

Salient Features

- Net Increase in **wastelands area** by **41.69 sq. km.** is observed in the state
- Decrease in **shifting cultivation (current)** area by 435.20sq. km.; increase in **dense scrub area** by 430.90 sq. km.
- 306.17 sq. km. of wastelands area converted into forest dense / open contributed primarily by **land with dense scrub** (186.00 sq. km.); **land with open scrub** (65.65 sq. km.) and **shifting cultivation (abandoned)** 12.11 sq. km.
- Mokokchung district has observed decrease in Wastelands area by 133.54sq. km. with maximum decrease in **Shifting cultivation - Current and Abandoned** (337.80 sq. km.)
- Mon district has witnessed decrease in wastelands area by 37.55 sq. km. which is mainly due to reduction in Shifting cultivation – current & abandoned by 89.51 sq. km.
- Zunheboto district has an increase in wastelands area by 101.02 sq. km. due to increase in 76.06 sq.km. area in Shifting cultivation - current and abandoned.
- Tuensang district has an increase in wastelands area by 30.28 sq. km. with maximum increase in **land with open scrub** by 129.44 sq. km.

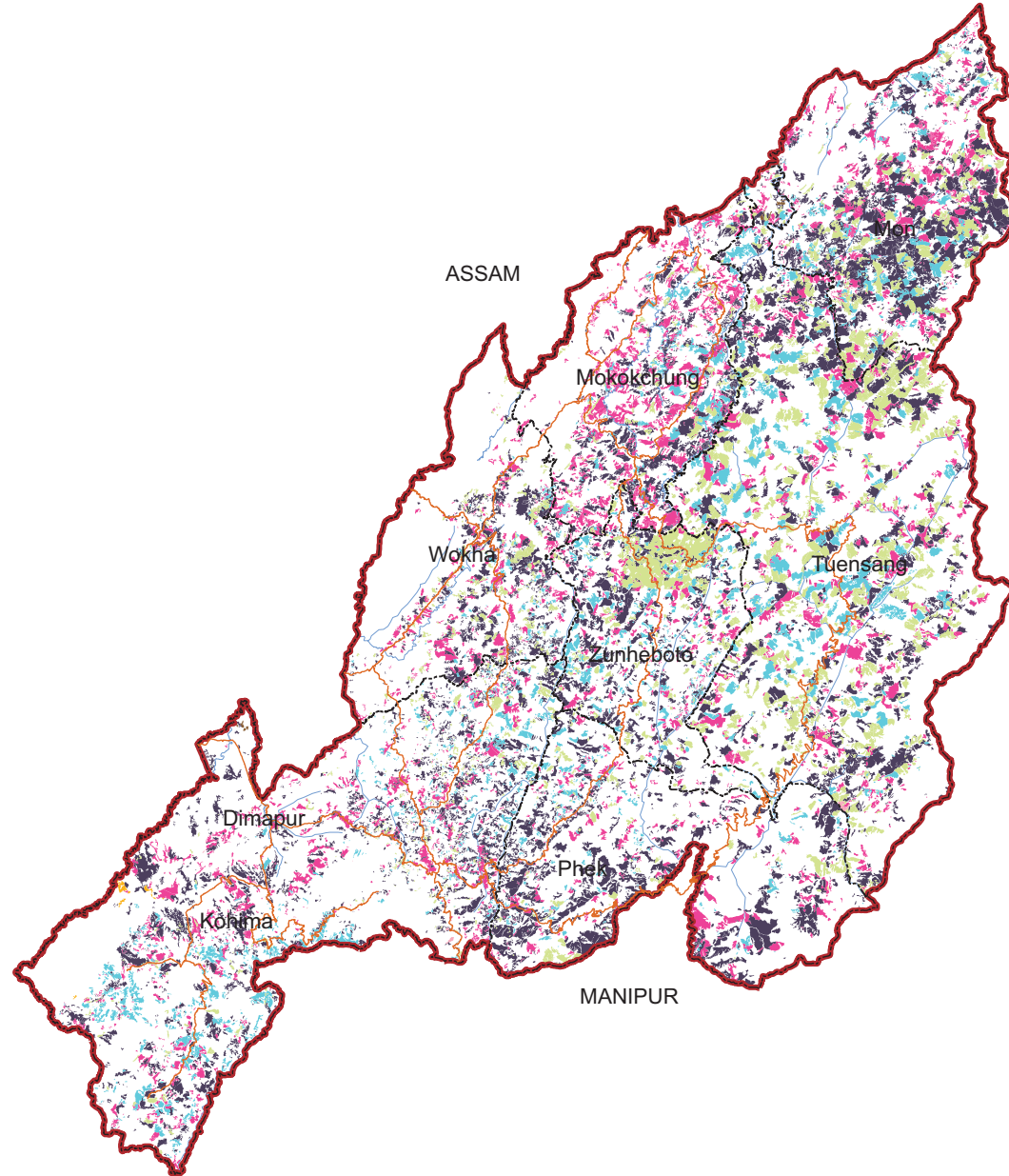
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Spatial Distribution of Wastelands 2015-16

