



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

(कैम्पा एवं वन संरक्षण संभाग)

राष्ट्रीय तल, अरण्य भवन, शहीद पीर अली खॉ मार्ग, पटना-800 014

संख्या व.सं/88/2021- 234

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 परिवर्तन मंत्रालय,
एकीकृत क्षेत्रीय कार्यालय, राँची, द्वितीय तल,
झारखंड राज्य आवास बोर्ड मुख्यालय हरमू चौक,
राँची, (झारखंड) 834002

पटना 14, दिनांक-05/04/2023

विषय — वैशाली, समस्तीपुर एवं बेगूसराय जिलान्तर्गत हाजीपुर NH-22—बछवाड़ा NH-122B भाया महनार—मोहिउद्दीनगर (0.00—72.95 कि०मी०) पथांश के चौड़ीकरण एवं सुदृढीकरण हेतु वन (संरक्षण) अधिनियम, 1980 के तहत 97.3934 हे० वन भूमि अपयोजन प्रस्ताव पर पृच्छा अनुपालन के संबंध में।

प्रसंग — कार्यपालक अभियन्ता, राष्ट्रीय उच्च पथ प्रमंडल, गुलजारबाग, पथ निर्माण विभाग, पटना का पत्रांक 239 (अनु०) दिनांक 11.03.2023 एवं वन प्रमंडल पदाधिकारी, बाँका का पत्रांक 266 दिनांक 27.02.2023 तथा वन प्रमंडल पदाधिकारी, जमुई का पत्रांक 815 दिनांक 17.03.2023 एवं पत्रांक 932 दिनांक 01.04.2023 (छायाप्रति संलग्न)।

महाशय,

उपर्युक्त विषय के संबंध में सूचित करना है कि भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, एकीकृत क्षेत्रीय कार्यालय, राँची के पत्रांक FP/BR/Road/129045/2021/941 दिनांक 27.02.2023 द्वारा मांगी गयी सूचनाओं का निराकरण प्रतिवेदन निम्नलिखित है—

क्रम सं.	पृच्छा	निराकरण
1	Cost Benefit analysis of the proposed project.	प्रयोक्ता एजेंसी के पत्रांक 239 (अनु०) दिनांक 11.03.2023 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।
2	Details of the tree enumeration list including name of the species in the forest land proposed for diversion should be filled in part-II online.	परियोजना निर्माण में प्रजातिवार प्रभावित होने वाले वृक्षों से संबंधित प्रतिवेदन को परिवेश पोर्टल पर पार्ट-II कॉलम में ऑन लाईन अपलोड कर दिया गया है।

3

Proposed CA land is not acceptable because the proposed CA land appears already planted in recent past. Therefore, a fresh CA site may be submitted along with the suitability certificate.

वन प्रमंडल पदाधिकारी, बाँका के पत्रांक 266 दिनांक 27.02.2023 (छायाप्रति संलग्न) द्वारा प्रतिवेदित किया गया है कि क्षतिपूर्क वनरोपण हेतु प्रस्तावित स्थल कोरबासा बिरनिया, खेसरा संख्या-495, 511 की जाँच वनों के क्षेत्र पदाधिकारी, बाँसी प्रक्षेत्र, बाँसी द्वारा कराया गया। जाँच में पाया गया कि खेसरा नं० 495 में मात्र 10 हे० पूर्व में चिलकारा प्रस्तावित स्थल पर वर्ष-2021 में वनरोपण कराया गया है एवं शेष रकबा खाली है। खेसरा संख्या-511 पूर्ण रूप से खाली है। पूर्व में खेसरा संख्या 495 में चिलकारा वनरोपण के साथ कराया गया वनरोपण का नक्शा एवं वर्तमान में भेजे गए नक्शा की छायाप्रति संलग्न भेजा जा रहा है।

वन प्रमंडल पदाधिकारी, जमुई के पत्रांक 815 दिनांक 17.03.2023 एवं पत्रांक 932 दिनांक 01.04.2023 (छायाप्रति संलग्न) द्वारा प्रतिवेदित किया गया है कि क्षतिपूर्क वनरोपण हेतु चिन्हित किये गये स्थलों-जामुखरैया एवं लखुआ, कोठा सुरक्षित वन का निरीक्षण दिनांक 25.02.2023 को सहायक वन संरक्षक, जमुई, वनों के क्षेत्र पदाधिकारी, झाड़ा एवं चकाई क्रमशः एवं अन्य वनकर्मियों की उपस्थिति में जाँच किया गया।

1. जामुखरैया

यह सुरक्षित वन झाड़ा वन प्रक्षेत्र में अवस्थित है तथा, जिसका कुल रकबा 333 हे० है, इसमें से कुल 50 हे० (नेट) भूमि पर क्षतिपूर्क वनरोपण हेतु प्रस्ताव दिया गया था। इस स्थल के संपूर्ण क्षेत्र का निरीक्षण करते हुए अलग-अलग स्थलों पर कुल 47 GPS Points लिये गये। इस स्थल पर पूर्व के विगत 10 वर्षों में कोई वनरोपण नहीं कराया गया है तथा प्रमंडलीय अभिलेखों के अनुसार अंतिम वनरोपण वितीय वर्ष 2010-11 में कराया गया था, जिसके अवशेष गड्ढे यत्र-तत्र प्रदर्शित होते हैं।

2. लखुआ, कोठा

यह प्रस्तावित सुरक्षित वन चकाई वन प्रक्षेत्र में अवस्थित है तथा अलग-अलग खण्डों में अवस्थित है (लखुआ, कोठा), जिसका कुल रकबा 159 हे० है, जिसमें से कुल 50 हे० भूमि पर क्षतिपूर्क वनरोपण करने हेतु प्रस्ताव दिया गया था। इस स्थल के संपूर्ण क्षेत्र का निरीक्षण करते हुए अलग-अलग स्थलों पर कुल 16 GPS Points लिये गये। प्रस्तावित स्थलों पर विगत 10 वर्षों में कोई वनरोपण नहीं किया गया है, जिसकी संपुष्टि प्रमंडलीय अभिलेखों से भी की जा सकती है।

उपर्युक्त दोनों वनरोपण स्थल वनरोपण के लिये उपयुक्त है इसलिये इसका चयन कर क्षतिपूर्क वनरोपण का प्रस्ताव/प्राक्कलन समर्पित करने हेतु किया गया था।

4	There are various others discrepancies highlighted by the committee during the meeting like employment generation, short narrative of the proposal, authorization letter etc. Therefore, it may be rechecked.	प्रयोक्ता एजेंसी द्वारा परिवेश पोर्टल पर short narrative of the proposal, authorization letter इत्यादि को संशोधित करते हुए अपलोड कर दिया गया है।
5	Tree translocation is proposed in the proposal, therefore the translocation plan may be included in the application.	प्रयोक्ता एजेंसी के पत्रांक 239 (अनु0) दिनांक 11.03.23 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।

ज्ञापक— व.सं/88/2021- 234 दिनांक— 05/04/2023

प्रतिलिपि— प्रधान सचिव, पर्यावरण एवं वन विभाग, बिहार, सरकार को भारत सरकार के पत्रांक FP/BR/Road/129045/2021/941 दिनांक 27.02.2023 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,
पथ निर्माण विभाग, राष्ट्रीय उच्च पथ प्रमंडल, गुलजारबाग,
टेलीफोन भवन के सामने, आर० ब्लॉक, पटना।
 (Email ID : eenhgulzarbagh@gmail.com Mob. No.-9470001312)

पत्रांक :- 239 (अनु०)

पटना, दिनांक :- 11/3/2023

प्रेषक,

कार्यपालक अभियंता,
 रा० उ० पथ प्रमंडल, गुलजारबाग, पटना।

सेवा में

अपर प्रधान मुख्य वन संरक्षक (कैम्पा)
 -सह-
 नोडल पदाधिकारी (F.C.),
 पर्यावरण, वन एवं जलवायु परिवर्तन विभाग,
 बिहार सरकार, पटना।



विषय:- वैशाली, समस्तीपुर एवं बेगूसराय जिलान्तर्गत हाजीपुर NH-22- बछवाड़ा NH-122B भाया महानार-मोहिउद्दीनगर (0.00-72.95 कि०मी०) पथांश के चौड़ीकरण एवं सुदृढीकरण हेतु वन (संरक्षण) अधिनियम, 1980 के अंतर्गत 97.3934 हे० वन भूमि अपयोजन प्रस्ताव पर अनुपालन उपलब्ध कराने के संबंध में।

प्रसंग:- भवदीय ज्ञापांक-व०सं०/88/2021-155 दिनांक 04.02.2023

महाराय,

उपर्युक्त विषयक प्रासंगिक पत्र द्वारा की गई पूछा के आलोक में बिन्दुवार अनुपालन प्रतिवेदन अग्रतर कार्यवाई हेतु निम्नवत् समर्पित किया जाता है :-

Sl. No.	Observation	Compliance
(i)	Cost Benefit analysis of the proposed project.	Attached
(ii)	Details of the tree enumeration list including name of the species in the forest land proposed for diversion should be filled in part-II online.	Attached
(iii)	Proposed CA land is not acceptable because the proposed CA land appears already planted in recent past. Therefore, a fresh CA site may be submitted along with the suitability certificate.	N/A
(iv)	There are various others discrepancies highlighted by the committee during the meeting like employment generation, short narrative of the proposal, authorization letter etc. Therefore, it may be rechecked.	Attached
(v)	Tree translocation is proposed in the proposal. Therefore, the translocation plan may be included in the application.	Attached

अनु० :- यथोक्त।

विश्वासभाजन

रामावत प्रसाद

11/3/2023

कार्यपालक अभियंता,

रा० उ० पथ प्रमंडल, गुलजारबाग, पटना

**OFFICE OF THE EXECUTIVE ENGINEER,
NATIONAL HIGHWAY DIVISION, GULZARBAGH, PATNA**

(Email ID : eenhgulzarbagh@gmail. com Mob. No.-9470001312)

Near Telephone Bhawan, R. Block, Patna

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

Project:- Diversion of 97.3934 Ha. Of forest land for Improvement of Two Lane with Paved Shoulder of NH-122 B starting from junction of NH-22 near Hajipur to junction of NH-122 near Bachwara via Mahanar, MohiuddinNagar in Bihar.

