



SHIVALIK HILLS AND GANGETIC PLAINS



THE SHIVALIK HILLS AND GANGETIC PLAIN LANDSCAPE

The Shivalik Hill and Gangetic Plain landscape comprises of Uttarakhand, Uttar Pradesh and Bihar. The entire landscape has 4 Tiger Reserves with about 351 tigers.

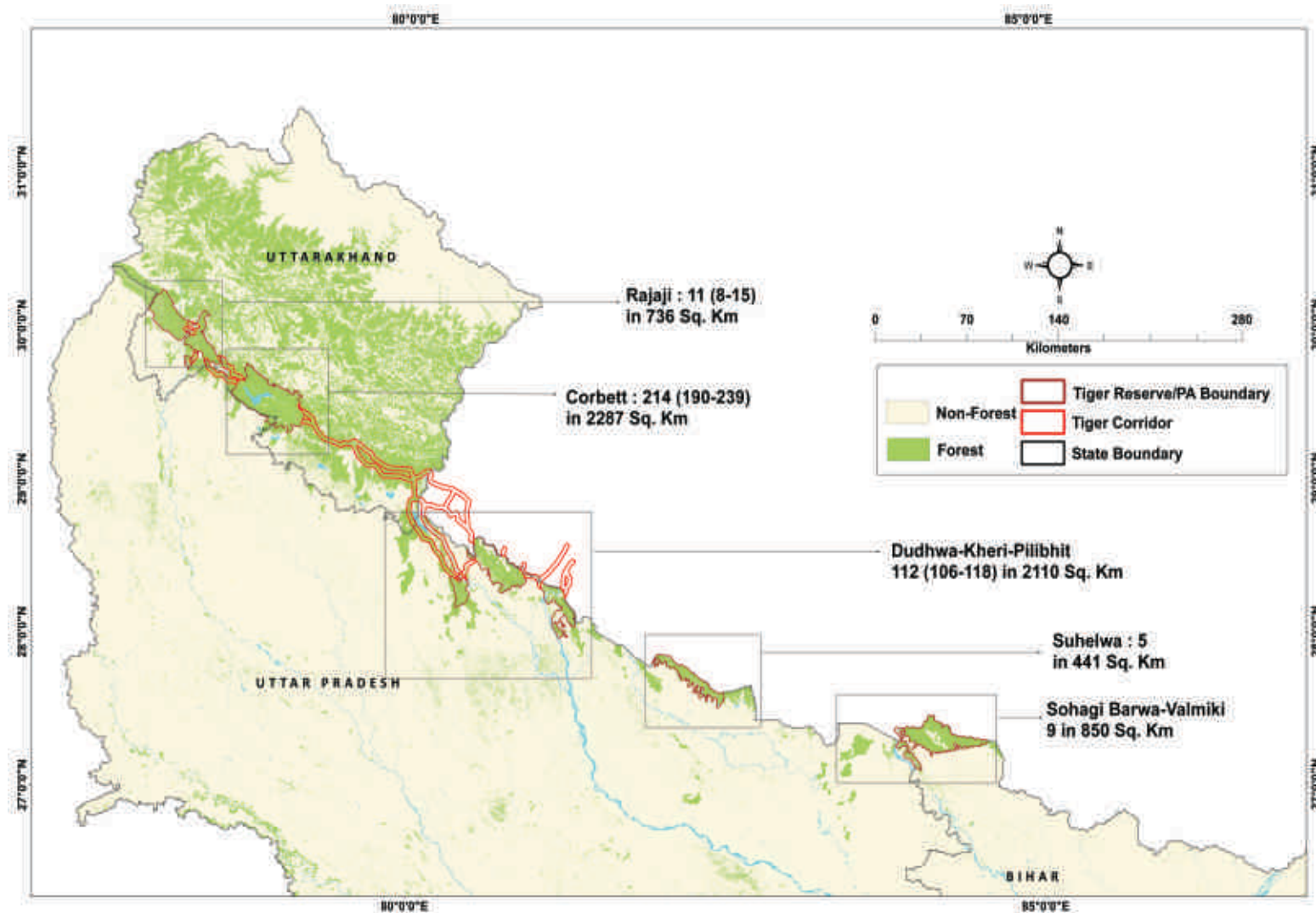
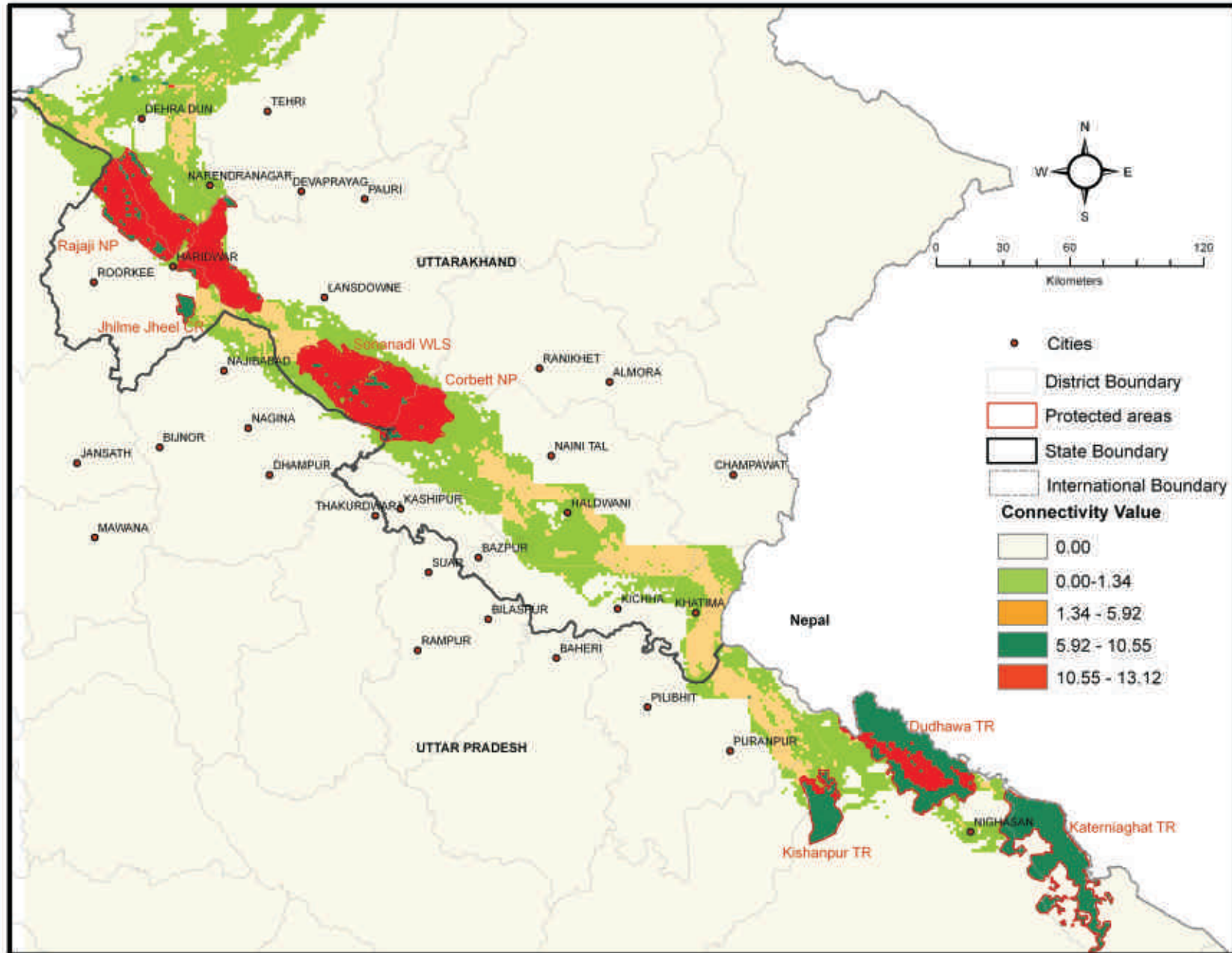


Figure 1.1:
Tiger Populations and Corridors of Shivalik and Gangetic Plain

Figure 1.2:
Map showing
Landscape connectivity
in Shivaliks modeled
Using CIRCUITSCAPE



CORRIDORS OF SHIVALIK HILLS AND GANGETIC PLAINS

Kansrao-Barkot connects Rajaji National Park with Dehradun Forest Division. A narrow strip of forest west of Lal Dhang town connects Rajaji National Park with Jhilmil Jheel Conservation Reserve. Highway and a canal crosses the corridor which need mitigation in the form of passageways to maintain long term wildlife movement. The Chilla Range (eastern Rajaji) is connected with Motichur Range (western Rajaji) by Chilla-Motichur connectivity. This corridor is severely impaired restricting the movement of tigers to western Rajaji, across River Ganga.

The most used part of this region, through the Motichur Rau, is constricted by high human habitation due to the growing township of Haridwar on the south. To the north, a settlement (Khand Gaon 3) housing the Tehri dam oustees is located along with an army ammunition dump but is still potentially viable. This portion needs to be restored through acquisition and restorative management.

River Song flowing into the River Ganga between Raiwala and Rishikesh forms a corridor that is heavily impacted by human habitation and agriculture. A lot has been written on the importance of this critical corridor for elephants as well as other wildlife. However, there has been little progress on ground to revive it. Important considerations for revitalizing these corridors are: mitigation of the impact of the Delhi-Dehradun highway and railway traffic, power canal, and prevention of encroachment of the river islands in the River Ganga.

The Rajaji-Corbett corridors comprises of two smaller corridors: one through the Shivalik Hills (Lansdowne Forest Division) and the other through the Shivalik foot-hill forests of Haridwar and Bijnore Forest Division that connects Rajaji to Corbett Tiger Reserve (Sonanadi Wildlife Sanctuary). Both these corridors (more so the Bijnore forest corridor) are threatened by the growing township of Kotdwar. The Bijnore

RAJAJI-CORBETT

corridor faces severe bottleneck south-east of the township of Kotdwar where it passes through agriculture and human settlements.

