

PART-II

(To be filled by the concerned deputy Conservator of Forests)

State serial No. of proposal : JH-047/2020

7. Location of the project/Scheme: **JHARKHAND**

- i. State/Union Territory : **JHARKHAND**
- ii. District: **Hazaribag, Giridih**
- iii. Forest Division: **Hazaribag East**
- iv. Area of forest land proposed for diversion (in ha.) : **56.988**
- v. Legal Status of Forest

S. No.	Division	Forest Land(ha.)	Legal Status
1	Hazaribagh East	46.674	Protected Forest
2	Hazaribagh East	10.314	jungle-jhari land
Total		56.988	

vi. Density of vegetation

S. No.	Area(in ha.)	Density	Eco-Class
1	56.988	0.5	Eco 3
Total.	56.988		



- vii. Species-wise (Scientific names) and diameter class-wise enumeration of trees (to be enclosed. In case of irrigation/hydel projects enumeration at FRL, FRL-2 meter & FRL-4 meter also to be enclosed. : **Attached as annexure-1**
- viii. Brief note on vulnerability of the forest area to erosion.
Almost the entire area had gentle slope with some portion being moderately sloping. At places, the soil erosion becomes severe with rill and gully erosion being easily seen.
- ix. Approximate distance of proposed site for diversion from boundary of forest. : **0.00 km**
- x. Whether forms part of National Park, wildlife sanctuary, biosphere reserve, tiger reserve, elephant corridor, etc. (If so, the details of the area and comments of the Chief Wildlife Warden to be annexed) : **Yes (Attached as annexure-2)**
 1. **The entire area is part of migratory route of wild elephants with the most recent migration being in June-July, 2021. As, such, a site-**

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specific wildlife management plan will be needed to address human-elephant interface issues.

2. In the said project, there is a habitat of small wild animals like Python, Mongoose, Indian Cobra, Jungle Cat, Barking Deer, Jackal, Peafowl/Peacock, Wild Boar, Hyena etc. The likelihood of any major adverse impact on them is negligible as per the nature of the project.

- xi. Whether any rare/endangered/unique species of flora and fauna found in the area-if so. Details thereof. **No**
- xii. Whether any protected archaeological/heritage site/defense establishment or any other important monument is located in the area. If so, the details thereof with NOC from competent authority, if required. : **No**
8. Whether the requirement of forest land and proposed by the user agency in col.2 of part-I in unavoidable and barest minimum for the project. If no, recommended area item-wise with details of alternatives examined.: **Yes**
9. Whether any work in violation of the Act has been carried out (Yes/No). If yes, details of same including period of work done, action taken on erring officials. Whether work in violation is still in progress. : **No**
10. Details of compensatory afforestation scheme:
- i. Details of non-forest area/degraded forest area identified for compensatory afforestation, its distance from adjoining forest, number of patches, size of each patch.

Patch Wise Details						
S.no	Patch No.	Area(ha.)	Name of PF/RF	Range	Compartment No	Uploaded KML file of patch
1	1	45	BHELWA	Bagodar	1, 8, 10, 15P, 16P	 View file
2	2	70	NAGARKESHWARI	Bagodar	2, 17, 21, 22, 23P, 24P, 25, 26, 27	 View file

- ii. Map showing non-forest/degraded forest area identified for compensatory afforestation and adjoining forest boundaries. : **Yes**
- iii. Detailed compensatory afforestation scheme including species to be planted, implementing agency, time schedule, cost structure, etc. : **Attached as annexure-3**
- iv. Total financial outlay for compensatory afforestation scheme. : **209.71879 Lakh**


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- v. Certificates from competent authority regarding suitability of area identified for compensatory afforestation and from management point of view. (To be signed by the concerned Deputy Conservator of Forests) : **Attached as annexure-4**
11. Site inspection report of the DCF (to be enclosed) especially highlighting facts asked in col. 7(xi, xii), 8 and 9 above. : **Attached as annexure-5**
12. Division/District Profile:
- i. Geographical area of the district.: **599800.00 ha.**
 - ii. Forest area of the district. : **208800.00 ha.**
 - iii. Total forest area diverted since 1980 with number of cases. : **17 No.**
 - iv. Total Compensatory afforestation stipulated in the district/division since 1980 on
 - (a) forest land including penal compensatory afforestation.: **Nil**
 - (b) non-forest land. : **Nil**
 - v. Progress of compensatory afforestation as on (date) **11.01.2022** on
 - (a) forest land : **1236.20 ha.**
 - (b) non-forest land. : **Nil**
13. Specific recommendations of the DCF for acceptance or otherwise of the proposal with reasons. : **Attached as annexure-6**

Date: - 12-01-2022

Place: - Hazaribag


Signature

Name: SOURAV CHANDRA, I.F.S

Official Seal

SOURAV CHANDRA
I.F.S

Divisional Forest Officer
Hazaribag East Forest Division


JHARKHAND URJA SANCHARAN NIGAM LIMITED (JUSNL).