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, TV towers etc.	Applicable (Roads)	Diversion of 97.3934 Ha PF land for Up-gradation Widening and strengthening work of existing Two Laning with paved shoulder of stretch from Junction of NH-22 near Hazipur to junction of NH-122 at Bachhwara via Mahanar and Mohiuddin Nagar of NH- 122 B (Ch. 0.000 to Ch 72.950) in the state of Bihar.

11.03.23

11/3/2023

R-P.
11/03/2023
Executive Engineer
NH Division Gulzarbagh
Patna

Table-B : Estimation of Cost of forest Diversion

S.No.	Parameters	Quantity (Ha.)	Rate (Rs.)	Amount (Rs. Lakh.)	Remarks
1	Eco-system Services Losses Due to proposed forest Diversion	97.3934	957780	932.81	APCCF(Campa)-cum-Nodal Officer (Forest Conservation) letter No. 1075 dt. 15.12.2022
2	Loss of animal husbandry productivity, including loss of fodder			93.281	To be Quantified and expressed in monetary terms or 10% of NPV applicable whichever is maximum
3	Cost of human resettlement.			0	The cost of Human resettlement for diversion of forest land is Nil.
4	Loss of public facilities and administrative infrastructure (Roads, building School, dispensaries, electric lines, Railways etc.) on forest land, or which 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	97.3934	287334	279.84	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			466.405	Taken as 50% of NPV
8	Compensatory Afforestation	194.7868	-	450.99	APCCF(Campa)-cum-Nodal Officer (Forest Conservation) letter No. 1075 dt. 15.12.2022
9	Project Civil Cost (Rs. 340.83+148.49)Cr.			489.32	
Total				523.26	Crore

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11/03/2023

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11/03/2023
Executive Engineer
NH Division Gutzarbagh
Patna

Table C :- Parameters for Evaluation of benefits notwithstanding loss of forests.

Benefits					
Sl	Parameters	Quantity (Ha.)	Rate (Rs. in Lakh)	Amount (Rs.Cr.)	Remark
1	Increase in Productivity and Economics			780.00	Due to Upgradation of existing highway to two lane with paved 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. I is assume that due to widening of road will result in improved traffic condition and saving in travel time will result in economic benefit of Rs.780 crore.
2	Benefits to economy due to the specific project			85.96	<p>The 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 :</p> <ol style="list-style-type: none"> 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 furniture's 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 <p>Based on the economic analysis of the project, Economic Internal Rate of Return (EIRR) is as follows 2 times of NPV = 2 x42.93=85.96 Cr</p>
3	No. of Population benefitted due to specific project	No. of Population = 1,07,11,182			This road project directly benefits the people of Vaishali, Samastipur and Begusarai District is 10711182 (as per census 2011) .
4	Economic Benefits due to direct and indirect employment due to the project			4.06	Permanent employment of 20 people and temporary employment of 120 people for project duration of 548 days. (20x548xRs.1000 per day) + (120x548xrs.450 per day)= 4.06 crore.
5	Benefit from Compensatory Afforestation	194.7868	450.99	878.47	APCCF(Campa)-cum-Nodal Officer (Forest Conservation) letter No. 1075 dt. 15.12.2022
Total (780+85.96+4.06+878.47)cr. = 1748.49 Crore					

Cost Benefit Ratio (CBA Ratio)=

Benefit/Cost

$$= \frac{1748.49 \text{ cr.}}{523.26 \text{ cr.}} = 3.34$$

CBA Ratio

$$= 1:3.34$$

40-
11.03.25

11/03/2025

R.P.
11/03/2025
Executive Engineer
NH Division Gulzarbagh
Patna

● कार्यालय, वन प्रमंडल पदाधिकारी, बांका वन प्रमंडल, बांका

आजाद चौक, बाबू टोला, बांका-813102

E-mail-dfo.banka@gmail.com



पत्रांक- 266

प्रेषक,

अभिषेक कुमार सिंह, (भाउकासे)
वन प्रमंडल पदाधिकारी,
बांका वन प्रमंडल, बांका।

सेवा में,

प्रधान मुख्य वन संरक्षक (HoFF),
बिहार, पटना।

बांका, दिनांक- 27/02/2023

विषय :-

वैशाली, समस्तीपुर एवं बेगुसराय जिलान्तर्गत हाजीपुर NH-22 बछवाड़ा NH-122 B
माया महनार-मोहिउद्दीन (0.00-72.95 कि०मी०) पथांश के चौड़ीकरण एवं
सुदृढीकरण पथ परियोजना के विरुद्ध 100.00 हे० में उपलब्ध कराये गये क्षतिपूरक
वनीकरण प्राक्कलन के संबंध में।

प्रसंग :-

भवदीय पत्रांक-व०सं०/88/2021-139 दिनांक-23-02-2023

महाशय,

उपर्युक्त विषयक संबंध में सूचित करना है कि, क्षतिपूरक वनरोपण हेतु प्रस्तावित
स्थल कोरवासा बिरनिया, खेसरा संख्या-495, 511 की जाँच वनों के क्षेत्र पदाधिकारी, बीसी प्रक्षेत्र,
बीसी द्वारा कराया गया। जाँच में पाया गया कि, खेसरा नं०-495 में मात्र 10 हे० पूर्व में चिलकारा
प्रस्तावित स्थल पर वर्ष-2021 में वनरोपण कराया गया है एवं शेष रकबा खाली है। खेसरा
संख्या-511 में पूर्ण रूप से खाली है। पूर्व में खेसरा संख्या-495 में चिलकारा वनरोपण के साथ
कराया गया वनरोपण का नक्शा एवं वर्तमान में भेजे गए नक्शा की छायाप्रति इस पत्र के साथ
संलग्न कर भेजी जा रही है।

अतः अनुरोध है कि, विषयांकित परियोजना में अग्रेतर कार्रवाई करने की कृपा की
जाय।

सूचनार्थ समर्पित।

अनु०-यथोक्त।

विश्वासभाजन,

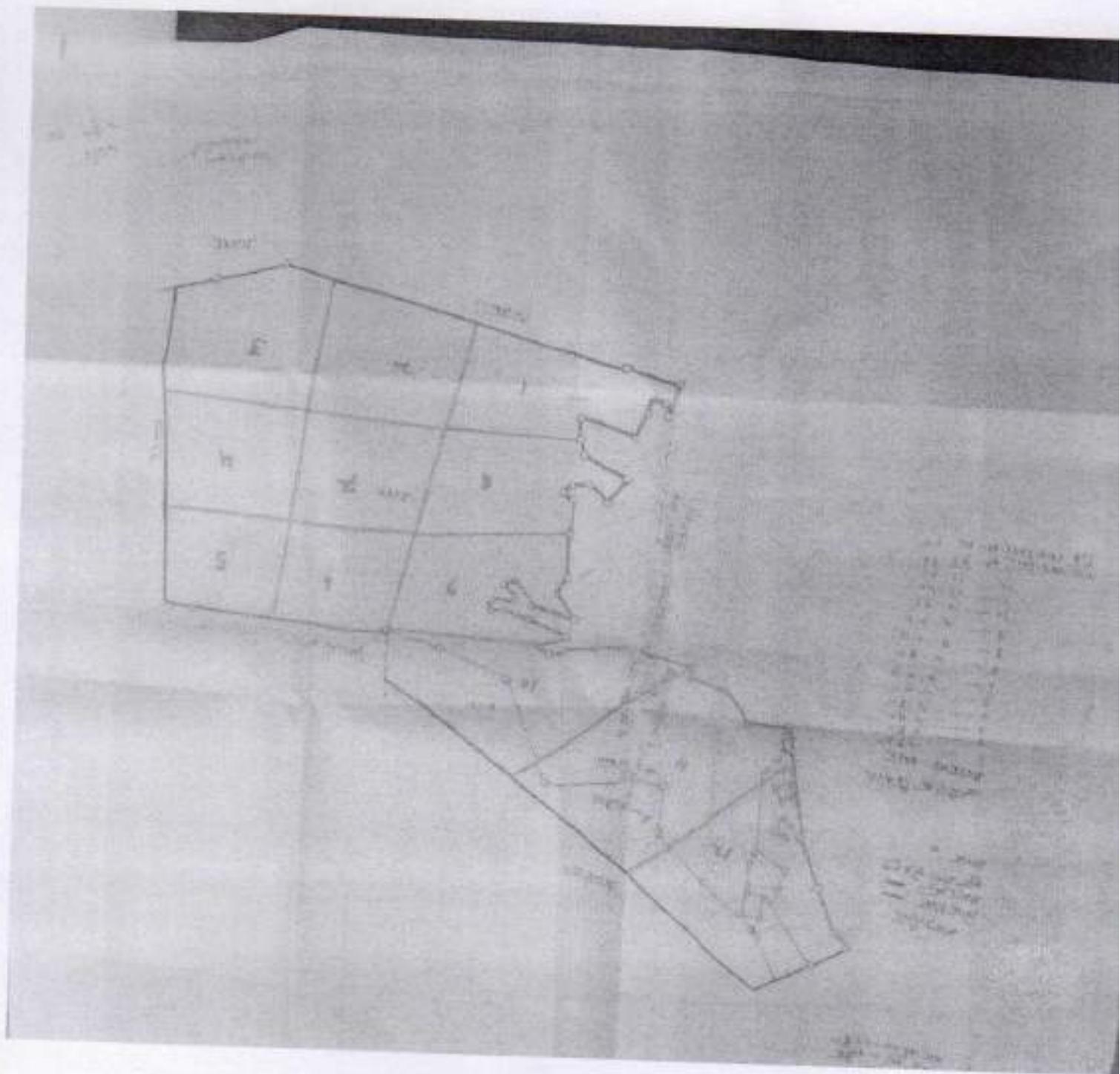
वन प्रमंडल पदाधिकारी,
बांका वन प्रमंडल, बांका।