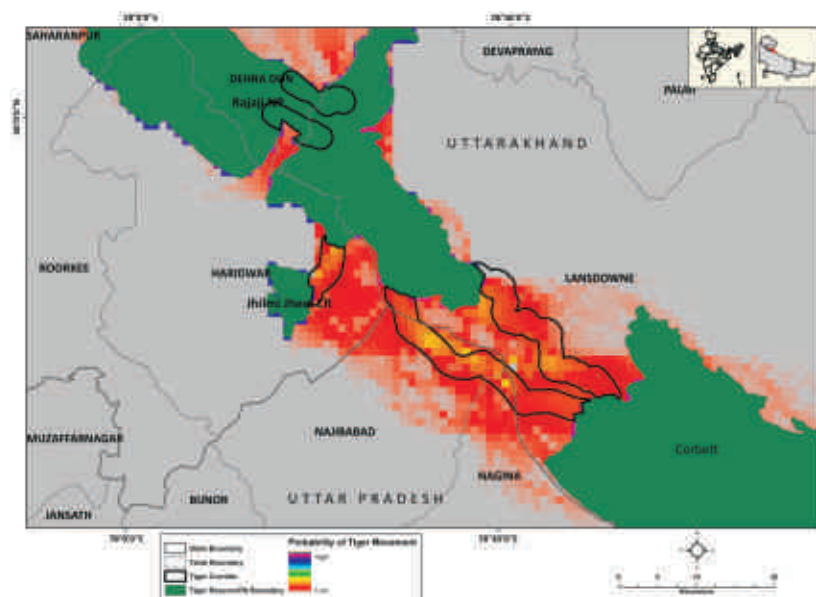
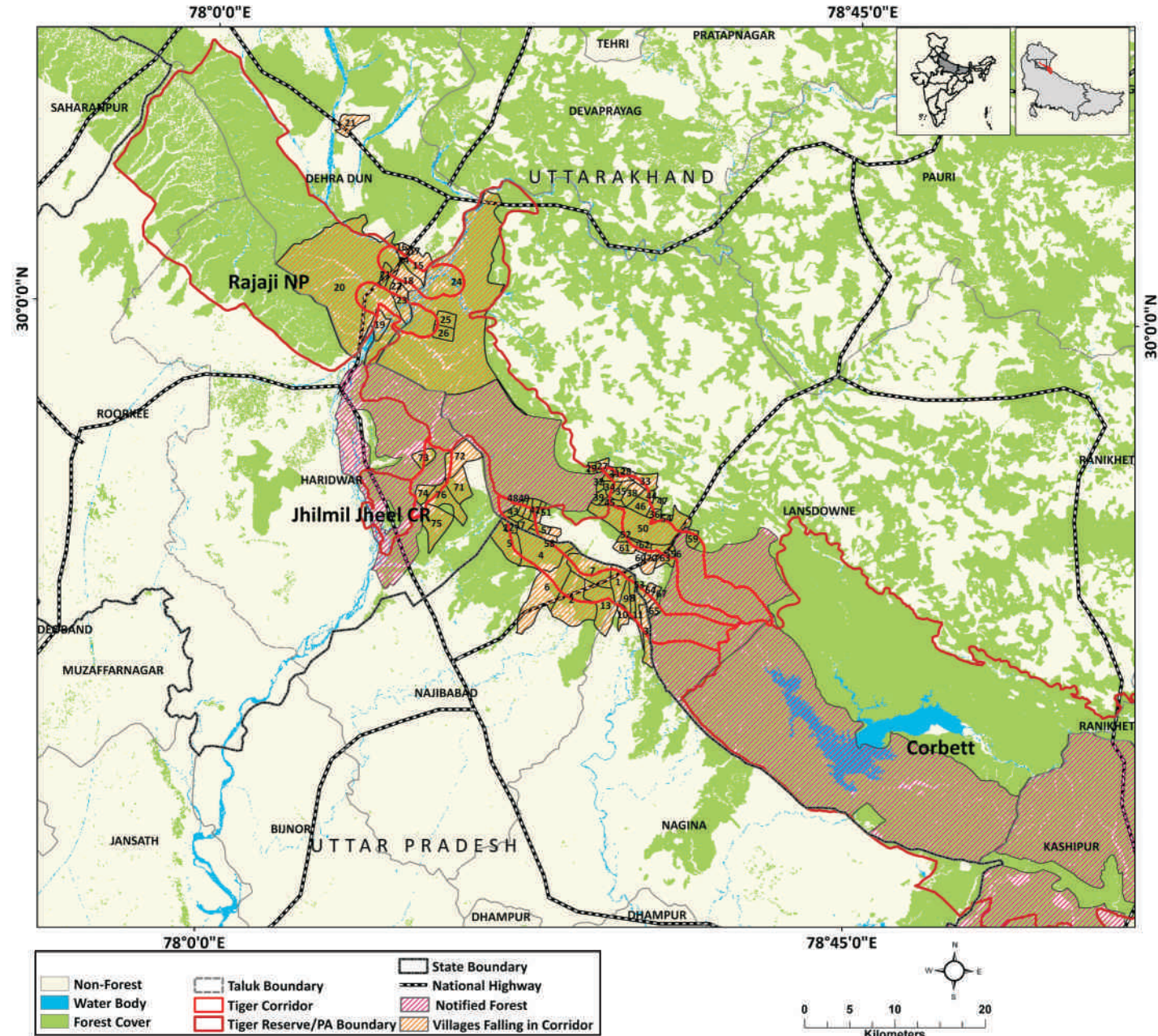


Figure 1.3:
Potential habitat connectivity for tiger movement between Rajaji-Corbett as depicted by CIRCUITSCAPE model

Rajaji-Corbett	
Habitat size	24792 Km ²
Source Population	Rajaji and Corbett
Size of Source	8-15 (Rajaji) 190-239 (Corbett)
Protected Areas	Rajaji NP Corbett Tiger Reserve Jhilmil Jheel Conservation Reserve
Corridors	Rajaji-Corbett

Figure 1.4:

Least Cost Pathway corridor for Tiger movement Rajaji-Jhilmil Jheel, Rajaji-Corbett and within Rajaji (Chilla-Motichur) overlaid with village map (the village numbers are referenced in Table 1.1)



Village_ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
1	Uttar Pradesh	Bijnor	Najibabad	Kouriya	60	294	122	594
2			Najibabad	Chatruwala	38	189	35	157
3			Nagina	Qadarganj	60	388	67	293
4			Najibabad	Haldu Khata	5	30	21	125
5			Najibabad	Ramnagar	3	18	5	49
6			Najibabad	Madduwala	140	818	110	609
7			Najibabad	Motadhar	142	744	162	763
8			Nagina	Telipara	121	550	259	1075
9			Nagina	Rajpur Kot	8	22	1	1
10			Nagina	Shankerpur	21	101	12	54
11			Nagina	Sulema Shikohpur	45	222	42	204
12			Najibabad	Rahman Nagar	NA	NA	NA	NA
13			Najibabad	Sanywala	NA	NA	NA	NA
14	Uttarakhand	Dehradun	Rishikesh	Thakurpur	55	302	71	344
15			Rishikesh	Kharakmaf	974	5397	1699	8404
16			Rishikesh	Kheri Khurd	293	1571	NA	NA
17			Rishikesh	Shyampur	679	3945	1432	7052
18			Rishikesh	Mohri Mafi	328	1850	NA	NA
19			Rishikesh	Haripur Kalan	942	4720	2328	10367
20			Dehradun	Motichur Range	NA	NA	NA	NA
21			Dehradun		NA	NA	NA	NA
22			Dehradun	Pratit Nagar	NA	NA	NA	NA
23			Chakrata	Raiwala	NA	NA	NA	NA
24		Garhwal	Kotdwara		NA	NA	NA	NA
25			Kotdwara	Ganga Bhogpur Malla	193	934	214	1030
26			Kotdwara	Ganga Bhogpur Talla	56	302	75	610
27			Kotdwara	Simalna Talla	11	39	27	112

Table 1.1.
Villages within the Least Cost Pathway Corridor between Rajaji-Jhilmil Jheel, Rajaji-Corbett and within Rajaji (Chilla-Motichur) as shown in Fig. 1.4

