Appendix A

Deforestation and forest degradation models

A.1 Descriptions of deforestation variables

Code	Variables	Type	Unit
Dist	District	Panel Variable	Numbers
Period	Period	Time variable	Years (1990-99=1999, 1999-2009=2009)
Defo	Deforestation	Dependent Variable	Annual Change (%) in area deforested
Popu	Population growth	Explanatory Variable	Annual Change (%) in Population
Agri	Agricultural growth	Explanatory Variable	Annual Change (%) in Agriculture Yield
Road	Road density	Explanatory Variable	Annual Change (%) in Road length
CFBZ	Percentage of Community forest and Buffer Zone	Explanatory Variable	Annual Change (%) in area under community forest and buffer zone
Prot	Protected area	Explanatory Variable	% of protected areas at the beginning of the period
Poli	Political assassinations	Explanatory Variable	Number of persons killed per 100,000 population per annum
Fore	Size of forest area	Explanatory Variable	% of land area under forest at the beginning of the period

A.2 Descriptions of forest degradation variables

Code	Variables	Type	Unit
Dis	District	Panel id	Numeric
Per	Time Period	Time variable	Year
Bio	Forest degradation	Dependent Variable	% Change (annual) in forest biomass
Agri	Agricultural land expansion	Explanatory Variable	% Change (annual) in total agri crop area
Timb	Timber extraction	Explanatory Variable	% Change (annual) in timber extraction
Fuel	Fuel wood extraction	Explanatory Variable	% Change (annual) in fuel wood extraction
Live	Livestock population	Explanatory Variable	% Change (annual) in livestock population (head)

A.3 Study Districts

Dist_id	District
1	Rautahat
2	Bara
3	Parsa
4	Makwanpur
5	Chitwan
6	Nawalparasi
7	Rupendehi
8	Palpa
9	Kapilvastu
10	Arghkhanchi
11	Dang
12	Banke
13	Bardia
14	Kailali
15	Kanchanpur

A.4 Multicollinearity test of deforestation variables

	Defo	*Popu*	*agri*	*road*	*Fore*	*CFBZ*	*Prot*	*Poli*
Defo	1							
Popu	0.33039	1						
agri	0.44000	0.01644	1					
road	0.01941	0.25756	0.04180	1				
Fore	0.04052	-0.24289	0.14857	0.16068	1			
CFBZ	0.22447	-0.14983	0.03527	0.19768	0.47417	1		
Prot	0.09174	0.14089	0.12804	0.45924	0.16174	0.48112	1	
Poli	0.10815	-0.43377	0.04251	-0.19230	0.30728	0.17084	0.04569	1

Appendix B

Carbon stock data

B.1 Plot level carbon stock (Mg/ha) data of protected area forest

Sn	District	Plot ID	AGB	BGB	Shrub	Litter	SOC	Total
1	Bardia	6	166.68	40.00	0.07	0.29	71.87	278.92
2	Parsa	19	117.80	28.27	0.01	0.78	155.39	302.26
3	Kanchanpur	22	15.15	3.03	0.00	0.43	68.88	87.48
4	Nawalparasi	29	97.90	23.49	0.17	4.93	111.63	238.12
5	Bardia	30	94.10	22.58	0.09	1.04	69.29	187.12
6	Bardia	31	20.87	4.17	0.00	0.75	64.68	90.48
7	Chitwan	33	38.68	7.74	0.00	3.44	97.07	146.92
8	Parsa	34	161.00	38.64	0.01	0.48	140.62	340.75
9	Chitwan	37	149.57	35.90	0.05	3.64	59.02	248.18
10	Bardia	47	146.17	35.08	0.03	2.93	161.39	345.60
11	Chitwan	50	181.79	43.63	0.02	1.40	81.83	308.68
12	Chitwan	54	105.82	25.40	1.53	2.02	84.99	219.76
13	Parsa	55	302.81	72.67	0.13	0.85	105.65	482.11
14	Chitwan	59	175.18	42.04	0.58	2.39	22.47	242.67
15	Bardia	74	173.09	41.54	0.17	1.30	117.92	334.02
16	Bardia	79	104.74	25.14	0.10	1.83	54.16	185.96
17	Bardia	80	433.63	104.07	0.03	0.54	95.63	633.91
18	Parsa	81	294.67	70.72	0.11	0.75	160.98	527.22
19	Parsa	83	143.02	34.33	0.04	0.55	137.70	315.64
20	Kanchanpur	102	150.11	36.03	0.13	0.29	43.17	229.71
21	Bardia	106	211.25	50.70	0.10	1.17	153.77	416.99
22	Chitwan	107	439.83	105.56	0.88	5.40	57.33	609.01
23	Parsa	110	159.02	38.17	0.06	1.10	105.56	303.91
24	Kanchanpur	113	90.75	21.78	0.03	2.27	52.28	167.10
25	Parsa	120	240.40	57.70	0.11	1.00	56.35	355.56
26	Chitwan	100S	41.67	8.33	0.10	5.40	83.53	139.02
27	Chitwan	92N	113.05	27.13	0.02	3.27	40.10	183.58
28	Chitwan	98S	152.43	36.58	0.45	3.49	49.80	242.75
TOTAL			**4521.17**	**1080.43**	**5.04**	**53.75**	**2503.05**	**8163.43**
Mean			**161.47**	**38.59**	**0.18**	**1.92**	**89.39**	**291.55**
Uncertainty at 95% CI			**38.68**	**9.36**	**0.12**	**0.58**	**14.92**	**42.51**
Lower Boundary at 95% CI			**122.79**	**29.22**	**0.06**	**1.34**	**74.47**	**249.04**

