

Table 14: District - wise distribution of Wastelands

BIHAR

Category	Araria	Aurang-abad	Banka	Begusarai	Bhabua	Bhaga-lpur	Bhojpur	Buxar	Darb-hanga	Gaya	Gopalgunj	Jamui	Jehana-bad	Katihar	Khagaria	Kishan-ganj	Lakhisarai
1	0.00	0.00	11.97	0.00	3.92	0.00	0.00	0.00	0.00	6.04	0.00	30.69	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	36.06	0.03	9.50	3.89	7.47	7.06	0.43	2.57	15.70	4.36	26.86	10.46	0.04	140.79	5.35	86.00	11.43
4	27.91	58.93	644.63	16.81	55.18	50.11	25.91	20.93	25.09	225.15	28.61	731.89	5.53	26.99	6.26	19.29	24.57
5	4.40	2.77	0.00	31.60	0.17	14.69	0.21	0.43	16.45	0.00	27.24	0.00	0.09	47.51	12.27	5.19	0.32
6	11.86	14.95	0.00	12.08	0.26	29.99	0.33	6.54	21.62	0.00	21.29	0.74	3.67	78.92	13.30	5.26	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	39.22	13.42	0.00	402.19	0.00	0.00	0.00	0.00	216.29	0.00	12.78	0.00	0.00	0.00	0.00	0.00
12	0.00	0.23	0.17	0.00	1.33	0.00	0.00	0.00	0.00	22.28	0.00	7.51	0.00	0.00	0.00	0.00	0.00
13	0.00	31.38	0.00	0.00	0.00	0.00	5.60	1.82	1.76	0.00	1.71	0.00	0.75	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	5.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.56	0.05	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.25	0.00	5.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	5.28	21.30	0.00	11.48	0.96	0.00	0.00	0.00	25.47	0.00	9.09	2.05	0.00	0.00	0.00	10.36
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	80.23	152.79	702.11	64.63	487.24	108.08	32.48	32.29	80.67	499.59	105.71	803.72	12.18	294.21	37.18	115.74	46.68
TGA	2792.00	3305.00	3018.00	1889.00	3369.00	2561.00	2474.00	1624.00	2279.00	4976.00	2033.00	3143.00	1569.00	3057.00	1482.00	1936.00	1882.00
% to TGA	2.87	4.62	23.26	3.42	14.46	4.22	1.31	1.99	3.54	10.04	5.20	25.57	0.78	9.62	2.51	5.98	2.48

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|--|--|--|----------------------------------|--------------------------------|
| 1. Gullied and/ or ravinous land (Medium) | 6. Waterlogged and Marshy land (Seasonal) | 11. Under-utilised/degraded forest (Scrub domin) | 16. Sands-Coastal | 21. Industrial wastelands |
| 2. Gullied and/ or ravinous land (Deep) | 7. Land affected by salinity/alkalinity (Medium) | 12. Under-utilised/degraded forest (Agriculture) | 17. Sands-Desertic | 22. Barren Rocky/Stony waste |
| 3. Land with Dense Scrub | 8. Land affected by salinity/alkalinity (Strong) | 13. Degraded pastures/ grazing land | 18. Sands-Semi Stab.-Stab>40m | 23. Snow covered /Glacial area |
| 4. Land with Open Scrub | 9. Shifting Cultivation - Current Jhum | 14. Degraded land under plantation crop | 19. Sands-Semi Stab.-Stab 15-40m | Total - Total Wasteland Area |
| 5. Waterlogged and Marshy land (Permanent) | 10. Shifting Cultivation - Abandoned Jhum | 15. Sands-Riverine | 20. Mining Wastelands | TGA - Total Geographical Area |

BIHAR Contd.....