132 KV D/C SARIA-BISHNUGARH TRANSMISSION LINE

TREE ENUMERATION LIST FOR FOREST TREES UNDER HAZARIBAGH (EAST) DIVISION

SL. No.	Spices	Botanical Name	Girth in Cm						Total
			0-30	31-60	61-90	91-120	121-150	150 <	
1	Acacia	Acacia Auriculiformis	1	26	28	6	5	0	66
2	Arjun	Terminalia arjuna	0	0	1	0	0	2	3
3	Asan	Terminalia elliptica	2	8	3	6	0	2	21
4	Baher	Terminalia bellirica	1	0	1	0	1	2	5
5	Bair	Ziziphus mauritiana	10	3	1	1	0	0	15
6	Bamboo Clump	Bambusoideae	9	0	0	0	0	0	9
7	Bargad	Ficus benghalensis	0	0	0	1	0	6	7
8	Bell	Aegle marmelos	0	3	1	0	0	1	5
9	Bhelwa	Semicarpus anacardium L.f	2	2	1	0	0	0	5
10	Chakunda	Bana Chakunda	1	2	1	0	0	0	4
11	Chirchiri	Achyranthes aspera	2	1	2	0	0	0	5
12	Dhautha	Datura stramonium	0	1	0	0	0	0	1
13	Dumar	Ficus racemosa	0	0	0	0	0	2	2
14	Eucalyptus	Eucalyptus globulus	0	0	0	2	1	1	4
15	Galgol	Others	0	1	3	2	0	0	6
16	Gamhar	Gmelina Arborea	1	9	1	2	1	1	15
17	Gulmohor	Delonix regia	0	2	3	0	0	1	6
18	Imli	Tamarindus indica	0	3	0	0	0	0	3
19	Jamun	Syzygium cumini L.	3	6	3	6	1	4	23
20	Kachnar	Bauhinia variegata	0	4	1	0	0	0	5
21	Kadam	Neolamarckia cadamba	0	1	0	0	0	0	1
22	Kahuwa	Terminalia Arjuna	0	0	0	2	1	4	7
23	Karam	Nauclea Parvifolia	1	2	2	0	0	0	5
24	Karanj	Millettia pinnata	3	11	17	5	10	10	56
25	Kathal	Artocarpus heterophyllus - Lam.	1	1	3	2	5	1	13
26	Khair	Senegalia catechu	1	3	2	0	0	0	6
27	Khajur	Phoenix dactylifera	0	0	16	16	12	2	46
28	Khirish	Samanea saman	1	2	1	0	1	0	5


Ajay Kant Jha
 Senior Manager
 Transmission Division, Hazaribag
 Jharkhand Urja Sancharan Nigam Ltd.


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 Hazaribag East Forest Division

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JHARKHAND URJA SANCHARAN NIGAM LIMITED (JUSNL).

132 KV D/C SARIA-BISHNUGARH TRANSMISSION LINE

TREE ENUMERATION LIST FOR FOREST TREES UNDER HAZARIBAGH (EAST) DIVISION

SL. No.	Spices	Botanical Name	Girth in Cm						Total
			0-30	31-60	61-90	91-120	121-150	150 <	
29	Kundan	Jasminum multiflorum	0	2	0	0	0	0	2
30	Mango	Mangifera indica	4	7	2	3	2	8	26
31	Mahua	Madhuca longifolia	3	4	6	6	14	41	74
32	Neem	Azadirachta indica	17	19	14	8	5	6	69
33	Pakar	Ficus vi	0	0	0	1	0	0	1
34	Paras	Thespesia populnea	60	85	46	36	20	8	255
35	Peepal	Ficus religiosa	0	0	0	1	0	0	1
36	Plotoform	Others	3	1	0	0	0	0	4
37	Sagwan	Tectona grandis	7	6	0	0	0	0	13
38	Sakhua	Shorea robusta	65	827	183	101	28	43	1247
39	Sarai	Others	0	1	0	0	0	0	1
40	Shisam	Dalbergia sissoo	1	0	4	0	1	2	8
41	Seedha	Lagerstroemia Parviflora	10	25	5	0	0	0	40
42	Simar	Bombax Ceiba	1	6	3	1	2	6	19
43	Sindwar	Vitex negundo	36	32	3	2	0	0	73
44	Siris	Albizia lebbeck	0	0	1	1	0	0	2
45	Tar	Borassus flabellifer	0	0	0	0	2	0	2
46	Tendu	Diospyros melanoxylon	0	0	0	1	0	0	1
TOTAL			246	1106	358	212	112	153	2187


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1. The entire area is part of migratory route of wild elephants with the most recent migration being in June-July, 2021. As, such, a site-specific wildlife management plan will be needed to address human-elephant interface issues.