B.2 Plot level carbon stock (Mg/ha) data of community forest

Sn	District	Plot ID	AGB	BGB	Shrub	Litter	SOC	Total
1	Nawalparasi	10	170.02	40.81	0.11	1.13	165.61	377.69
2	Chitwan	11	115.31	27.67	0.01	0.63	48.47	192.09
3	Dang	13	28.45	5.69	0.36	1.50	58.53	94.54
4	Rupendehi	14	146.63	35.19	0.30	3.51	55.04	240.66
5	Makwanpur	18	12.62	2.52	0.03	0.55	213.90	229.62
6	Dang	21	36.82	7.36	0.24	0.29	53.38	98.09
7	Bardia	24	9.44	1.89	0.31	3.10	61.70	76.43
8	Kailali	28	64.07	15.38	0.00	0.19	33.21	112.85
9	Makwanpur	32	349.04	83.77	0.25	0.78	214.72	648.57
10	Dang	36	69.05	16.57	0.00	0.82	96.67	183.12
11	Dang	41	27.75	5.55	0.14	0.51	96.84	130.79
12	Banke	44	157.93	37.90	0.00	0.00	126.36	322.19
13	Banke	46	32.51	6.50	0.33	1.84	97.46	138.64
14	Chitwan	49	270.89	65.01	0.84	3.31	130.03	470.08
15	Makwanpur	52 (N)	7.86	1.57	0.11	0.54	106.74	116.83
16	Dang	53	80.40	19.30	0.00	0.64	35.97	136.30
17	Banke	56	81.91	19.66	0.00	3.07	143.18	247.82
18	Nawalparasi	61	93.19	22.37	0.58	0.24	113.24	229.61
19	Bara	62	113.17	27.16	0.00	0.00	32.04	172.36
20	Banke	64	99.81	23.95	1.62	5.66	79.36	210.40
21	Nawalparasi	76	51.78	10.36	0.34	0.59	169.55	232.62
22	Nawalparasi	82	103.28	24.79	0.39	2.45	64.73	195.64
23	Kanchanpur	85	270.18	64.84	0.13	4.03	89.81	429.00
24	Banke	88	33.51	6.70	0.24	2.78	33.46	76.69
25	Banke	93	209.87	50.37	0.00	0.00	128.17	388.41
26	Makwanpur	103	32.34	6.47	0.04	0.00	212.36	251.21
27	Nawalparasi	117	70.62	16.95	1.11	0.91	197.29	286.89
28	Arghakhanchi	128	59.69	14.33	0.15	0.00	100.78	174.95
29	Dang	138	135.07	32.42	0.10	0.67	79.93	248.18
30	Dang	140	34.38	6.88	0.14	1.05	115.04	157.49
31	Chitwan	142	33.39	6.68	0.17	2.36	34.98	77.58
32	Kailali	147	75.05	18.01	0.40	1.91	92.45	187.82
33	Palpa	149	23.74	4.75	0.71	1.94	148.30	179.44
34	Palpa	154	142.69	34.25	0.00	1.29	114.76	292.99
35	Chitwan	104S	95.59	22.94	0.05	2.62	197.65	318.85
36	Palpa	116(N)	31.49	6.30	0.49	1.90	169.12	209.30
37	Palpa	129(N)	93.12	22.35	0.52	5.49	107.37	228.85
38	Palpa	143(N)	51.21	10.24	0.00	2.99	163.59	228.04
39	Chitwan	145S	352.69	84.64	0.01	0.98	134.74	573.06
40	Makwanpur	150(N)	176.20	42.29	0.08	1.26	100.57	320.40
TOTAL			**4042.78**	**952.37**	**10.31**	**63.54**	**4417.07**	**9486.07**
Mean			**101.07**	**23.81**	**0.26**	**1.59**	**110.43**	**237.15**
Uncertainty at 95% CI			**27.09**	**6.61**	**0.10**	**0.45**	**16.76**	**32.54**
Lower Boundary at 95% CI			**73.97**	**17.20**	**0.15**	**1.14**	**93.67**	**204.61**

B.3 Plot level carbon stock (Mg/ha) data of government-managed forest

Sn	District	Plot ID	AGB	BGB	Shrub	Litter	SOC	Total
1	Bara	15	150.18	36.04	0.06	0.67	91.41	278.38
2	Bara	17	1.91	0.38	0.25	0.81	58.35	61.69
3	Kanchanpur	23	7.53	1.51	0.41	1.65	33.86	44.95
4	Banke	25	20.95	4.19	0.00	1.82	55.65	82.61
5	Banke	26	27.21	5.44	0.00	0.00	87.14	119.79
6	Kailali	40	138.38	33.21	0.00	0.83	47.36	219.78
7	Kapilvastu	42	58.65	11.73	0.00	1.46	108.86	180.71
8	Kanchanpur	43	71.41	17.14	0.00	0.77	74.39	163.70
9	Rupendehi	48	49.88	9.98	0.47	3.21	71.44	134.98
10	Nawalparasi	51	121.24	29.10	1.05	1.13	137.78	290.30
11	Banke	58	103.75	24.90	0.56	2.56	37.18	168.94
12	Kailali	68	28.97	5.79	0.00	0.00	105.45	140.21
13	Kailali	69	73.46	17.63	0.01	2.20	61.71	155.02
14	Parsa	70	108.00	25.92	0.02	0.94	182.25	317.12
15	Dang	71	50.78	10.16	1.13	2.57	73.71	138.35
16	Bara	72	61.40	14.74	0.01	1.61	84.78	162.53
17	Rupendehi	73	43.19	8.64	0.03	0.27	140.88	193.02
18	Dang	77	24.48	4.90	0.00	1.11	64.19	94.68
19	Dang	78	72.55	17.41	0.37	1.01	26.09	117.43
20	Makwanpur	86	50.71	10.14	0.07	0.51	105.30	166.74
21	Rautahat	87	151.89	36.45	0.08	0.82	54.87	244.11
22	Nawalparasi	89	16.11	3.22	0.20	0.00	121.95	141.48
23	Banke	95	35.87	7.17	0.69	1.40	48.73	93.86
24	Kailali	97	37.86	7.57	0.00	1.38	61.73	108.55
25	Arghakhanchi	105	171.85	41.24	0.06	2.83	76.17	292.14
26	Kailali	108	235.54	56.53	0.00	1.24	75.67	368.99
27	Kanchanpur	109	35.74	7.15	0.26	1.37	43.71	88.23
28	Dang	118	24.44	4.89	0.35	0.42	66.26	96.37
29	Dang	119	85.20	20.45	0.25	0.64	65.89	172.42
30	Kapilvastu	122	58.85	14.12	0.00	0.72	59.59	133.28
31	Kapilvastu	123	4.17	0.83	0.00	0.00	61.49	66.49
32	Kapilvastu	124	142.38	34.17	0.27	1.79	91.49	270.11
33	Banke	131	292.39	70.17	1.61	2.44	71.91	438.53
34	Kapilvastu	134	12.84	2.57	0.15	0.98	77.49	94.04
35	Kailali	139	145.01	34.80	0.00	1.53	197.13	378.47
36	Nawalparasi	141	115.13	27.63	0.85	2.05	119.93	265.59
37	Arghakhanchi	146	64.10	15.38	0.55	0.00	84.44	164.47
38	Dang	152	307.79	73.87	0.04	2.22	153.29	537.22
39	Arghakhanchi	153	37.28	7.46	0.07	0.85	163.79	209.44
40	Arghakhanchi	155	84.00	20.16	0.43	0.00	66.92	171.51
TOTAL			**3323.08**	**774.80**	**10.31**	**47.83**	**3410.23**	**7566.24**
Mean			**83.08**	**19.37**	**0.26**	**1.20**	**85.26**	**189.16**
Uncertainty at 95% CI			**22.69**	**5.56**	**0.11**	**0.26**	**12.43**	**26.46**
Lower Boundary at 95% CI			**60.39**	**13.81**	**0.14**	**0.93**	**72.83**	**162.69**