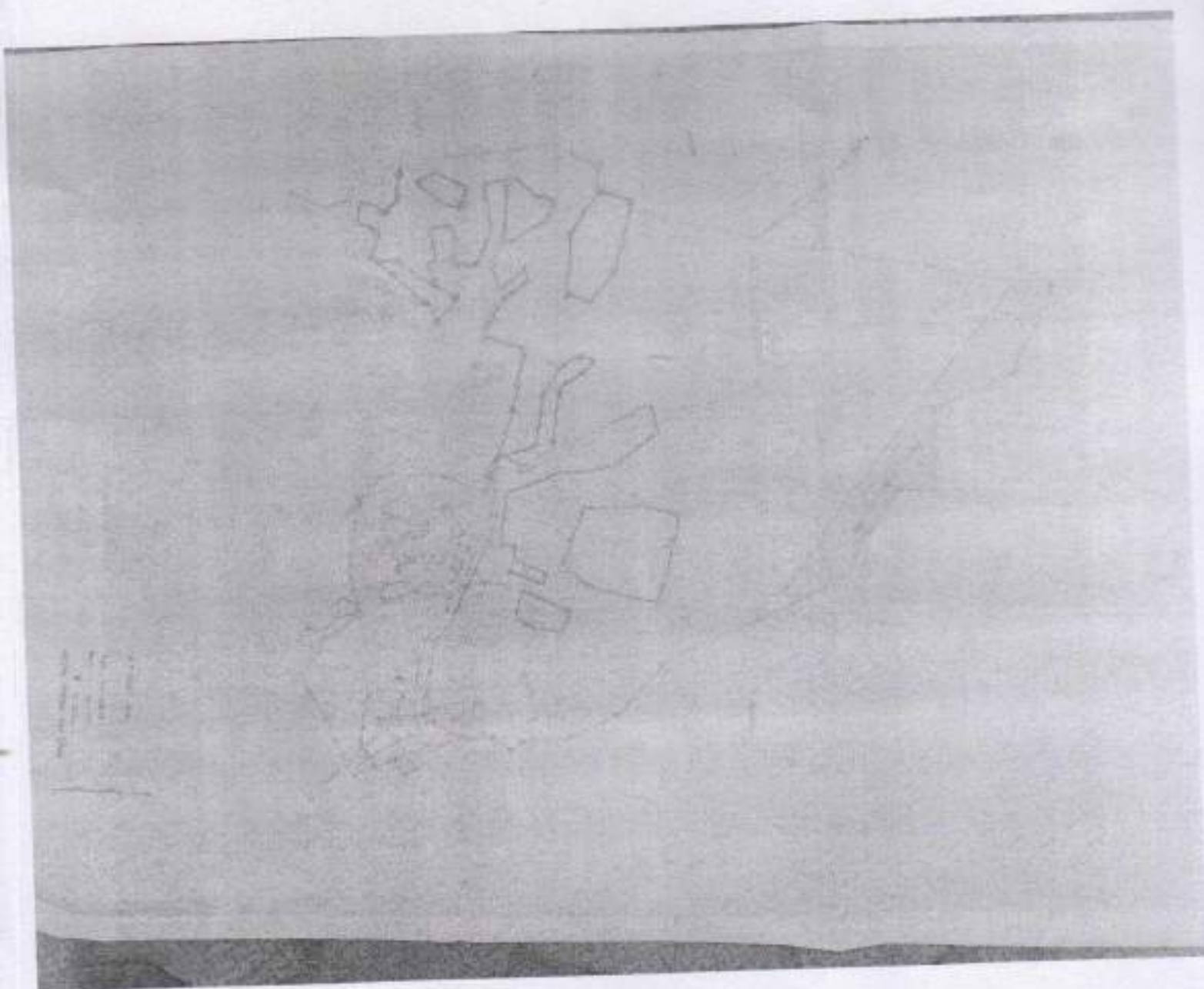
ज्ञापक- 266

दिनांक- 27/02/2023

प्रतिलिपि-वन संरक्षक, भागलपुर अंचल, भागलपुर को सूचनार्थ एवं आवश्यक कार्रवाई हेतु समर्पित।

वन प्रमंडल पदाधिकारी,
बांका वन प्रमंडल, बांका।





कार्यालय :- वन प्रमंडल पदाधिकारी, जमुई वन प्रमंडल, जमुई।

अधीक टाउन ईल रोड, जमुई। पिनकोड- 811307, फोन नं- 06345-222036
E-mail I.D-jamuidfo@gmail.com

पत्रांक :- 815

दिनांक :- 17/03/2023

प्रेषक,

पीयूष कुमार बरनवाल, भा.व.से.0,
वन प्रमंडल पदाधिकारी,
जमुई वन प्रमंडल, जमुई।

सेवा में,

प्रधान मुख्य वन संरक्षक (HoFF),
बिहार, पटना।

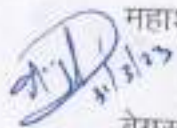
विषय :-

वैशाली, समस्तीपुर एवं बेगूसराय जिलान्तर्गत हाजीपुर NH-22-बछवाड़ा NH-122B भाया महनार-मोहिउद्दीनगर (0.00-72.95 कि०मी०) पथांश के चौड़ीकरण एवं सुदृढीकरण पथ परियोजना के विरुद्ध 100.00 हे० में उपलब्ध कराये गये क्षतिपूरक वनीकरण प्राक्कलन के संबंध में।

प्रसंग :-

भवदीय कार्यालय पत्रांक संख्या- व.स./88/2021-140 दिनांक-23.02.2023

महाशय,



उपरोक्त प्रासंगिक पत्र के आलोक में सूचित करना है कि वैशाली, समस्तीपुर एवं बेगूसराय जिलान्तर्गत हाजीपुर NH-22-बछवाड़ा NH-122B भाया महनार-मोहिउद्दीनगर (0.00-72.95 कि०मी०) पथांश के चौड़ीकरण एवं सुदृढीकरण पथ परियोजना के विरुद्ध 100.00 हे० में क्षतिपूरक वनरोपण हेतु चिन्हित किये गये स्थलों- जामुखरैया एवं लखुआ, कोठा सुरक्षित वन का अधोहस्ताक्षरी द्वारा दिनांक-25.02.2023 को सहायक वन संरक्षक, जमुई, वनों के क्षेत्र पदाधिकारी, झांझा एवं चकाई क्रमशः एवं अन्य वनकर्मियों की उपस्थिति में जाँच किया गया, जिसमें निम्नलिखित तथ्यों की तरफ भवदीय का ध्यान आकृष्ट कराना चाहूँगा।

1) जामुखरैया :-

i) यह सुरक्षित वन झांझा वन प्रक्षेत्र में अवस्थित है तथा, जिसका कुल रकबा 333 हे० है, इसमें से कुल 50 हे० (नेट) भूमि पर क्षतिपूरक वनरोपण हेतु प्रस्ताव दिया गया था। इस स्थल के संपूर्ण क्षेत्र का निरीक्षण करते हुए अलग-अलग स्थलों पर कुल 47 GPS Points लिये गये (छाया प्रति संलग्न)।

ii) इस स्थल पर पूर्व में विगत 10 वर्षों में कोई वनरोपण नहीं कराया गया है तथा प्रमंडलीय अभिलेखों के अनुसार अंतिम वनरोपण वित्तीय वर्ष 2010-11 में कराया गया था, जिसके अवशेष गड़ढे यत्र-तत्र प्रदर्शित होते हैं।

III) यह वनरोपण स्थल वनरोपण के लिए उपयुक्त है, इसीलिए इसका चयन क्षतिपूर्क वनरोपण का प्रस्ताव/ प्राक्कलन समर्पित करने हेतु किया गया था।

2) लखुआ, कोठा सुरक्षित वन :-

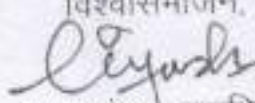
I) यह प्रस्तावित सुरक्षित वन चकाई वन प्रक्षेत्र में अवस्थित है तथा अलग-अलग खण्डों में अवस्थित है (लखुआ, कोठा), जिसका कुल रकबा 159 हे० है, जिसमें से कुल 50 हे० भूमि पर क्षतिपूर्क वनरोपण करने हेतु प्रस्ताव दिया गया था।

II) इस स्थल के संपूर्ण क्षेत्र का निरीक्षण करते हुए अलग-अलग स्थलों पर कुल 16 GPS Points लिये गये (छाया प्रति संलग्न)। प्रस्तावित स्थलों पर विगत 10 वर्षों में कोई वनरोपण नहीं किया गया है, जिसकी संपुष्टि प्रमंडलीय अभिलेखों से भी की जा सकती है।

III) यह वनरोपण स्थल भी वनरोपण के लिए उपयुक्त है, इसीलिए इसका चयन क्षतिपूर्क वनरोपण का प्रस्ताव/प्राक्कलन समर्पित करने हेतु किया गया था।

अतः उक्त के आलोक में भवदीय से अनुरोध है कि अधोहस्ताक्षरी को प्रासंगिक पत्र में वर्णित आरोपों से मुक्त करने की कृपा करना चाहेंगे।

अनु०-यथोक्त।

विश्वासभाजन,

वन प्रमंडल पदाधिकारी,
जमुई वन प्रमंडल, जमुई।
17/3/2023

Jamukhreya

Some descriptions for your map

- Legend**
- 37707202
 - Apple Pay
 - Barangbali Market
 - Feature 1
 - Maningay 12 H
 - Plantation Area
 - Rahul Solution For
 - Store