2. In the said project, there is a habitat of small wild animals like Python, Mongoose, Russell's Viper, Indian Cobra, Jungle Cat, Barking Deer, Jackal, Peafowl/Peacock, Wild Boar, Hyena etc. The likelihood of any major adverse impact on them is negligible as per the nature of the project.

3. The proposed project is located at a close distance from the populated area.

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 Hazaribagh East Forest Division.
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 I.F.S.
 Divisional Forest Officer
 Hazaribagh East Forest Division

WIW Report

(Proposal Name - 132 KV Sarla - Bishnugrah Transmission Line)

Forest, Environment & Climate Change Department, Jharkhand
Hazaribag East Forest Division

Name of Scheme **RDF Plantation Under Compensatory Afforestation Scheme (CAMPA)**
Name of Agency **132 KV Saria- Bishnugarh Transmission Line (Diverted Area 56.988 ha.)**
Name of Range **BGODAR**
Name of Thana/ Thana no. **BAGODAR/121** Gross Area of Site (ha) **48.82**
Name of Site **BHELWA** Net Area of Site (ha) **45.000**
Khata/ Plot no. **1, 8, 10, 15P & 16P** Length of fencing **297 Chanin**

Wage Rate (Rs./Mandays) **314.96** No. of plants/ha **1000**
Spacing **3mx3m, 2mx2m, 3mx2m**

Sl. No.	Particulars of Works	Prescribed Rate			Estimated Amount (as per site)			Remarks
		Unit	MD (No.)	Materials (Rs.)	Wages (Rs.)	Materials (Rs.)	Total (Rs.)	
1	2	3	4	5	6	7	8	9
I	Advance Work (1st Year) 2021-22							
1	Survey & Demarcation	ha	3	0.00	42519.60	0.00	42519.60	
2	Site Clearance	ha	7	0.00	99212.40	0.00	99212.40	
3	Trench Fencing- 1.83mx1.22mx1.22m by hydraulic machine. (Add GST 18% (1963.79+1963.79 x 18% = 2317.27)	Chain	2	2317.27	187086.24	688229.19	875315.43	
4	Soil Work -Pit digging 0.30mx.30mx0.30m	ha	22	0.00	311810.40	0.00	311810.40	
5	Soil & Water Conservation work- Gully Plugging, Silt Detention Dam, Contour Trench Works etc.	ha	45	0.00	637794.00	0.00	637794.00	
6	Nursery (part)- Raising of plants including watering, maintenance & protection	ha	10	0.00	141732.00	0.00	141732.00	
7	Materials- Polythene bag, Seeds, Fertilizers, Manures, Chemicals, Fencing material etc. . (Add GST 18% (2400 + 2400 x 18% = 2832.00)	ha	0	2832.00	0.00	127440.00	127440.00	
8	Miscellaneous Works- Sign Boards, Photography etc. . (Add GST 18% (150+150 x 18% = 177.00)	ha	0	177.00	0.00	7965.00	7965.00	
9	Contingency	2%	0	0.00	0.00	0.00	44875.78	
	Sub-Total		89	5326.27	1420154.64	823634.19	2288664.61	
						Total:-	2288664.61	
II	Completion Work (2nd Year) 2022-23			362.204				
1	Nursery (part) including watering sorting, seed sowing, maintenance & protection	ha	13	0.00	211889.34	0.00	211889.34	
2	Planting	ha	22.00	0.00	358581.96	0.00	358581.96	
3	Two Weeding and Hoeing	ha	25.00	0.00	407479.50	0.00	407479.50	
4	Seed Sowing on Trench Berm (105 Chain)	ha	2	0.00	76062.84	0.00	76062.84	
5	Protection of plants	site	275	0.00	99606.10	0.00	99606.10	