B.4 Plot level carbon stock (Mg/ha) data of other forest

Sn	District	Plot ID	AGB	BGB	Shrub	Litter	SOC	Total
1	Kailali	16	24.14	4.83	0.36	3.28	63.49	96.10
2	Makwanpur	35	3.37	0.67	0.00	0.00	112.19	116.24
3	Makwanpur	57	0.29	0.06	0.00	0.00	61.86	62.21
4	Makwanpur	66	12.72	2.54	0.00	0.00	217.93	233.19
5	Makwanpur	151	3.11	0.62	0.00	0.00	122.34	126.07
TOTAL			**43.63**	**8.73**	**0.36**	**3.28**	**577.81**	**633.81**
Mean			**8.73**	**1.75**	**0.07**	**0.66**	**115.56**	**126.76**
Uncertainty at 95% CI			**8.60**	**1.72**	**0.14**	**1.29**	**55.66**	**56.36**
Lower Boundary at 95% CI			**0.13**	**0.03**	**-0.07**	**-0.63**	**59.90**	**70.40**

Appendix C

Opportunity Cost

C.1 District wise opportunity costs of emissions reductions

District	Cattle ranching	Forest management	Crop production	Current farming practice	Improved agriculture practice	Improved agri and livestock	Establishment of protected areas
Rautahat	-0.32	2.98	6.59	8.10	12.27	13.79	16.14
Bara	0.07	2.92	8.82	10.69	12.31	14.18	20.28
Parsa	1.31	0.33	10.21	11.78	13.85	15.42	30.01
Makwanpur	2.46	0.42	10.52	13.24	13.47	16.19	21.93
Chitwan	2.62	1.40	5.82	9.61	10.44	14.23	76.32
Nawalparasi	1.87	0.74	5.23	7.55	11.48	13.81	13.01
Rupendehi	0.68	1.52	5.52	7.13	11.00	12.62	13.11
Palpa	2.55	0.32	7.35	10.10	11.74	14.49	16.73
Kapilbastu	-2.47	6.13	2.90	4.21	9.13	10.43	12.97
Arghakhanchi	2.10	3.62	3.93	8.26	10.67	15.00	17.04
Dang	2.12	0.65	8.24	10.75	13.72	16.23	18.12
Banke	1.84	0.57	8.72	10.91	13.77	15.96	18.29
Bardia	2.43	0.35	7.50	10.18	11.04	13.72	23.82
Kailali	1.27	1.76	5.08	7.44	10.81	13.16	13.85
Kanchanpur	-2.61	9.08	1.33	4.33	6.54	9.53	18.34
Mean	**1.06**	**2.19**	**6.52**	**8.95**	**11.48**	**13.92**	**22.00**