Google Earth

Devi

जामुखरैया क्षतिपूरक वनरोपण में निरीक्षण से संबंधित फोटोग्राफ



OLD PITS
OF 2010-11
PLANTATION

Ligush

-akhua& Kotha

Write a description for your map

Legend

- Apple Fly
- Baranibali Mandir
- Feature 1
- Manihgav 12 H
- Plantation Area
- Rahul Solution Point
- Score

Google Earth

Liquid

लखुआ एवं कोठा क्षतिपूरक वनरोपण में निरीक्षण से संबंधित फोटोग्राफ



Lignol

कार्यालय:-वन प्रमंडल पदाधिकारी, जमुई वन प्रमंडल, जमुई।

अशोक टाउन हॉल रोड, जमुई। पिनकोड- 811307, फोन नं०- 08345-222036

E-mail LD-jamuidfo@gmail.com

पत्रांक :- 932

दिनांक :- 01-04-2023

प्रेषक,

पीयूष कुमार बरनवाल, 3804040,
वन प्रमंडल पदाधिकारी,
जमुई वन प्रमंडल, जमुई।

सेवा में,

अपर प्रधान मुख्य वन (संरक्षक),
-सह-नोडल पदाधिकारी (वन संरक्षण),
बिहार, पटना।

विषय :-

वैशाली, समस्तीपुर एवं बेगूसराय जिलान्तर्गत हाजीपुर NH-22-बछवाड़ा NH-122B
भाया महानार-मोहिउद्दीनगर (0.00-72.95 कि०मी०) पथांश के चौड़ीकरण एवं
सुदृढीकरण पथ परियोजना के विरुद्ध 100.00 हे० में उपलब्ध कराये गये क्षतिपूरक
वनीकरण प्राक्कलन के संबंध में।

प्रसंग :-

भवदीय पत्रांक-व.सं/88/2021-226 दिनांक-31.03.2023

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में सूचित करना है कि विषयांकित प्रस्ताव में
समर्पित किये गये KML File में 2 Patches में DSS पर अवलोकन करने पर पीट जैसी आकृतियाँ
प्रदर्शित हो रही हैं। इन दोनों Patches को संलग्न किये गये छायांकन में क्षेत्र-1 तथा क्षेत्र-2 के नाम
से प्रदर्शित किया गया है। इन दोनों क्षेत्रों के संबंध में आवश्यक विवरणी निम्नवत् है :-

(1) क्षेत्र-1, कुल 2 हे० में फैला है तथा इस क्षेत्र में DSS पर जो आकृतियाँ पीट जैसी प्रतीत हो
रही हैं, वे वास्तविक रूप में स्थानीय किसानों द्वारा किये गये जोत-कोड़ के फलस्वरूप बनी हुई सममित
पंक्तियाँ हैं। इस भूमि पर भी वनरोपण किया जा सकता है, जिसके पश्चात् इसे जोत-कोड़ से मुक्त
किया जा सकता है।

(2) क्षेत्र-2, कुल 2.04 हे० में फैला है तथा इस क्षेत्र में पूर्व में किये गये वनरोपण के अवशेष हैं,
जिसमें मुख्य रूप से जड़ ही स्थल पर देखे जा सकते हैं। प्रमंडल में संचारित अभिलेखों से स्पष्ट होता
है कि यह वनरोपण वर्ष 2005-2006 से भी पुराने है, क्योंकि पिछले 18 वर्षों में इस स्थल पर कोई भी
वनरोपण कार्य नहीं कराया गया है। अतः यह वन भूमि अवकृष्ट है तथा इस भूमि पर वनरोपण कार्य
कराया जा सकता है।

अनु०-यथोक्त।

विश्वासभाजत,
Piyush Kumar 01/4/23
वन प्रमंडल पदाधिकारी,
जमुई वन प्रमंडल, जमुई।



क्षेत्र-1

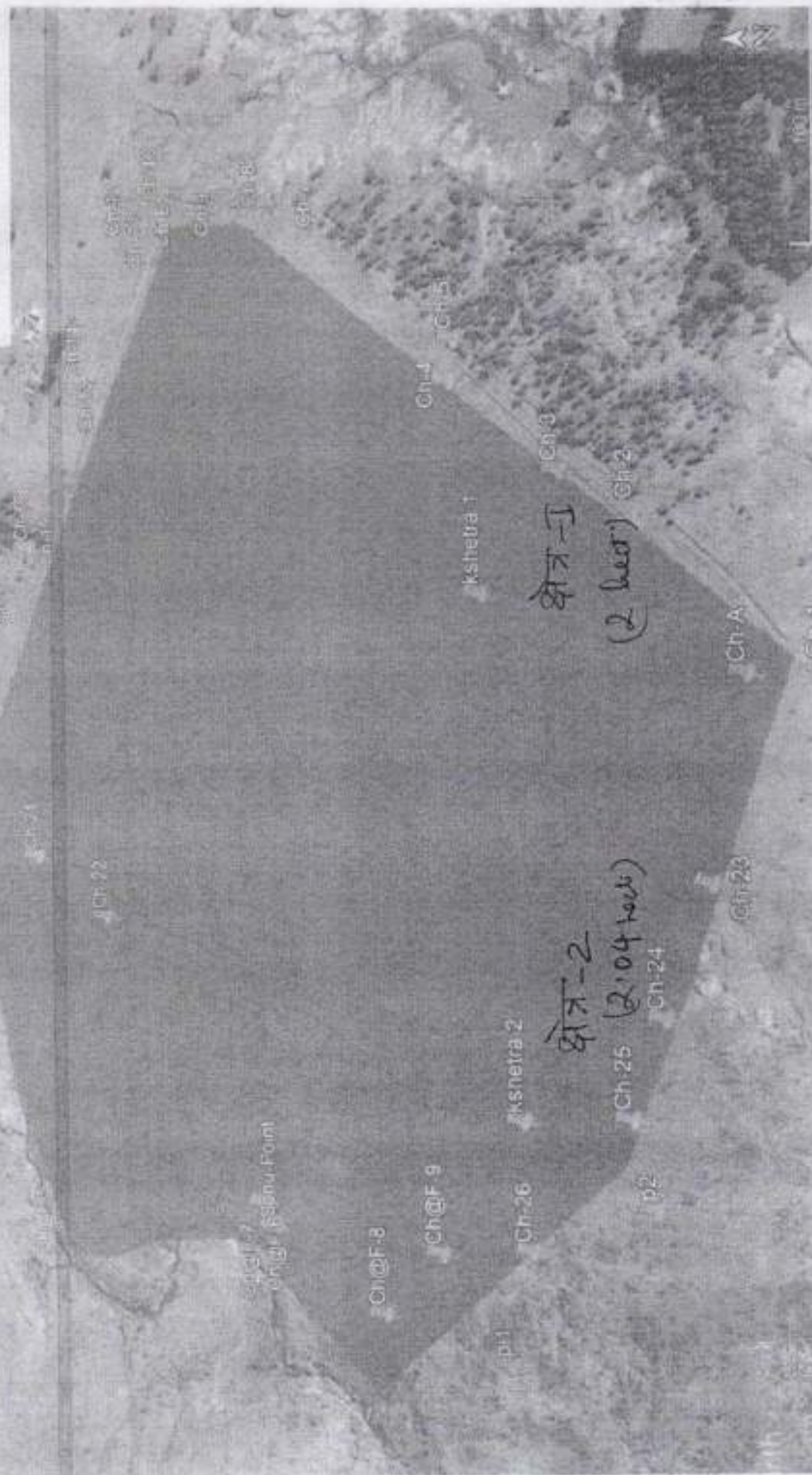


क्षेत्र-2

Lijust

Legend

- -2 TIGBY HIGH SCHOOL BIGHORNA
- Feature 1
- Feature 2
- Feature 3



Office of the Superintending Engineer,
National Highway Works Circle, Patna
email- nhcirclepatna@gmail.com, Mob No- 9470001344

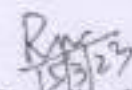
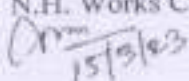
Letter No.- 316

Dated- 15.3.2023

TO WHOM SO EVER IT MAY CONCERN

AUTHORIZATION LETTER

This is to certify that Shri Ramanuj Prasad, Executive Engineer, N.H. Division, Gulzarbagh, Patna is here by authorized to file application for proposed Forest Clearance for Improvement/Strengthening of NH 122B (Hajipur to Bachhwara via Mahnar - Mohiuddinnagar Section) work for logging on Parivesh Portal and to make all correspondences related with the project to relevant Government Officer on behalf of this department.


Superintending Engineer,
N.H. Works Circle, RCD, Patna.


Methodology of Trees Translocation

Translocation is the term used to describe the digging and replanting of trees from one location to a new location. Due to the wide extent and morphology of tree root system, translocation of trees usually involves substantial removal of roots.

Design and Documentation

It is ensured that the requirements such as timing of root pruning, size of root ball, translocate and lifting requirement, monitoring and post translocation maintenance, etc. shall be properly planned.

Safety precautions- Tree translocation, like other tree management works, would be conducted in a controlled and safe manner. Workers who shall involve in translocate trees will be given adequate instruction and supervision to ensure that tasks are completed in a safe manner.

Translocation operations

Tools and equipment -All tools and equipment shall be appropriate to the operations and prepared in advance. Digging and root pruning tools shall be sharp and clean in order to cut without breaking, crushing or tearing roots. Mechanical digging and root pruning equipment shall be operated according to manufacturers' recommendations to minimize root damage.

Lifting cables, chains, straps, and/or slings shall be inspected and used according to manufacturers' instructions and specifications.

Preparation of root ball- Root pruning is sometimes required before translocation a tree. Sufficient time shall be allowed between preparation and final lifting for development of new roots capable of sustaining and continuing the growth of the translocated tree.

The root system of a woodland or open-grown tree will normally be widespread. Lifting such trees without initial preparation of a root ball will result in much of the root system being left in the soil. After translocation, the tree crown may then die back, or the tree may not be able to recover and will die eventually.

