्सर एवं रोहतास जिलान्तर्गत विक्रमगंज—डुमराँव (201.665—245.665 कि0मी०) पथांश के चौड़ीकरण एवं सुदृढ़ीकरण कार्य हेतु वन (संरक्षण) अधिनियम, 1980 के तहत 41.01 हे0 वन भूमि अपयोजन प्रस्ताव पर पृच्छा की गयी है।

भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, क्षेत्रीय कार्यालय, राँची द्वारा इस कार्यालय से संबंधित पृच्छाओं का निराकरण कर अनुपालन प्रतिवेदन तैयार कर क्रमांक सं0 1 एवं 5 में मांगी गयी Toposheet एवं CA भूमि की KML file इस पत्र के साथ Email के माध्यम से समर्पित की जा रही है।

महाशय Parivesh Portal पर उक्त परियोजना EDS raised अभी भी राज्य स्तर पर है। अतः अनुरोध है कि संलग्न Toposheet एवं CA भूमि की KML file upload करने की कृपा की जाय।

अन्0-यथोक्त।

Rohtas Forest Division, Sasaram.

Compliance Report

Sl. No.	Observation	Reply
1	Toposheet map of the proposed CA land is not uploaded. Therefore, toposheet map with delineation of the CA lan on high resolution colored toposheet map should be uploaded.	Complied (Attached in Email)
2	Cost Benefit analysis of the proposed project.	Compliance to be done by concerned Executive Engineer
3	Proposed forest land for diversion is 41.01 ha but as per GIS analysis, total proposed forest land is 44.404 ha (base on uploaded kml file). The ambiguity may be explained.	Compliance to be done by concerned Executive Engineer
4	Some places of the proposed alignment are not in line with the existing alignment. The differential areas and their future fate may be explained.	Compliance to be done by concerned Executive Engineer
5	The given CA (DFL) land is not suitable for plantation because as per DSS analysis only approx. 30-40% area is feasible for plantation. The DFO Rohtas, who was present in the meeting through video conferencing, also acknowledged that the area has gregarious vegetation and needs further supplements. Therefore a new CA site may be explored.	Complied (Attached in Email)
6	Generation of permenent/temporary employment of 125/25 man-days for 36.965 KM road appear erroneous. This needs to be re-examined and resubmitted afresh.	Compliance to be done by concerned Executive Engineer
7	Tree translocation is proposed in the proposal, therefore the translocation plan may be included in the application.	Compliance to be done by concerned Executive Engineer

Divisional Rocest Officer, Rohtas Forest Division Sasaram.

NH-120 के बिक्रमगंज से डुमरांव 41.01 कि0मी0 पथांस के चौड़ीकरण एवं सुदृढ़ीकरण हेतु 83 हे0 वन भूमि में क्षतिपूरक वनरोपण के प्राक्कलन का प्रस्ताव।

П	105248.00	219622.40	109811.20	0.00	726000.00	270798.00	571809.00	656330.80	319778.02	83000.00	3062397.42
10	2300.00	0.00	0.00	00.00	0.00	0.00	0.00	0.00	117727.20	83000.00	203027.20
6	102948.00	219622.40	109811.20	0.00	726000.00	270798.00	571809.00	656330.80	202050.82	0.00	2859370.22
00	92.00	73.60	18.40	0.00	242.00	242.00	73.00	66.40	66.40	66.40	
7	1144.00	2984.00	5968.00	0.00	3000.00	1119.00	7833.00	9884.50	4815.93	500.00	37248.43
9	25.00	00.0	0.00	0.00	0.00	0.00	0.00	00.00	1773.00	1250.00	3048.00
S	1119.00	2984.00	5968.00	0.00	0.00	1119.00	7833.00	9884.50	3042.93	0.00	31950.43
4	3.00	8.00	16.00		0.00	3.00	21.00	26.50	8.158	0.00	85.66
3	hac.	hac.	hac.		chain	chain	chain	per 1000 pit	1000 plant	1000 plant	
2	Survey & Demarcation	Bush Clearance-bush of normal density	Bush Clearance- dense bush	SMC Checkdam	Soil Trench (i) By machines in hard soil of the size of 1.83mx1.22mx1.22m	(II) Making bund of the dug up soil @ 15%of (i)	Stone Trench of the size of 0.90mx0.90mx0.30m	Soil Work pit digging of the size of 30cmx30cmx30cm in hard soil	Nursery Work	Purchase of material (Nursery Work)	TOTAL
1	17.1	17.2.1	17.2.2	Details Estimate	17.4.3		17.5.1	17.7.2 g	17.9	17.10 F	