C.2 Net Present Value (US$/ha) from cattle ranching during the 30 years period

Year	Rautahat	Bara	Parsa	Makwan	Chitwan	Nawal	Rupendehi	Palpa	Kapilb	Arghakh	Dang	Banke	Bardia	Kailali	Kanchan	Total	Mean
1	49.41	61.10	51.35	88.79	123.77	76.00	52.64	89.74	42.62	141.26	82.14	71.57	87.49	76.90	97.78	1192.58	79.51
2	44.92	55.55	46.68	80.72	112.52	69.09	47.85	81.58	38.74	128.42	74.68	65.07	79.54	69.91	88.89	1084.16	72.28
3	40.84	50.50	42.44	73.38	102.29	62.81	43.50	74.17	35.22	116.74	67.89	59.15	72.31	63.56	80.81	985.60	65.71
4	37.12	45.91	38.58	66.71	92.99	57.10	39.55	67.42	32.02	106.13	61.72	53.77	65.73	57.78	73.46	896.00	59.73
5	33.75	41.73	35.07	60.65	84.54	51.91	35.95	61.29	29.11	96.48	56.10	48.89	59.76	52.53	66.78	814.55	54.30
6	30.68	37.94	31.88	55.13	76.85	47.19	32.68	55.72	26.46	87.71	51.00	44.44	54.33	47.75	60.71	740.50	49.37
7	27.89	34.49	28.99	50.12	69.87	42.90	29.71	50.66	24.06	79.74	46.37	40.40	49.39	43.41	55.19	673.18	44.88
8	25.36	31.36	26.35	45.57	63.52	39.00	27.01	46.05	21.87	72.49	42.15	36.73	44.90	39.46	50.18	611.98	40.80
9	23.05	28.51	23.96	41.42	57.74	35.46	24.56	41.86	19.88	65.90	38.32	33.39	40.82	35.88	45.61	556.35	37.09
10	20.96	25.91	21.78	37.66	52.49	32.23	22.32	38.06	18.07	59.91	34.84	30.35	37.11	32.61	41.47	505.77	33.72
11	19.05	23.56	19.80	34.23	47.72	29.30	20.29	34.60	16.43	54.46	31.67	27.59	33.73	29.65	37.70	459.79	30.65
12	17.32	21.42	18.00	31.12	43.38	26.64	18.45	31.45	14.94	49.51	28.79	25.09	30.67	26.95	34.27	417.99	27.87
13	15.74	19.47	16.36	28.29	39.44	24.22	16.77	28.59	13.58	45.01	26.17	22.81	27.88	24.50	31.15	379.99	25.33
14	14.31	17.70	14.87	25.72	35.85	22.02	15.25	25.99	12.34	40.92	23.79	20.73	25.34	22.28	28.32	345.45	23.03
15	13.01	16.09	13.52	23.38	32.59	20.01	13.86	23.63	11.22	37.20	21.63	18.85	23.04	20.25	25.75	314.04	20.94
16	11.83	14.63	12.29	21.26	29.63	18.19	12.60	21.48	10.20	33.82	19.66	17.13	20.95	18.41	23.41	285.49	19.03
17	10.75	13.30	11.18	19.32	26.94	16.54	11.46	19.53	9.27	30.74	17.88	15.58	19.04	16.74	21.28	259.54	17.30
18	9.78	12.09	10.16	17.57	24.49	15.04	10.41	17.75	8.43	27.95	16.25	14.16	17.31	15.22	19.34	235.95	15.73
19	8.89	10.99	9.24	15.97	22.26	13.67	9.47	16.14	7.67	25.41	14.77	12.87	15.74	13.83	17.59	214.50	14.30
20	8.08	9.99	8.40	14.52	20.24	12.43	8.61	14.67	6.97	23.10	13.43	11.70	14.31	12.57	15.99	195.00	13.00
21	7.34	9.08	7.63	13.20	18.40	11.30	7.82	13.34	6.33	21.00	12.21	10.64	13.01	11.43	14.53	177.27	11.82
22	6.68	8.26	6.94	12.00	16.73	10.27	7.11	12.13	5.76	19.09	11.10	9.67	11.82	10.39	13.21	161.15	10.74
23	6.07	7.51	6.31	10.91	15.21	9.34	6.47	11.02	5.24	17.35	10.09	8.79	10.75	9.45	12.01	146.50	9.77
24	5.52	6.82	5.73	9.92	13.82	8.49	5.88	10.02	4.76	15.78	9.17	7.99	9.77	8.59	10.92	133.18	8.88
25	5.02	6.20	5.21	9.01	12.57	7.72	5.34	9.11	4.33	14.34	8.34	7.27	8.88	7.81	9.93	121.08	8.07
26	4.56	5.64	4.74	8.20	11.42	7.01	4.86	8.28	3.93	13.04	7.58	6.61	8.08	7.10	9.02	110.07	7.34
27	4.15	5.13	4.31	7.45	10.39	6.38	4.42	7.53	3.58	11.85	6.89	6.01	7.34	6.45	8.20	100.06	6.67
28	3.77	4.66	3.92	6.77	9.44	5.80	4.01	6.85	3.25	10.77	6.27	5.46	6.67	5.87	7.46	90.97	6.06
29	3.43	4.24	3.56	6.16	8.58	5.27	3.65	6.22	2.96	9.80	5.70	4.96	6.07	5.33	6.78	82.70	5.51
30	3.11	3.85	3.24	5.60	7.80	4.79	3.32	5.66	2.69	8.90	5.18	4.51	5.52	4.85	6.16	75.18	5.01
Total	566.73	700.84	588.97	1018.44	1419.63	871.71	603.71	1029.29	488.81	1620.17	942.15	820.92	1003.50	882.06	1121.47	13678.40	911.89

