

## **Full Title of the Project**

Construction of 400 kV D/C North Karanpura to Gaya transmission line

## **File No.**

FP/JH/TRANS/41236/2019

## **Date of Proposal**

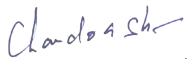
18/07/2019

### **North Karanpura Transco Limited**

Sunita Sadan, 1st Floor, Ashram Marg Bariatu, Near Military Firing Range,

Dist –Ranchi, Pin 834009 Jharkhand, Fax: 91-(79)-2555 7177

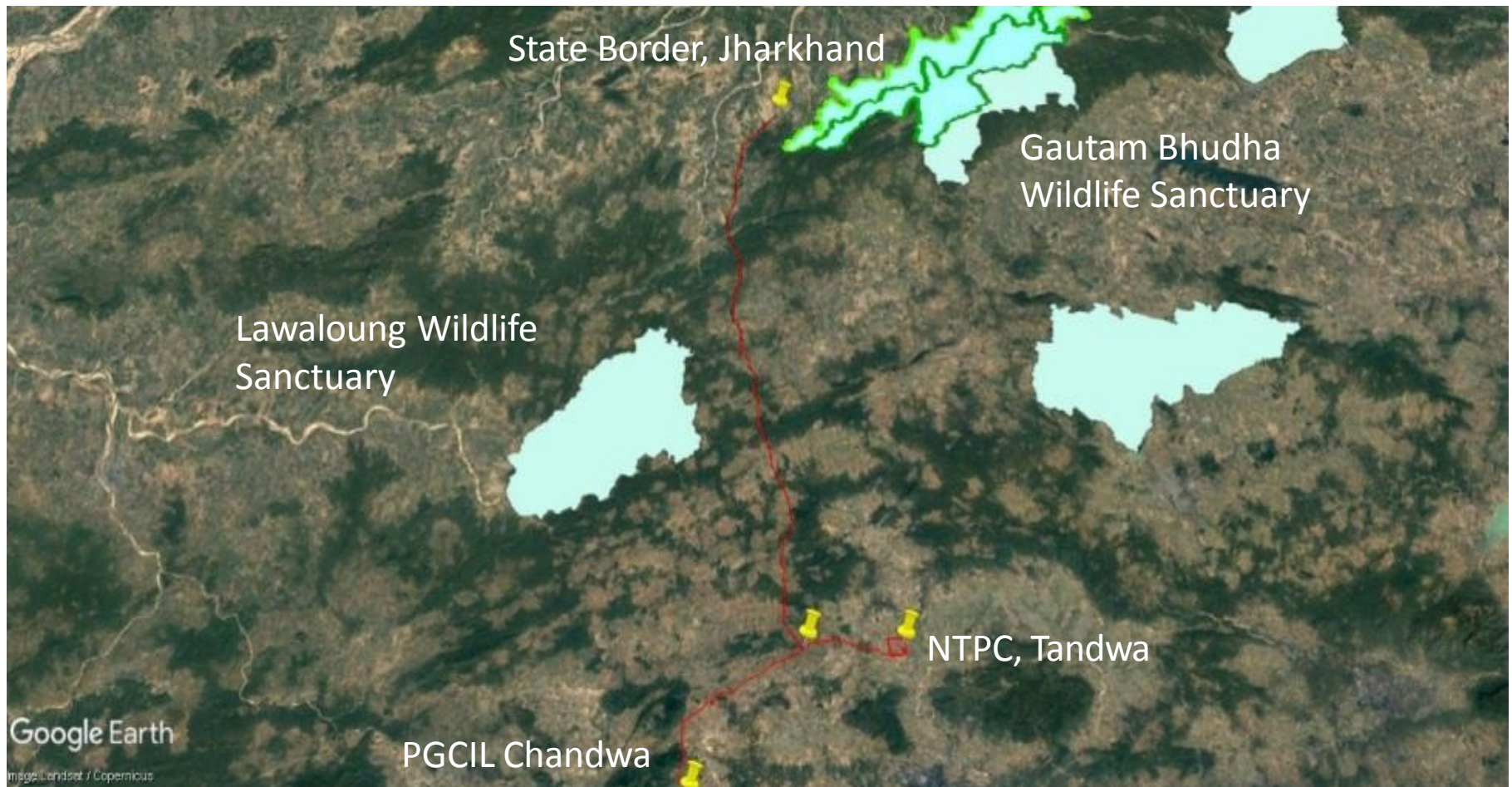
Email id: [northkaranpuratransco@gmail.com](mailto:northkaranpuratransco@gmail.com)

  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

# Consideration for Route Selection

## Avoiding wild life Sanctuaries:

- Lawaloung wild life sanctuary
- Gautam Bhudha Wildlife Sanctuary



# Consideration for Route Selection

## Avoiding Coal Bearing Area and Existing Mines:

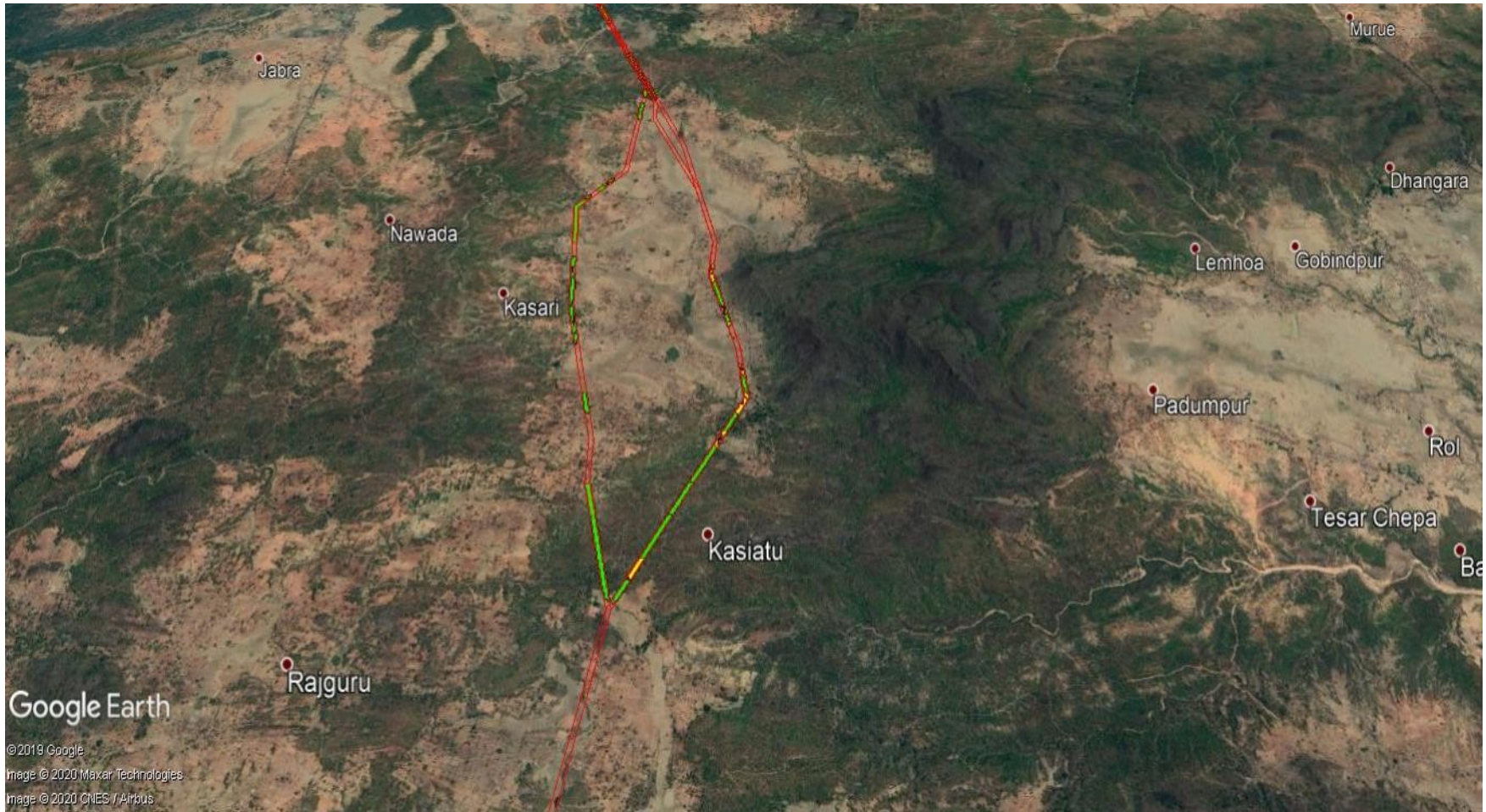
- With reference to various meetings held with Ministry of Coal, Coal India Limited and Central Coalfield Limited, it is decided to avoid the highly productive coal bearing zone and the line route shall be changed accordingly.
- After thorough studies and consideration, Central Coal Field Limited issued us NOC for the proposed existing route as most feasible (NOC of CCL is enclosed for your reference)
- Hence, we designed both 400kV D/C North Karanpura Chandwa and North Karanpura Gaya Lines on multi circuit towers up to common point mentioned as Angle Point AP/19.
- Angle point number AP/19 to AP/92 portion of the line is in Jharkhand State and going further to Gaya S/S.
- Alignment of the Transmission Line is passing through minimum forest land avoiding villages and habitats .





# Route Study

Submission route , suggested route and optimized route on Google Map



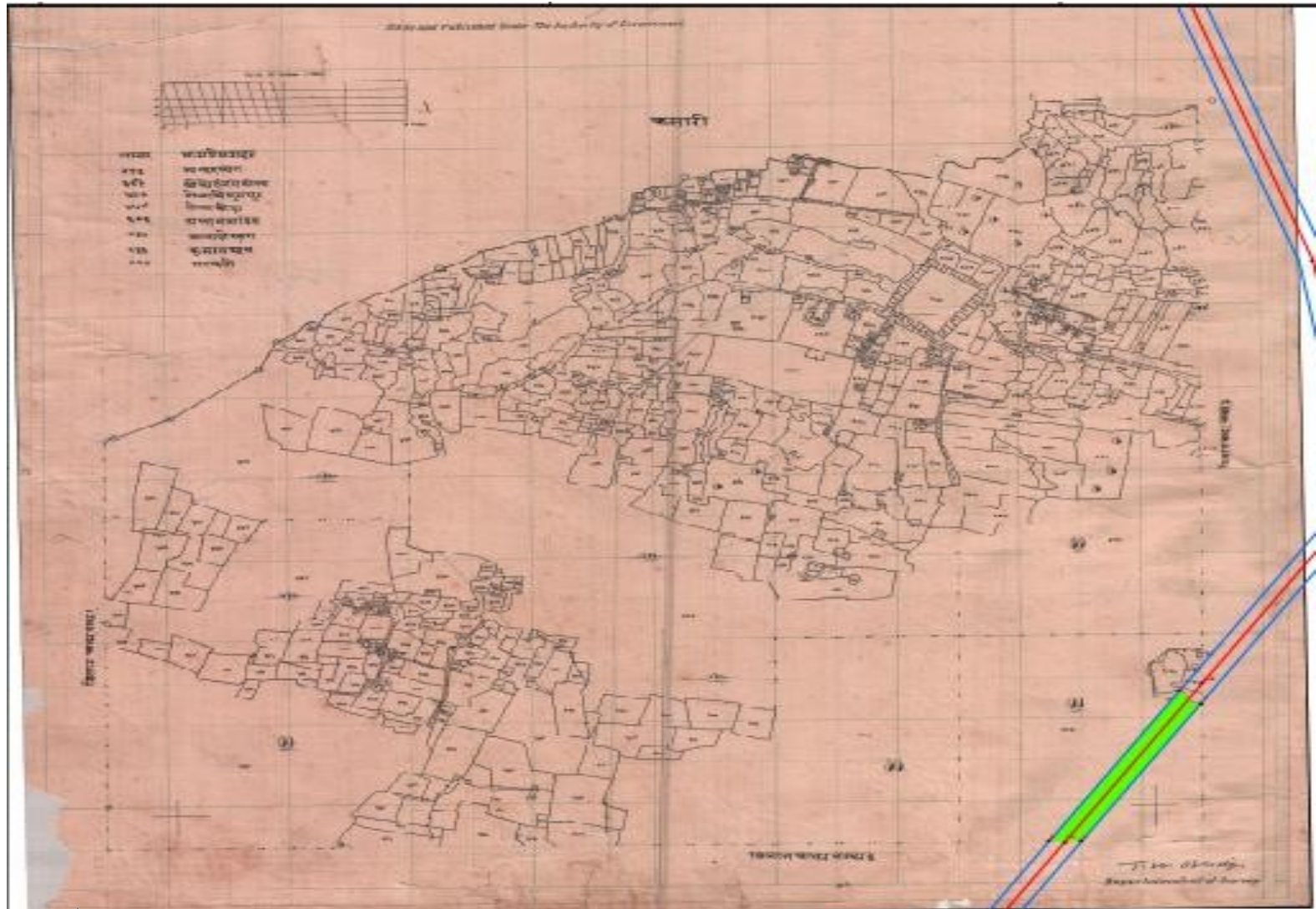
*Chandra Shekhar Singh*  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi