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1	Particulars of Works	Prescribed Rate			Estimated Amount (as per site)			Remarks
		Unit	MD (No.)	Materials (Rs.)	Wages (Rs.)	Materials (Rs.)	Total (Rs.)	
2	3	4	5	6	7	8	9	
6	Materials- Seeds, Fertilizers, manures, Chemicals etc.. (Add GST 18% $(1575+1575 \times 18\% = 1858.50)$)	ha	0	1858.50	0.00	83632.50	83632.50	
7	Miscellaneous Works- Sign Boards, Photography etc.. (Add GST 18% $(150+150 \times 18\% = 177.00)$)	ha	0	177.00	0.00	7965.00	7965.00	
8	Contingency	2%	0	0.00	0.00	0.00	24904.34	
	Total		337.00	2035.50	1153619.74	91597.50	1270121.58	
9	Entry Point Activities (15% Total Cost of Advance work + Completion work)						533817.93	
	Total:-						1803939.51	
III	Maintenance Work (3rd Year) 2023-24			416.53				
1	One Weeding and Hoeing	ha	14	0.00	262416.80	0.00	262416.80	
2	Fertilizer etc . (Add GST 18% $(785+785 \times 18\% = 926.30)$)	ha	0	926.30	0.00	41683.50	41683.50	
3	Protection of plants	site	365	0.00	152035.13	0.00	152035.13	
4	Fencing Repair	Chain	1	0.00	123710.78	0.00	123710.78	
5	Casualty Replacement etc . (Add GST 18% $(474.76+474.76 \times 18\% = 560.22)$)	ha	2	560.22	37488.11	25209.90	62698.01	
6	Contingency	2%	0	0.00	0.00	0.00	12850.88	
	Total		382.00	1486.52	575650.82	66893.40	655395.10	
IV	Maintenance Work (4th Year) 2024-25			479.01				
1	One Weeding and Hoeing	ha	14	0.00	301779.32	0.00	301779.32	
2	Fertilizer etc . (Add GST 18% $(785+785 \times 18\% = 926.30)$)	ha	0	926.30	0.00	41683.50	41683.50	
3	Protection of plants	site	365	0.00	174840.40	0.00	174840.40	
4	Casualty Replacement etc . (Add GST 18% $(474.76+474.76 \times 18\% = 560.22)$)	ha	2	560.22	43111.33	25209.90	68321.23	
5	Contingency	2%	0	0.00	0.00	0.00	11732.49	
	Total		381.00	1486.52	519731.05	66893.40	598356.94	
V	Maintenance Work (5th Year) 2025-26			550.87				
1	One Weeding and Hoeing	ha	14.00	0.00	347046.22	0.00	347046.22	
2	Fertilizer etc . (Add GST 18% $(300+300 \times 18\% = 354.00)$)	ha	0	354.00	0.00	15930.00	15930.00	
3	Protection of plants	site	365	0.00	201066.46	0.00	201066.46	
4	Fencing Repair	Chain	1	0.00	163607.50	0.00	163607.50	
5	Contingency	2%	0	0.00	0.00	0.00	14553.00	
	Total		380.00	354.00	711720.17	15930.00	742203.18	
VI	Maintenance Work (6th Year) 2026-27			633.50				
1	Protection of plants	site	365	0.00	231226.43	0.00	231226.43	
2	Contingency	2%	0	0.00	0.00	0.00	4624.53	
	Total		365.00	0.00	231226.43	0.00	235850.96	
VII	Maintenance Work (7th Year) 2027-28			728.52				
1	Protection of plants	site	365	0.00	265910.39	0.00	265910.39	
2	Contingency	2%	0	0.00	0.00	0.00	5318.21	

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	Particulars of Works	Prescribed Rate			Estimated Amount (as per site)			Remarks
		Unit	MD (No.)	Materials (Rs.)	Wages (Rs.)	Materials (Rs.)	Total (Rs.)	
1	2	3	4	5	6	7	8	9
	Total		365.00	0.00	265910.39	0.00	271228.60	
VIII	Maintenance Work (8th Year) 2028-29			837.80				
1	Protection of plants	site	365	0.00	305796.95	0.00	305796.95	
2	Contingency	2%	0	0.00	0.00	0.00	6115.94	
	Total		365.00	0.00	305796.95	0.00	311912.89	
IX	Maintenance Work (9th Year) 2029-30			963.47				
1	Protection of plants	site	365	0.00	351666.49	0.00	351666.49	
2	Contingency	2%	0	0.00	0.00	0.00	7033.33	
	Total		365.00	0.00	351666.49	0.00	358699.82	
X	Maintenance Work (10th Year) 2030-21			1107.99				
1	Protection of plants	site	365	0.00	404416.47	0.00	404416.47	
2	Contingency	2%	0	0.00	0.00	0.00	8088.33	
	Total		365.00	0.00	404416.47	0.00	412504.79	
	Grand Total:-		3394.00	10688.81	5939893.14	1064948.49	7144938.47	

Note :- 1. Estimate prepared on basis of PCCF Development Office order no. 22 dated 19.06.2018
2. 15% wage enhancement for every year