C.3 Net Present Value (US$/ha) from agriculture during the 30 years period

Year	Rautahat	Bara	Parsa	Makwan	Chitwan	Nawal	Rupend	Palpa	Kapilb	Arghakh	Dang	Banke	Bardia	Kailali	Kanchan	Total	Mean
1	274.84	346.42	341.73	351.75	228.34	185.41	210.74	246.49	217.90	201.06	281.87	295.93	253.01	201.26	226.26	3863.01	257.53
2	249.85	314.93	310.66	319.78	207.59	168.55	191.58	224.08	198.09	182.78	256.25	269.03	230.01	182.97	205.69	3511.83	234.12
3	227.14	286.30	282.42	290.71	188.71	153.23	174.17	203.71	180.08	166.16	232.95	244.57	209.10	166.33	186.99	3192.57	212.84
4	206.49	260.27	256.74	264.28	171.56	139.30	158.33	185.19	163.71	151.06	211.77	222.34	190.09	151.21	169.99	2902.34	193.49
5	187.72	236.61	233.40	240.25	155.96	126.63	143.94	168.35	148.83	137.32	192.52	202.12	172.81	137.47	154.54	2638.49	175.90
6	170.65	215.10	212.19	218.41	141.78	115.12	130.85	153.05	135.30	124.84	175.02	183.75	157.10	124.97	140.49	2398.63	159.91
7	155.14	195.54	192.90	198.56	128.89	104.66	118.96	139.14	123.00	113.49	159.11	167.04	142.82	113.61	127.72	2180.57	145.37
8	141.03	177.77	175.36	180.51	117.18	95.14	108.14	126.49	111.82	103.17	144.64	151.86	129.84	103.28	116.11	1982.33	132.16
9	128.21	161.61	159.42	164.10	106.52	86.49	98.31	114.99	101.65	93.79	131.50	138.05	118.03	93.89	105.55	1802.12	120.14
10	116.56	146.92	144.93	149.18	96.84	78.63	89.37	104.53	92.41	85.27	119.54	125.50	107.30	85.36	95.96	1638.29	109.22
11	105.96	133.56	131.75	135.62	88.04	71.48	81.25	95.03	84.01	77.52	108.67	114.09	97.55	77.60	87.23	1489.36	99.29
12	96.33	121.42	119.77	123.29	80.03	64.98	73.86	86.39	76.37	70.47	98.79	103.72	88.68	70.54	79.30	1353.96	90.26
13	87.57	110.38	108.88	112.08	72.76	59.08	67.15	78.54	69.43	64.06	89.81	94.29	80.62	64.13	72.09	1230.87	82.06
14	79.61	100.35	98.99	101.89	66.14	53.71	61.04	71.40	63.12	58.24	81.65	85.72	73.29	58.30	65.54	1118.98	74.60
15	72.37	91.22	89.99	92.63	60.13	48.82	55.49	64.91	57.38	52.94	74.23	77.93	66.63	53.00	59.58	1017.25	67.82
16	65.79	82.93	81.81	84.21	54.66	44.38	50.45	59.01	52.16	48.13	67.48	70.84	60.57	48.18	54.16	924.77	61.65
17	59.81	75.39	74.37	76.55	49.69	40.35	45.86	53.64	47.42	43.76	61.34	64.40	55.06	43.80	49.24	840.70	56.05
18	54.37	68.54	67.61	69.59	45.18	36.68	41.69	48.77	43.11	39.78	55.77	58.55	50.06	39.82	44.76	764.28	50.95
19	49.43	62.31	61.46	63.27	41.07	33.35	37.90	44.33	39.19	36.16	50.70	53.23	45.51	36.20	40.69	694.80	46.32
20	44.94	56.64	55.88	57.51	37.34	30.32	34.46	40.30	35.63	32.87	46.09	48.39	41.37	32.91	36.99	631.63	42.11
21	40.85	51.49	50.80	52.29	33.94	27.56	31.33	36.64	32.39	29.89	41.90	43.99	37.61	29.92	33.63	574.21	38.28
22	37.14	46.81	46.18	47.53	30.86	25.05	28.48	33.31	29.45	27.17	38.09	39.99	34.19	27.20	30.57	522.01	34.80
23	33.76	42.56	41.98	43.21	28.05	22.78	25.89	30.28	26.77	24.70	34.63	36.35	31.08	24.72	27.79	474.56	31.64
24	30.69	38.69	38.16	39.28	25.50	20.71	23.54	27.53	24.33	22.45	31.48	33.05	28.26	22.48	25.27	431.41	28.76
25	27.90	35.17	34.69	35.71	23.18	18.82	21.40	25.02	22.12	20.41	28.62	30.04	25.69	20.43	22.97	392.19	26.15
26	25.37	31.97	31.54	32.47	21.08	17.11	19.45	22.75	20.11	18.56	26.02	27.31	23.35	18.58	20.88	356.54	23.77
27	23.06	29.07	28.67	29.51	19.16	15.56	17.68	20.68	18.28	16.87	23.65	24.83	21.23	16.89	18.98	324.13	21.61
28	20.96	26.42	26.07	26.83	17.42	14.14	16.07	18.80	16.62	15.34	21.50	22.57	19.30	15.35	17.26	294.66	19.64
29	19.06	24.02	23.70	24.39	15.83	12.86	14.61	17.09	15.11	13.94	19.55	20.52	17.54	13.96	15.69	267.87	17.86
30	17.33	21.84	21.54	22.17	14.39	11.69	13.28	15.54	13.74	12.67	17.77	18.66	15.95	12.69	14.26	243.52	16.23
Total	3152.27	3973.28	3919.48	4034.48	2619.02	2126.53	2417.12	2827.11	2499.25	2306.05	3232.96	3394.19	2901.97	2308.42	2595.08	44307.20	2953.81