# Village map: Submission route

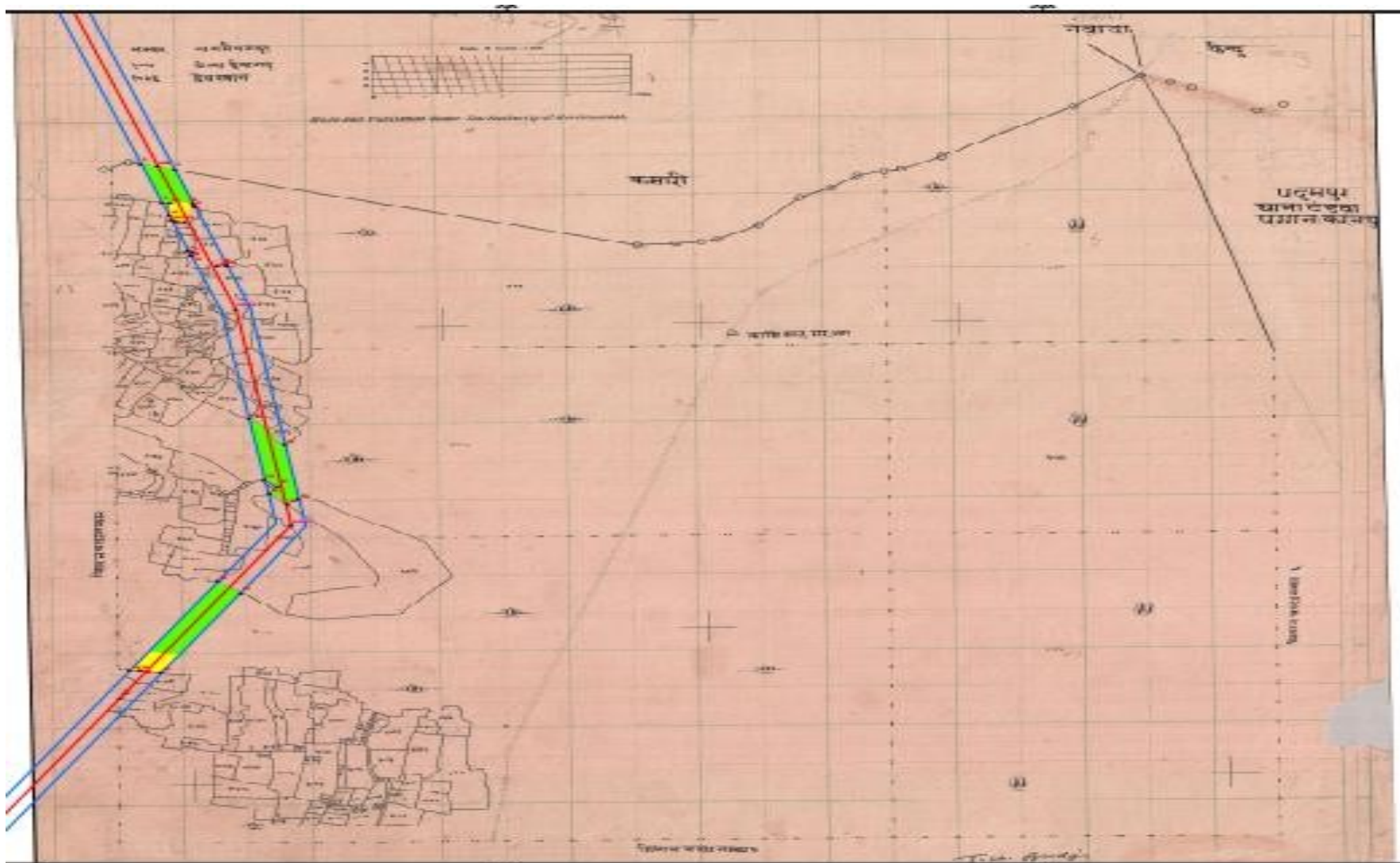


# Village map: Submission route



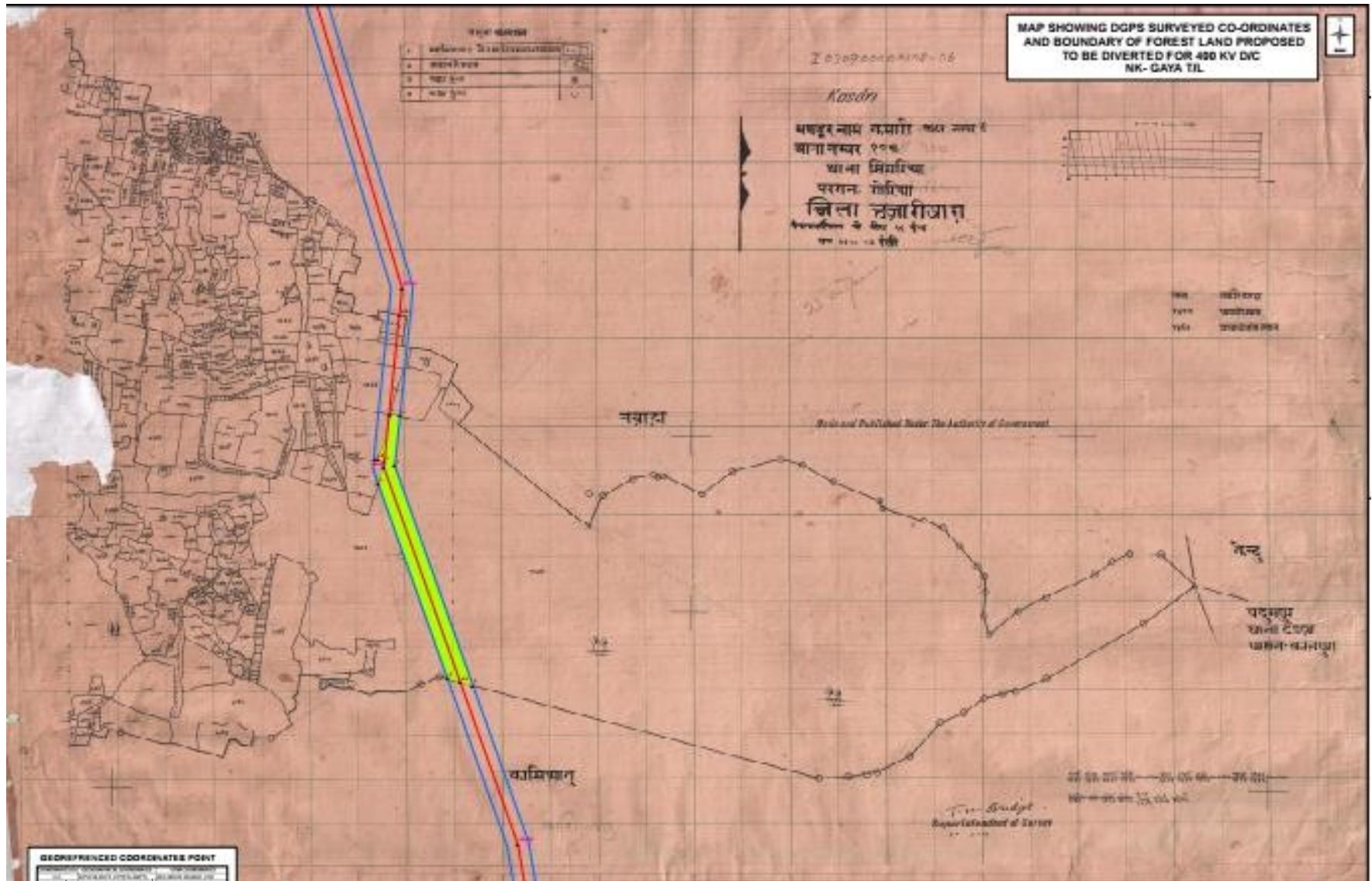


# Village map: Submission route



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

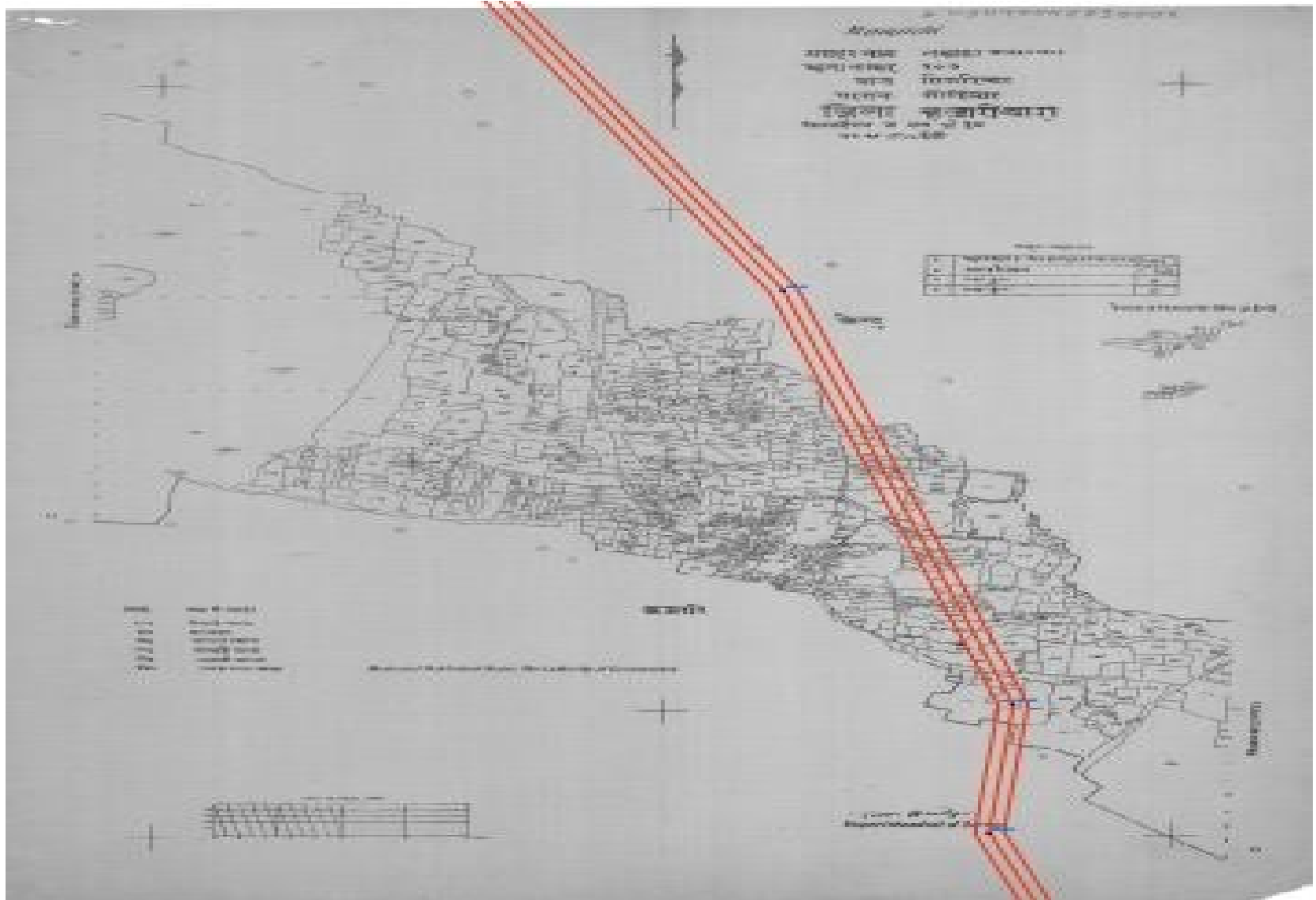
# Village map: Submission route



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi



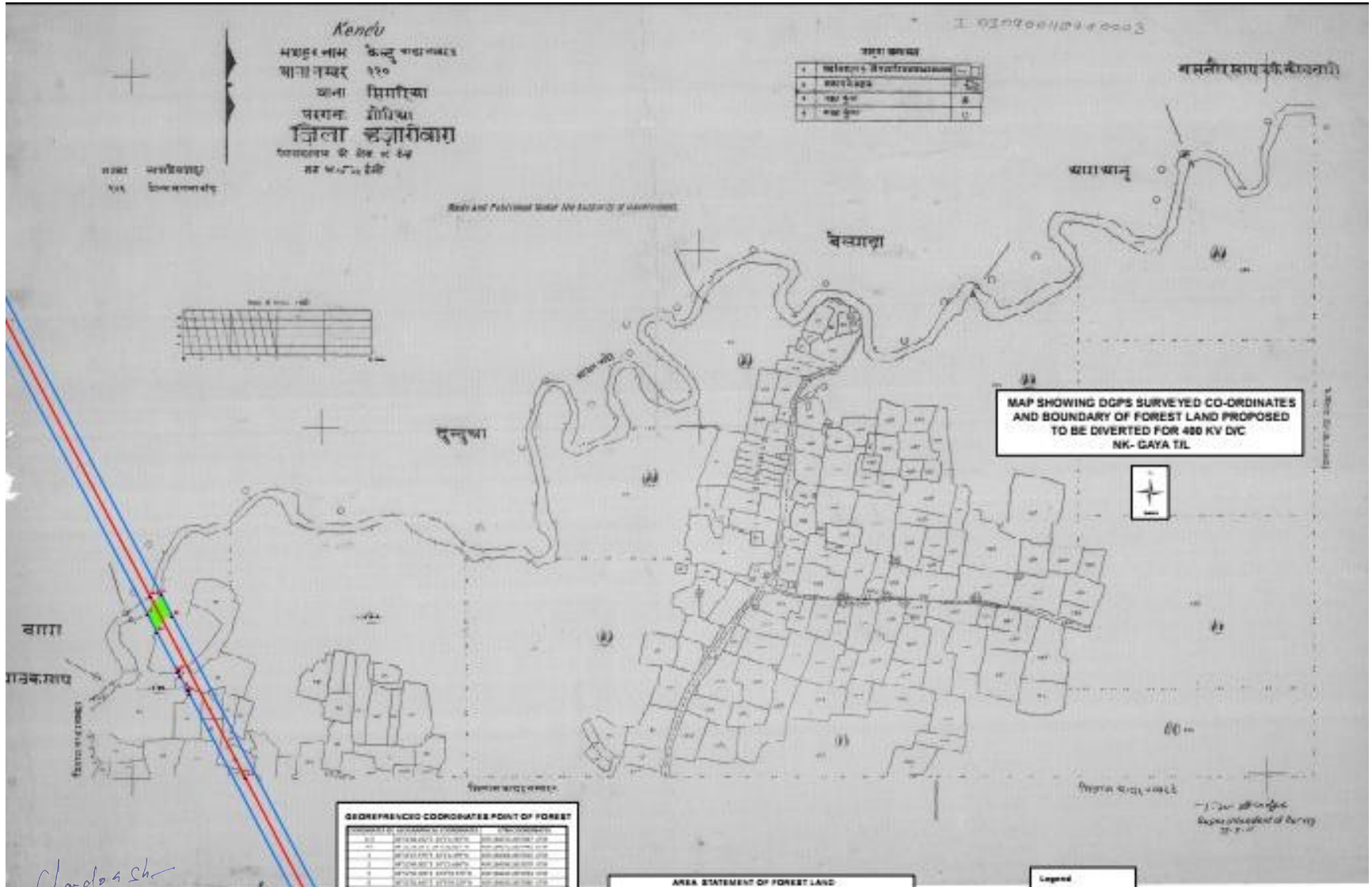