mount	Tr.401	Amount	11	700040 02	2077430 40	04.054720	000//2:00	54012.00	24013.00		272290.00		10000.00	2335355 22	2568890 75						07601700	0/0012.00	408435 00	00.000000	2/0/98.00	1556045.00	1867254.00		
Total Estimated Amount	Total	Material	10	18502 00	20880 00	10000000	17770.00	00 0890	2000,000		00.00		10000.00	88072.00							00 0900	2300.00	000	0.00	0.00	9960.00			
Total E	Total Wages	(Rs.)	0	270457 82	792550 40	00.05627	00.70000	45133 00	00:00101		272290.00		0.00	2247283.22							00 658998	,	408435 00	00.001000	154700500	1240082.00			
Amou			ox.	66.40	66.40	66.40	2	242 00	00:71.7				00.0								66.40	04.00		00 000	777.00				
	Total	Amount	7	4353 16	12386 00	13355 00		226.50			272290.0		0.00	302610.66							13205 00	00:00	408435.00	_		254133.00			
Chain .	Waterial		9	280.00	450.00	300 00		40.00			0.00		0.00	1070.00				THE PASSING THE			150 00		0.00	000	150.00	130.00			
Rate per hectare/Chain	Wages	(Rs.)	r.	4073.16	11936.00	13055.00		186.50			272290.00		0.00	301540.66							13055.00		408435.00	1119 00	422,609,00				
Rate po	Mandav	S	000	10.92	32.00	35.00		0.50			730.00		0.00	808.42							35.00		1095.00	3.00	1133 00	00000			
	Unit		3	1000 plant	1000 plant	1000 plant		chain			L.S.	Plantation									1000 plant		L.S.	chain					
Completion Work (F.Y.2023-24)	Details of Works		2	Nursery Completion	Plantation	Two Hoeing & Weeding in hard soil	Seed sowing on the	trenches.	Protection (For more	than 60-90 hac.)		Miscellanious Work (Sion Board)	(Sign Dound)	IOIAL	10% hike in the cost	due to possible hike	in wages rate.	1st Maintenance Work	F.Y.2024-25)	Two Hoeing &	Weeding in hard soil	Protection (For more	than 60-90 hac.)	Trench Repair	TOTAL	200 hills in the cost	due to nossible hike	in wages rate.	
Cor (F	Item No.		1	17.11	17.12	17.13.2.2	17.14		17.15.3		,	17.21.1			HIIM			1st Main		17.16.2		17173		17.17.5		WITH		- - -	

	mount			Lotal	Amount	7	П	00 01070	0/0017:00		408435.00		000005	1200247 00	129024/.00		1677321.10					408435.00	408435.00	571809.00				
	Total Estimated Amount			Lotal	Material	0,	IO	00 0900	2200.00		00.00		2000 000	1406000	14900.00							0.00	0.00					
	Total		1 2 2 2 7	I otal wages	(Rs.)	0	7	00 658998	900975.00		408435.00		000	1275287 00	14/340/.00							408435.00	408435.00					
	Amou	nt of	Work			0	0	66.40	01.00			77	000															
	,		T-7-1	10121	Amount	ı		13205 00	00:00	A	408435.00		00.0	421640.00							6	408435.00	408435.00					
	/Chain		M. O. Course	INTRICTIAL		9		150 00			0.00		0.00	150 00							6	0.00	0.00					
	Rate per hectare/Chain		Words	I MENS	(Rs.)	u		13055.00			408435.00		0.00	421490.00							400425.00	400425 AA	400423.00					
	Rate po		Manday	Transport	Ø	00		35.00		0	1095.00		0.00	1130.00							1005 00	1005 00	00.6401					
			Unit			3		1000 plant		L.S.		Flantation									<i>V</i> .	2						
	And Maintenance Work	(F.Y.2025-26)	Details of Works	Commence and the same of the s		2	Two Hoeing &	Weeding in hard soil	Protection (For more	than 60-90 hac.)	Misselloniona W.	(Sign Board)	(Sign Doald)	TOTAL		30% hike in the cost	due to nossible hilze	in wages rate.	3rd Maintenance Work		Protection (For more than 60-90 hac.)	TOTAI,		40% hike in the cost	due to possible hike	in wages rate.	4th Maintenance Work	(F.Y.2027-28)
AM L.C.	EUG Ma	¥,	Item No.			. 1	17.18.2		17.19.3		17713					WITH			3rd Main	(F.Y	17.20.3 It			WITH 4	0		4th Main	(F.Y.