The root ball size shall varies depending on species, habit, location and specific attributes which shall be as large as practicable to maximise the potential of survival during and after translocation while balancing other logistical and cost concerns.

The root ball sizes would be of a diameter and depth to encompass enough of the root system as necessary for establishment. Normally the diameter of a root ball is larger than its depth which seldom exceeds 1 metre.

Pre-lifting operations -Tree lifting operations shall be carefully timed so as to enable direct delivery to the receptor site. No translocation operations would commence until either the receptor

site or the holding nursery is fully prepared. Tree uplifted must be translocated and watered the same day. Watering before lifting is recommended.

Before uplifting, the outer edge of the previously dug trenches shall be loosened from the surrounding soil, and the root ball can be shaped with taper on the sides, slanting inward toward the base. The first cut around the perimeter of the root ball should be made with a sharp tool. Cuts should be clean to avoid tearing or breaking the roots. The shaping and final cuts should be done by hand.

Temporary support of trees before lifting- A tree after root pruning shall not be having extensive root support during the interim of the translocate process. It may be vulnerable to inclement weather, such as typhoon or heavy rainfall.

Removal of the root system may sometimes aggravate the natural form and balance of a tree and is prone to tree failure. When the stability of a tree is likely to be jeopardized, a temporary support, such as guying or simple prop is essential.

Lifting and handling of root-balled trees - The root ball would be properly wrapped before lifting. Lifting shall be done by direct lift, with padded protection for the tree, using a machine of appropriate capacity connected to the support around the root ball, not to any other part of the trees. Trees shall not be lifted by the trunk as this can cause serious trunk injury but by its root ball which shall be properly prepared and wrapped. Root balls that are not properly protected would easily collapse during transplanting due to its own weight.

Post-planting Care- In case of translocation of trees within the project site amidst the construction activities, they will be well protected with robust fencing.

All newly translocated trees shall receive proper maintenance care in order to facilitate recovery of tree from the translocation shock. It would be ensure the tree shall be stable before its root system is fully recovered to give support.

The stress of a tree shall be observed immediately after translocation or gradually after a period of time. Proper care after transplanting will help to assure survival and minimise stress and ensure a higher successful rate. Maintenance of translocate trees will be in continuation till one year.

- Annexure:-**
1. Summary of Plants which needs to be Translocate
 2. Linear Plan of Identified Land to translocate the Plants (2542Nos.)

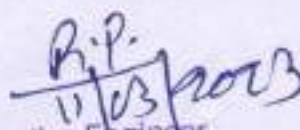
**Detailed Summary of Trees/Plants for Upgradation & Widening
to Two lane with Paved Shoulder of NH 122 B of Jadhua-
Bachhwara section (From km 0.000 to km 72.951)**

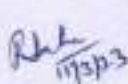
District – Vaishali)

SLNo	Site Name	Particulars	L.H.S	R.H.S.	Total	Remarks
1	2	3	4	5	6	7
1	Jadhua Bachhwara Section OF NH- 122 B	Translocate	332	401	733	Upto 60 cm girth size plants/ trees may be proposed for translocation. These trees/ plants may be translocated as per availability of land in proposed ROW.
		Cut	1392	1628	3020	Above 60 cm girth size Trees/ Plants, Dry trees and multi- trunk trees having multi girth are proposed for cutting
Total			1724	2029	3753	

Abstract:-

Total Nos. of affected Trees	3753
Nos. of affected Trees proposed for Translocation	733
Nos. of affected Trees proposed for Felling	3020


 Executive Engineer
 NH Division Gulzarbagh
 Patna

 11/3/23

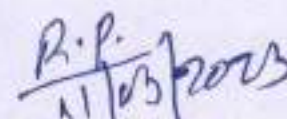
**Detailed Summary of Trees/Plants for Upgradation & Widening
to Two lane with Paved Shoulder of NH 122 B of Jadhua-
Bachhwara section (From km 0.000 to km 72.951)**

District – Samastipur

SLNo	Site Name	Particulars	L.H.S	R.H.S.	Total	Remarks
1	2	3	4	5	6	7
1	Jadhua Bachhwara Section OF NH- 122 B	Translocate	979	752	1731	Upto 60 cm girth size plants/ trees may be proposed for translocation. These trees/ plants may be translocated as per availability of land in proposed ROW.
		Cut	2365	1967	4332	Above 60 cm girth size Trees/ Plants, Dry trees and multi- trunk trees having multi girth are proposed for cutting
Total			3344	2719	6063	

Abstract:-

Total Nos. of affected Trees (Nos.)	6063
Nos. of affected Trees proposed for Translocation	1731
Nos. of affected Trees proposed for Felling	4332


 11/03/2013
 Executive Engineer
 NH Division Gulzarbagh
 Patna

**Detailed Summary of Trees/Plants for Upgradation & Widening
to Two lane with Paved Shoulder of NH 122 B of Jadhua-
Bachhwara section (From km 0.000 to km 72.951)**

District – Begusarai

Sl.No	Site Name	Particulars	L.H.S	R.H.S.	Total	Remarks
1	2	3	4	5	6	7
1	Jadhua Bachhwara Section OF NH- 122 B	Translocate	40	38	78	Upto 60 cm girth size plants/ trees may be proposed for translocation. These trees/ plants may be translocated as per availability of land in proposed ROW.
		Cut	193	134	327	Above 60 cm girth size Trees/ Plants, Dry trees and multi- trunk trees having multi girth are proposed for cutting
Total			233	172	405	

Abstract:-

Total Nos. of affected Trees	405
Nos. of affected Trees proposed for Translocation	78
Nos. of affected Trees proposed for Felling	327

R.P.
11/03/2023
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**STRIP CHART/ LINEAR PLAN FOR TRANSLOCATION OF TREES in District Vaishali in the last strip of the Proposed ROW of Jadhua-
Bachhara Section. (From KM 0.00 to 34.900)**

Left Side	Rest Land for Translocation of Trees (332 Plants) (< 60 cm Girth)	4.00 meter	34.900
	Earthen Shoulder	1.00 meter	
	Paved Shoulder	1.500 meter	
	Proposed Carriageway	7.00 meter	0.00
	Paved Shoulder	1.500 meter	
	Earthen Shoulder	1.00 meter	
Right side	Rest Land for Translocation of Trees (401 Plants) (< 60 cm Girth)	4.00 meter	34.900
	Design Chainage	↑	

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STRIP CHART/ LINEAR PLAN FOR **TRANSLOCATION OF TREES** in District Samastipur in the last strip of the Proposed ROW of Jadhua- Bachwara Section, (From KM 34,900 to 70.041))

Left Side	Rest Land for Translocation of Trees (979 Plants) (< 60 cm Girth)	4.00 meter	34.900	70.041
	Earthen Shoulder	1.00 meter		
	Paved Shoulder	1.500 meter		
Right side	Proposed Carriageway	7.00 meter	34.900	70.041
	Paved Shoulder	1.500 meter		
	Earthen Shoulder	1.00 meter		
	Rest Land for Translocation of Trees (752 Plants) (< 60 cm Girth)	4.00 meter		
	Design Chainage			



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11/03/2023

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11/2/23

**STRIP CHART/ LINEAR PLAN FOR TRANSLOCATION OF TREES in District Begusarai in the last strip of the Proposed ROW of
Jadhua- Bachwara Section. (From KM 70.0410 to 72.951)**

Left Side	Rest Land for Translocation of Trees (40 Plants) (< 60 cm Girth)	4.00 meter	70.041	72.951
	Earthen Shoulder	1.00 meter		
	Paved Shoulder	1.500 meter		
Right side	Proposed Carriageway	7.00 meter	70.041	72.951
	Paved Shoulder	1.500 meter		
	Earthen Shoulder	1.00 meter		
	Rest Land for Translocation of Trees (38 Plants) (< 60 cm Girth)	4.00 meter	70.041	72.951
	Design Chainage			



P. P. Singh
11/07/2023

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Patna

11/07/2023

Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B

Tree list of District- Vaishali

L.H.S									
Sl.No	Botanical name	Type of Tree	Girth wise total tree (cm.)						Total
			0 - 30	31 - 60	61-90	91- 120	121-150	> 150cm	
1	Mangifera indica	Aam	0	34	19	7	7	14	81
2	Phyllanthus emblica	Aawla	0	1	1	1	0	1	4
	other	Amra				1			1
3	Ehretia Laevis Roxb.	Ajan	2	10	17	12	6	4	51
4	Cassia fistula	Amaltas	0	0	1	2	2	2	7
5	Psidium	Amrud	0	9	4	2	0	1	16
6	Saraca indica	Ashok	0	19	23	22	20	37	121
7	Acacia nilotica	Babul	0	0	2	1	0	0	3
8	Aegle marmelos	Bael	0	3	6	3	2	1	15
9	Ziziphus mauritiana	Bair	0	3	0	0	0	0	3
10	Ficus benghalensis	Bairgad	0	0	2	1	2	14	19
11	other	Bahar	0	0	0	1	0	0	1
12	Artocarpus lacucha	Bairhar	0	1	5	1	0	0	7
13	Holoptelea integrifolia	Chilmil	0	16	15	6	2	4	43
14	Ficus racemosa	Gullar	0	3	6	6	3	7	25
15	Royal poinciana	Gulmohar	2	5	5	19	22	31	84
16	Tamarind indica	Imli	0	1	1	0	0	0	2
17	Pithecellobium dulce	Jalebi	1	1	8	4	0	1	15
18	Syzygium cumini	Jamun	0	0	1	0	1	0	2
19	other	Jamuni	0	0	1	0	0	0	1
20	other	Jangi	0	1	0	0	0	0	1
21	other	Jangli	4	85	70	34	7	12	212
22	other	Jangli sukha	0	0	1	0	0	0	1
23	other	Jiyal	0	5	2	2	0	0	9
24	Neolamarckia cadamba	Kadam	1	42	80	88	29	16	256
25	other	Kadam sukha	0	0	0	0	1	0	1
26	Artocarpus heterophyllus	Kathal	0	0	2	3	2	2	9
27	Cassia fistula	Keryuani	0	2	1	1	0	0	4
28	Phoenix dactylifera	Khajur	0	1	7	3	2	0	13
29	other	Lihtora	0	2	2	1	1	1	7
30	Litchi chinensis sonn	Litchi	0	0	1	1	0	2	4
31	other	Mohni	1	4	2	0	0	0	7
32	Cocos nucifera	Nariyal	0	0	2	12	0	0	14
33	Azadirachta indica	Neem	1	13	29	24	23	16	106
34	Citrus lemon	Nimbu	0	5	6	2	0	0	13
35	Ficus virens	Pakar	0	1	1	0	0	11	13
36	Ficus religiosa	Peepal	0	1	1	3	3	51	59
37	other	Safeda	0	0	0	1	0	0	1
38	Moringa oleifera	Sahjan	0	0	0	0	0	2	2
39	Tectona grandis	Sagwan	0	19	23	10	2	4	58
40	Bombax ceiba	Simar	0	8	16	17	15	37	93
41	other	Sintora	0	0	1	0	0	0	1
42	Albizia lebbeck	Sireesh	0	11	11	9	5	5	41
43	Dalbergia sissoo	Sisam	1	9	36	19	10	10	85
44	other	Sukha	0	1	1	3	5	3	13
45	other	Sukha aam	0	0	0	0	1	0	1
46	other	Sukha ajan	0	0	0	0	0	1	1
47	other	Sukha kadam	0	0	0	1	0	0	1