ABSTRACT						
S.N.	Work & Year	Wages (Rs.)	Materials (Rs.)	Contingency	Total Amount	
I	Advance Work (1st Year) 2021-22	1420154.64	823634.19	44875.78	2288664.61	
II	Completion Work (2nd Year) 2022-23	1153619.74	91597.50	24904.34	1270121.58	
III	Maintenance Work (3rd Year) 2023-24	575650.82	66893.40	12850.88	655395.10	
IV	Maintenance Work (4th Year) 2024-25	519731.05	66893.40	11732.49	598356.94	
V	Maintenance Work (5th Year) 2025-26	711720.17	15930.00	14553.00	742203.18	
VI	Maintenance Work (6th Year) 2026-27	231226.43	0.00	4624.53	235850.96	
VII	Maintenance Work (7th Year) 2027-28	265910.39	0.00	5318.21	271228.60	
VIII	Maintenance Work (8th Year) 2028-29	305796.95	0.00	6115.94	311912.89	
IX	Maintenance Work (9th Year) 2029-30	351666.49	0.00	7033.33	358699.82	
X	Maintenance Work (10th Year) 2030-21	404416.47	0.00	8088.33	412504.79	
	Sub Total:-	5939893.14	1064948.49	140096.83	7144938.47	
	Entry Point Activities (15% Total Cost of Advance work+ Completion work)					533817.93
	Grand Total:-					7678756.40
	Or Say					7678756.00

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Forest, Environment & Climate Change Department, Jharkhand
Hazaribag East Forest Division

Name of Scheme **RDF Plantation Under Compensatory Afforestation Scheme (CAMPA)**
 Name of Agency **132 KV Saria- Bishnugarh Transmission Line (Diverted Area 56.988 ha.)**
 Name of Range **BGODAR**
 Name of Thana/ Thana no. **BAGODAR/28** Gross Area of Site (ha) **74.97**
 Name of Site **NAGARKESHWARI** Net Area of Site (ha) **70.000**
 Khata/ Plot no. **2, 17, 21, 22, 23P, 24P, 25, 26, & 27** Length of fencing **552 Chanin**

Wage Rate (Rs./Mandays) **314.96** No. of plants/ha **1000**
 Spacing **3mx3m, 2mx2m, 3mx2m**

Sl.n o.	Particulars of Works	Prescribed Rate			Estimated Amount (as per site)			Remarks
		Unit	MD (No.)	Materials (Rs.)	Wages (Rs.)	Materials (Rs.)	Total (Rs.)	
1	2	3	4	5	6	7	8	9
I	Advance Work (1st Year) 2021-22							
1	Survey & Demarcation	ha	3	0.00	66141.60	0.00	66141.60	
2	Site Clearance	ha	7	0.00	154330.40	0.00	154330.40	
3	Trench Fencing- 1.83mx1.22mx1.22m by hydraulic machine. (Add GST 18% (1963.79+1963.79 x 18% = 2317.27)	Chain	2	2317.27	347715.84	1279133.04	1626848.88	
4	Soil Work -Pit digging 0.30mx.30mx0.30m	ha	22	0.00	485038.40	0.00	485038.40	
5	Soil & Water Conservation work- Gully Plugging, Silt Detention Dam, Contour Trench Works etc.	ha	45	0.00	992124.00	0.00	992124.00	
6	Nursery (part)- Raising of plants including watering, maintenance & protection	ha	10	0.00	220472.00	0.00	220472.00	
7	Materials- Polythene bag, Seeds, Fertilizers, Manures, Chemicals, Fencing material etc. . (Add GST 18% (2400 + 2400 x 18% = 2832.00)	ha	0	2832.00	0.00	198240.00	198240.00	
8	Miscellaneous Works- Sign Boards, Photography etc. . (Add GST 18% (150+150 x 18% = 177.00)	ha	0	177.00	0.00	12390.00	12390.00	
9	Contingency	2%	0	0.00	0.00	0.00	75111.71	
	Sub-Total		89	5326.27	2265822.24	1489763.04	3830696.99	
	Total:-						3830696.99	
II	Completion Work (2nd Year) 2022-23							
				362.204				
1	Nursery (part) including watering sorting, seed sowing, maintenance & protection	ha	13	0.00	329605.64	0.00	329605.64	
2	Planting	ha	22.00	0.00	557794.16	0.00	557794.16	
3	Two Weeding and Hoeing	ha	25.00	0.00	633857.00	0.00	633857.00	
4	Seed Sowing on Trench Berm (105 Chain)	ha	2	0.00	76062.84	0.00	76062.84	
5	Protection of plants	site	550	0.00	199212.20	0.00	199212.20	