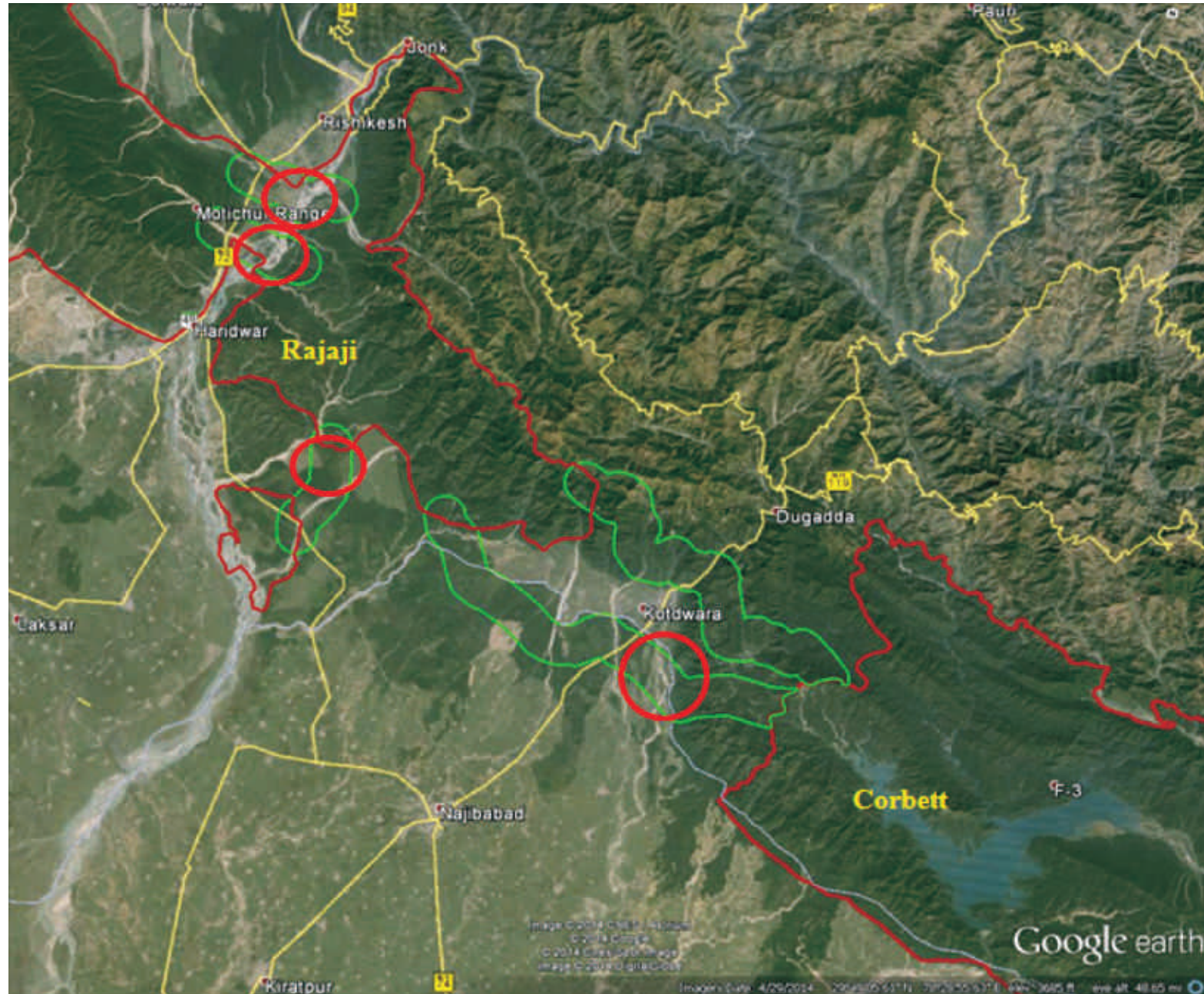
Village_ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
28			Kotdwara	Chaundali	43	223	43	206
29			Kotdwara	Simalna Bichala	7	35	35	149
30			Kotdwara	Mathana Bichala	48	227	83	356
31			Kotdwara	Mathana Malla	33	149	NA	NA
32			Kotdwara	Mathana Talla	11	58	NA	NA
33			Kotdwara	Utircha	107	464	117	447
34			Kotdwara	Gwirala	20	89	17	66
35			Kotdwara	Kandai	90	426	91	396
36			Kotdwara	Ginthala	20	61	18	66
37			Kotdwara	Gandriyakhal	57	299	84	391
38			Kotdwara	Balli	141	600	150	590
39			Kotdwara	Edabara	13	67	5	15
40			Kotdwara	Edachota	NA	NA	NA	NA
41			Kotdwara	Lalpur	234	1087	415	1864
42			Kotdwara	Jayadevpur	76	327	92	442
43			Kotdwara	Bhupdevpur	38	186	53	274
44			Kotdwara	Katal	47	195	43	157
45			Kotdwara	Edamalla	8	31	6	20
46			Kotdwara	Sylinga	46	208	43	185
47			Kotdwara	Tachali	17	76	16	56
48			Kotdwara	Dalipur	41	225	64	294
49			Kotdwara	Mandevpur	34	190	45	204
50			Kotdwara	Kotdwar Gaon	327	1612	188	851
51			Kotdwara	Lokmaripur	146	827	190	960
52			Kotdwara	Dhurwapur	198	988	320	1533
53			Kotdwara	Koriya	172	866	276	1311
54			Kotdwara	Gaujura	13	68	18	74

Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
55			Kotdwara	Bhawanipur	5	17	6	33
56			Kotdwara	Grastan Ganj	136	654	200	924
57			Kotdwara	Jhandichaod Uttri	264	1439	422	2073
58			Kotdwara	Jhandi Chaur West	319	1757	NA	NA
59			Kotdwara	Jamargadi Talli	51	261	59	254
60			Kotdwara	Manpur	847	3751	NA	NA
61			Kotdwara	Padampur Sukhran	1368	6555	2406	9802
62			Kotdwara	Shivpur	767	3688	1055	4889
63			Kotdwara	Ratanpur	210	1116	329	1478
64			Kotdwara	Lapani Walli	131	692	NA	NA
65			Kotdwara	Kotridhank	111	556	154	799
66			Kotdwara	Harsinghpur	211	1011	406	1820
67			Kotdwara	Lalpani Palli	97	512	283	1333
68			Kotdwara	Saneh Palli	81	406	NA	NA
69			Kotdwara	Saneh Walli	42	216	NA	NA
70			Kotdwara	Kotdwara	NA	NA	NA	NA
71		Haridwar	Hardwar	Samaspur Katarbarh	91	577	116	647
72			Hardwar	Rasool Pur Mithi Beri	766	4324	1041	5953
73			Hardwar	Peeli Parhav	249	1697	NA	NA
74			Hardwar	Nalo Wala	27	154	59	403
75			Hardwar	Gaindikhata	351	2179	549	2817
76			Hardwar	Pamrhowali	NA	NA	NA	NA



Figure 1.5:

Potential bottlenecks, obstacles and weak links within the Least Cost Pathway corridor connecting Rajaji-Jilmil Tal, Rajaji-Corbett and within Rajaji (Chilla-Motichur)



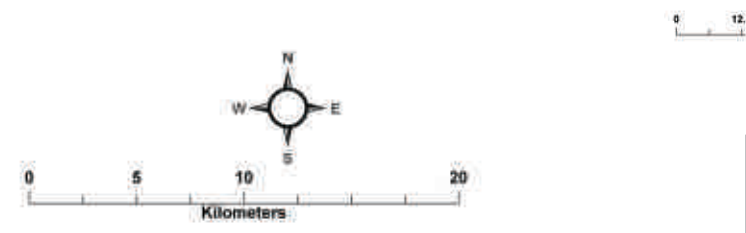
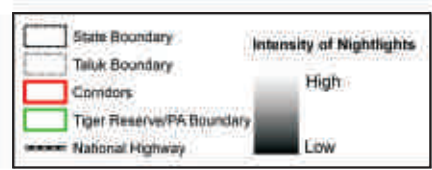
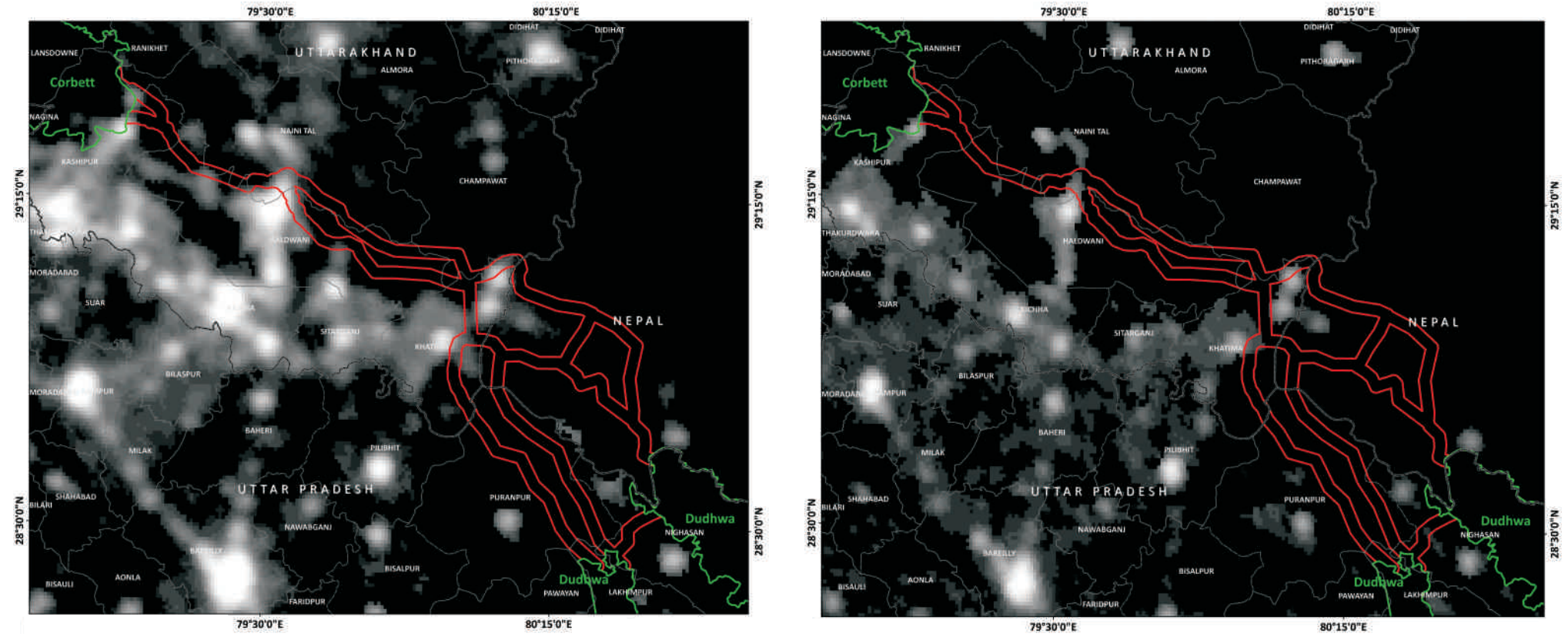


Figure 1.6:
 Human habitation as depicted by nightlights within the Rajaji-Corbett landscape in the year 1992 and 2012



CORBETT-DUDHWA

Kosi River corridor connects Corbett Tiger Reserve to the Ramnagar Forest Division and onwards to the Forest Divisions of Terai West, Terai East and Haldwani. The connectivity between Corbett Tiger Reserve and the forests east of River Kosi, towards the plains, is impacted by the city of Ramnagar. Towards the north, the steeper slopes of the lower Himalayas make the connectivity tenuous for species like the elephant. Linear development of resorts and hotels along the highway from Ramnagar to Almora along the banks of the Kosi makes the intervening habitat matrix hostile to movement of wildlife. Currently only two corridors remain, one to the north of Dhikala entrance to Corbett near Garjia Temple crossing the Kosi River, and another commencing from Bijrani Gate of Corbett eastwardly to Kosi River and beyond. The northern boundary of this southern corridor is south of the Dhikuli village and north of River Tons. The above two corridors are the only vital linkages for gene flow between Corbett and the eastern populations of tigers and elephants in UP (Kishanpur and Dudhwa) and Nepal (Suklaphanta and Bardia National Parks).