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R-P.

L.H.S									
Sl.No	Botanical name	Type of Tree	Girth wise total tree (cm.)						Total
			0 - 30	31 - 60	61-90	91- 120	121-150	> 150cm	
48	other	Sukha pair	0	0	1	0	0	0	1
49	other	Sukha sisam	0	1	1	1	2	2	7
50	Borassus	Taar	0	0	6	59	77	25	167
51	other	Taar sukha	0	0	1	2	0	0	3
52	Cyperus rotundus	Toot	0	4	7	5	2	1	19
		Total	13	321	428	390	254	318	1724
Total			1724						

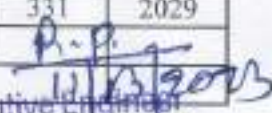
R.P.
11/03/2023

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Patna

Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B

Tree list of District- Vaishali

R.H.S.									
Sl.No.	Botanical Name	Type of Tree	Girth wise total tree (cm.)						Total
			0 - 30	30- 60	61-90	91-120	121-150	>150	
1	Mangifera indica	Aam	1	35	28	13	5	24	106
2	Ehretia Laevis Roxb.	Ajan	2	39	36	27	9	13	126
3	Spondians mombin	Amra	0	0	0	0	1	0	1
4	Psidium	Amrud	0	5	2	3	0	0	10
5	Saraca indica	Ashok	3	15	16	15	17	43	109
6	Acacia nilotica	Babul	0	0	1	2	1	0	4
7	Aegle marmelos	Bael	0	2	6	3	2	1	14
8	Ziziphus mauritiana	Bair	1	3	6	2	1	10	23
9	Artocarpus lacucha	Bairhar	1	2	3	2	0	0	8
10	Artocarpus lacucha	Barhar	0	1	0	0	0	0	1
11	Holoptelea integrifolia	Chilmil	0	7	11	3	0	2	23
12	Royal poinciana	Golmohar	0	0	0	0	0	2	2
13	Ficus racemosa	Gullar	0	0	1	5	7	7	20
14	Royal poinciana	Gulmohar	0	3	14	19	19	20	75
15	Tamarind indica	imli	0	0	0	0	1	1	2
16	Pithecellobium dulce	Jalebi	1	1	1	3	1	5	12
17	Syzygium cumini	Jamun	0	1	2	0	1	1	5
18	other	Jamuni	0	0	1	0	0	0	1
19	other	Jehal	0	3	2	1	0	0	6
20	other	Jangli	3	35	54	25	6	5	128
21	other	Jiyal	0	3	2	0	0	0	5
22	Neolamarckia cadamba	Kadam	4	98	142	152	51	22	469
23	Artocarpus heterophyllus	Kathal	0	3	6	2	2	4	17
24	Phoenix dactylifera	Kajur	0	0	7	2	0	0	9
25	other	Lihtora	0	1	4	0	2	0	7
26	Litchi chinensis sonn	Litchi	0	0	3	0	0	1	4
27	Madhuca longifolia	Mahua	0	0	0	0	0	2	2
28	Swietenia macrophylla	Mohagani	7	44	13	2	0	0	66
29	Cocos nucifera	Nariyal	0	0	4	4	2	2	12
30	Azadirachta indica	Neem	0	23	13	14	5	5	60
31	Citrus lemon	Nimbu	0	4	4	1	1	0	10
32	Ficus virens	Pakar	0	0	2	0	1	4	7
33	Ficus religiosa	Peepal	0	2	1	2	6	80	91
34	Populus	Poplar	2	3	2	1	0	0	8
35	Tectona grandis	Sagwan	0	8	10	6	0	0	24
36	Bombax ceiba	Simar	0	10	16	19	16	36	97
37	Albizia lebbeck	Sireesh	0	5	12	11	8	3	39
38	Dalbergia sissoo	Sisam	0	14	18	27	11	8	78
39	other	Sukha	0	2	2	1	3	2	10
		Sitafal	0	0	0	0	1	0	1
40	Prosopis cineraria	Sunny	0	4	0	0	0	0	4
41	other	Taabh Nimbu	0	0	2	0	0	0	2
42	Borassus	Tar	0	0	20	167	99	27	313
43	Cyperus rotundus	Toot	0	6	6	4	1	1	18
		total	25	382	473	538	280	331	2029
31									
Total			2029						


 Executive Engineer
 NH Division Gulzarbagh
 Patna


 P. P. Singh

Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B
 Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B
 Tree list of District- Samastipur

L.H.S									
Sl.No.	Botanical Name	Type of Tree	Girth wise total tree (cm)						Total
			0 - 30	30 - 60	61-90	91-120	121-150	>150	
1	Mangifera indica	Aam	3	16	26	16	9	17	87
2	Phyllanthus emblica	Aawla	0	1	2	0	1	0	4
3	Ehretia Laevis Roxb.	Ajan	50	144	169	142	117	102	724
4	other	Akaun	0	0	1	0	0	0	1
5	Cassia fistula	Amaltash	4	18	34	22	5	7	90
6	Psidium	Amrud	40	53	11	3	0	1	108
7	Psidium	Amud	1	0	0	0	0	0	1
8	Punica granatum	Anar	1	1	0	0	0	0	2
9	Terminalia arjuna	Arjun	0	0	2	3	4	1	10
10	Saraca indica	Ashok	1	13	16	16	9	10	65
11	Acacia nilotica	Babul	9	7	33	17	6	1	73
12	Aegle marmelos	Bael	7	16	21	17	3	5	69
13	Ficus benghalensis	Bargad	0	0	0	2	4	16	22
14	Ziziphus mauritiana	Bair	12	1	2	0	3	3	21
15	Artocarpus lacucha	Barhar	0	0	6	4	3	1	14
16	other	Baul	0	0	1	1	0	0	2
17	other	Chakundi	0	0	0	0	0	1	1
18	other	Chandan Phool	1	2	1	0	0	0	4
19	Citrus maxima	Daabh Nimbu	7	9	4	1	0	0	21
20	other	Dainta	0	0	4	1	0	0	5
21	other	Dhatri	0	1	0	0	0	0	1
22	other	Gamar	0	0	0	1	0	0	1
23	other	Goldmohar	1	13	10	14	7	15	60
24	Ficus racemosa	Gullar	1	3	4	8	4	9	29
25	Royal poinciana	Gulmohar	2	0	4	2	1	0	9
26	Tamarind indica	Imli	1	2	1	0	0	4	8
27	other	Jangli	27	28	87	94	74	82	392
28	Pithecellobium dulce	Jalebi	56	108	16	14	12	8	214
29	Syzygium cumini	Jamun	0	0	1	0	1	0	2
30	other	Jamuni	0	0	2	1	3	0	6
31	other	Jiyal	0	0	0	1	0	0	1
32	Neolamarckia cadamba	Kadam	0	1	6	4	12	7	30
33	Nerium oleander	Kanail	6	14	1	1	0	0	22
34	Millettia pinnata	Karanj	0	0	0	1	0	0	1
35	Artocarpus heterophyllus	Kathal	1	9	5	2	4	4	25
36	Cassia fistula	Keryuani	0	4	13	7	5	1	30
37	Phoenix dactylifera	Khajur	5	52	192	77	3	2	331
38	Litchi chinensis sonn	Litchi	0	3	3	1	0	1	8
39	Madhuca longifolia	Mahua	0	1	1	0	0	2	4
40	Cocos nucifera	Nariyal	0	0	6	5	0	0	11
41	Azadirachta indica	Neem	6	18	23	13	9	8	77
42	Ficus virens	Pakar	0	1	2	6	8	49	66
43	Ficus religiosa	Peepal	1	2	4	4	1	52	64
44	other	Phool	29	25	3	1	0	0	58
45	Mitragyna parvifolia	Raskadam	0	0	1	0	0	0	1
46	Tectona grandis	Sagwan	0	5	0	0	0	0	5
47	Horseradish	Sahjan	6	22	34	41	29	23	155
48	other	Sahtoot	0	0	1	0	0	0	1

R-P

L.H.S

SLNo.	Botanical Name	Type of Tree	Girth wise total tree (cm)						Total
			0 - 30	30 - 60	61-90	91-120	121-150	>150	
49	Bombax ceiba	Semar	5	12	17	19	4	18	75
50	Prosopis cineraria	Shami	2	1	0	0	0	0	3
51	Dalbergia sissoo	Sisam	21	43	27	29	5	5	130
52	Annona squamosa	Sitafal	2	3	0	0	0	0	5
53	Horseradish	Sohjan	0	5	0	0	0	0	5
54	other	Sukha	3	7	18	16	0	3	47
55	other	Taabh Nimbu	1	5	2	0	0	0	8
56	Borassus	Taar	0	4	8	35	23	33	103
57	Cyperus rotundus	Toot	1	12	10	5	1	3	32
		Total	313	685	835	647	370	494	3344
Total			3344						

R.P.
11/03/2023

R.P.
11/3/23

Executive Engineer
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Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B

Tree list of District- Samastipur

R.H.S.