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1	Particulars of Works	Prescribed Rate			Estimated Amount (as per site)			Remarks
		Unit	MD (No.)	Materials (Rs.)	Wages (Rs.)	Materials (Rs.)	Total (Rs.)	
2	3	4	5	6	7	8	9	
6	Materials- Seeds, Fertilizers, manures, Chemicals etc.. (Add GST 18% $(1575+1575 \times 18\% = 1858.50)$)	ha	0	1858.50	0.00	130095.00	130095.00	
7	Miscellaneous Works- Sign Boards, Photography etc.. (Add GST 18% $(150+150 \times 18\% = 177.00)$)	ha	0	177.00	0.00	12390.00	12390.00	
8	Contingency	2%	0	0.00	0.00	0.00	38780.34	
	Total		612.00	2035.50	1796531.84	142485.00	1977797.18	
9	Entry Point Activities (15% Total Cost of Advance work + Completion work)						871274.12	
	Total:-						2849071.30	
III	Maintenance Work (3rd Year) 2023-24			416.53				
1	One Weeding and Hoeing	ha	14	0.00	408203.91	0.00	408203.91	
2	Fertilizer etc . (Add GST 18% $(785+785 \times 18\% = 926.30)$)	ha	0	926.30	0.00	64841.00	64841.00	
3	Protection of plants	site	730	0.00	304070.26	0.00	304070.26	
4	Fencing Repair	Chain	1	0.00	229927.10	0.00	229927.10	
5	Casualty Replacement etc . (Add GST 18% $(474.76+474.76 \times 18\% = 560.22)$)	ha	2	560.22	58314.84	39215.40	97530.24	
6	Contingency	2%	0	0.00	0.00	0.00	22091.45	
	Total		747.00	1486.52	1000516.11	104056.40	1126663.96	
IV	Maintenance Work (4th Year) 2024-25			479.01				
1	One Weeding and Hoeing	ha	14	0.00	469434.49	0.00	469434.49	
2	Fertilizer etc . (Add GST 18% $(785+785 \times 18\% = 926.30)$)	ha	0	926.30	0.00	64841.00	64841.00	
3	Protection of plants	site	730	0.00	349680.80	0.00	349680.80	
4	Casualty Replacement etc . (Add GST 18% $(474.76+474.76 \times 18\% = 560.22)$)	ha	2	560.22	67062.07	39215.40	106277.47	
5	Contingency	2%	0	0.00	0.00	0.00	19804.68	
	Total		746.00	1486.52	886177.36	104056.40	1010038.44	
V	Maintenance Work (5th Year) 2025-26			550.87				
1	One Weeding and Hoeing	ha	14.00	0.00	539849.67	0.00	539849.67	
2	Fertilizer etc . (Add GST 18% $(300+300 \times 18\% = 354.00)$)	ha	0	354.00	0.00	24780.00	24780.00	
3	Protection of plants	site	730	0.00	402132.92	0.00	402132.92	
4	Fencing Repair	Chain	1	0.00	304078.59	0.00	304078.59	
5	Contingency	2%	0	0.00	0.00	0.00	25416.82	
	Total		745.00	354.00	1246061.17	24780.00	1296258.00	
VI	Maintenance Work (6th Year) 2026-27			633.50				
1	Protection of plants	site	730	0.00	462452.85	0.00	462452.85	
2	Contingency	2%	0	0.00	0.00	0.00	9249.06	
	Total		730.00	0.00	462452.85	0.00	471701.91	
VII	Maintenance Work (7th Year) 2027-28			728.52				
1	Protection of plants	site	730	0.00	531820.78	0.00	531820.78	
2	Contingency	2%	0	0.00	0.00	0.00	10636.42	

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1	Particulars of Works	Prescribed Rate			Estimated Amount (as per site)			Remarks
		Unit	MD (No.)	Materials (Rs.)	Wages (Rs.)	Materials (Rs.)	Total (Rs.)	
2	3	4	5	6	7	8	9	
	Total		730.00	0.00	531820.78	0.00	542457.20	
VIII	Maintenance Work (8th Year) 2028-29			837.80				
1	Protection of plants	site	730	0.00	611593.90	0.00	611593.90	
2	Contingency	2%	0	0.00	0.00	0.00	12231.88	
	Total		730.00	0.00	611593.90	0.00	623825.78	
IX	Maintenance Work (9th Year) 2029-30			963.47				
1	Protection of plants	site	730	0.00	703332.98	0.00	703332.98	
2	Contingency	2%	0	0.00	0.00	0.00	14066.66	
	Total		730.00	0.00	703332.98	0.00	717399.64	
X	Maintenance Work (10th Year) 2030-21			1107.99				
1	Protection of plants	site	730	0.00	808832.93	0.00	808832.93	
2	Contingency	2%	0	0.00	0.00	0.00	16176.66	
	Total		730.00	0.00	808832.93	0.00	825009.59	
	Grand Total:-		6589.00	10688.81	10313142.17	1865140.84	12421848.67	

Note :- 1. Estimate prepared on basis of PCCF Development Office order no. 22 dated 19.06.2018
2. 15% wage enhancement for every year