Category	Mad-hepura	Madhu-bani	Munger	Muzaf-farpur	Nalanda	Nawada	Paschim Cham-paran	Patna	Purba Cham-paran	Purnia	Rohtas	Saharsa	Sam-stipur	Saran	Sitamarhi	Siwan	Supaul	Vaishali	Total
1	0.00	0.00	0.40	0.00	0.00	6.93	0.00	0.00	0.00	0.00	11.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.83
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	52.10	6.39	25.62	18.53	0.00	4.55	148.96	1.59	47.01	73.60	12.25	28.78	1.22	49.36	0.57	22.10	93.17	0.60	954.39
4	16.62	21.18	49.37	45.23	0.57	51.44	85.47	39.26	49.38	84.60	64.84	15.89	23.71	46.54	25.96	25.68	82.02	39.61	2761.16
5	1.96	5.30	1.47	81.33	0.00	0.00	8.43	1.43	32.37	11.96	0.07	17.37	14.41	129.26	5.07	114.49	14.98	91.41	694.65
6	124.02	7.39	1.44	24.44	1.30	0.00	12.04	4.52	33.74	129.17	0.51	110.63	9.01	17.30	5.25	37.78	28.31	101.75	869.40
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	1.52	0.00	0.84	0.00	0.15	3.97
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.37	95.35	199.90	0.00	0.00	0.00	219.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1198.63
12	0.00	0.00	1.13	0.00	0.00	7.63	36.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.85
13	0.00	0.00	0.00	0.00	0.00	0.00	2.61	8.19	0.00	0.00	5.29	0.03	1.49	0.00	0.00	0.00	0.00	0.00	60.63
14	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	6.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.54
15	0.00	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	1.82	0.00	0.03	0.00	6.82
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
21	0.00	0.00	0.00	0.00	0.84	0.00	0.14	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.66
22	0.00	0.00	4.01	0.00	0.49	21.65	0.00	0.00	0.00	0.00	12.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	124.35
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	194.70	42.82	83.44	170.37	3.57	187.66	494.34	54.99	163.13	299.33	333.13	172.70	49.84	243.98	38.66	200.89	218.51	233.52	6841.09
TGA	1792.00	3501.00	1397.00	3172.00	2367.00	2494.00	5228.00	3202.00	3968.00	3200.00	3844.00	1194.00	2904.00	2641.00	2643.00	2219.00	2980.00	2036.00	94171.00
% to TGA	10.86	1.22	5.97	5.37	0.15	7.52	9.46	1.72	4.11	9.35	8.67	14.46	1.72	9.24	1.46	9.05	7.33	11.47	7.26

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|--|--|--|----------------------------------|--------------------------------|
| 1. Gullied and/ or ravinous land (Medium) | 6. Waterlogged and Marshy land (Seasonal) | 11. Under-utilised/degraded forest (Scrub domin) | 16. Sands-Coastal | 21. Industrial wastelands |
| 2. Gullied and/ or ravinous land (Deep) | 7. Land affected by salinity/alkalinity (Medium) | 12. Under-utilised/degraded forest (Agriculture) | 17. Sands-Desertic | 22. Barren Rocky/Stony waste |
| 3. Land with Dense Scrub | 8. Land affected by salinity/alkalinity (Strong) | 13. Degraded pastures/ grazing land | 18. Sands-Semi Stab.-Stab>40m | 23. Snow covered /Glacial area |
| 4. Land with Open Scrub | 9. Shifting Cultivation - Current Jhum | 14. Degraded land under plantation crop | 19. Sands-Semi Stab.-Stab 15-40m | Total - Total Wasteland Area |
| 5. Waterlogged and Marshy land (Permanent) | 10. Shifting Cultivation - Abandoned Jhum | 15. Sands-Riverine | 20. Mining Wastelands | TGA - Total Geographical Area |