Due to the high demand and price of land within these corridors for tourism ventures, policy and legislation need to be implemented urgently to secure them at the earliest before development deteriorates them further. Settlements in the northern section of the Reserve such as Sundarkhal need to be urgently relocated.

The connectivity through the plains (Gadgadia-Terai Central) forests, south of the city of Haldwani is now deteriorated beyond recovery due to the growth of Lal Kuan and Haldwani infrastructure, along with agriculture and industry. The plains/foot hills corridor from east of Haldwani passes north of Chorgalia town through the forests of Terai East Forest Division. Though the least cost pathway defines the corridor across the Shivalik Hills in the East Terai Forest Division, the forests in the terai belt (plains) that are currently fragmented patches are extremely important for movement of elephants that are unlikely to use the Shivalik corridor. The Nihil-Bhakra corridor north of Kamala and Kaladhungi is important for tiger movement.

Gola River corridor comprises of the north Kosi and south Kosi corridors that connect south west of Rampur village and continue eastwards

through the forests of Choti Haldwani and Kaladhungi upto the townships of Haldwani and Kathgodam. It is at this juncture that a severe bottleneck exists across River Gola.

The optimal path is through the plains section north of Kathgodam which is negotiable by elephants. However, a less impacted corridor through the hilly tracts along River Gomti is a viable option for other wildlife including tigers.

In Terai East, south-west of the township of Tanakpur (Kilpura range) the corridor bifurcates into two branches: the Kilpura corridor going north of Tanakpur to cross River Sharda above the barrage going into Nepal (Churia Hills-Bhrangiri Forests), and the Khatima-Surai corridor goes south via Khatima and Surai Range into Pilibhit connecting further to Kishanpur (Dudhwa Tiger Reserve).

Corbett-Dudhwa

Habitat size	24792 Km ²
Source Population	Corbett and Dudhwa-Pilibhit
Size of Source	190-239 (Corbett) 106-118 (Dudhwa-Kheri-Pilibhit)
Protected Areas	Corbett Tiger Reserve Dudhwa Tiger Reserve Pilibhit Tiger Reserve
Corridors	Corbett -Dudhwa

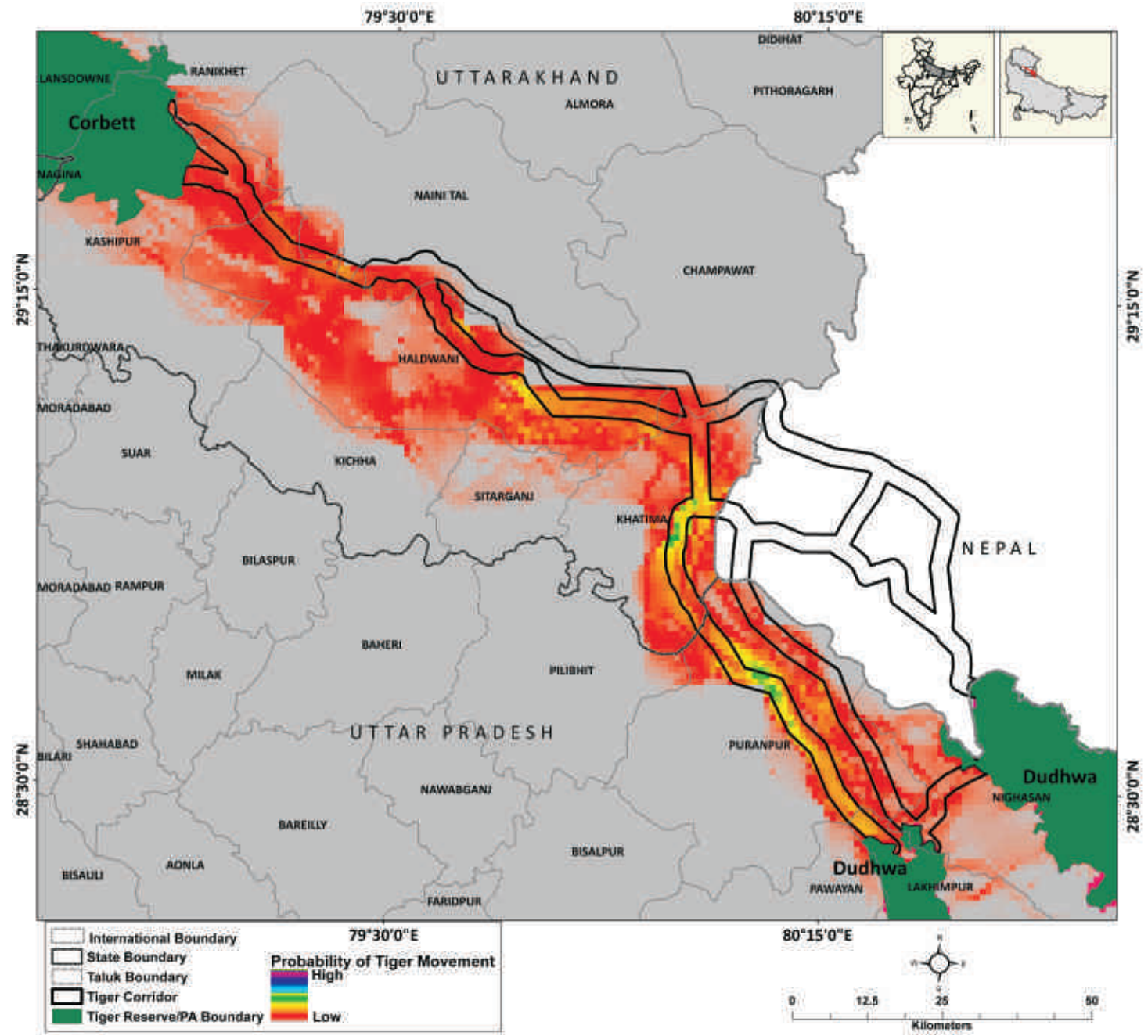


Figure 1.7:
 Potential habitat connectivity for tiger movement between Corbett-Dudhwa as depicted by CIRCUITSCAPE model

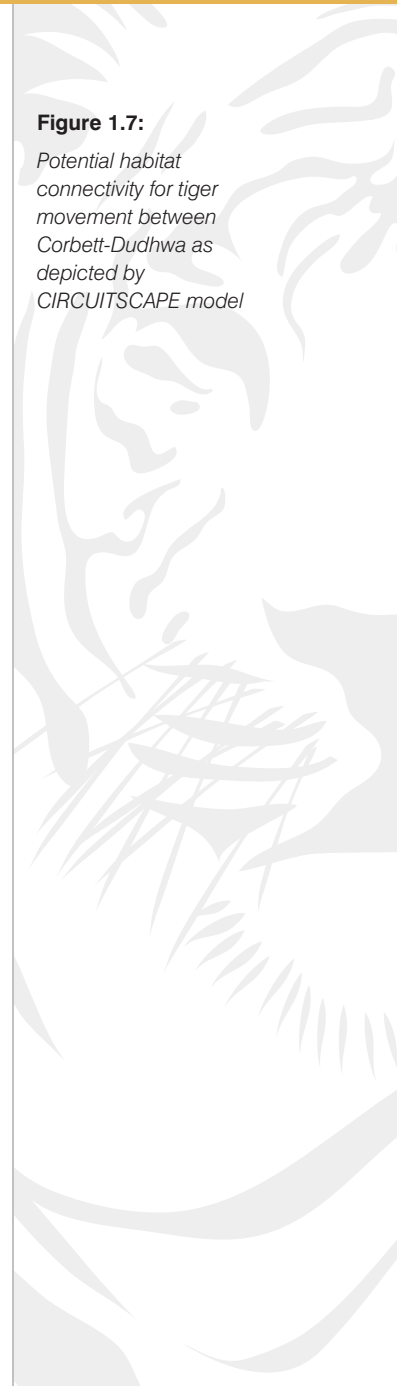
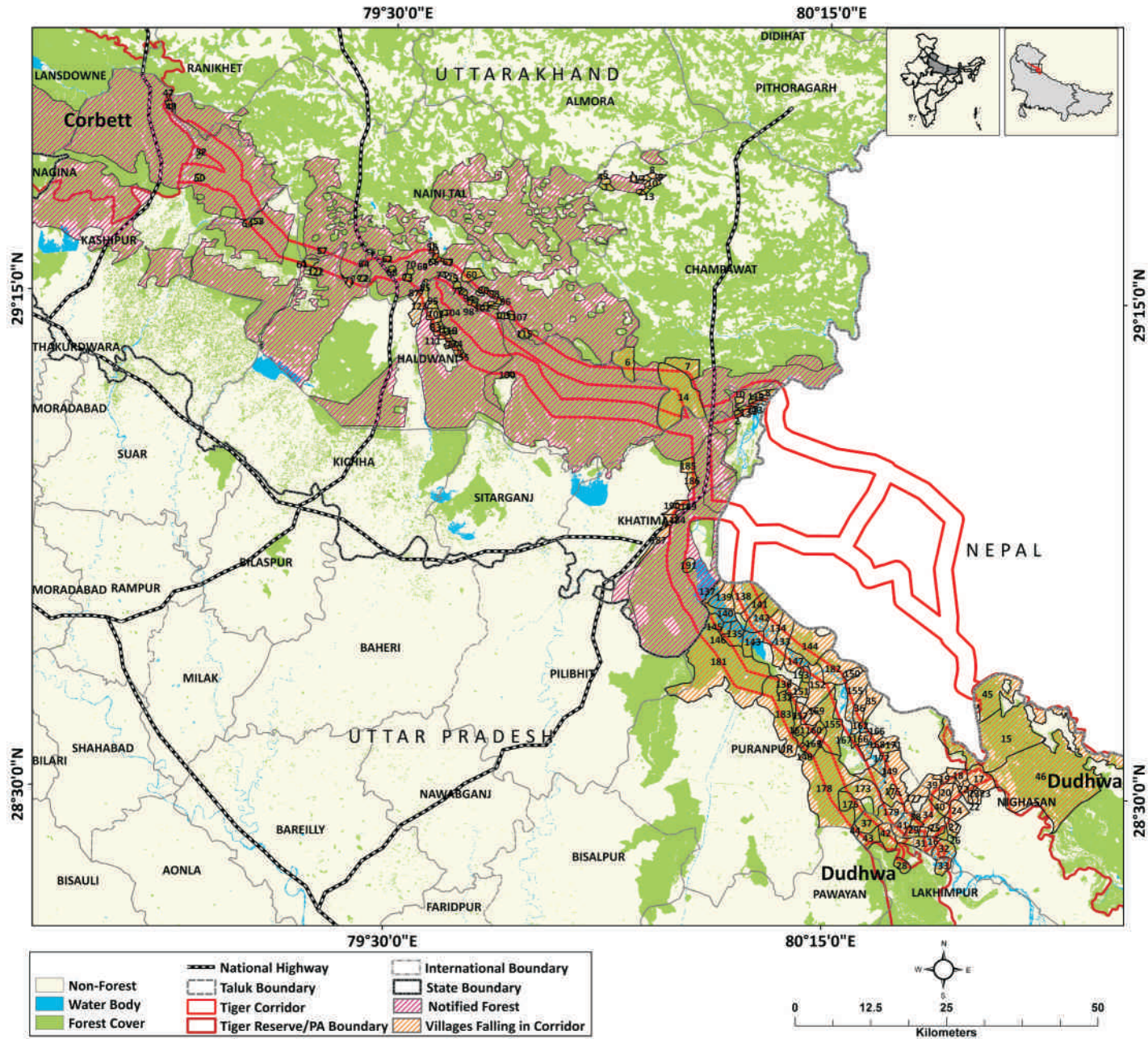