# Village map: Submission route



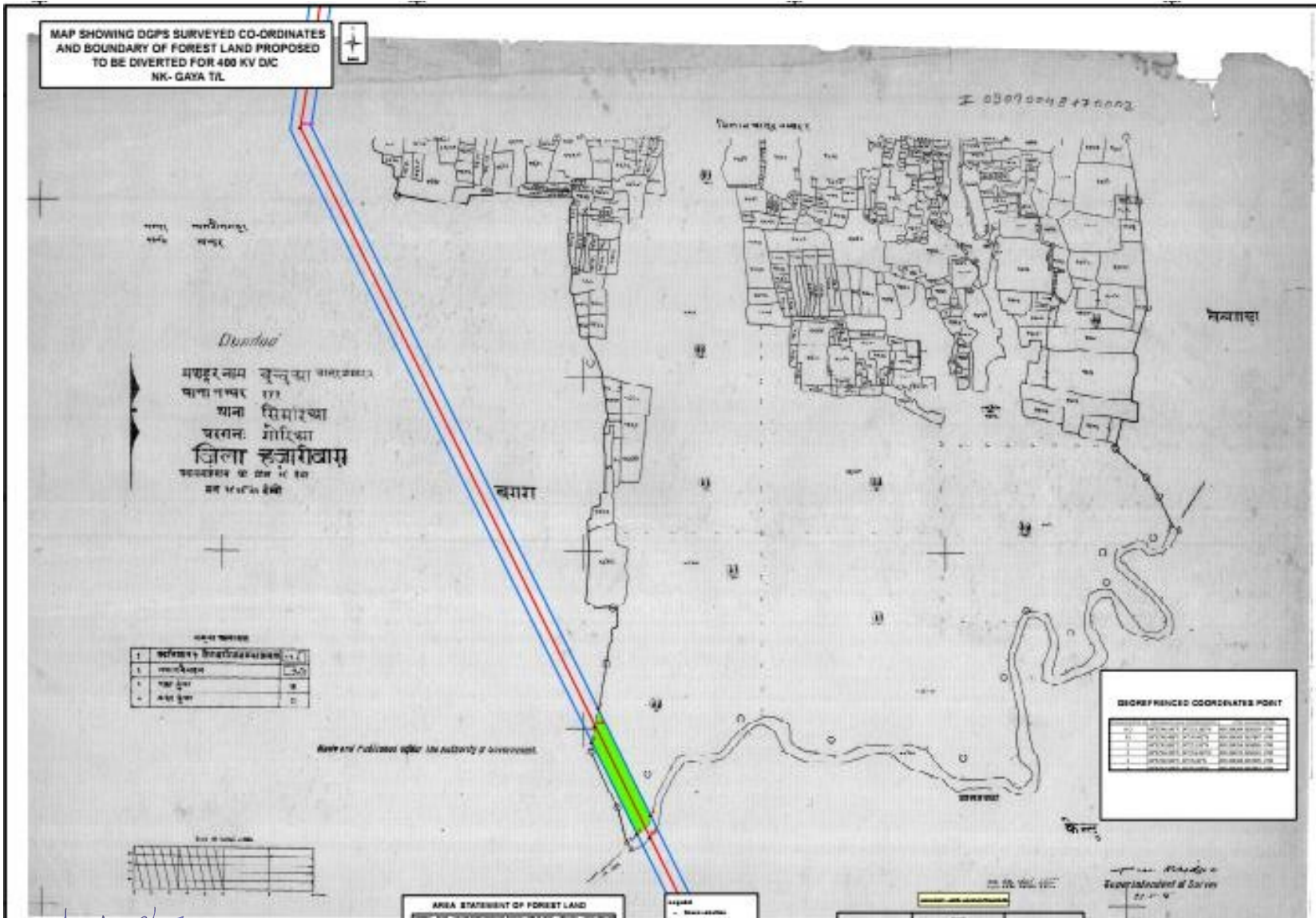
# Village map: Submission route







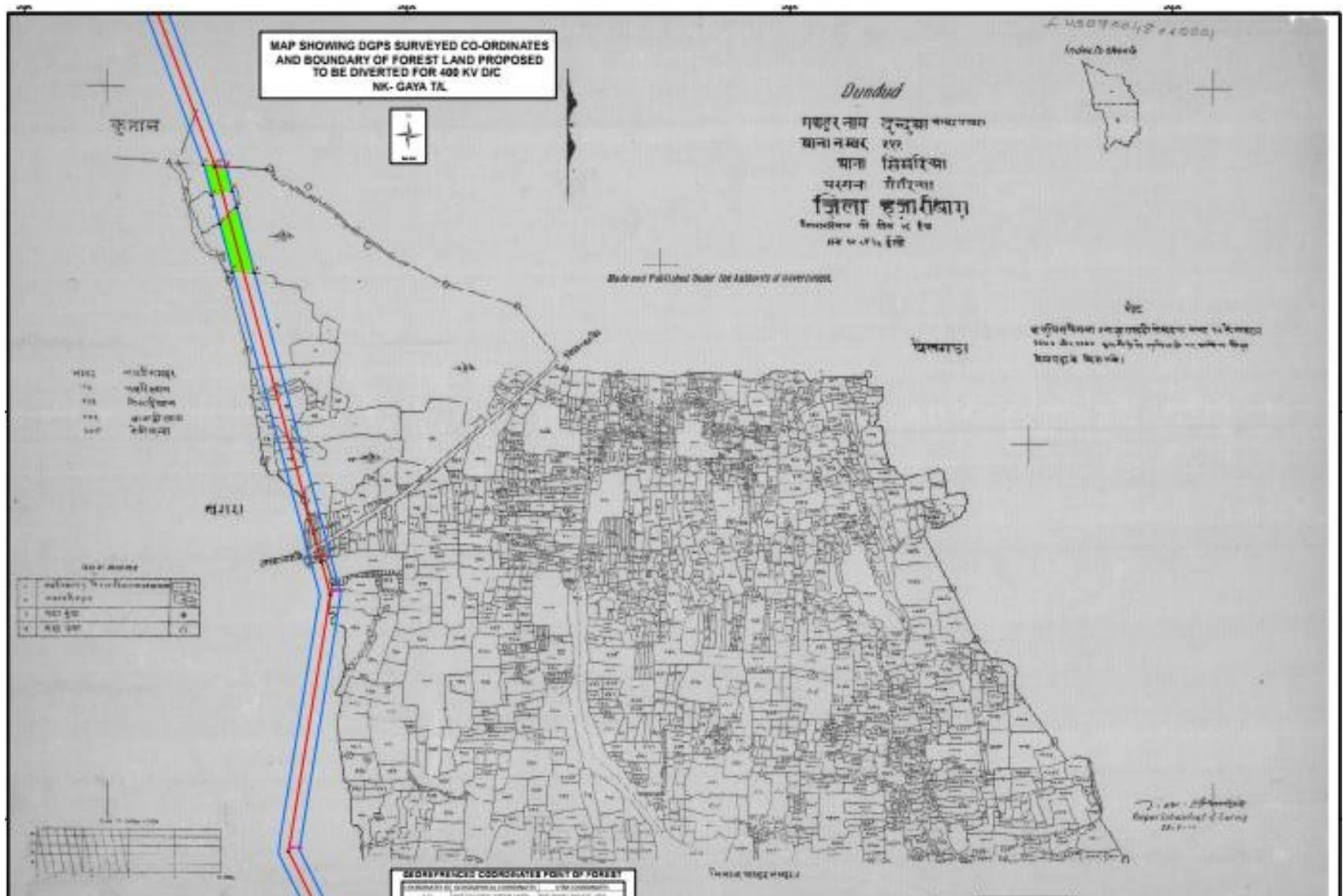
## Village map: Submission route



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

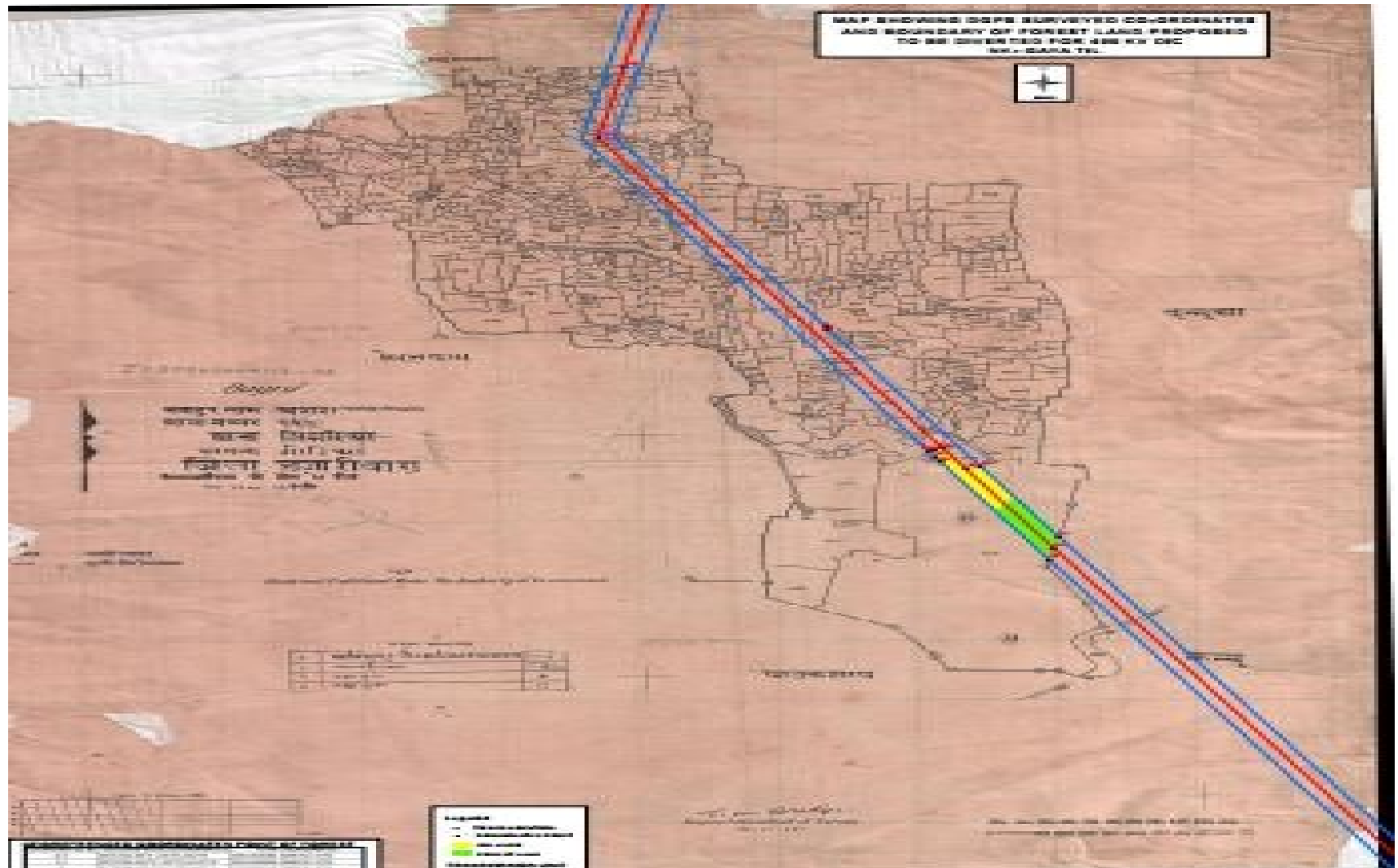


# Village map: Submission route



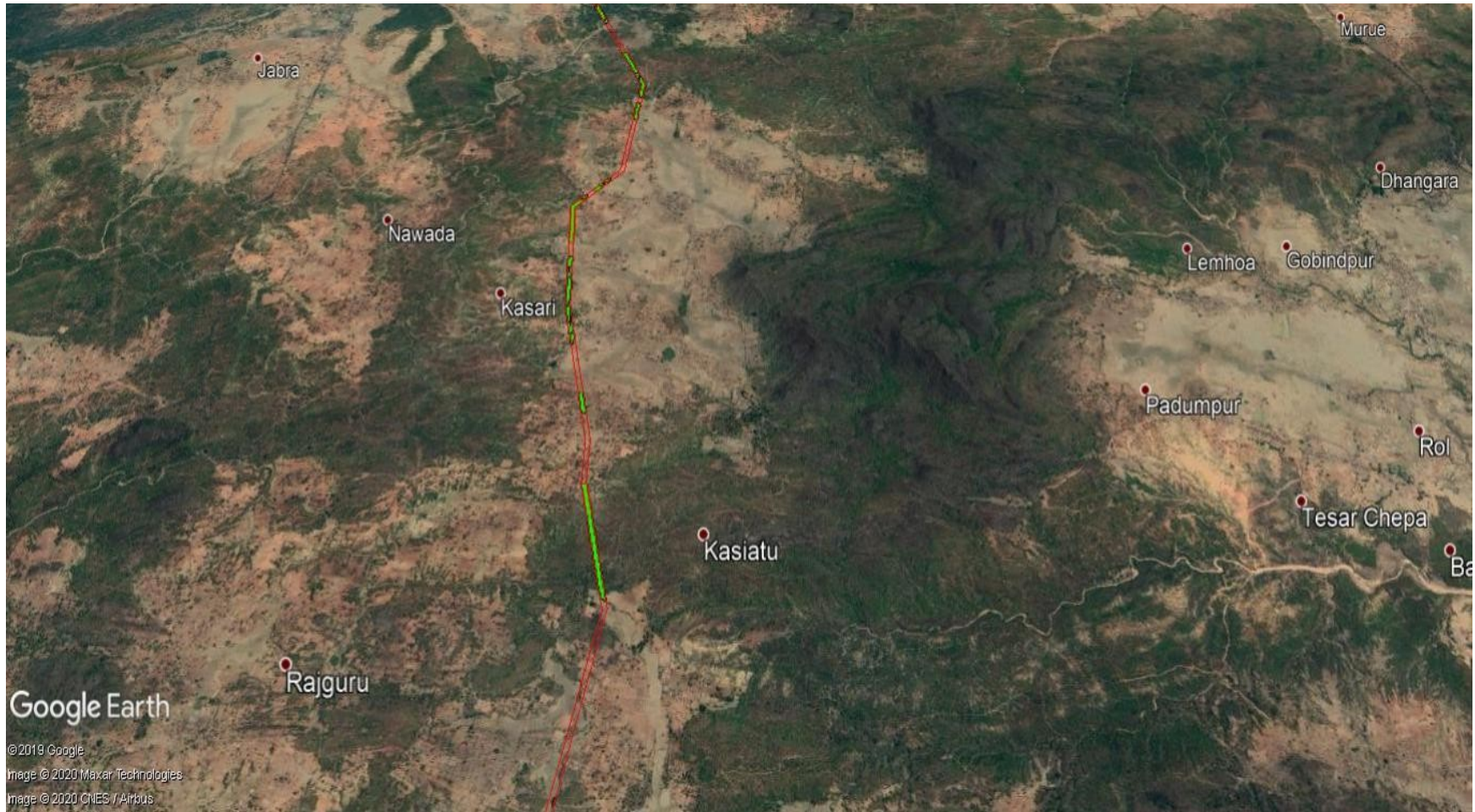
Chandra Shekhar Singh  
 Assistant Manager-Projects  
 North Karanpura Transco Limited  
 Ranchi