C.4 Net Present Value (US$/ha) from timber extraction during the 30 years period

Year	Rautahat	Bara	Parsa	Makwan	Chitwan	Nawalpa	Rupende	Palpa	Kapilbast	Arghakha	Dang	Banke	Bardia	Kailali	Kanchan	Total	Mean
1	58.39	57.67	7.44	8.28	32.90	14.50	29.48	6.40	122.79	72.44	12.72	11.00	7.41	34.57	181.83	657.83	43.86
2	53.08	52.43	6.76	7.53	29.91	13.19	26.80	5.82	111.63	65.85	11.56	10.00	6.74	31.42	165.30	598.03	39.87
3	48.26	47.66	6.15	6.85	27.19	11.99	24.36	5.29	101.48	59.87	10.51	9.09	6.12	28.57	150.28	543.66	36.24
4	43.87	43.33	5.59	6.22	24.72	10.90	22.15	4.81	92.26	54.42	9.55	8.27	5.57	25.97	136.61	494.24	32.95
5	39.88	39.39	5.08	5.66	22.47	9.91	20.13	4.37	83.87	49.48	8.69	7.52	5.06	23.61	124.20	449.31	29.95
6	36.26	35.81	4.62	5.14	20.43	9.01	18.30	3.98	76.25	44.98	7.90	6.83	4.60	21.46	112.90	408.46	27.23
7	32.96	32.55	4.20	4.68	18.57	8.19	16.64	3.61	69.31	40.89	7.18	6.21	4.18	19.51	102.64	371.33	24.76
8	29.96	29.59	3.82	4.25	16.88	7.44	15.13	3.29	63.01	37.17	6.53	5.65	3.80	17.74	93.31	337.57	22.50
9	27.24	26.90	3.47	3.86	15.35	6.77	13.75	2.99	57.28	33.79	5.93	5.13	3.46	16.12	84.83	306.88	20.46
10	24.76	24.46	3.16	3.51	13.95	6.15	12.50	2.72	52.08	30.72	5.39	4.67	3.14	14.66	77.12	278.98	18.60
11	22.51	22.23	2.87	3.19	12.68	5.59	11.37	2.47	47.34	27.93	4.90	4.24	2.86	13.33	70.11	253.62	16.91
12	20.47	20.21	2.61	2.90	11.53	5.08	10.33	2.24	43.04	25.39	4.46	3.86	2.60	12.11	63.73	230.56	15.37
13	18.60	18.38	2.37	2.64	10.48	4.62	9.39	2.04	39.13	23.08	4.05	3.51	2.36	11.01	57.94	209.60	13.97
14	16.91	16.70	2.15	2.40	9.53	4.20	8.54	1.85	35.57	20.98	3.68	3.19	2.15	10.01	52.67	190.55	12.70
15	15.38	15.19	1.96	2.18	8.66	3.82	7.76	1.69	32.34	19.08	3.35	2.90	1.95	9.10	47.88	173.23	11.55
16	13.98	13.81	1.78	1.98	7.88	3.47	7.06	1.53	29.40	17.34	3.04	2.63	1.77	8.27	43.53	157.48	10.50
17	12.71	12.55	1.62	1.80	7.16	3.16	6.42	1.39	26.72	15.76	2.77	2.39	1.61	7.52	39.57	143.16	9.54
18	11.55	11.41	1.47	1.64	6.51	2.87	5.83	1.27	24.29	14.33	2.52	2.18	1.47	6.84	35.97	130.15	8.68
19	10.50	10.37	1.34	1.49	5.92	2.61	5.30	1.15	22.09	13.03	2.29	1.98	1.33	6.22	32.70	118.32	7.89
20	9.55	9.43	1.22	1.35	5.38	2.37	4.82	1.05	20.08	11.84	2.08	1.80	1.21	5.65	29.73	107.56	7.17
21	8.68	8.57	1.11	1.23	4.89	2.16	4.38	0.95	18.25	10.77	1.89	1.64	1.10	5.14	27.03	97.78	6.52
22	7.89	7.79	1.01	1.12	4.45	1.96	3.98	0.87	16.59	9.79	1.72	1.49	1.00	4.67	24.57	88.89	5.93
23	7.17	7.08	0.91	1.02	4.04	1.78	3.62	0.79	15.08	8.90	1.56	1.35	0.91	4.25	22.34	80.81	5.39
24	6.52	6.44	0.83	0.93	3.67	1.62	3.29	0.72	13.71	8.09	1.42	1.23	0.83	3.86	20.31	73.47	4.90
25	5.93	5.85	0.76	0.84	3.34	1.47	2.99	0.65	12.47	7.35	1.29	1.12	0.75	3.51	18.46	66.79	4.45
26	5.39	5.32	0.69	0.76	3.04	1.34	2.72	0.59	11.33	6.69	1.17	1.02	0.68	3.19	16.78	60.71	4.05
27	4.90	4.84	0.62	0.70	2.76	1.22	2.47	0.54	10.30	6.08	1.07	0.92	0.62	2.90	15.26	55.20	3.68
28	4.45	4.40	0.57	0.63	2.51	1.11	2.25	0.49	9.37	5.53	0.97	0.84	0.57	2.64	13.87	50.18	3.35
29	4.05	4.00	0.52	0.57	2.28	1.01	2.04	0.44	8.51	5.02	0.88	0.76	0.51	2.40	12.61	45.62	3.04
30	3.68	3.64	0.47	0.52	2.07	0.91	1.86	0.40	7.74	4.57	0.80	0.69	0.47	2.18	11.46	41.47	2.76
Total	669.70	661.44	85.33	95.01	377.33	166.36	338.10	73.44	1408.40	830.83	145.86	126.22	84.98	396.45	2085.57	7545.03	503.00

C.5 Net Present Value (US$/ha) from fuel wood extraction during the 30 years period