Figure 1.8:

Least Cost Pathway corridor for Tiger movement between Corbett-Dudhwa overlaid with village map (the village numbers are referenced in Table 1.2)



Village ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
1	Uttarakhand	Champawat	Champawat	Devidhura (dechmar)	172	691	NA	NA
2			Champawat	Sagaun	46	267	46	265
3			Champawat	Kapherti	16	76	NA	NA
4			Champawat	Timla Guth	30	169	42	218
5			Champawat	Kumaiya Guth	8	52	NA	NA
6			Champawat	Bungra Dungra Pipal	10	88	15	88
7			Champawat	Buram	53	296	60	351
8			Champawat	Kotna	39	215	55	277
9			Champawat	Amauli	91	465	100	608
10			Champawat	Dungra Kot	68	333	71	405
11			Champawat	Gegi Bashan	25	148	NA	NA
12			Champawat	Kanikot	149	834	192	1058
13			Champawat	Bans Balwari	104	542	NA	NA
14			Champawat	Sharda Range	NA	NA	NA	NA
15	Uttar Pradesh	Kheri	Nighasan	Sureya Para	93	864	133	1124
16			Nighasan	Pateda	4	18	3	18
17			Nighasan	Ghola	365	2416	497	2913
18			Nighasan	Visen Puri Colony	354	2443	575	3033
19			Nighasan	Bahadur Nagar	51	307	68	350
20			Nighasan	Bhasuri	82	474	113	530
21			Nighasan	Tulli	13	50	15	63
22			Nighasan	Ebrahim Puri Colony	323	2431	558	2993
23			Nighasan	Vikram Van	62	475	73	399
24			Nighasan	Gadeneya	423	2417	560	3585
25			Nighasan	Suhela	3	11	1	1
26			Nighasan	Badaiya Khera	28	143	29	172
27			Nighasan	Paduwa	291	1746	425	2209
28			Gola Gokaran Nath	Kisunpur	162	1112	261	1335
29			Nighasan	Niranjan Pur	NA	NA	NA	NA
30			Nighasan	Madan Pur	NA	NA	NA	NA
31			Gola Gokaran Nath	Khamaria	NA	NA	NA	NA
32			Gola Gokaran Nath	Newasi	NA	NA	NA	NA

Table 1.2:
Villages within the Least Cost Pathway Corridor between Corbett-Dudhwa as shown in Fig. 1.8

Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
33			Gola Gokaran Nath	Girda	NA	NA	NA	NA
34			Nighasan	Paras Pur	89	498	432	1854
35			Nighasan	Bhan Puri Colony	632	4637	858	5325
36			Nighasan	Govind Naga Colony	356	2799	365	2245
37			Gola Gokaran Nath	Ellenganj	147	903	227	1090
38			Nighasan	Bajpur	81	421	108	497
39			Nighasan	Bam Nagar	173	964	213	1089
40			Nighasan	Mahag Pur	270	1707	438	2277
41			Nighasan	Lagdahan	200	1182	249	1438
42			Gola Gokaran Nath	Canp	184	1149	412	2200
43			Gola Gokaran Nath	Grantno1	165	969	75	333
44			Gola Gokaran Nath	Pasiyan Pur	NA	NA	NA	NA
45			Nighasan	Gori Fanta	NA	NA	NA	NA
46			Nighasan	Dudhauwa	NA	NA	NA	NA
47	Uttarakhand	Nainital	Haldwani	Chukam	63	314	84	444
48			Haldwani	Dhikuli	198	1020	269	1344
49			Haldwani	Ladwachaur	86	467	118	623
50			Haldwani	Neripura	8	46	10	58
51			Nainital	Kheraula Pandey	40	251	43	225
52			Haldwani	Laduwarao	7	37	1	8
53			Haldwani	Pauvalgarh	137	751	177	960
54			Haldwani	Mankandpur	181	967	192	943
55			Haldwani	Harisinghpur Urf Lachchampur	7	34	9	51
56			Nainital	Baniya	17	95	27	191
57			Nainital	Moti Bang	5	17	4	17
58			Nainital	Harinagar Chanddeva	39	238	40	256
59			Nainital	Salri	89	488	102	546
60			Dhari	Bhauvasa	114	580	119	680
61			Haldwani	Chhoti Haldwani	102	531	148	779
62			Nainital	Anrori	7	32	5	27
63			Nainital	Purani Haat	25	133	31	162

Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
64			Haldwani	Basani	121	616	131	684
65			Nainital	Duhra	30	161	31	178
66			Nainital	Amritpur	417	1922	350	1480
67			Nainital	Amiya	101	535	118	598
68			Nainital	Hairi	23	132	20	113
69			Nainital	Ranibagh	387	1918	463	2066
70			Nainital	Balueti	7	39	27	147
71			Haldwani	Chausala	46	287	73	362
72			Haldwani	Meetha Anwala	29	161	37	197
73			Nainital	Bhadueni	32	174	39	181
74			Nainital	Pasauli	86	488	107	539
75			Nainital	Rausil	166	952	196	996
76			Haldwani	Harigarh Dalipsingh	92	472	150	697
77			Nainital	Gumalgaon	27	189	31	183
78			Haldwani	Beora	85	418	NA	NA
79			Haldwani	Korta	30	120	13	39
80			Haldwani	Damua Dhunga Bandobasti	249	1232	NA	NA
81			Nainital	Mursele	13	75	15	89
82			Nainital	Baret Talla	27	133	38	216
83			Haldwani	Dewala Talla	142	850	188	1004
84			Nainital	Paniya Mahtar	37	239	43	244
85			Haldwani	Damua Dhunga Kham	254	1291	121	565
86			Dhari	Pashtola	59	350	73	401
87			Haldwani	Bamori Malli	490	2283	874	3751
88			Nainital	Paniya Bor	21	112	22	115
89			Nainital	Sirori	16	96	16	79
90			Dhari	Baura	2	11	NA	NA
91			Nainital	Khamari	18	100	14	71
92			Nainital	Ganrar	7	46	6	53
93			Dhari	Uduwa	46	331	53	399
94			Nainital	Okhal Dunga	62	350	59	332



Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
95			Haldwani	Khera	438	2671	688	3589
96			Nainital	Murkariya	97	619	95	600
97			Nainital	Dungsira	4	21	7	35
98			Nainital	Dida	7	42	7	37
99			Nainital	Gaga	30	185	21	137
100			Haldwani	Nawar Khera	175	1108	259	1398
101			Nainital	Baret Malla	26	157	16	107
102			Haldwani	Kishan Nagri	25	124	44	230
103			Nainital	Suera	50	302	58	352
104			Haldwani	Vijaiपुर	38	278	68	353
105			Dhari	Kaunta	92	528	85	476
106			Haldwani	Dewala Malla	94	565	153	804
107			Dhari	Patrani	93	653	112	799
108			Haldwani	Dewalamalla Simlar	26	159	33	154
109			Haldwani	Dewla Talla Pajaya	84	467	91	563
110			Haldwani	Nayagaon Sambal	60	356	67	333
111			Haldwani	Kunwarpur	90	529	122	699
112			Haldwani	Himmatpur Nakayal	35	197	67	317
113			Haldwani	Gajepur	35	236	63	327
114			Haldwani	Nayagaon Mehra	45	271	57	322
115			Dhari	Kakore	112	741	141	895
116			Haldwani	Lachhampur	173	1016	220	1196
117			Haldwani	Selabhawar Triloksingh	29	138	31	163
118			Haldwani	Himmatpur Golapar	28	171	37	214
119			Haldwani	Jwala Pokhri	38	240	45	247
120			Haldwani	Lakhanpur	36	211	50	251
121			Haldwani	Kishanpur Rekwai	75	454	72	409
122			Haldwani	Kaladhungi	NA	NA	NA	NA
123			Haldwani	Haldwani-Cum-Kathgodam	NA	NA	NA	NA
124			Haldwani	Daulatpur	25	163	37	196
125			Haldwani	Sundarpur Rekwai	42	239	45	240

Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
126			Haldwani	Gangapur	22	164	32	226
127			Haldwani	Jeetpur Rekwai	25	177	34	189
128			Haldwani	Padampur Rekuni	24	172	30	169
129			Haldwani	Devpur Pokhriya	29	182	46	220
130			Haldwani	Lakhan Mandi	110	581	133	687
131			Haldwani	Malla Pachauliya	90	454	113	545
132	Uttar Pradesh	Pilibhit	Puranpur	Majhara Bagha	60	415	61	462
133			Puranpur	Ramnagra	195	1083	207	991
134			Puranpur	Dhakia T. Maharajpur	207	1131	148	898
135			Puranpur	Kanjia Singhpur Bhatia	247	1312	270	1440
136			Puranpur	Selha	348	1942	409	2285
137			Puranpur	Bandarbojh	184	1018	219	1349
138			Puranpur	Naujalha Naktaha	569	3570	743	3843
139			Puranpur	Bodi Bhoor	284	2018	415	2564
140			Puranpur	Maharajpur	511	3101	637	3390
141			Puranpur	Lagabhaga	3	7	1	96
142			Puranpur	Bhoora Gorakh Dibbi	111	693	117	668
143			Puranpur	Nagria Khurd Kalan	187	948	217	1121
144			Puranpur	Gunhan	18	96	8	30
145			Puranpur	Manpur Tilhar	NA	NA	NA	NA
146			Puranpur	Dhar Bargada	NA	NA	NA	NA
147			Puranpur	Bijauri Khurd Kalan	7	39	4	23
148			Puranpur	Bharari	10	51	12	68
149			Puranpur	Murainia Gandhi Nagar	241	1696	363	2242
150			Puranpur	Bamanpura Bhagirath	525	3042	873	4520
151			Puranpur	Majhara T.maharajpur	164	1082	173	1169
152			Puranpur	Birkhera T. Maharajpur	NA	NA	NA	NA
153			Puranpur	Sungarhi	NA	NA	NA	NA
154			Puranpur	Chandpura Tarai	NA	NA	NA	NA
155			Puranpur	Bailaha	593	3286	310	1554
156			Puranpur	Ramkot	30	173	75	420
157			Puranpur	Pachpera T. Maharajpur	109	753	175	977



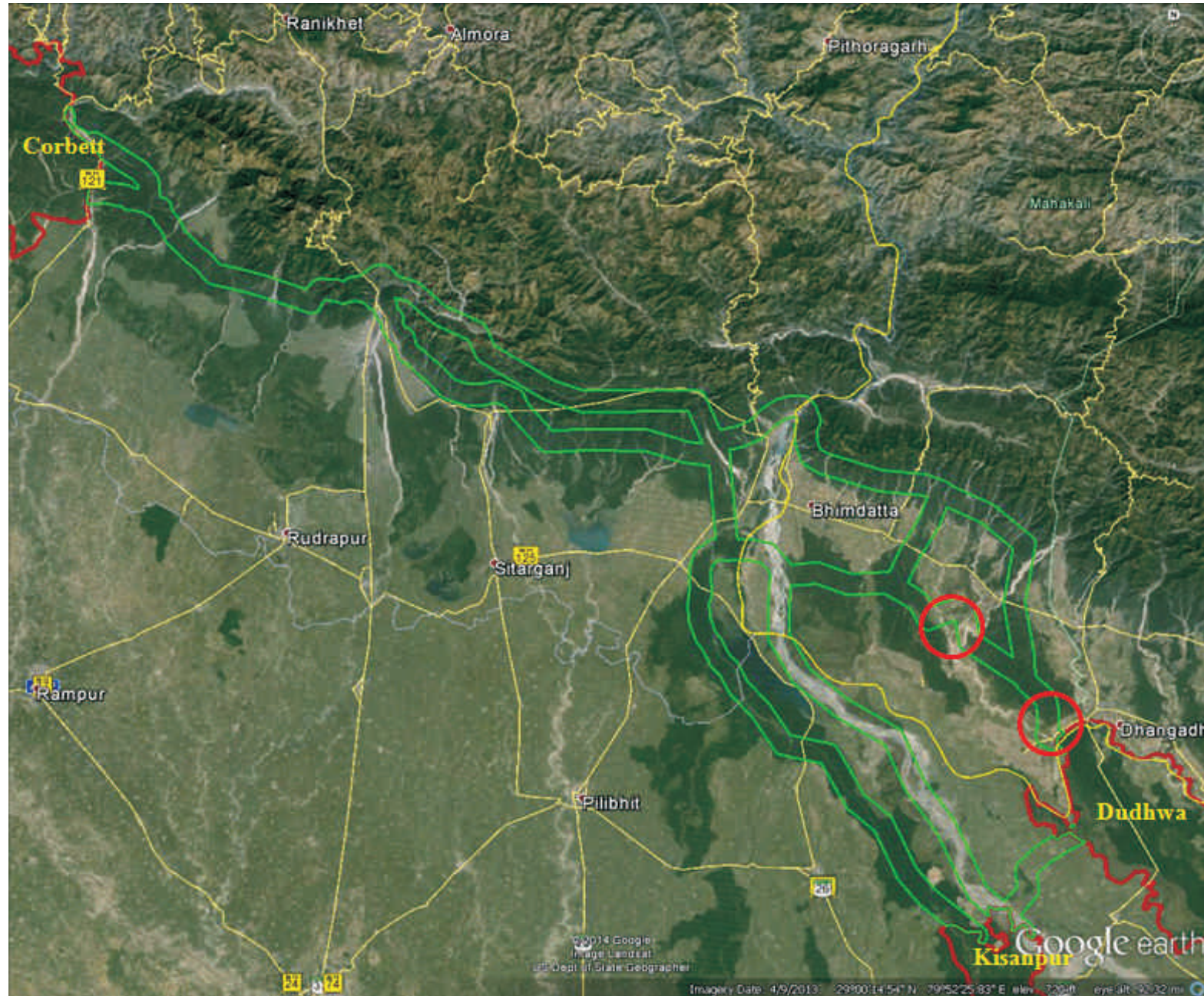
Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
158			Puranpur	Rajpur T. Maharajpur	141	825	210	1129
159			Puranpur	Simra T. Maharajpur	138	744	167	943
160			Puranpur	Faijullaganj	68	479	144	797
161			Puranpur	Maini Gulria	83	513	103	528
162			Puranpur	Shastri Nagar	161	1066	150	901
163			Puranpur	Barua Kuthara	46	346	87	485
164			Puranpur	Laihari	64	402	87	451
165			Puranpur	Ashok Nagar	169	1041	272	1319
166			Puranpur	Bharatpur	431	2863	513	2859
167			Puranpur	Siddhnagar	221	1545	198	1150
168			Puranpur	Chandia Hajara	1363	7360	1590	8477
169			Puranpur	Katakvara	NA	NA	NA	NA
170			Puranpur	Musepur	18	176	35	209
171			Puranpur	Shanti Nagar	205	1371	257	1684
172			Puranpur	Ramnagar	565	3986	728	4912
173			Puranpur	Khirkia Bargadia	328	1624	216	1324
174			Puranpur	Kabeerganj	715	4248	910	4801
175			Puranpur	Azad Nagar	1	5	1	1
176			Puranpur	Grant No21 Urf Dhakkachat	469	2789	620	3678
177			Puranpur	Kuthia Gudia	228	1468	349	1785
178			Puranpur	Harrapur	NA	NA	NA	NA
179			Puranpur	Nehrosa	415	2648	520	3203
180			Puranpur	Bharara	NA	NA	NA	NA
181			Puranpur	Mustafabad	NA	NA	NA	NA
182			Puranpur	Sampurn Nagar	NA	NA	NA	NA
183			Puranpur	Barahi	NA	NA	NA	NA
184	Uttarakhand	Udham Singh Nagar	Khatima	Jhan Kaieya	287	1581	503	2724
185			Khatima	Khetal Sanda Mustnagar	463	2703	586	2949
186			Khatima	Billheeri	491	2632	NA	NA
187			Khatima	Unchi Mahuwar	251	1540	439	2308

Village _ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
188			Khatima	Gosu Kuwan	167	1064	NA	NA
189			Khatima	Mudai	318	1898	NA	NA
190			Khatima	Amaun	851	4299	1544	7233
191			Khatima	Sarada Sagar Jhau Parasa	42	256	65	324



Figure 1.9:

Potential bottlenecks, obstacles and weak links within the Least Cost Pathway corridor connecting Corbett-Dudhwa