# Village map: Submission route



*Chandra Shekhar Singh*  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

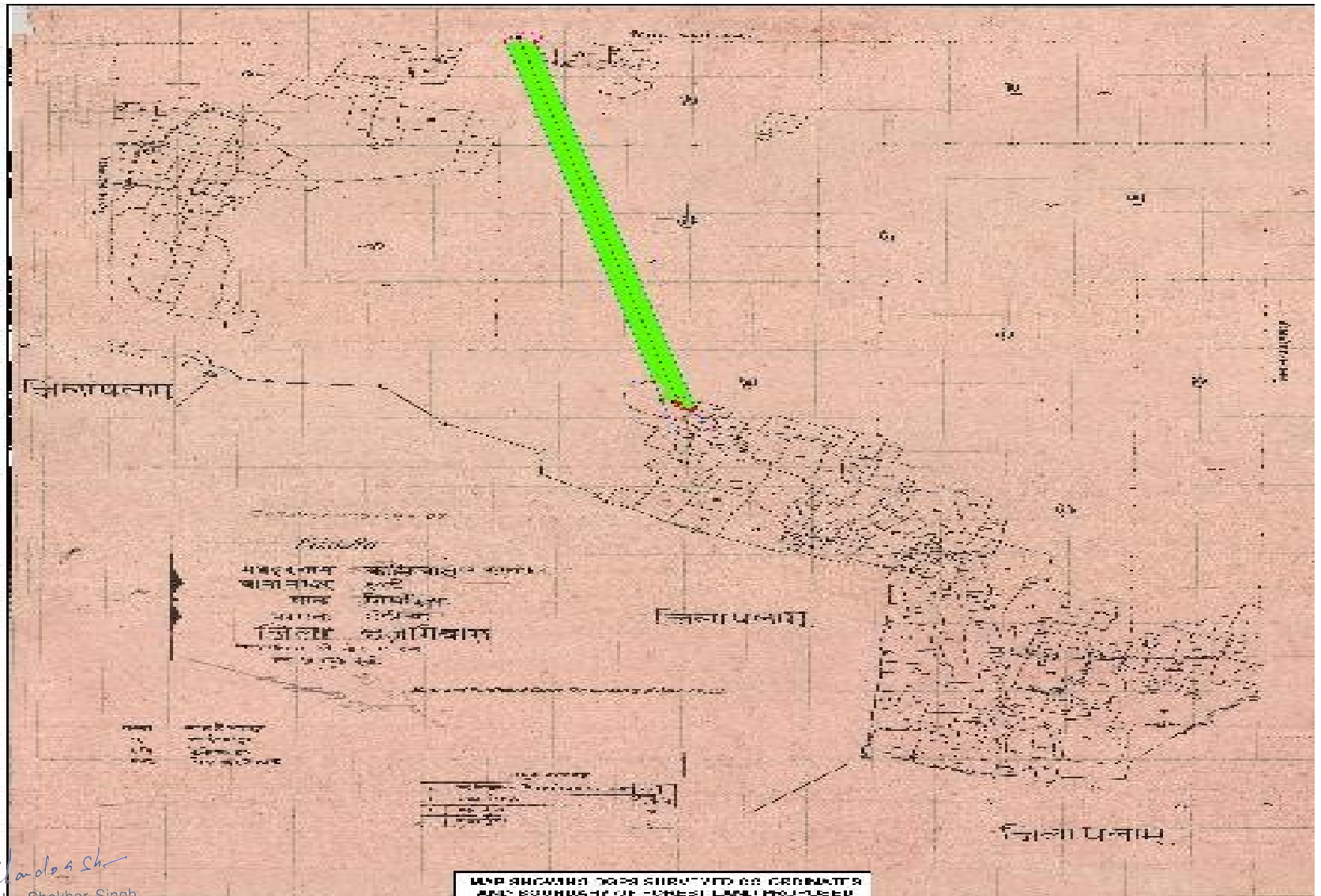
# Google map: suggested route Nodal



*Chandra Shekhar*  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi



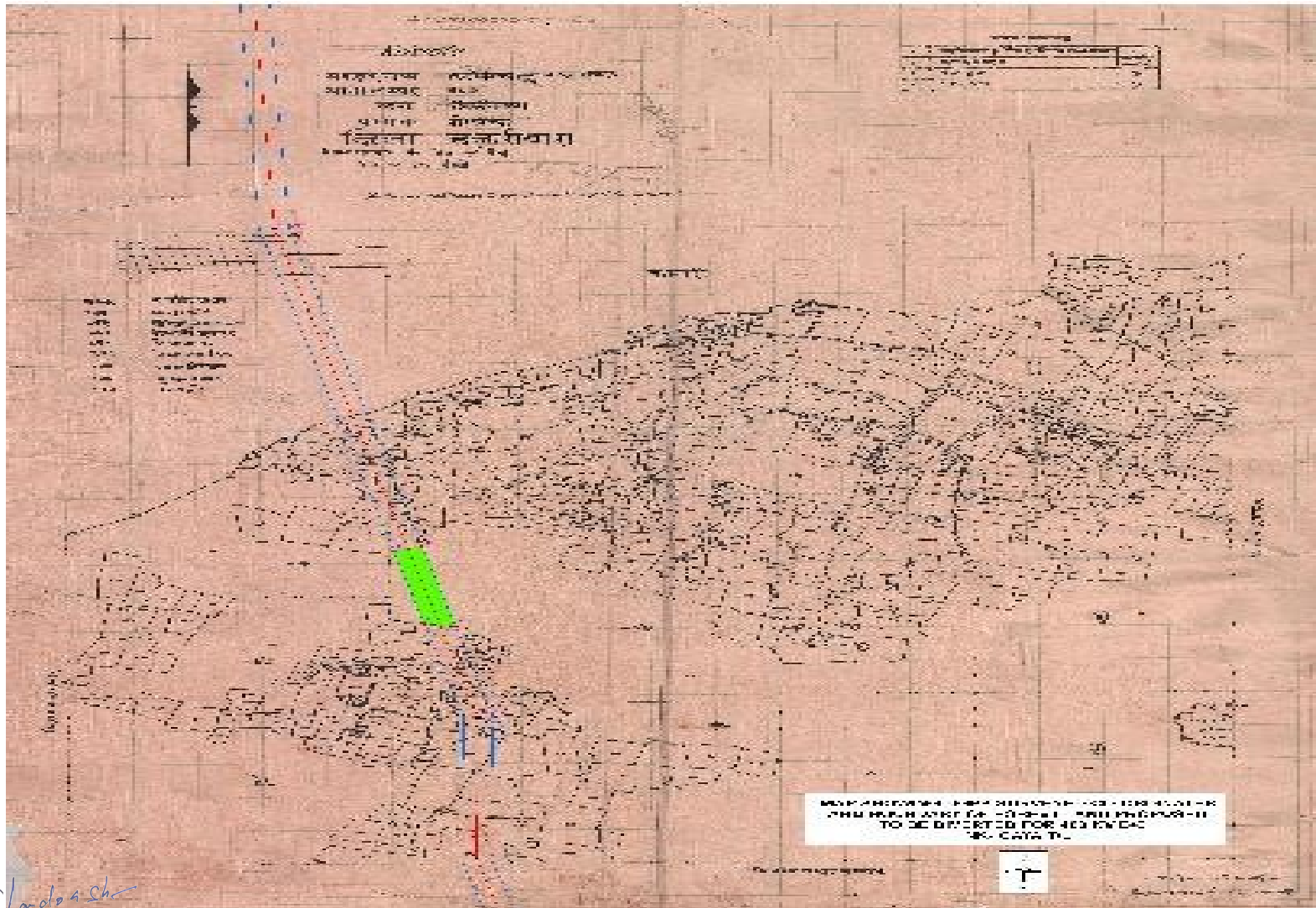
## Village map: suggested route Nodal



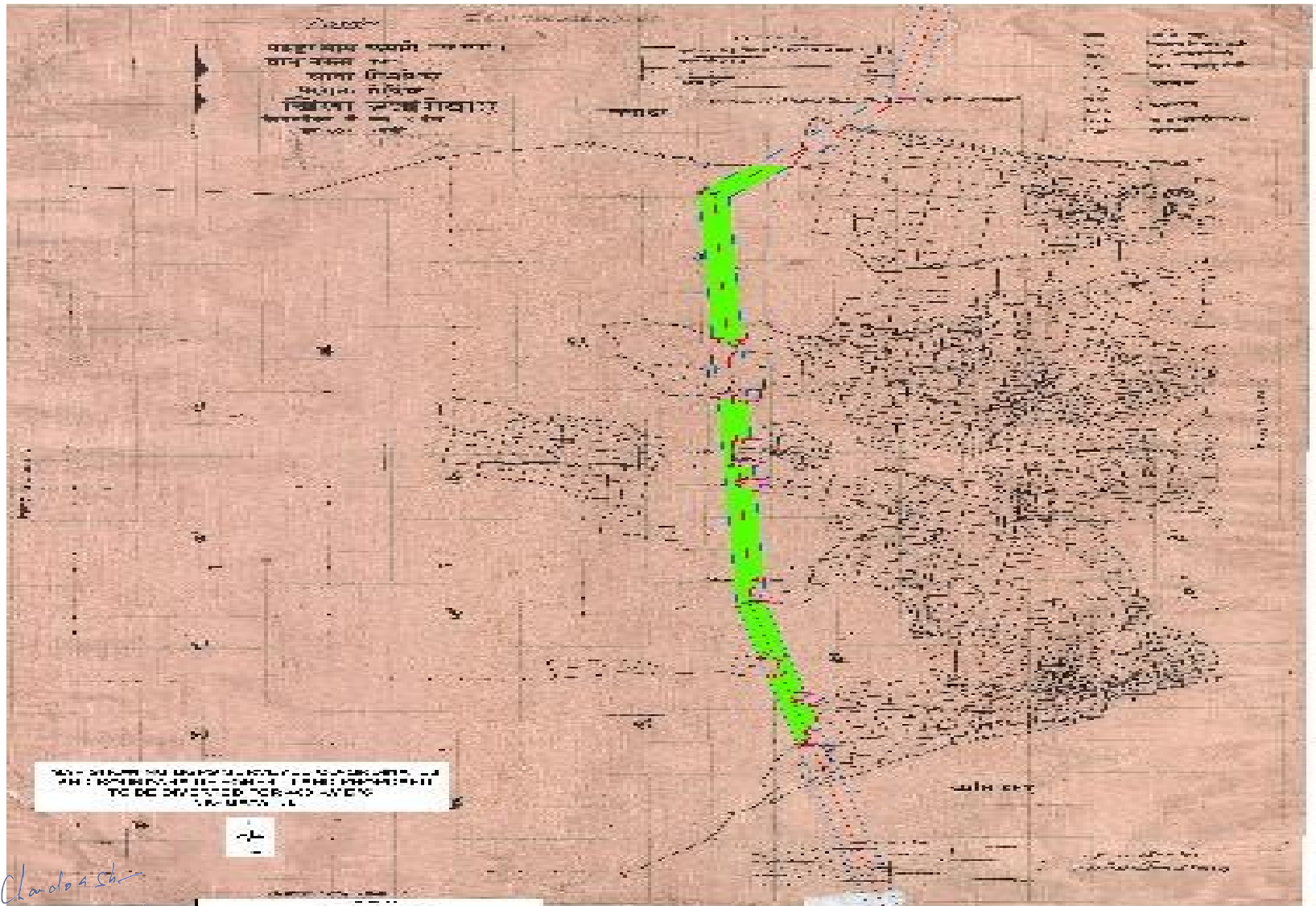
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