Year	Rautahat	Bara	Parsa	Makwan	Chitwan	Nawalpa	Rupende	Palpa	Kapilbast	Arghakha	Dang	Banke	Bardia	Kailali	Kanchan	Total	Mean
1	1.51	1.01	0.16	0.13	0.40	0.34	1.03	0.12	0.37	0.24	0.30	0.36	0.13	0.77	0.83	7.69	0.51
2	1.37	0.92	0.14	0.12	0.36	0.31	0.94	0.11	0.34	0.22	0.28	0.33	0.12	0.70	0.75	6.99	0.47
3	1.25	0.83	0.13	0.11	0.33	0.28	0.85	0.10	0.31	0.20	0.25	0.30	0.11	0.63	0.69	6.36	0.42
4	1.13	0.76	0.12	0.10	0.30	0.25	0.77	0.09	0.28	0.18	0.23	0.27	0.10	0.58	0.62	5.78	0.39
5	1.03	0.69	0.11	0.09	0.27	0.23	0.70	0.08	0.25	0.16	0.21	0.25	0.09	0.52	0.57	5.25	0.35
6	0.94	0.63	0.10	0.08	0.25	0.21	0.64	0.08	0.23	0.15	0.19	0.22	0.08	0.48	0.51	4.78	0.32
7	0.85	0.57	0.09	0.07	0.23	0.19	0.58	0.07	0.21	0.13	0.17	0.20	0.07	0.43	0.47	4.34	0.29
8	0.77	0.52	0.08	0.07	0.21	0.17	0.53	0.06	0.19	0.12	0.16	0.19	0.07	0.39	0.43	3.95	0.26
9	0.70	0.47	0.07	0.06	0.19	0.16	0.48	0.06	0.17	0.11	0.14	0.17	0.06	0.36	0.39	3.59	0.24
10	0.64	0.43	0.07	0.06	0.17	0.14	0.44	0.05	0.16	0.10	0.13	0.15	0.06	0.32	0.35	3.26	0.22
11	0.58	0.39	0.06	0.05	0.15	0.13	0.40	0.05	0.14	0.09	0.12	0.14	0.05	0.30	0.32	2.97	0.20
12	0.53	0.35	0.05	0.05	0.14	0.12	0.36	0.04	0.13	0.08	0.11	0.13	0.05	0.27	0.29	2.70	0.18
13	0.48	0.32	0.05	0.04	0.13	0.11	0.33	0.04	0.12	0.08	0.10	0.12	0.04	0.24	0.26	2.45	0.16
14	0.44	0.29	0.05	0.04	0.12	0.10	0.30	0.04	0.11	0.07	0.09	0.10	0.04	0.22	0.24	2.23	0.15
15	0.40	0.27	0.04	0.03	0.11	0.09	0.27	0.03	0.10	0.06	0.08	0.10	0.03	0.20	0.22	2.03	0.14
16	0.36	0.24	0.04	0.03	0.10	0.08	0.25	0.03	0.09	0.06	0.07	0.09	0.03	0.18	0.20	1.84	0.12
17	0.33	0.22	0.03	0.03	0.09	0.07	0.22	0.03	0.08	0.05	0.07	0.08	0.03	0.17	0.18	1.67	0.11
18	0.30	0.20	0.03	0.03	0.08	0.07	0.20	0.02	0.07	0.05	0.06	0.07	0.03	0.15	0.16	1.52	0.10
19	0.27	0.18	0.03	0.02	0.07	0.06	0.19	0.02	0.07	0.04	0.05	0.07	0.02	0.14	0.15	1.38	0.09
20	0.25	0.17	0.03	0.02	0.07	0.05	0.17	0.02	0.06	0.04	0.05	0.06	0.02	0.13	0.14	1.26	0.08
21	0.22	0.15	0.02	0.02	0.06	0.05	0.15	0.02	0.06	0.04	0.05	0.05	0.02	0.11	0.12	1.14	0.08
22	0.20	0.14	0.02	0.02	0.05	0.05	0.14	0.02	0.05	0.03	0.04	0.05	0.02	0.10	0.11	1.04	0.07
23	0.19	0.12	0.02	0.02	0.05	0.04	0.13	0.02	0.05	0.03	0.04	0.04	0.02	0.09	0.10	0.95	0.06
24	0.17	0.11	0.02	0.01	0.04	0.04	0.12	0.01	0.04	0.03	0.03	0.04	0.01	0.09	0.09	0.86	0.06
25	0.15	0.10	0.02	0.01	0.04	0.03	0.10	0.01	0.04	0.02	0.03	0.04	0.01	0.08	0.08	0.78	0.05
26	0.14	0.09	0.01	0.01	0.04	0.03	0.10	0.01	0.03	0.02	0.03	0.03	0.01	0.07	0.08	0.71	0.05
27	0.13	0.08	0.01	0.01	0.03	0.03	0.09	0.01	0.03	0.02	0.03	0.03	0.01	0.06	0.07	0.65	0.04
28	0.11	0.08	0.01	0.01	0.03	0.03	0.08	0.01	0.03	0.02	0.02	0.03	0.01	0.06	0.06	0.59	0.04
29	0.10	0.07	0.01	0.01	0.03	0.02	0.07	0.01	0.03	0.02	0.02	0.03	0.01	0.05	0.06	0.53	0.04
30	0.10	0.06	0.01	0.01	0.03	0.02	0.06	0.01	0.02	0.02	0.02	0.02	0.01	0.05	0.05	0.49	0.03
Total	17.28	11.57	1.79	1.51	4.59	3.85	11.82	1.40	4.25	2.74	3.50	4.15	1.50	8.78	9.51	88.24	5.88

C.6 Net Present Value (US$/ha) of revenue generated from Protected area during the 30 years period

Year	Parsa	Chitwan	Bardia	Kanchan	Total	Mean
1	0.91	5.13	0.60	0.19	6.83	1.71
2	0.83	4.66	0.54	0.18	6.21	1.55
3	0.75	4.24	0.50	0.16	5.64	1.41
4	0.68	3.85	0.45	0.14	5.13	1.28
5	0.62	3.50	0.41	0.13	4.66	1.17
6	0.57	3.18	0.37	0.12	4.24	1.06
7	0.51	2.89	0.34	0.11	3.85	0.96
8	0.47	2.63	0.31	0.10	3.50	0.88
9	0.42	2.39	0.28	0.09	3.19	0.80
10	0.39	2.17	0.25	0.08	2.90	0.72
11	0.35	1.98	0.23	0.07	2.63	0.66
12	0.32	1.80	0.21	0.07	2.39	0.60
13	0.29	1.63	0.19	0.06	2.18	0.54
14	0.26	1.48	0.17	0.06	1.98	0.49
15	0.24	1.35	0.16	0.05	1.80	0.45
16	0.22	1.23	0.14	0.05	1.63	0.41
17	0.20	1.12	0.13	0.04	1.49	0.37
18	0.18	1.01	0.12	0.04	1.35	0.34
19	0.16	0.92	0.11	0.03	1.23	0.31
20	0.15	0.84	0.10	0.03	1.12	0.28
21	0.14	0.76	0.09	0.03	1.02	0.25
22	0.12	0.69	0.08	0.03	0.92	0.23
23	0.11	0.63	0.07	0.02	0.84	0.21
24	0.10	0.57	0.07	0.02	0.76	0.19
25	0.09	0.52	0.06	0.02	0.69	0.17
26	0.08	0.47	0.06	0.02	0.63	0.16
27	0.08	0.43	0.05	0.02	0.57	0.14
28	0.07	0.39	0.05	0.01	0.52	0.13
29	0.06	0.36	0.04	0.01	0.47	0.12
30	0.06	0.32	0.04	0.01	0.43	0.11
Total	10.44	58.80	6.87	2.21	78.32	19.58