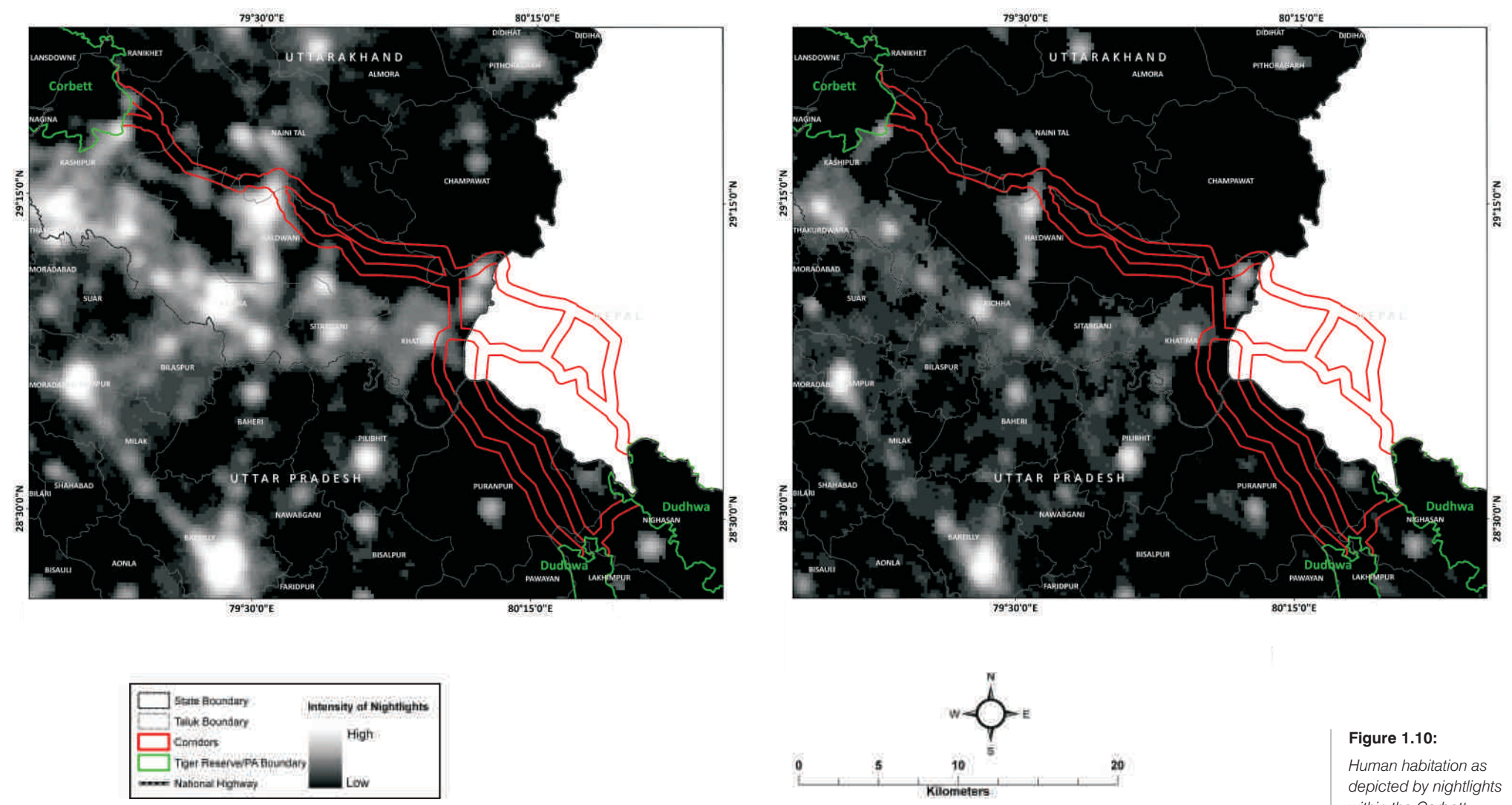


Figure 1.10:
Human habitation as depicted by nightlights within the Corbett-Dudhwa landscape in the year 1992 and 2012

DUDHWA-KISHANPUR-KATARNIAGHAT

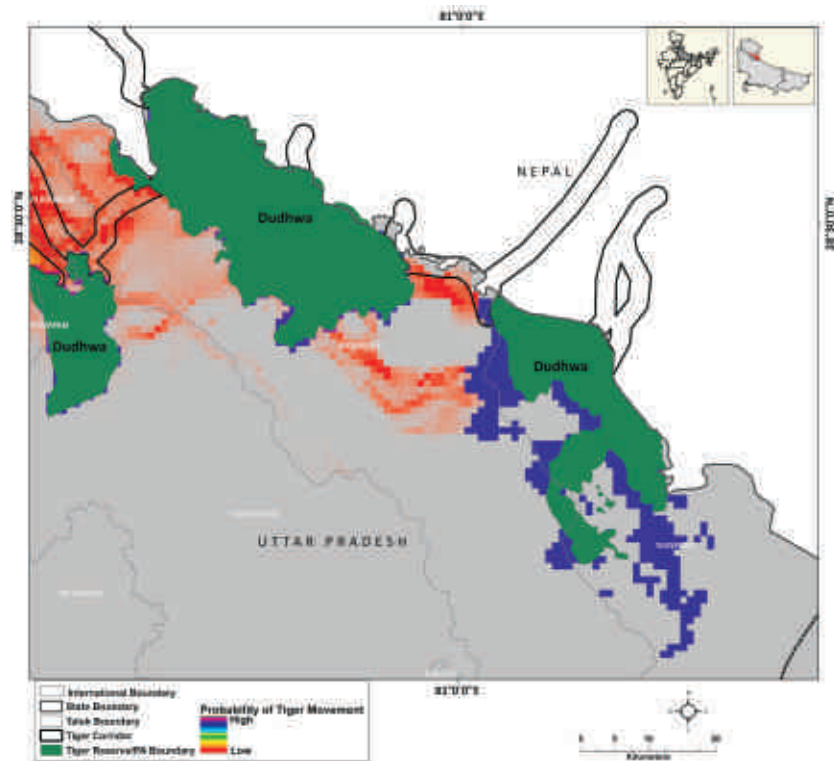
Figure 1.11:
Potential habitat connectivity for tiger movement between Dudhwa-Kishanpur-Katarniaghat as depicted by CIRCUITSCAPE model

The connectivity between Dudhwa-Kishapur Wildlife Sanctuary and River Sharda is highly fragmented with oxbow lakes and forest fragments in a primarily agricultural matrix (sugarcane). To the north, it is connected to the Churia hill forests of Nepal through a riverine corridor while to the west river channels and forest patches connect it to Suklaphanta .River Mohana acts as a corridor connecting Dudhwa to Katarniaghat in the east and to Bardia National Park of Nepal in the north.

The Dudhwa-Katarniaghat corridor along River Mohana has been greatly deforested and needs to be restored to allow movement of wildlife. The other important corridors in this region, essential for movement of animals between Nepal and India are the Basantha and Khata corridors. The Khata corridor along River Girwa also connects Katarniaghat to Bardia and is often used by elephants, tigers, and rhinos. The river channels in this landscape are also a conduit for the movement of gharials, crocodiles and Gangetic dolphins.

While connectivity between Dudhwa-Katarniaghat-Suhelwa and Sohagibarwa on the Indian side is almost non-existent, forests along the Nepal terai connect these areas.

The other important forested area in the State is Pilibhit Tiger Reserve which is connected to the Corbett Tiger Reserve in the north-west by the Surai Range and to Suklaphanta National Park in Nepal to the north-east via forests of Lagga-Bagga .It forms a continuous narrow corridor along the Sharda canal that stretches south-east into Kishanpur Wildlife Sanctuary. This corridor is well used by tigers forming a contiguous population from Surai Range in Uttarakhand to Pilibhit and Kishanpur.



Dudhwa-Katarniaghat

Habitat size	24792 Km ²
Source Population	Dudhwa and Katarniaghat
Size of Source	106-118 (Dudhwa-Kheri-Pilibhit)
Protected Areas	Dudhwa Kisanpur Katarniaghat
Corridors	Dudhwa-Katarniaghat

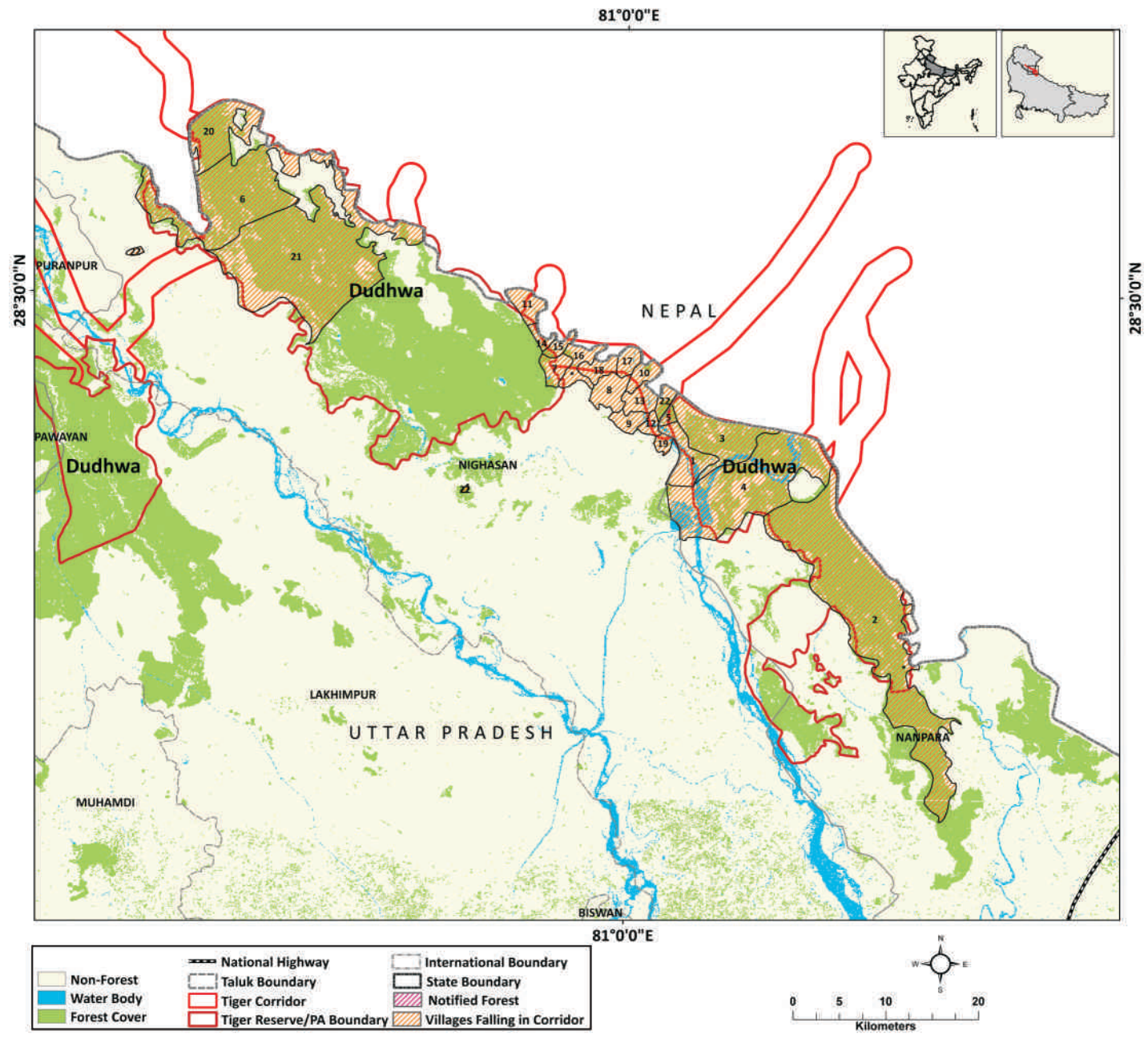


Figure 1.12:
Least Cost Pathway corridor for Tiger movement between Dudhwa-Kishanpur-Katarniaghat overlaid by village map (the village numbers are referenced in Table 1.3)