SLNo.	Botanical Name	Type of Tree	Girth wise total tree (cm.)						Total
			0 - 30	30 - 60	61-90	91-120	121-150	>150	
1	Mangifera indica	Aam	1	20	20	13	6	7	67
2	Phyllanthus emblica	Aawla	0	1	0	0	0	0	1
3	Ehretia Laevis Roxb.	Ajan	48	169	230	117	66	62	692
4	Cassia fistula	Amaltush	5	22	31	7	5	0	70
5	Psidium	Amrud	11	32	19	1	0	0	63
6	Terminalia arjuna	Arjun	0	1	1	0	0	0	2
7	Saraca indica	Ashok	4	10	15	15	10	12	66
8	Acacia nilotica	Babul	3	31	78	37	9	6	164
9	Aegle marmelos	Bael	5	12	15	7	5	3	47
10	Ziziphus mauritiana	Bair	1	5	5	2	1	1	15
11	Ficus benghalensis	Bargad	1	2	8	8	2	19	40
12	Artocarpus lacucha	Barhar	0	0	1	0	0	0	1
13	Citrus maxima	Daabh Nimbu	5	11	8	0	1	0	25
14	Other	Goldmohar	10	20	23	15	3	2	73
15	Other	Goldmoharil	1	1	0	0	0	0	2
16	Ficus racemosa	Gullar	1	5	8	3	5	12	34
17	Royal poinciana	Gulmohar	0	1	1	3	4	4	13
18	Tamarind indica	Imli	0	2	1	0	0	1	4
19	other	Jangli	27	88	82	36	11	10	254
20	Pithecellobium dulce	Jalebi	1	14	13	9	8	9	54
21	other	Jamuni	0	1	0	1	1	2	5
22	Syzygium cumini	Jamun	0	0	4	1	0	1	6
23	Neolamarckia cadamba	Kadam	2	2	0	8	4	8	24
24	Nerium oleander	Kanail	1	4	1	0	0	0	6
25	other	Kanal Phool	6	4	0	0	0	0	10
26	senegalia catechu	Katha	0	1	1	0	3	2	7
27	Artocarpus heterophyllus	Kathal	2	5	7	4	2	1	21
28	other	Kedel	1	0	0	0	0	0	1
29	Phoenix dactylifera	Khajur	4	8	302	34	5	1	354
30	other	Lihtora	0	0	0	2	0	0	2
31	Litchi chinensis sonn	Litchi	0	4	0	2	0	0	6
32	Madhuca longifolia	Mahua	0	1	0	2	1	0	4
33	Azadirachta indica	Neem	3	14	17	18	6	4	62
34	Cocos nucifera	Nariyal	0	0	7	12	1	0	20
35	Ficus virens	Pakar	0	1	1	4	4	17	27
36	Ficus religiosa	Peepal	0	0	5	3	6	60	74
37	other	Phool	6	14	9	1	0	0	30
38	Cestrum nocturnum	Rat rani	0	0	2	0	0	0	2
39	Horseradish	Sahjan	1	10	21	14	16	10	72
40	Bombax ceiba	Semar	4	13	16	14	2	12	61
41	Prosopis cineraria	Shami	0	1	0	0	0	0	1
42	Dalbergia sissoo	Sisam	31	29	33	9	4	2	108
43	Annona squamosa	Sitafal	0	3	0	0	0	0	3
44	other	Sukha	0	4	3	1	0	1	9
45	other	Taabh Nimbu	1	0	0	0	0		1
46	Borassus	Tar	0	0	2	17	30	42	91
47	Cyperus rotundus	Toot	3	9	7	3	1	2	25
			189	575	997	423	222	313	2719
Total			2719						

R.H.S.
11/12/22

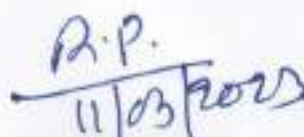
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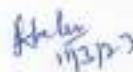
Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B

Tree list of District- Begusarai

L.H.S

SLNo.	Botanical Name	Type of Tree	Girth wise total tree (cm)						Total
			0 - 30	30 - 60	61 - 90	91-120	121-150	>150	
1	Ehretia Laevis Roxb.	Ajan	1	2	4	10	10	17	44
2	Psidium	Amrud	0	0	1	0	0	0	1
3	Saraca indica	Ashok	0	0	2	4	1	0	7
4	Acacia nilotica	Babul	0	0	2	1	1	0	4
5	Aegle marmelos	Bael	0	1	4	5	0	0	10
6	Ficus benghalensis	Bargad	0	0	0	0	1	3	4
7	Artocarpus lacucha	Barhar	0	0	1	1	0	0	2
8	Holoptelea integrifolia	Chilmil	0	0	4	1	1	0	6
9	Myrtaceae	Eucalyptus	0	0	1	0	0	2	3
10	Gmelina arborea	Gamhar	0	3	1	0	1	0	5
11	other	Gaughar	0	0	0	0	0	1	1
12	Ficus racemosa	Gullar	0	0	1	0	0	0	1
13	Royal poinciana	Gulmohar	0	1	0	5	3	1	10
14	Pithecellobium dulce	Jalebi	0	0	0	0	0	1	1
15	Millettia pinnata	Karanj	0	0	1	0	0	0	1
16	other	Mahogani	0	1	0	0	0	0	1
17	Azadirachta indica	Neem	1	3	2	2	0	1	9
18	Ficus religiosa	Peepal	0	1	1	1	0	8	11
19	Populus	Poplar	0	0	1	0	0	0	1
20	Bombax ceiba	Semar	1	5	23	10	12	10	61
21	Dalbergia sissoo	Sisam	0	7	7	7	0	0	21
22	Tectona grandis	Sagwan	0	1	0	0	0	0	1
23	other	Subabul	1	3	5	3	2	2	16
24	Albizia lebbeck	Siris	0	2	0	1	0	1	4
25	other	Sahtoot	0	1	0	0	0	0	1
26	other	Jungali	0	4	0	2	0	0	6
27	other	Tabh Nimbu	0	1	0	0	0	0	1
		Total	4	36	61	53	32	47	233
Total			233						


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Project Name- Upgradation & Widening to Two Lane with Paved Shoulder of NH-122 B

Tree list of District- Begusarai

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Sl.No.	Botanical Name	Type of Tree	Girth wise total tree (cm.)						Total
			0 - 30	31 - 60	61-90	91-120	121-150	>150	
1	Ehretia Laevis Roxb.	Ajan	1	15	36	29	6	17	104
2	Acacia nilotica	Babul	0	2	3	4	0	0	9
3	Ficus benghalensis	Bargad	0	0	0	0	0	2	2
4	Aegle marmelos	Bel	1	2	2	1	4	1	11
5	Holoptelea integrifolia	Chilmil	0	4	1	2	0	0	7
6	other	Gaughar	0	0	0	0	0	4	4
7	Tamarind indica	imli	0	0	0	0	0	1	1
8	Syzygium cumini	Jamun	0	1	0	0	0	0	1
9	Pithecellobium dulce	Jalebi	0	0	2	0	0	2	4
10	other	Jigal	0	1	0	0	0	0	1
11	Artocarpus heterophyllu	Kaathal	0	0	0	2	0	0	2
12	other	Lihtora	0	0	0	0	1	0	1
13	Azadirachta indica	Neem	0	0	0	1	0	0	1
14	Ficus religiosa	Peepal	0	0	1	1	1	5	8
15	Tectona grandis	Sagwan	0	0	1	0	0	0	1
16	Albizia lebbeck	Siris	0	1	0	0	0	0	1
17	Bombax ceiba	Semar	0	2	2	0	0	1	5
18	Dalbergia sissoo	Sisam	1	6	0	0	0	0	7
19	other	Subabul	0	1	1	0	0	0	2
20		Total	3	35	49	40	12	33	172
	Total					172			


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Tree Translocation scheme (Tree Protection Plan)

1. Brief Summary of Project (Jadhua- Bachhwara Section)

Project Detail:- Diversion of 97.3934 Ha. of forest land for Improvement of Two Lane with Paved Shoulder of NH-122 B starting from junction of NH-22 near Hajipur to junction of NH-122 near Bachwara via Mahnar, MohiuddinNagar in Bihar

Section :-Jadhua- Bachhwara: The project road is part of SH 93(old) connecting Jadhua and Bachhwara in the state of Bihar. The proposed project road originates from design chainage Km 0+000 at the junction of NH-22 (Hajipur) and terminates at km 72.951 near Murli toll plaza NH-122 (Bachhwara).

The proposed project confluence with nearly 30 Villages directly or indirectly. The proposed road is passing through three districts Vaishali, Samastipur and Begusarai in which Bidupur, Mahnar and sahdei Buzurg tehsils are under Vaishali district, Mohiuddin Nagar, Patori and Vidyapati Nagar tehsils are under Samastipur district and Bachhwara tehsil is under Begusarai district. The proposed project starts from design chainage Km 0+000 at the junction of NH-22 (Hajipur) district- Vaishali and terminates at NH-122 (Bachhwara) district of Begusarai of Bihar.

DETAILS OF AFFECTED TREES:

The entire section Jadhua- Bachhwara linear stretch of road side plantations along the highways is declared as protected forests.