ABSTRACT						
S.N.	Work & Year			Wages (Rs.)	Materials (Rs.)	Total Amount
I	Advance Work (1st Year) 2021-22			2265822.24	1489763.04	3830696.99
II	Completion Work (2nd Year) 2022-23			1796531.84	142485.00	1977797.18
III	Maintenance Work (3rd Year) 2023-24			1000516.11	104056.40	1126663.96
IV	Maintenance Work (4th Year) 2024-25			886177.36	104056.40	1010038.44
V	Maintenance Work (5th Year) 2025-26			1246061.17	24780.00	1296258.00
VI	Maintenance Work (6th Year) 2026-27			462452.85	0.00	471701.91
VII	Maintenance Work (7th Year) 2027-28			531820.78	0.00	542457.20
VIII	Maintenance Work (8th Year) 2028-29			611593.90	0.00	623825.78
IX	Maintenance Work (9th Year) 2029-30			703332.98	0.00	717399.64
X	Maintenance Work (10th Year) 2030-21			808832.93	0.00	825009.59
	Sub Total:-			10313142.17	1865140.84	12421848.67
	Entry Point Activities (15% Total Cost of Advance work+ Completion work)					871274.12
	Grand Total:-					13293122.80
	Or Say					13293123.00

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Land Suitability Certificate

(Proposal Name – 132 KV Saria- Bishnugarh Transmission Line)

This is to certify that total 115.00 ha. of forest land identified for Compensatory Afforestation in Bhelwa P.F., Thana No. 121, Plot No. 1, 8, 10, 15p, 16p, Area 45.00 ha. & Nagarkeshwari P.F., Thana No. 28, Plot No. 2, 17, 21, 22, 23p, 24p, 25, 26, 27, Area 70.00 ha. Range-Bagodar Forest Range, Tehsil- Bagodar, District- Giridih is suitable from management point of view.


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Hazaribagh East Forest Division

Site Inspection Report

Date of Inspection – 11.12.2021

Name of Proposal – 132 KV Saria- Bishnugarh Transmission Line

Presence – Forest officials

- (1) Sri Sourav Chandra, DFO, Hazaribagh East Forest Division.
- (2) Sri Suresh Ram, RFO, Bagodar Range.
- (3) Sri Bhuneshwar Mandal, I/C BO, Bishnugarh Beat.
- (4) Sri Shayam Kumar, SBO, Chano, Sub-beat.
- (5) Sri Uday Kumar Keshri, SBO, Bishnugarh, Sub-beat.

User Agency officials

- (1) Sri Ajay Kant Jha, Electrical Executive Engineer (Supply), JUSNL

On the aforementioned date, the proposed forest land was visited. The total forest land proposed for diversion is 56.988 ha. which is meant for 132 KV Bishnugarh-Saria transmission line. The details are given below: -

Sl. No.	Name of Village	Thana No.	Area (in ha.)	Type of land
1.	Babudih	Bishnugarh-235	3.2060	Notified/demarcated forest land
2.	Bakaspura	Bishnugarh-221	4.007	Notified/demarcated forest land & Jungle-Jhari
3.	Barai	Bishnugarh-228	6.01	Notified/demarcated forest land & Jungle-Jhari
4.	Bhutahimurgaon	Bishnugarh-230	0.6850	Notified/demarcated forest land
5.	Charnakhiya	Bishnugarh-233	1.4040	Notified/demarcated forest land
6.	Dandia	Bishnugarh-220	3.313	Notified/demarcated forest land
7.	Gundro	Bishnugarh-226	2.841	Notified/demarcated forest land & Jungle-Jhari
8.	Hethlimurgaon	Bishnugarh-198	3.622	Notified/demarcated forest land & Jungle-Jhari
9.	Jamuwa	Bishnugarh-196	1.112	Notified/demarcated forest land & Jungle-Jhari
10.	Kusumbha	Bishnugarh-236	1.737	Notified/demarcated forest land & Jungle-

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				Jhari
11.	Maypur	Bishnugarh-224	1.09	Notified/demarcated forest land
12.	Nawada	Bishnugarh-234	0.318	Notified/demarcated forest land
13.	Nawadih	Bishnugarh-201	0.527	Notified/demarcated forest land & Jungle-Jhari
14.	Nirguna	Bishnugarh-232	2.641	Notified/demarcated forest land
15.	Simaria	Bishnugarh-223	1.3160	Notified/demarcated forest land
16.	Ambadih	Bagodar-112	2.805	Notified/demarcated forest land
17.	Dhibra	Bagodar-115	0.400	Jungle-Jhari
18.	Deoradih	Bagodar-47	1.003	Jungle-Jhari
19.	Dondalo	Bagodar-116	3.129	Notified/demarcated forest land & Jungle-Jhari
20.	Ghaghara	Bagodar-106	0.072	Notified/demarcated forest land & Jungle-Jhari
21.	Bagodar	Bagodar-107	4.199	Notified/demarcated forest land & Jungle-Jhari
22.	Parria	Bagodar-114	0.888	Notified/demarcated forest land & Jungle-Jhari
23.	Karamba	Bagodar-46	1.953	Notified/demarcated forest land & Jungle-Jhari
24.	Barkisaria	Bagodar-44	6.730	Notified/demarcated forest land
25.	Manramo	Bagodar-45	1.98	Jungle-Jhari
		Total:-	56.988	