Village_ID	State	District	Tehsil	Village	No of Household (2001)	Total Population (2001)	No of Household (2011)	Total Population (2011)
1		Bahraich	Nanpara	Bharthapur	75	441	94	490
2				Motipur Range	43	106	0	0
3				Bandariya Gauri No.1	0	0	0	0
4				Charda Range	0	0	0	0
5				Bandariya Gauri No.2	0	0	0	0
6				Sureya Para	93	864	133	1124
7				Kadeya	451	2412	611	2924
8				Banveer Pur	668	4297	1101	5578
9				Barsola Kalan	744	4142	1141	6172
10				Indra Nagar	67	484	165	804
11				Bela Parsuwa	498	3247	709	4848
12				Ram Nagar Sankalpa	117	727	19	89
13				Surat Nagar	380	2528	729	3812
14				Raghu Nagar	43	277	79	488
15				Kisun Nagar	48	284	59	406
16				Deep Nagar	89	510	87	453
17				Ran Nagar	215	1207	283	1499
18				Ganga Nagar	225	1319	288	1599
19				Anup Nagar	67	353	19	90
20				Gori Fanta	0	0	0	0
21				Dudhauwa	0	0	0	0
22	Uttar Pradesh	Kheri	Nanpara		0	0	0	0

Table 1.3:

Villages within the Least Cost Pathway Corridor between Corbett-Dudhwa as shown in Fig. 1.12

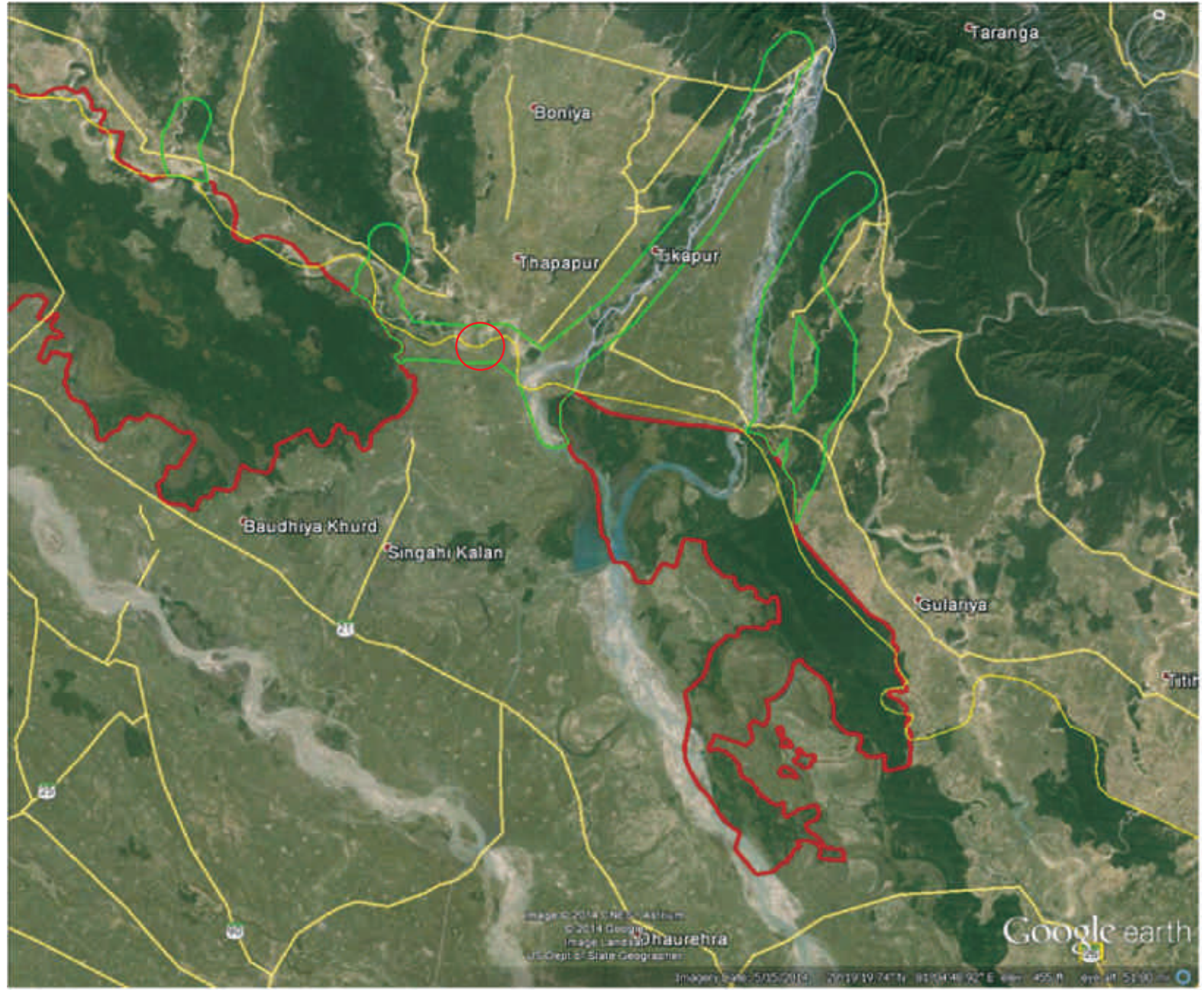


Figure 1.13:
Potential bottlenecks, obstacles and weak links within the Least Cost Pathway corridor connecting Dudhwa-Kisanpur-Katarniyaghat



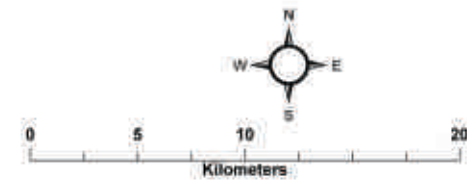
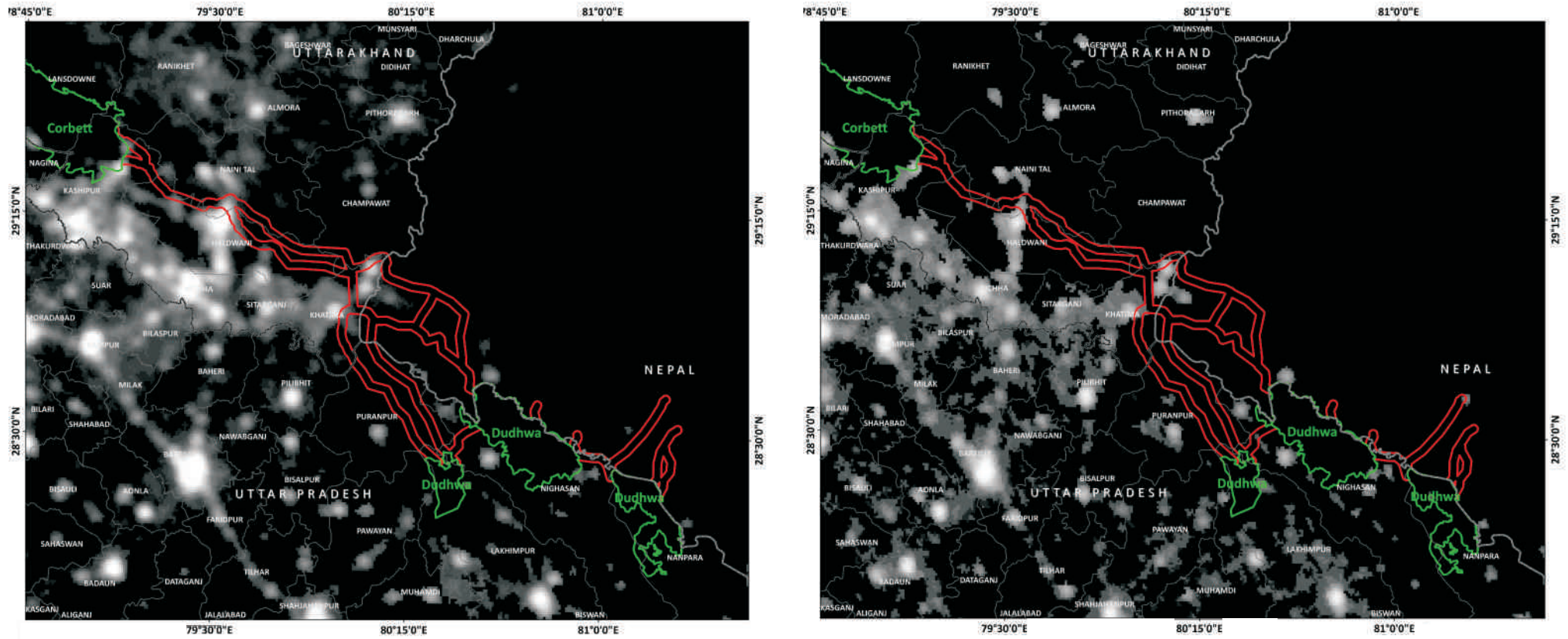


Figure 1.14:
 Human habitation as depicted by nightlights within the Dudhwa-Kishanpur-Katarniaghat Corridor landscape in the year 1992 and 2012