C.7 Net Present Value (US$/ha) of high yield agricultural crop production during the 30 years period

Year	Rautahat	Bara	Parsa	Makwan	Chitwan	Nawalpa	Rupende	Palpa	Kapilbast	Arghakha	Dang	Banke	Bardia	Kailali	Kanchan	Total	Mean
1	460.40	460.40	460.40	448.04	379.09	389.63	389.63	389.63	421.04	421.04	460.66	460.66	368.47	388.10	396.26	6293.45	419.56
2	418.55	418.55	418.55	407.31	344.63	354.21	354.21	354.21	382.76	382.76	418.78	418.78	334.97	352.82	360.24	5721.32	381.42
3	380.50	380.50	380.50	370.28	313.30	322.01	322.01	322.01	347.96	347.96	380.71	380.71	304.52	320.74	327.49	5201.20	346.75
4	345.91	345.91	345.91	336.62	284.82	292.73	292.73	292.73	316.33	316.33	346.10	346.10	276.84	291.59	297.72	4728.36	315.22
5	314.46	314.46	314.46	306.02	258.93	266.12	266.12	266.12	287.57	287.57	314.64	314.64	251.67	265.08	270.65	4298.51	286.57
6	285.87	285.87	285.87	278.20	235.39	241.93	241.93	241.93	261.43	261.43	286.04	286.04	228.79	240.98	246.05	3907.74	260.52
7	259.88	259.88	259.88	252.91	213.99	219.93	219.93	219.93	237.66	237.66	260.03	260.03	207.99	219.07	223.68	3552.49	236.83
8	236.26	236.26	236.26	229.92	194.54	199.94	199.94	199.94	216.06	216.06	236.39	236.39	189.08	199.16	203.34	3229.53	215.30
9	214.78	214.78	214.78	209.02	176.85	181.76	181.76	181.76	196.42	196.42	214.90	214.90	171.89	181.05	184.86	2935.94	195.73
10	195.25	195.25	195.25	190.01	160.77	165.24	165.24	165.24	178.56	178.56	195.37	195.37	156.27	164.59	168.05	2669.04	177.94
11	177.50	177.50	177.50	172.74	146.16	150.22	150.22	150.22	162.33	162.33	177.61	177.61	142.06	149.63	152.78	2426.40	161.76
12	161.37	161.37	161.37	157.04	132.87	136.56	136.56	136.56	147.57	147.57	161.46	161.46	129.15	136.03	138.89	2205.82	147.05
13	146.70	146.70	146.70	142.76	120.79	124.15	124.15	124.15	134.16	134.16	146.78	146.78	117.41	123.66	126.26	2005.29	133.69
14	133.36	133.36	133.36	129.78	109.81	112.86	112.86	112.86	121.96	121.96	133.44	133.44	106.73	112.42	114.78	1822.99	121.53
15	121.24	121.24	121.24	117.98	99.83	102.60	102.60	102.60	110.87	110.87	121.31	121.31	97.03	102.20	104.35	1657.26	110.48
16	110.22	110.22	110.22	107.26	90.75	93.27	93.27	93.27	100.79	100.79	110.28	110.28	88.21	92.91	94.86	1506.60	100.44
17	100.20	100.20	100.20	97.51	82.50	84.79	84.79	84.79	91.63	91.63	100.25	100.25	80.19	84.46	86.24	1369.64	91.31
18	91.09	91.09	91.09	88.64	75.00	77.09	77.09	77.09	83.30	83.30	91.14	91.14	72.90	76.78	78.40	1245.13	83.01
19	82.81	82.81	82.81	80.58	68.18	70.08	70.08	70.08	75.73	75.73	82.85	82.85	66.27	69.80	71.27	1131.93	75.46
20	75.28	75.28	75.28	73.26	61.99	63.71	63.71	63.71	68.84	68.84	75.32	75.32	60.25	63.46	64.79	1029.03	68.60
21	68.44	68.44	68.44	66.60	56.35	57.92	57.92	57.92	62.58	62.58	68.47	68.47	54.77	57.69	58.90	935.48	62.37
22	62.21	62.21	62.21	60.54	51.23	52.65	52.65	52.65	56.89	56.89	62.25	62.25	49.79	52.44	53.55	850.44	56.70
23	56.56	56.56	56.56	55.04	46.57	47.86	47.86	47.86	51.72	51.72	56.59	56.59	45.27	47.68	48.68	773.12	51.54
24	51.42	51.42	51.42	50.04	42.34	43.51	43.51	43.51	47.02	47.02	51.45	51.45	41.15	43.34	44.25	702.84	46.86
25	46.74	46.74	46.74	45.49	38.49	39.56	39.56	39.56	42.75	42.75	46.77	46.77	37.41	39.40	40.23	638.95	42.60
26	42.49	42.49	42.49	41.35	34.99	35.96	35.96	35.96	38.86	38.86	42.52	42.52	34.01	35.82	36.57	580.86	38.72
27	38.63	38.63	38.63	37.59	31.81	32.69	32.69	32.69	35.33	35.33	38.65	38.65	30.92	32.56	33.25	528.05	35.20
28	35.12	35.12	35.12	34.18	28.92	29.72	29.72	29.72	32.12	32.12	35.14	35.14	28.11	29.60	30.23	480.05	32.00
29	31.93	31.93	31.93	31.07	26.29	27.02	27.02	27.02	29.20	29.20	31.94	31.94	25.55	26.91	27.48	436.41	29.09
30	29.02	29.02	29.02	28.24	23.90	24.56	24.56	24.56	26.54	26.54	29.04	29.04	23.23	24.47	24.98	396.74	26.45
Total	5280.61	5280.61	5280.61	5138.89	4348.07	4468.86	4468.86	4468.86	4829.13	4829.13	5283.63	5283.63	4226.22	4451.35	4544.94	72183.39	4812.23

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