As stated by the User Agency, the proposed line will pass through 25 villages having a total length of 33.128 km out of which the length in forest area is 21.107 km. The corridor is of 27-meter width. The proposed electric line will be utilized for transfer of power from Saria sub-station to Bishnugarh sub-station. This line will solve the problem of low voltage in the surrounding area which in turn will boost the commercial, domestic and agricultural growth of Bishnugarh block of Hazaribagh.

The trees in the enumeration list were checked on site inspection. The species and its girth were matched. It was found to be correct.

The GPS locations of the pillars were checked and matched with that of those mentioned in the proposal. It was found to be almost accurate.

S. Chandra
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 Hazaribag East Forest Division

The total proposed area has the presence of a variety of trees. It consisted of mainly Sal, Kend, Piyar, Mahua, Bahera, Seedha etc. At places, the undergrowth of *Clerodendron* sp. and *Cassia tora* was seen. The crop density was observed as 0.5. Two important observations were made during the site inspection. Firstly, there was profuse regeneration of Sal as ground flora in the whole of area. This was addition to the growth of profuse Sal coppice shoots particularly of Kusumbha. Secondly, it was noticed that *Lantana camara* has invaded the proposed area as well as surrounding forest areas.

Almost the entire area had gentle slope with some portion being moderately sloping. At places, the soil erosion becomes severe with rill and gully erosion being easily seen.

The entire area is part of migratory route of wild elephants with the most recent migration being in June-July, 2021. As, such, a site-specific wildlife management plan will be needed to address human-elephant interface issues.

As such no rare/endangered/unique species of flora and fauna was observed. The commonly found fauna are as following: -

Sl. No.	Hindi or Local Name	English Name	Scientific Name	Schedule according to Wild life Protection Act- 1972
1	2	3	4	5
1.	Ajgara	Python	<i>Python sp</i>	Sch-I Part II
2.	Newla	Mongoose	<i>Herpestes sp</i>	Sch-IV
3.	Russel's Viper	Russel's Viper	<i>Daboia russelii</i>	Sch-II Part II
4.	Indian Cobra	Indian Cobra	<i>Naja naja</i>	Sch-II part II
5.	Jungli Billi	Jungle Cat	<i>Felies Chaus</i>	Sch-II part II
6.	Kotra	Barking deer	<i>Muntiacus</i>	Sch-III Section II
7.	Siyar	Jackal	<i>Canis aureus</i>	Sch-I
8.	Mayur/Mor	Peafowl/Peacock	<i>Pavo Cristatus</i>	Sch-I
9.	Jangli Suar	Wild boar	<i>Sus scrofa</i>	Sch. III
10.	Lakkar bhagga	Hyena	<i>Hyaena hyaena</i>	Sch. III

Apart from the above, the forest area did not have any archeological/heritage site/defense establishment etc.

Overall, the proposal is mainly concerned with laying of 132 KV electric line from Bishnugarh to Saria. This proposal will solve the problem of low voltage in the surrounding area. It will further enhance the electrification of the villages and also help in boosting rural economy. Considering all the above details, it was found that the forest land proposed for diversion was unavoidable and barest minimum of the project.


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Recommendation

The proposal is concerned with erection and installation of 132 KV Transmission line from Saria to Bishnugarh. As the target area of the line is facing low voltage and also witnessing increasing demand, therefore this electric line forest diversion proposal is necessary and unavoidable. However, following points needs to be addressed and emphasized:-

1. As the forest area proposed to be diverted falls under migratory route of wild elephants, therefore, to prevent any incidental electrocution of wild elephants or other wild animals, the user agency shall use insulated cable.
2. Insulated cables also need to be fitted with bird deflector to avoid bird collision.
3. During site inspection, the heavy infestation of Lantana camara was noticed. Hence, to check further enhancement in infestation of this invasive species due to clearing of forest, a Lantana removal scheme for 5 years needs to be included.
4. Further, the forest area has gentle to moderate slope with severe soil erosion at places as eroded topography, rills and prominent gullies are easily visible. Therefore, a soil and moisture conservation plan have to be necessarily included to check further soil erosion.
5. Furthermore, the forest area proposed to be diverted and its surroundings, is mainly Sal dominated forest along with other native species like Mahua, Kend, Seedha etc. The profuse regeneration of Sal was noticed, therefore, establishment of a nursery for Sal and its associate species, has to be taken up as ex-situ conservation measure.

With above stated conditions, the proposal is hereby recommended for acceptance.


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