MAP SHOWING DATA SURVEYED AS ORIGINALLY  
AND EXAMINED BY TYPES: LAND, HOUSE, USER

# Village map: suggested route Nodal



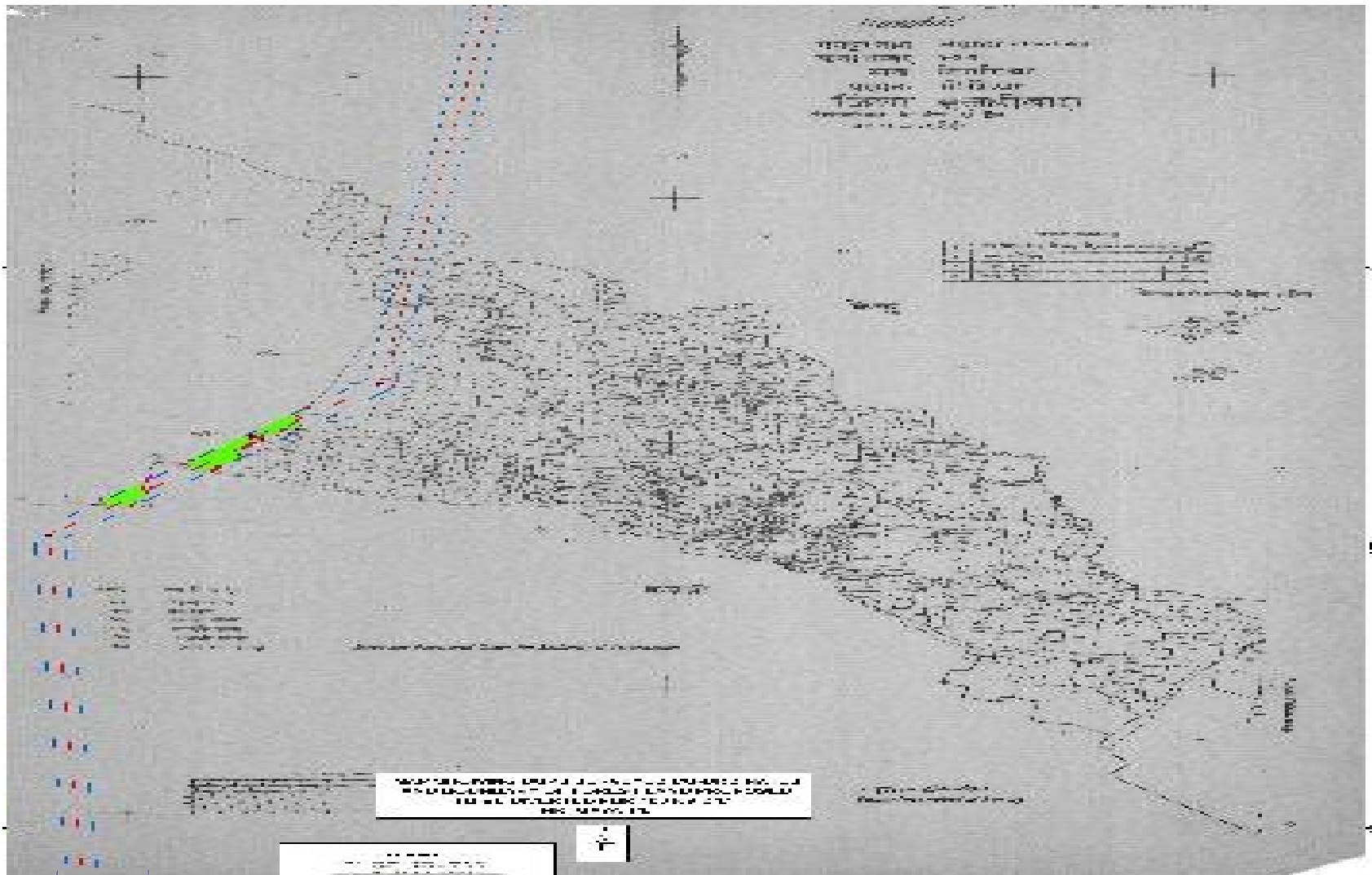
## Village map: suggested route Nodal



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi



## Village map: suggested route Nodal



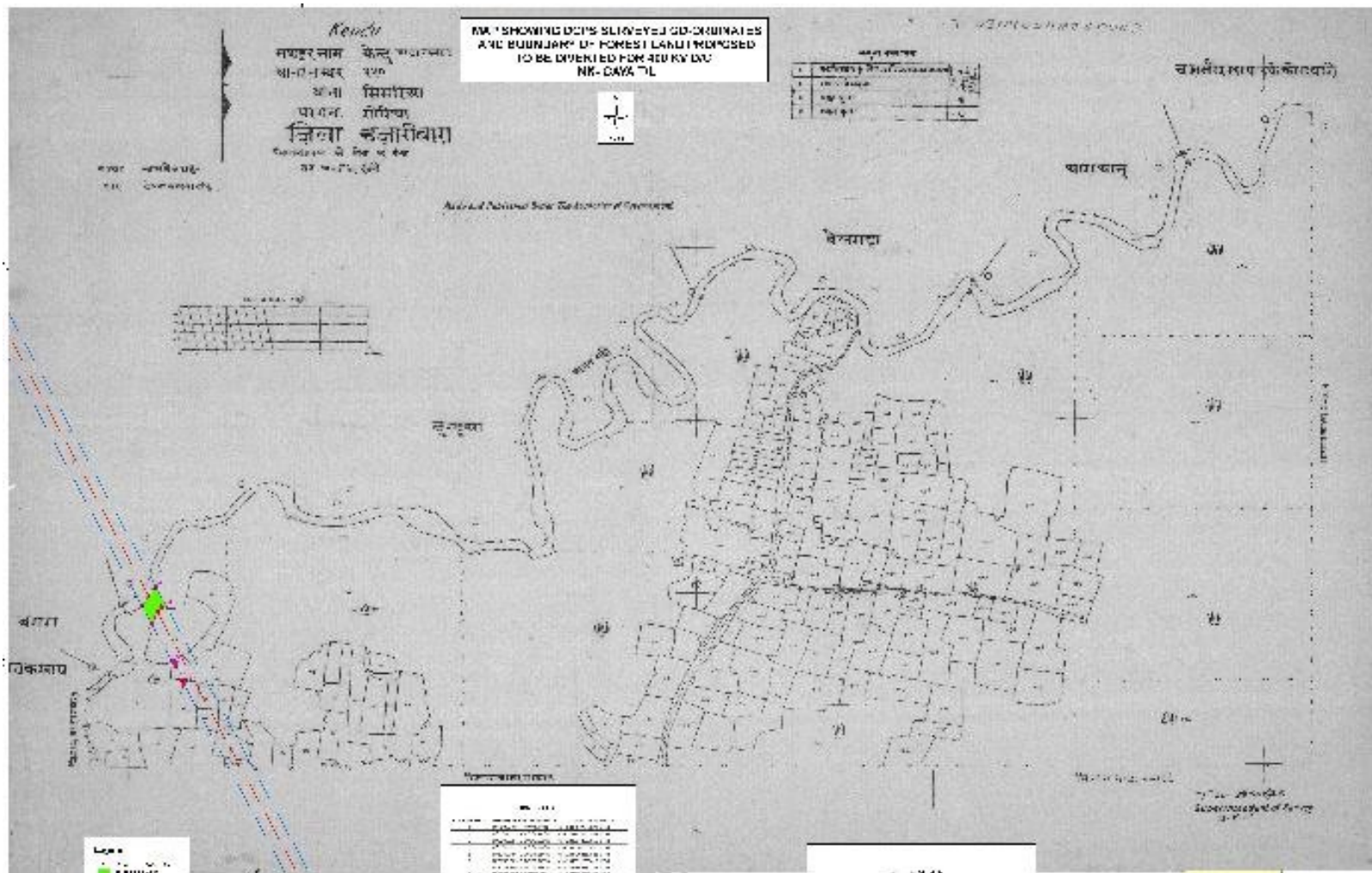
Chandra Shekhar  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