- (i) In Vaishali District about 3753 Nos of trees are affected within the proposed ROW. Out of which 733 nos. of trees are proposed to be translocated and rest 3020 nos. of trees need to be felled.
- (ii) In Samastipur District about 6063 Nos of trees are affected within the proposed ROW. Out of which 1731 nos. of trees are proposed to be translocated and rest 4332 nos. of trees need to be felled.
- (iii) In Begusarai District about 405 Nos of trees are affected within the proposed ROW. Out of which 78 nos. of trees are proposed to be translocated and rest 327 nos of trees need to be felled.

List of Plants which need to be translocated is also attached.

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2.(A) Details of Identified Land For Translocation of Trees

Name of District of Identified Land

:- Vaishali

Location of Identified land for Translocation of Trees= Bidupur & Mahnar Block,
(last 3.5 meter in both side
of Proposed Row of Jadhua-
Bachhwara section)

Name of Forest Division

:- Vaishali Forest Division

No. of Trees for Translocation

:- 733 nos.

Calculation of Identified Land

:-

Required area for translocation of 01 Tree = $3\text{m} \times 3\text{m} = 9\text{ sqm}$,

Therefore Required Area for translocation of 733 Trees = $09 \times 733 = 6597\text{ sqm}$

= 0.66 Ha.

Therefore required length for linear translocation of trees within Proposed ROW
= $6597/3 = 2199\text{ m}$.

Required Length for Translocation of Trees with 3 m. width	$733 \times 3 = 2199\text{ m.} = (2.199\text{ km})$
Length available for Translocation of trees:	km 18.708 to km 20.000 and km 22.990 to 23.233 to 29.00 = (Length= 7059 m.) = (7.059 km)

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2.(B)Details of Identified Land For Translocation of Trees

Name of District of Identified Land

:- Samastipur

Location of Identified land for Translocation of Trees= Madudabad Block,
(last 3.5meter in both side
of Proposed Row of Jadhua-
Bachhwara section)

Name of Forest Division

:- Samastipur Forest Division

No. of Trees for Translocation

:- 1731 nos.

Calculation of Identified Land

:-

Required area for translocation of 01 Tree = $3m \times 3m = 9 \text{ sqm}$

Therefore Required Area for translocation of 1731 Trees = $09 \times 1731 = 15579 \text{ sqm}$

= 1.56 Ha.

Therefore required length for linear translocation of trees within Proposed ROW
= $15579/3 = 5193 \text{ m.}$

Required Length for Translocation of Trees with 3 m width	$1731 \times 3 = 5193 \text{ m.} = 5.193 \text{ km}$
Length available for Translocation of trees	km 53.110 to km 57.400 and 61.200 to 66.230 = (Length= 8090 m.) = (8.09 km)

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2.(C) Details of Identified Land For Translocation of Trees

Name of District of Identified Land

:- Begusarai

Location of Identified land for Translocation of Trees= Bachhwara Block,
(last 3.5meter in both side
of Proposed Row of Jadhua-
Bachhwara section)

Name of Forest Division

:- Begusarai Forest Division

No. of Trees for Translocation

:- 78 nos.

Calculation of Identified Land

:-

Required area for translocation of 01 Tree = $3\text{m} \times 3\text{m} = 9 \text{ sqm.}$

Therefore Required Area for translocation of 78 Trees = $09 \times 78 = 702 \text{ sqm.}$

= 0.0702 Ha.

Therefore required length for linear translocation of trees within Proposed ROW
= $702/3 = 234 \text{ m.}$

Required Length for Translocation of Trees with 3 m. width	$78 \times 3 = 234 \text{ m.}$
Length available for Translocation of trees	km 69.730 to km 70.440 = (Length= 710 m.)

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Methodology of Trees Translocation

Translocation is the term used to describe the digging and replanting of trees from one location to a new location. Due to the wide extent and morphology of tree root system, translocation of trees usually involves substantial removal of roots.

Design and Documentation

It is ensured that the requirements such as timing of root pruning, size of root ball, translocate and lifting requirement, monitoring and post translocation maintenance, etc. shall be properly planned.

Safety precautions- Tree translocation, like other tree management works, would be conducted in a controlled and safe manner. Workers who shall involve in translocate trees will be given adequate instruction and supervision to ensure that tasks are completed in a safe manner.

Translocation operations

Tools and equipment -All tools and equipment shall be appropriate to the operations and prepared in advance. Digging and root pruning tools shall be sharp and clean in order to cut without breaking, crushing or tearing roots. Mechanical digging and root pruning equipment shall be operated according to manufacturers' recommendations to minimize root damage.

Lifting cables, chains, straps, and/or slings shall be inspected and used according to manufacturers' instructions and specifications.

Preparation of root ball- Root pruning is sometimes required before translocation a tree. Sufficient time shall be allowed between preparation and final lifting for development of new roots capable of sustaining and continuing the growth of the translocated tree.

The root system of a woodland or open-grown tree will normally be widespread. Lifting such trees without initial preparation of a root ball will result in much of the root system being left in the soil. After translocation, the tree crown may then die back, or the tree may not be able to recover and will die eventually.

The root ball size shall varies depending on species, habit, location and specific attributes which shall be as large as practicable to maximise the potential of survival during and after translocation while balancing other logistical and cost concerns.

The root ball sizes would be of a diameter and depth to encompass enough of the root system as necessary for establishment. Normally the diameter of a root ball is larger than its depth which seldom exceeds 1 metre.

Pre-lifting operations -Tree lifting operations shall be carefully timed so as to enable direct delivery to the receptor site. No translocation operations would commence until either the receptor

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site or the holding nursery is fully prepared. Tree uplifted must be translocated and watered the same day. Watering before lifting is recommended.

Before uplifting, the outer edge of the previously dug trenches shall be loosened from the surrounding soil, and the root ball can be shaped with taper on the sides, slanting inward toward the base. The first cut around the perimeter of the root ball should be made with a sharp tool. Cuts should be clean to avoid tearing or breaking the roots. The shaping and final cuts should be done by hand.

Temporary support of trees before lifting- A tree after root pruning shall not be having extensive root support during the interim of the translocate process. It may be vulnerable to inclement weather, such as typhoon or heavy rainfall.

Removal of the root system may sometimes aggravate the natural form and balance of a tree and is prone to tree failure. When the stability of a tree is likely to be jeopardized, a temporary support, such as guying or simple prop is essential.

Lifting and handling of root-balled trees - The root ball would be properly wrapped before lifting. Lifting shall be done by direct lift, with padded protection for the tree, using a machine of appropriate capacity connected to the support around the root ball, not to any other part of the trees. Trees shall not be lifted by the trunk as this can cause serious trunk injury but by its root ball which shall be properly prepared and wrapped. Root balls that are not properly protected would easily collapse during transplanting due to its own weight.

Post-planting Care- In case of translocation of trees within the project site amidst the construction activities, they will be well protected with robust fencing.

All newly translocated trees shall receive proper maintenance care in order to facilitate recovery of tree from the translocation shock. It would be ensure the tree shall be stable before its root system is fully recovered to give support.

The stress of a tree shall be observed immediately after translocation or gradually after a period of time. Proper care after transplanting will help to assure survival and minimise stress and ensure a higher successful rate. Maintenance of translocate trees will be in continuation till one year.

Annexure:- 1. Summary of Plants which needs to be Translocate

2. Linear Plan of Identified Land to translocate the Plants (2542Nos.)

Photo

**Detailed Summary of Trees/Plants for Upgradation & Widening
to Two lane with Paved Shoulder of NH 122 B of Jadhua-
Bachhwara section (From km 0.000 to km 72.951)**

District – Vaishali

Sl.No	Site Name	Particulars	L.H.S	R.H.S.	Total	Remarks
1	2	3	4	5	6	7
1	Jadhua Bachhwara Section OF NH- 122 B	Translocate	332	401	733	Upto 60 cm girth size plants/ trees may be proposed for translocation. These trees/ plants may be translocated as per availability of land in proposed ROW.
		Cut	1392	1628	3020	Above 60 cm girth size Trees/ Plants, Dry trees and multi- trunk trees having multi girth are proposed for cutting
Total			1724	2029	3753	

Abstract:-

Total Nos. of affected Trees	3753
Nos. of affected Trees proposed for Translocation	733
Nos. of affected Trees proposed for Felling	3020

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**Detailed Summary of Trees/Plants for Upgradation & Widening
to Two lane with Paved Shoulder of NH 122 B of Jadhua-
Bachhwara section (From km 0.000 to km 72.951)**

District – Samastipur

Sl.No	Site Name	Particulars	L.H.S	R.H.S.	Total	Remarks
1	2	3	4	5	6	7
1	Jadhua Bachhwara Section OF NH- 122 B	Translocate	979	752	1731	Upto 60 cm girth size plants/ trees may be proposed for translocation. These trees/ plants may be translocated as per availability of land in proposed ROW.
		Cut	2365	1967	4332	Above 60 cm girth size Trees/ Plants, Dry trees and multi- trunk trees having multi girth are proposed for cutting
Total			3344	2719	6063	

Abstract:-

Total Nos. of affected Trees (Nos.)	6063
Nos. of affected Trees proposed for Translocation	1731
Nos. of affected Trees proposed for Felling	4332

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**Detailed Summary of Trees/Plants for Upgradation & Widening
to Two lane with Paved Shoulder of NH 122 B of Jadhua-
Bachhwara section (From km 0.000 to km 72.951)**

District – Begusarai

Sl.No	Site Name	Particulars	L.H.S	R.H.S.	Total	Remarks
1	2	3	4	5	6	7
1	Jadhua Bachhwara Section OF NH- 122 B	Translocate	40	38	78	Upto 60 cm girth size plants/ trees may be proposed for translocation. These trees/ plants may be translocated as per availability of land in proposed ROW.
		Cut	193	134	327	Above 60 cm girth size Trees/ Plants, Dry trees and multi- trunk trees having multi girth are proposed for cutting
Total			233	172	405	

Abstract:-

Total Nos. of affected Trees	405
Nos. of affected Trees proposed for Translocation	78
Nos. of affected Trees proposed for Felling	327


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