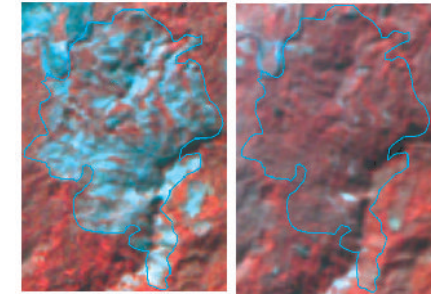


Legend

- Gullied and/ or ravinous land (Medium)
- Gullied and/ or ravinous land (Deep)
- Land with Dense Scrub
- Land with Open Scrub
- Waterlogged and Marshy land (Permanent)
- Waterlogged and Marshy land (Seasonal)
- Land Affected by salinity / alkalinity (Moderate)
- Land Affected by salinity / alkalinity (Strong)
- Shifting Cultivation - Current Jhum
- Shifting Cultivation - Abandoned Jhum
- Under-utilised/degraded forest (Scrub domin)
- Under-utilised/degraded forest (Agriculture)
- Degraded pastures/grazing land
- Degraded land under plantation crop
- Sands - Riverine
- Sands - Coastal
- Sands - Desertic
- Sands - Semi Stab:- Stab > 40m
- Sands - Semi Stab:- Stab 15-40m
- Mining Wastelands
- Industrial Wastelands
- Barren Rocky Area
- Snow Covered/ Glacial Area
- Non Wasteland Area
- Water ways
- International Boundary
- State Boundary
- District Boundary
- Railways
- Major Roads

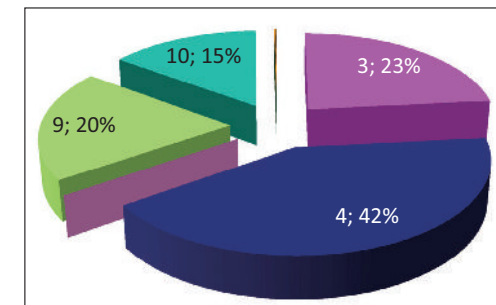


ARUNACHAL PRADESH



Lat : 26°42'33.86"N Long : 95°4'42.797"E
 District: Mon
 08-09: Current Jhum ;
 15-16: Forest

MYANMAR



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 KMs.

Partner Inst.
 Nagaland Science & Technology Council
 Science & Technology Complex,
 Below New Civil Secretariat
 Kohima – 797 001

Executed By
 Land Use & Cover Monitoring Divn.
 LRUMG, Remote Sensing Application
 National Remote Sensing Centre
 ISRO, Dept. of Space, GOI
 Balanagar, Hyderabad - 500037

Sponsored by
 Dept. of Land Resources
 Min. of Rural Development
 G - Wing, Nirman Bhawan
 GOI, New Delhi - 110 011

Total Geog. Area (TGA): 16579.00 sq. km.
 Total wasteland area : 5064.17 sq. km.
 Wasteland Percentage: 30.54

Source: Wasteland Maps: 2008-09 on 1:50,000 scale,
 Three seasons IRS P6 LISS-III data of Kharif (Oct/Nov-2015),
 Rabi (Jan/Feb-2016) and Zaid (April/May-2016) & Ground truth

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Wastelands Area Change Matrix : 2008-09 and 2015-16

Area in Sq.km

WL Categories	WL during 2008-09 remaining as WL in 2015-16								WL 2008-09 becoming non WL in 2015-16						2008-09	
	3	4	9	10	11	12	20	22	24	26	28	29	30	32	Category Total	Grand Total
3	602.92	1.54	91.64				0.10		2.09	0.27	0.42	186.00	0.00		884.97	5105.86
4	459.79	1128.15	227.10	1.07			0.55		5.33	4.87		65.65	1.68		1894.19	
9	116.84	447.57	198.96	588.99					9.44	10.29		42.42			1414.53	
10	136.32	500.45	161.47	90.59					1.96	0.07		12.11	0.11		903.09	
11					0.01							0.00			0.01	
12						1.59							0.04		1.63	
20							3.92								3.92	
22								3.53							3.53	
999			300.16	0.55			0.36									
Category Total (2015-16)	1315.87	2077.72	979.33	681.21	0.01	1.59	4.92	3.53	18.82	15.51	0.42	306.17	1.69	0.15		
Grand Total (2015-16)	5064.17															

WL Category	Reduction from 0809 to 1516		Increase from 0809 to 1516	
	Area	No of polygons	Area	No of polygons
3	188.78	508		
4	77.53	251		
9	62.16	218	300.16	668
10	14.25	46	0.55	2
11		2		
12	0.04	1		
20			0.36	1
22				
Total	342.77	1026	301.07	671

Wastelands becoming Non-wastelands (-) **342.77**
 Non-wastelands becoming Wastelands (+) **301.07**
 NET Change (2015 - 16)- (2008 - 09) (-) **41.688**

Green denotes Change from wasteland to non-wasteland
Red denotes change from non-wasteland to wastelands
Blue denotes no change in the wasteland category
 2008 - 09 Wastelands statistics are revised version.
 Area under category total is rounded to nearest decimal.