# Village map: suggested route Nodal



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

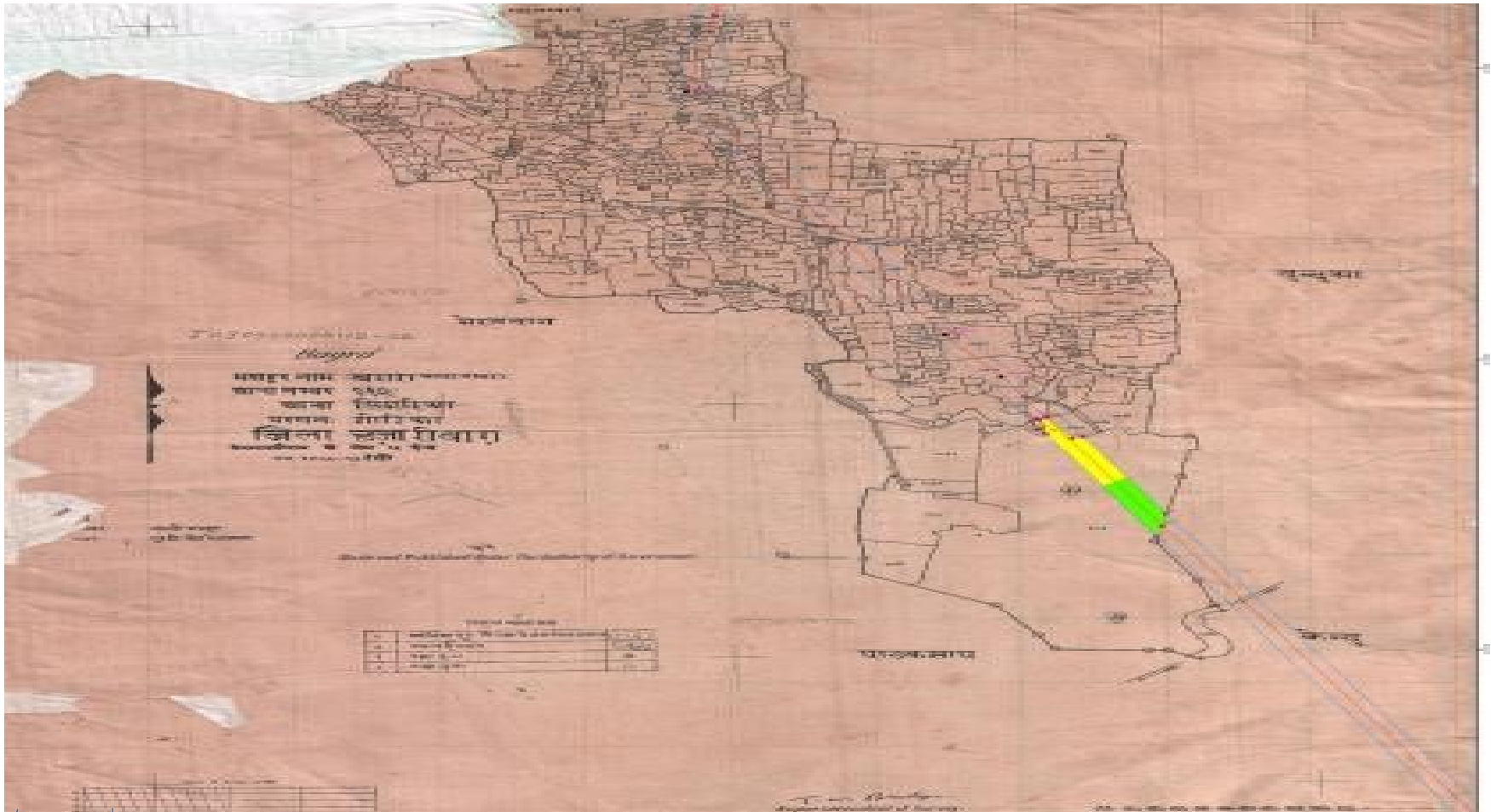
# Village map: suggested route Nodal



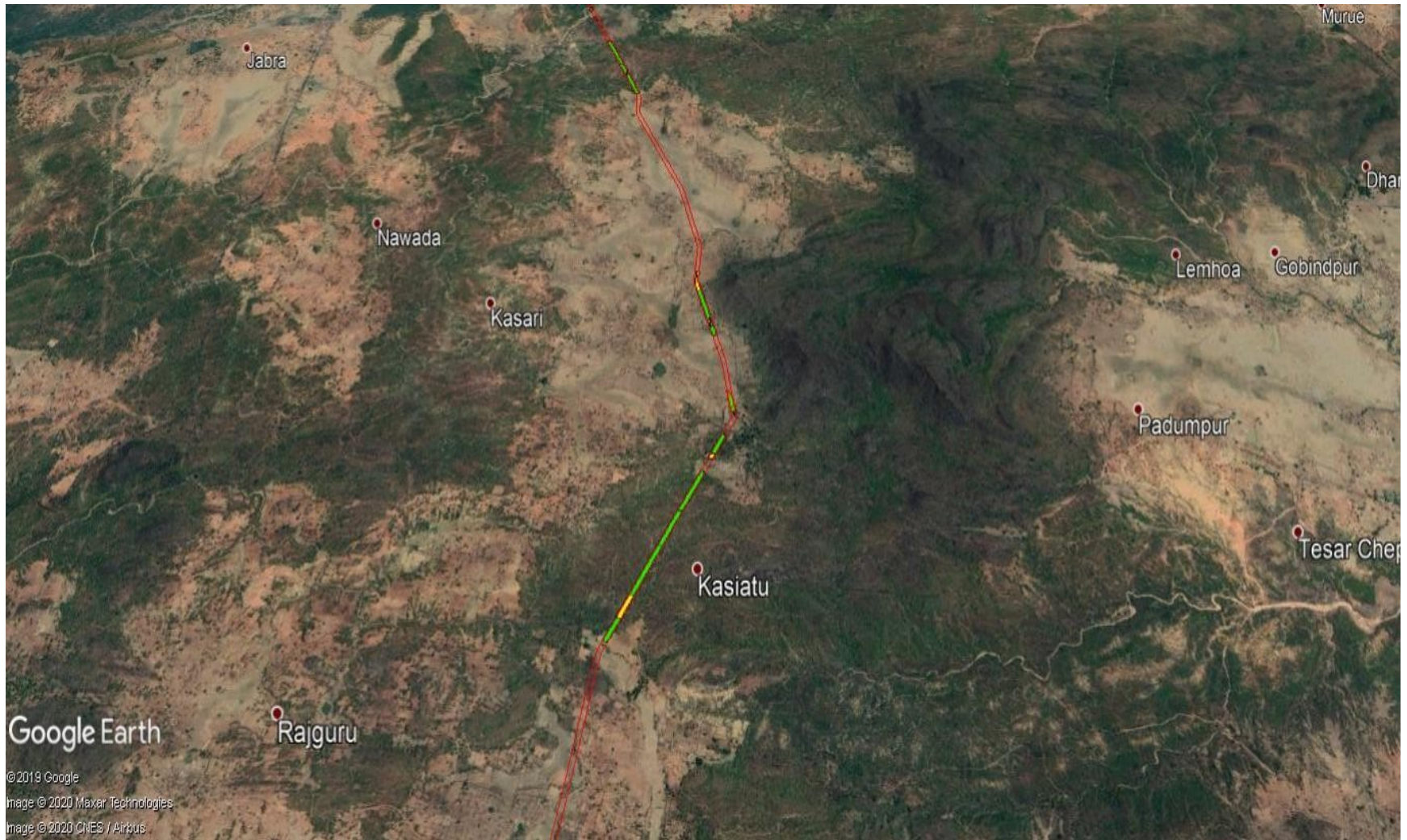
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi



# Village map: suggested route Nodal

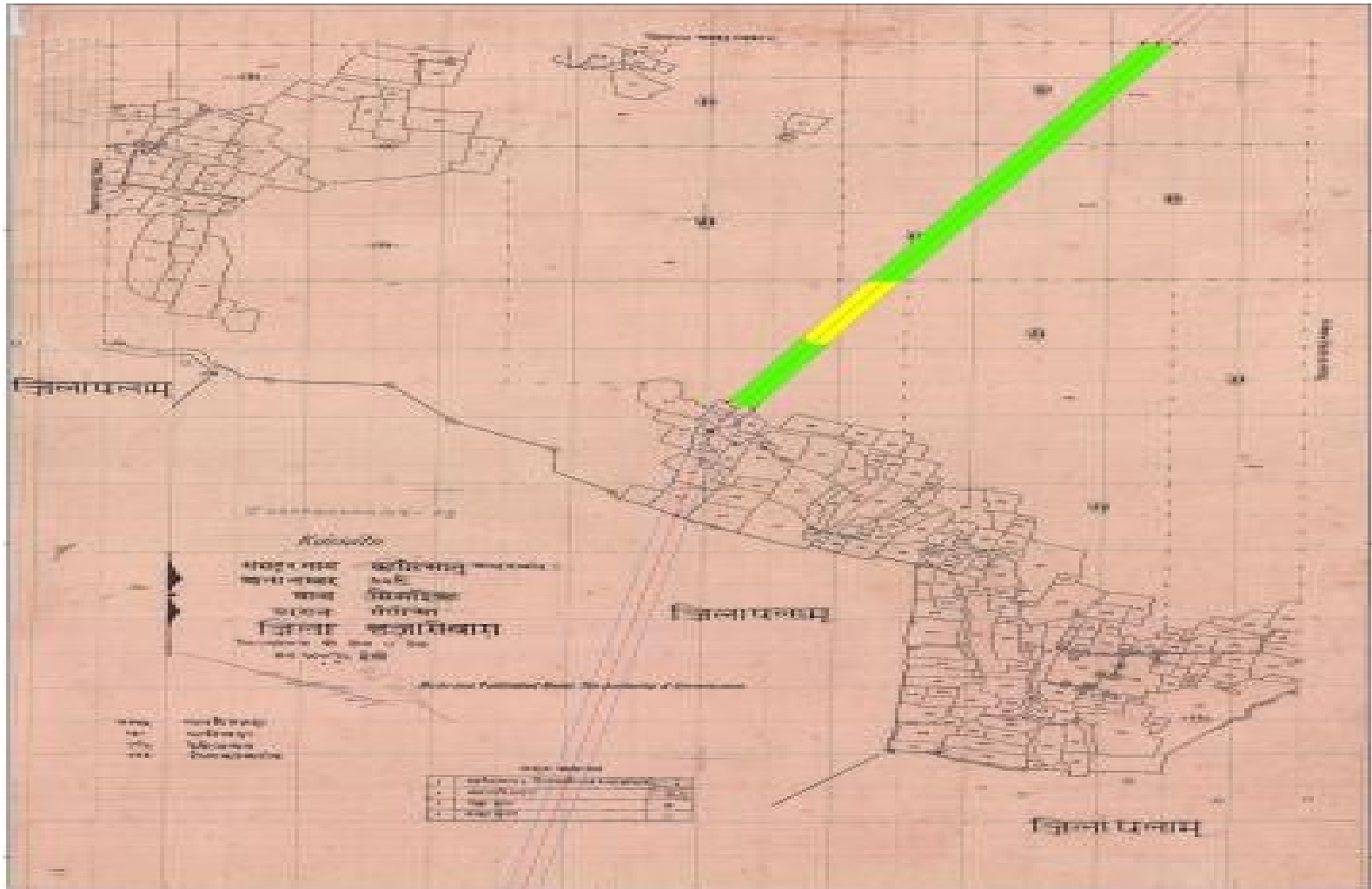


# Google map: Optimized route



*Chandra Shekhar*  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

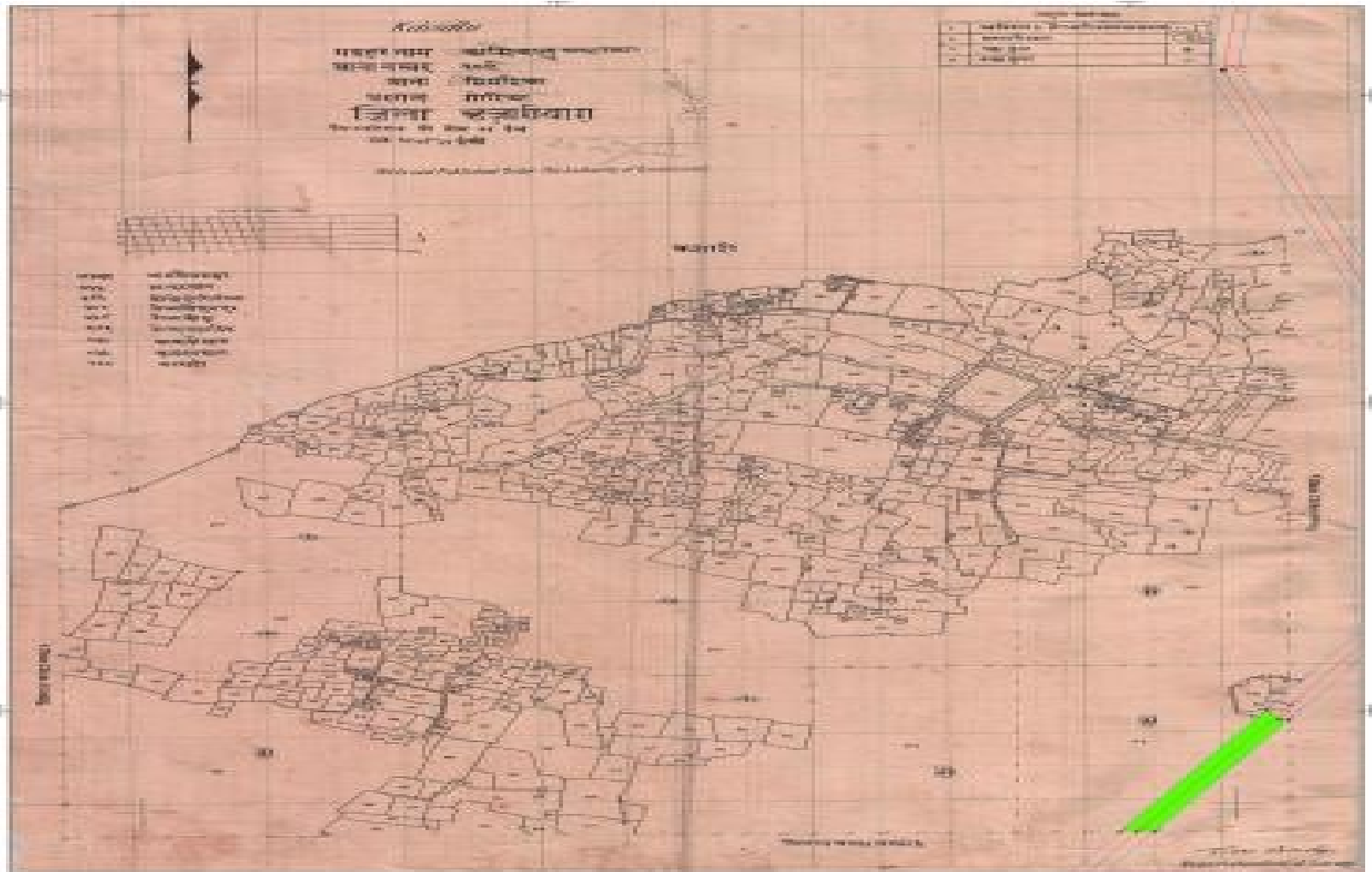
# Village Map: Optimized route



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

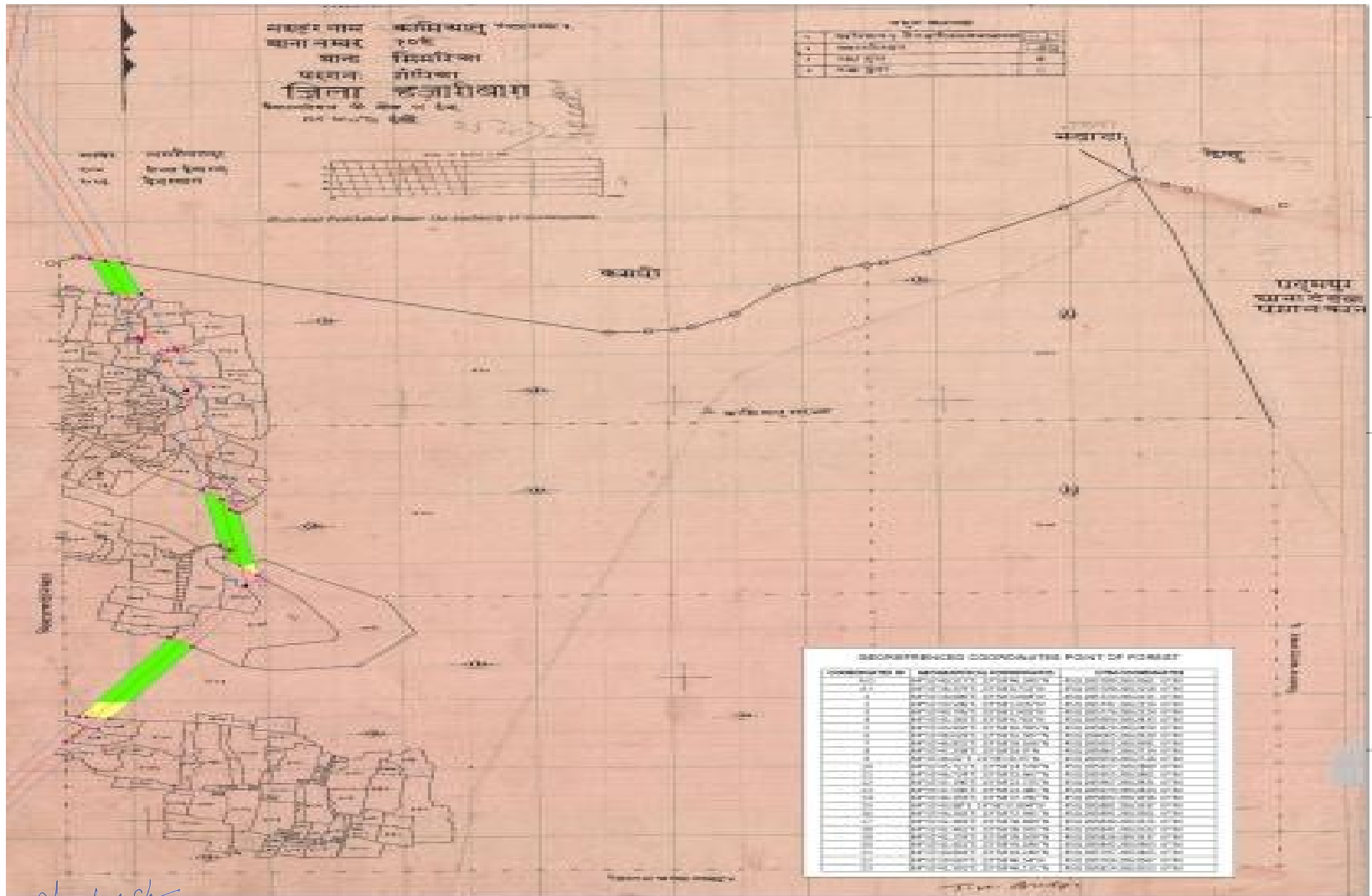


# Village Map: Optimized route



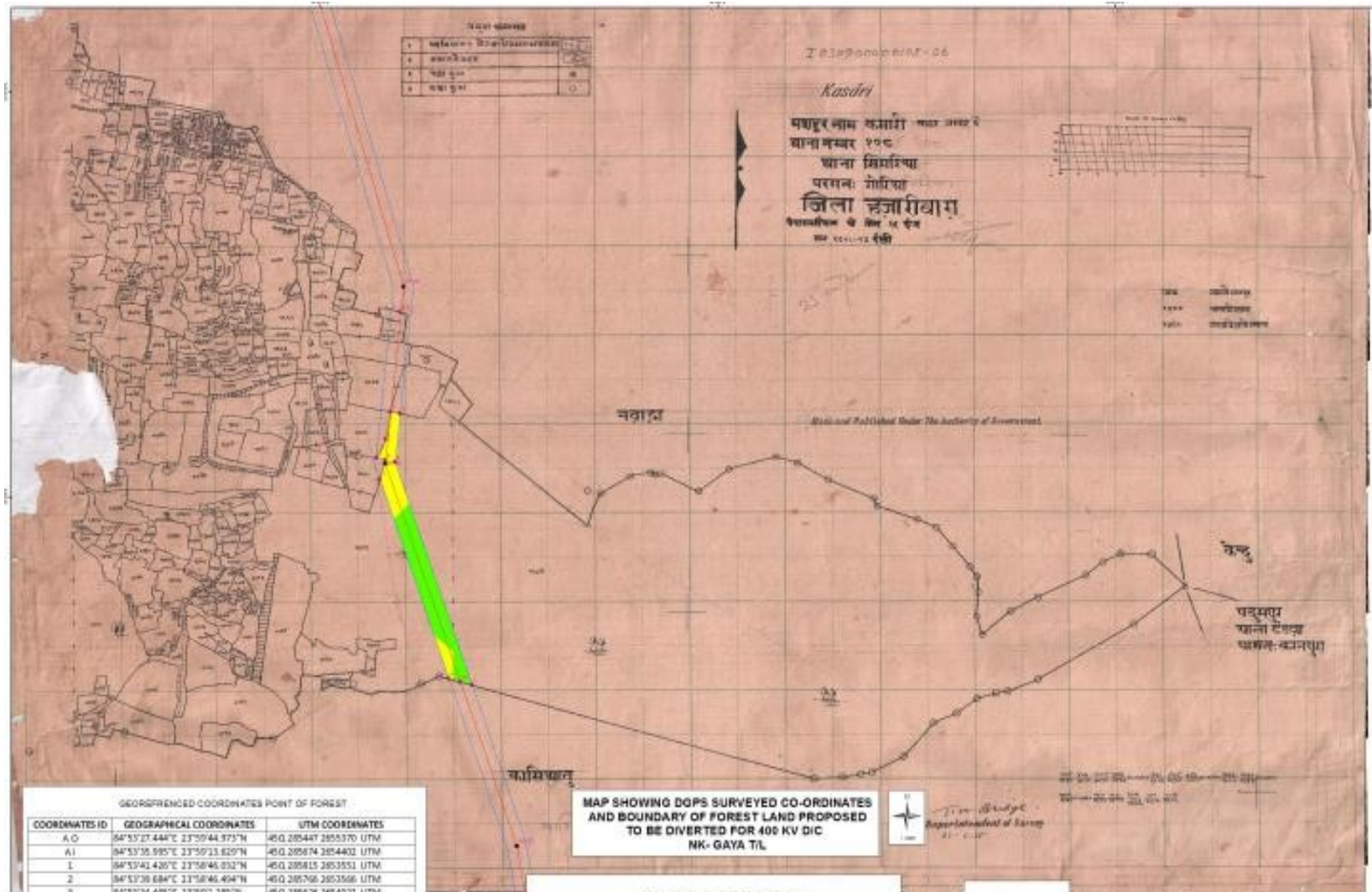
*Chandra Shekhar*  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

# Village Map: Optimized route



Chandra Shekhar Singh  
 Assistant Manager - Projects  
 North Karanpura Transco Limited  
 Ranchi