408435.00	408435.00	612652.50		408435.00	408435.00	653496.00		408435.00	408435.00	694339.50		
0.00	00.0			0.00	0.00			0.00	0.00			
408435.00	408435.00			408435.00	408435.00			408435.00	408435.00	,		
*												
408435.00	408435.00			408435.00	408435.00	P 6		408435.00	408435.00			
0.00	0.00			0.00	0.00		9	0.00	0.00			
408435.00	408435.00			408435.00	408435.00			408435.00	408435.00			
1095.00	1095.00			1095.00	1095.00			1095.00	1095.00			
L.S.				L.S.				L.S.				
Protection (For more than 60-90 hac.)	TOTAL	50% hike in the cost due to possible hike in wages rate.	5th Maintenance Work (F.Y.2028-29)	Protection (For more than 60-90 hac.)	TOTAL	60% hike in the cost due to possible hike in wages rate.	6th Maintenance Work (F.Y.2029-30)	Protection (For more than 60-90 hac.)	TOTAL	70% hike in the cost due to possible hike in wages rate.	7th Maintenance Work (F.Y.2030-31)	
17.22.3		WITH	5th Mai (F.	17.23.3		MILH	6th Main (F.)	17.24.3		WITH	7th Main (F.Y	

408435.00	408435.00	735183.00		408435.00	408435.00	776026.50
0.00	0.00			0.00	00.0	
408435.00	408435.00			408435.00	408435.00	
408435.00	408435.00			408435.00	408435.00	
0.00	0.00			0.00	0.00	
408435.00	408435.00			408435.00	408435.00	
1095.00	1095.00			1095.00	1095.00	
L.S.				L.S.		
Protection (For more than 60-90 hac.)	TOTAL	80% hike in the cost due to possible hike in wages rate.	8th Maintenance Work (F.Y.2031-32)	Protection (For more than 60-90 hac.)	TOTAL	90% hike in the cost due to possible hike in wages rate.
17.25.3		WITH	8th Mai (F.	17.26.3		WITH

ABSTRACT:-

	Work and Year		THE WOOL	Amount in Lakhs
1.	Advance Work (2022-23)			3062397.42
2.	Completion Work (2023-24)			2568890.75
3.	Ist Maintenance Work (2024-25)			1867254.00
4.	2nd Maintenance Work (2025-26)			1677321.10
	3rd Maintenance Work (2026-27)		70.515	571809.00
5.	4th Maintenance Work (2027-28)	The state of the state of the	1000	612652.50
7.	5th Maintenance Work (2028-29)			653496.00
30	6th Maintenance Work (2029-30)			694339.50
).	7th Maintenance Work (2030-31)			735183.00
10.	8th Maintenance Work (2031-32)			776026.50
				13219369.76
		Or		13729190.00
	(Total Rupees one crore thirty seven lakhs t	seven lakhs twenty nine thousand one hundred ninety only)	one hun	ndred ninety only)

1. It is certified that last ten years Plantation has not been done in this Site.

2. It is certified that this estimate is based on the Rates approved by Additional PCCF(DEVELOPMENT) of Bihar for the Rehabilitation of the Degraded Forest(RDF).

Submitted

Countersigned

Countersigned

Assistant Conservator of Forest

ROF Rohtas.

Divisional Forest Officers

Rohtas Forestopinision, Sasaram.

क्षतिपूरक वनरोपण प्रमाण-पत्र

प्रमाणित किया जाता है कि बक्सर एवं रोहतास जिलान्तर्गत बिक्रमगंज से डुमराँव (KM 201.665 to KM 245.665) तक पथ का चौड़ीकरण एवं सुदृढ़ीकरण परियोजना हेतु 41.01 हे0 वन (संरक्षण) अधिनियम, 1980 के तहत् वन भूमि अपयोजन के विरूद्ध 83 हे0 अवकृष्ट वन भूमि प्रस्तावित वनरोपण हेत् प्रस्ताव समर्पित किया गया है। समर्पित प्रस्ताव रोहतास वन प्रमंडल, सासाराम के रोहतास वन प्रक्षेत्र अंतर्गत मौजा तिउरा, थाना नं0-639 सुरक्षित वन का है, जो कुल रकवा 92 हे0 शुद्ध रकवा 83 हे0 क्षतिपूरक वनरोपण हेत् भूमि उपयुक्त है।