Figure. 21

WASTELAND MAP

2005-06

BIHAR



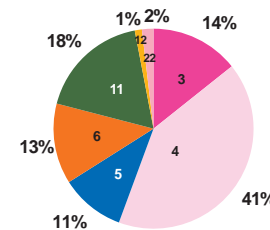
LEGEND

- Gullied/ Ravine land-Medium ravine (1)
- Gullied/Ravine land-Deep/ very deep ravine (2)
- Scrubland - Land with dense scrub (3)
- Scrubland - Land with open scrub (4)
- Waterlogged and marshy land - Permanent (5)
- Waterlogged and marshy land - Seasonal (6)
- Land Affected by Salinity/ Alkalinity - Moderate (7)
- Land Affected by Salinity/ Alkalinity - Strong (8)
- Shifting cultivation - Current jhum (9)
- Shifting cultivation - Abandoned jhum (10)
- Under-utilised Deg Notif Forest - Scrub Dom (11)
- Under- utilised Deg Notif Forest - Agriculture (12)
- Degraded Pastures/ grazing land (13)
- Degraded Land under Plantation Crop (14)
- Sands - Desert sand (15)
- Sands - Coastal sand (16)
- Sands - Riverine (17)
- Sands - Semi-stab to stab (>40m) dune (18)
- Sands-Semi-stab to stab mod high(15-40m) dune (19)
- Mining Wastelands (20)
- Industrial Wastelands (21)
- Barren rocky area (22)
- Snow cover and/ or glacial area (23)
- Non Wasteland Area
- Major Road
- Railway Line



Based on 3 season data of IRS P6
LISS III (2005-06) & Limited ground checks

Total Geog. Area (TGA) :94171.00 sq.km.
Total Wasteland Area : 6841.09 sq. km.
Wasteland Area : 7.26 %



Partner Institution:
Dept of Remote Sensing & GIS,
Birla Institute of Technology,
Mesra,
Ranchi- 835215

Coordinated by:
Land Use Division, LRG, RS & GIS - AA
National Remote Sensing Centre
ISRO, Dept. of Space, Govt of India,
Balanagar,
Hyderabad - 500625

Table 15: Bihar - Category-wise distribution and changes in wastelands

Area in sq.km.

SI	Wasteland Categories	2005-06	%	2003	%	Change	% diff
1	Gullied and/or ravinous land-Medium	71.83	0.08	135.53	0.14	-63.70	-0.07
2	Land with Dense Scrub	954.39	1.01	458.75	0.49	495.64	0.53
3	Land with Open Scrub	2761.16	2.93	325.22	0.35	2435.94	2.59
4	Waterlogged and Marshy land-Permanent	694.65	0.74	647.33	0.69	47.32	0.05
5	Waterlogged and Marshy land-Seasonal	869.40	0.92	755.88	0.80	113.52	0.12
6	Land affected by salinity/alkalinity-Moderate	0.00	0.00	76.20	0.08	-76.20	-0.08
7	Land affected by salinity/alkalinity-Strong	3.97	0.00	0.00	0.00	3.97	0.00
8	Under utilised/degraded notified forest land-Scrub dominated	1198.63	1.27	2807.69	2.98	-1609.06	-1.71
9	Under utilised/degraded notified forest land-Agriculture	76.85	0.08	51.10	0.05	25.75	0.03
10	Degraded pastures/grazing land	60.63	0.06	2.62	0.00	58.01	0.06
11	Degraded land under plantation Crops	11.54	0.01	4.87	0.01	6.67	0.01
12	Sands-Riverine	6.82	0.01	15.53	0.02	-8.71	-0.01
13	Sands-Riverine	0.00	0.00	15.30	0.02	-15.30	-0.02
14	Mining wastelands	0.22	0.00	10.84	0.01	-10.62	-0.01
15	Industrial wastelands	6.66	0.01	0.18	0.00	6.48	0.01
16	Barren rocky area	124.35	0.13	136.64	0.15	-12.29	-0.01
	Total	6841.10	7.26	5443.68	5.78	1397.42	1.48
	TGA	94171.00					