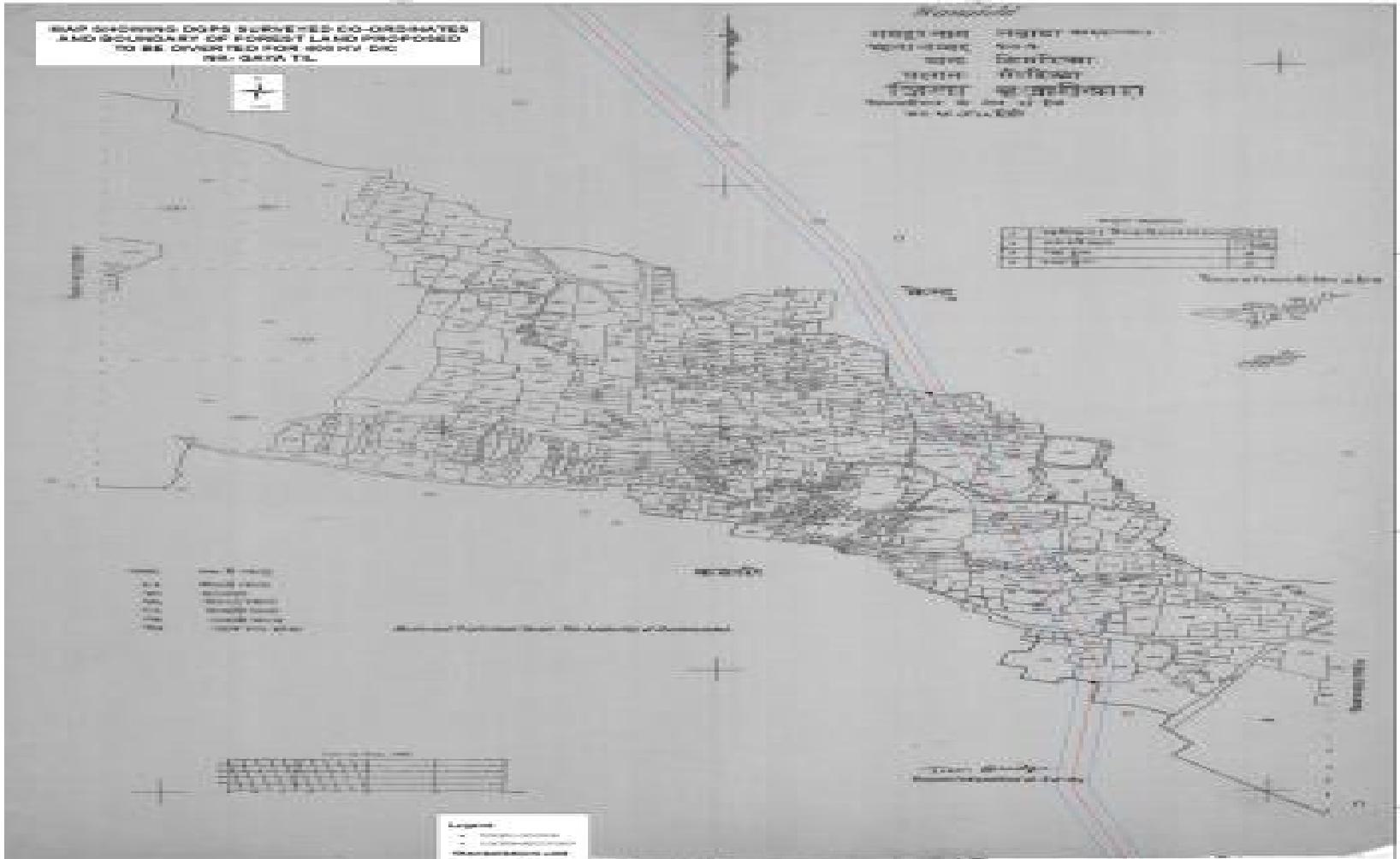
# Village Map: Optimized route



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

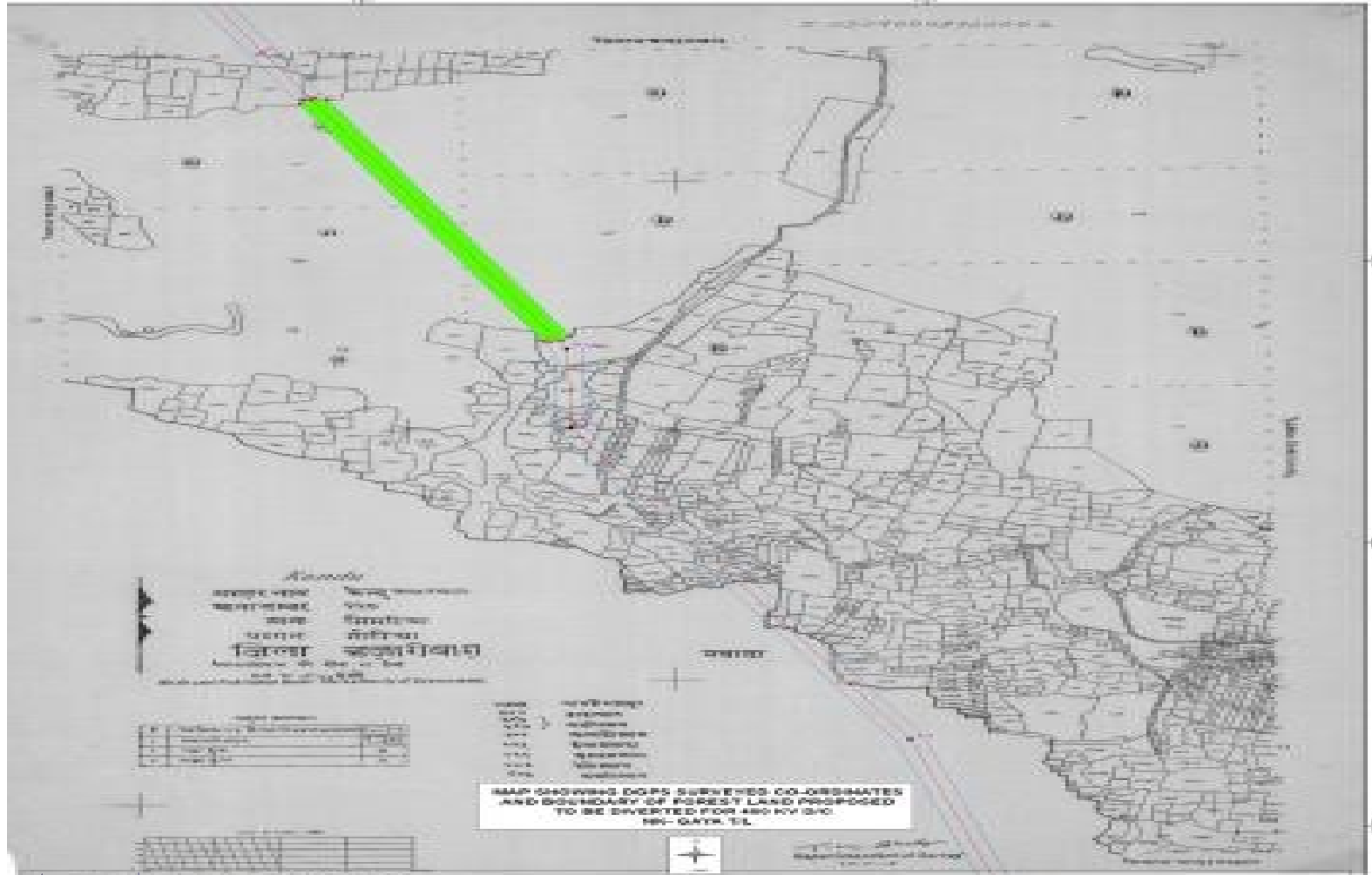


## Village Map: Optimized route



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

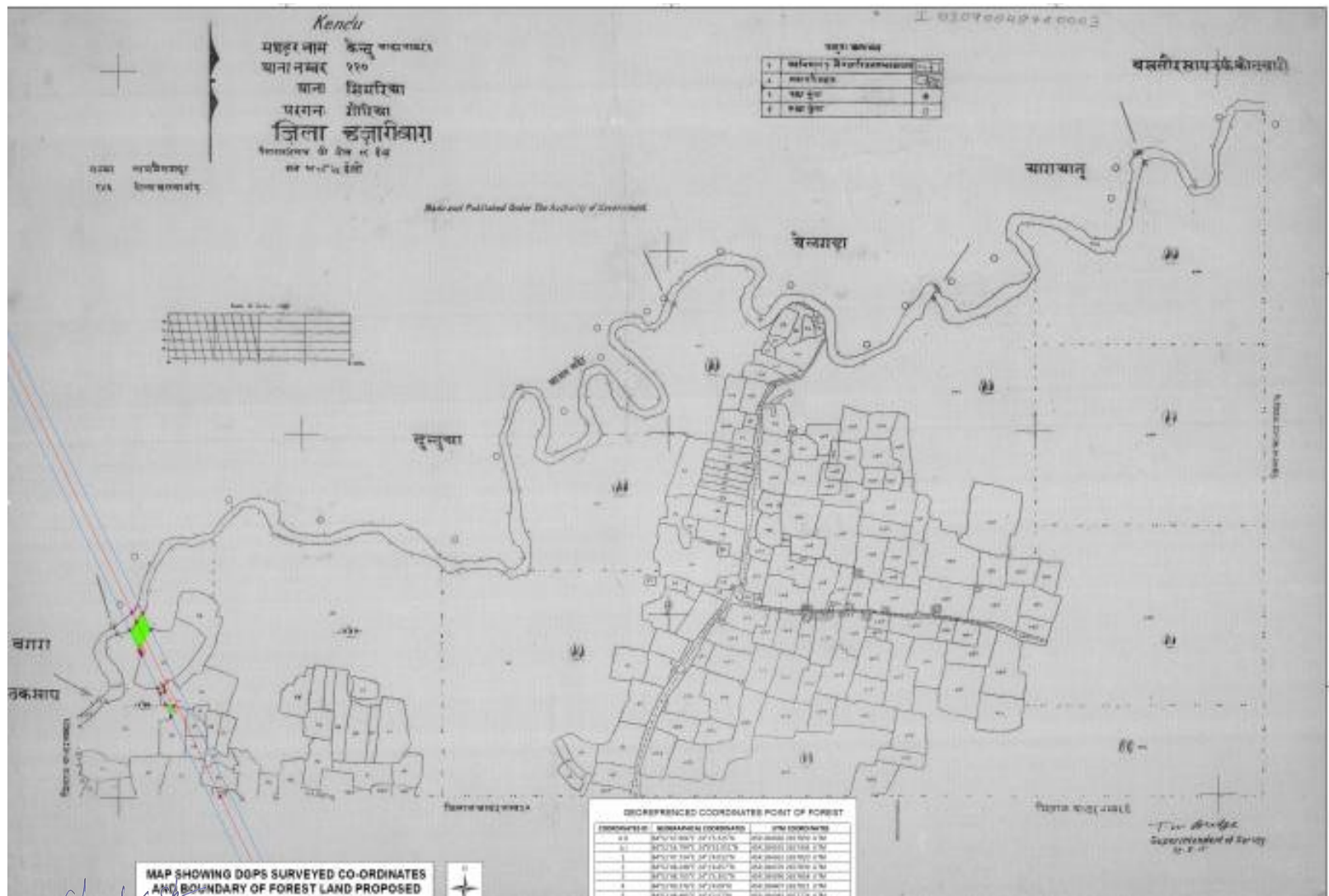
# Village Map: Optimized route



*Chandra Shekhar Singh*

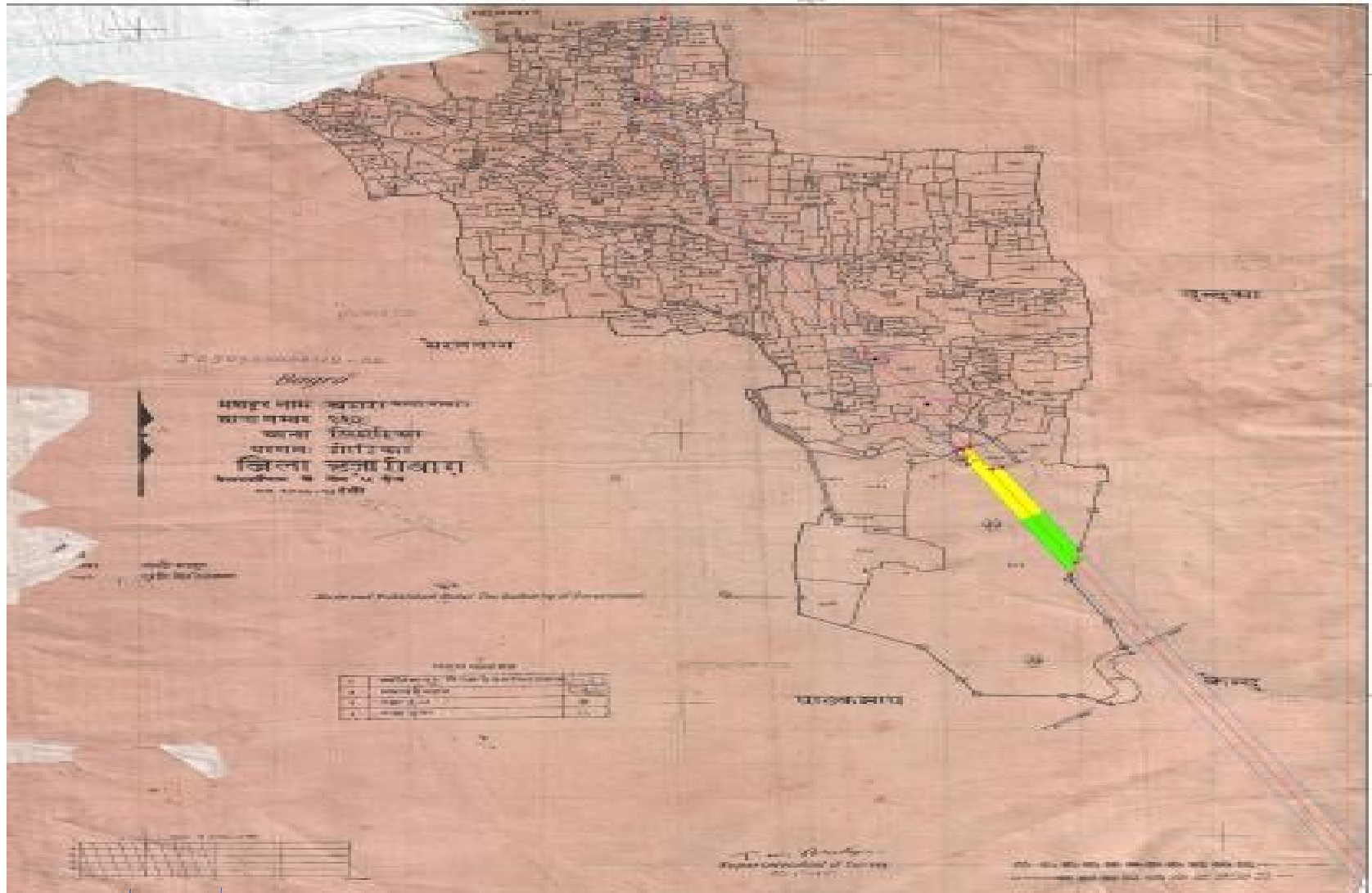
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

# Village Map: Optimized route





# Village Map: Optimized route




*Chandra Shekhar Singh*  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi

## Submission Route plot wise details:

BLOCK	Village Name	Thana No	khata no	Plot No	Notified Forest (Ha.)	Revenue Forest (Ha.)	Area Ha.	
SIMARIA	KASARI	108	130	1623	1.4188	1.0122	2.4310	
		108	130	1629	0.2303	0.0000	0.2303	
		Sub total			1.6491	1.0122	2.6613	
SIMARIA	KENDU	110	101	32	0.2049	0.0000	0.2049	
		110		373	1.7953	0.0000	1.7953	
		110		380	0.4356	0.0000	0.4356	
		110	101	381	1.6950	0.0000	1.6950	
		Sub total			4.1308	0.0000	4.1308	
SIMARIA	DUNDUA	111	73	1674	1.1770	0.0000	1.1770	
		111	72	5	0.8842	0.0000	0.8842	
		Sub total			2.0613	0.0000	2.0613	
SIMARIA	BAGRA	112	92	1136	0.0000	0.0014	0.0014	
		112	92	1203	0.7351	0.7585	1.4936	
		112	92	1226	0.0000	0.0054	0.0054	
		Sub total			0.7351	0.7653	1.5004	
Chandra Shekhar Singh Chandra Shekhar Singh					Total	17.4160	3.1958	20.6120

## Nodal suggested route plot wise details:

S.NO	Village Name	Thana No	Plot No	Notified Forest(Ha.)	Revenue Forest (Ha.)	Area Ha.
1	KASIATU	109	782	1.0731	0.0000	1.0731
			321	1.4087	0.0000	1.4087
			298	3.5359	0.0000	3.5359
2	KASARI	108	759	2.7220	0.0000	2.7220
			704	0.9260	0.0000	0.9260
			1109	2.2277	0.0000	2.2277
			1113	1.0613	0.0000	1.0613
3	NAWADA	107	215	1.0314	0.0000	1.0314
4	KENDU	110	32	0.2064	0.0000	0.2064
			373	1.8006	0.0000	1.8006
			381	1.4377	0.0000	1.4377
			380	1.5574	0.0000	1.5574
5	DUNDUA		1674	1.1170	0.0000	1.1170
6	BAGRA	112	1203	0.7351	0.7585	1.4936
			1136	0.0000	0.0014	0.0014
			1226	0.0000	0.0054	0.0054
	Total			20.8403	0.7653	21.6056



Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi




## Optimized route plot wise details:

Vill. Name	Thana no.	Plot No.	Notified Forest Area Ha.	Jungle Jhari Area Ha.	Area in Ha.
KASIATU	109	298	0.933	0	0.933
		298	0	0.896	0.896
		1045	1.501	0	1.501
		1046	1.999	0	1.999
		784	1.801	0	1.801
		921	0.427	0	0.427
		978	0.746	0	0.746
		983	0.874	0	0.874
		983	0	0.229	0.229
		932	0	0.004	0.004
		929	0	0.002	0.002
		1070	0	0.038	0.038
KASARI	108	1623	1.337	0	1.337
		1623	0	0.925	0.925
		1629	0.214	0	0.214
KENDU	110	32	0.226	0	0.226
		373	1.658	0	1.658
		380	0.641	0	0.641
		381	1.418	0	1.418
DUNDUA	111	1674	1.08	0	1.08
		5	0.884	0	0.884
BAGRA	112	1203	0.659	0	0.659
		1203	0	0.793	0.793
		1226	0	0.009	0.009

# Comparative statement


## Submission route vs Nodal Suggested Vs Optimized route

Content	Submission Route	Suggested option (AP29-35)	Optimized route (AP29-35)	Diff Suggested route VS Submission 2-1	Diff optimized Vs Submission route 3-1
	1	2	3	4	5
Village and Plot Details	Kasiyatu: 1045, 1046, 107, 298, 784, 921, 924, 929, 932, 978, 983 Kasari: 1623, 1629 Kendu: 32, 373, 380, 381 Dundua: 1674, 5 Bagra: 1136, 1203, 1226	Kasiyatu:298, 321, 782 Kasari:759,1109,70 4,1113 Nawada: 215 Kendu: 373,380,381,32 Dundua: 1674 Bagra: 1203,1136,1226	Kasiyatu: 298, 1045, 1046, 784, 921, 978, 983, 932, 929, 1070 Kasari: 1623, 1629 Kendu: 32, 373, 380, 381 Dundua: 1674, 5 Bagra: 1203, 1226		
Notified Forest Area in Ha.	17.4160Ha.	20.8403Ha.	17.398	3.4243	-0.018
GM JJ Area in Ha.	3.1958Ha.	0.7653Ha.	2.896	-2.4305	-0.2998
Total Area in Ha.	20.6120Ha.	21.6056Ha.	20.294	0.9936	-0.318
Diff of Area in Ha		0.993	-1.318		
Total Tree in the Corridor (Nos)	2430	2413	1788	-17	-642
Diff In Tree From Proposed Route		-17	-642		
Tree Cut proposed (Nos)	1478	1324	964	-154	-514
Diff In Tree To Be Cut From Proposed Route		-154	-514		

  
 Chandra Shekhar Singh  
 Assistant Manager-Projects  
 North Karanpura Transco Limited  
 Ranchi

# Conclusion

- With above data analysis it appears that Optimized Route could be the best option for construction which impacts **514 less tree** with slightly decreasing the area by 0.318 ha. compared to Submission Route between AP29 to AP35 making it viable with forest perspective.

  
Chandra Shekhar Singh  
Assistant Manager-Projects  
North Karanpura Transco Limited  
Ranchi



Thanks