Wasteland Classes	Non-Wasteland Classes
1. Gullied and/ or ravinous land (Medium)	17. Sands-Desertic
2. Gullied and/ or ravinous land (Deep)	18. Sands-Semi Stab.-Stab>40m
3. Land with Dense Scrub	19. Sands-Semi Stab.-Stab 15-40m
4. Land with Open Scrub	20. Mining Wastelands
5. Waterlogged and Marshy land (Permanent)	21. Industrial wastelands
6. Waterlogged and Marshy land (Seasonal)	22. Barren Rocky/Stony waste
7. Land affected by salinity/alkalinity (Medium)	23. Snow covered /Glacial area
8. Land affected by salinity/alkalinity (Strong)	999. Non-Wasteland Area
9. Shifting Cultivation - Current Jhum	24. Built-up
10. Shifting Cultivation - Abandoned Jhum	25. Industrial Area
11. Under-utilised/degraded forest (Scrub domin)	26. Cropland
12. Under-utilised/degraded forest (Agriculture)	27. Fallow Land
13. Degraded pastures/ grazing land	28. Plantation
14. Degraded land under plantation crop	29. Forest-Dense/Open
15. Sands-Riverine	30. Forest Plantation
16. Sands-Coastal	31. Grasslands
	32. Waterbodies

Nagaland

Wastelands Area Changes – 2008-09 and 2015-16

District	WL_Class	1	2	3	4	5	6	7	8	9	10	11
Dimapur	2008-09	--	--	118.95	147.36	--	--	--	--	17.11	17.45	--
	2015-16	--	--	124.63	155.09	--	--	--	--	5.65	10.93	--
	Change	--	--	5.68	7.73	--	--	--	--	-11.46	-6.52	--
Kohima	2008-09	--	--	40.71	68.27	--	--	--	--	67.51	30.49	0.01
	2015-16	--	--	50.78	95.25	--	--	--	--	14.94	47.13	0.01
	Change	--	--	10.07	26.98	--	--	--	--	-52.57	16.64	0.00
Mokokchung	2008-09	--	--	204.29	331.37	--	--	--	--	239.99	327.82	0.00
	2015-16	--	--	449.02	326.85	--	--	--	--	75.44	118.57	--
	Change	--	--	244.73	-4.53	--	--	--	--	-164.55	-209.25	--
Mon	2008-09	--	--	78.95	353.90	--	--	--	--	217.46	114.05	--
	2015-16	--	--	142.01	342.73	--	--	--	--	174.37	67.63	--
	Change	--	--	63.06	-11.17	--	--	--	--	-43.09	-46.42	--
Phek	2008-09	--	--	72.19	327.36	--	--	--	--	54.02	91.67	--
	2015-16	--	--	106.35	355.66	--	--	--	--	48.06	37.07	--
	Change	--	--	34.16	28.31	--	--	--	--	-5.96	-54.60	--
Tuensang	2008-09	--	--	239.13	341.70	--	--	--	--	635.27	270.00	--
	2015-16	--	--	284.72	471.14	--	--	--	--	467.48	292.19	--
	Change	--	--	45.59	129.44	--	--	--	--	-167.80	22.18	--
Wokha	2008-09	--	--	85.94	137.18	--	--	--	--	74.17	6.61	--
	2015-16	--	--	85.98	146.56	--	--	--	--	52.68	18.35	--
	Change	--	--	0.05	9.38	--	--	--	--	-21.49	11.74	--
Zunheboto	2008-09	--	--	44.81	187.05	--	--	--	--	108.99	45.01	--
	2015-16	--	--	72.38	184.44	--	--	--	--	140.71	89.34	--
	Change	--	--	27.57	-2.61	--	--	--	--	31.72	44.34	--
Grand Total	2008-09	--	--	884.97	1894.19	--	--	--	--	1414.53	903.09	0.01
	2015-16	--	--	1315.87	2077.72	--	--	--	--	979.33	681.21	0.01
	Change	--	--	430.90	183.53	--	--	--	--	-435.20	-221.88	0.00

Note: "--" Denotes this Class is not existing in the District / State

2008-09 Wastelands statistics are revised version.

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| 1. Gullied and/ or ravinous land (Medium) | 7. Land affected by salinity/alkalinity (Medium) |
| 2. Gullied and/ or ravinous land (Deep) | 8. Land affected by salinity/alkalinity (Strong) |
| 3. Land with Dense Scrub | 9. Shifting Cultivation - Current Jhum |
| 4. Land with Open Scrub | 10. Shifting Cultivation - Abandoned Jhum |
| 5. Waterlogged and Marshy land (Permanent) | 11. Under-utilised/degraded forest (Scrub domin) |
| 6. Waterlogged and Marshy land (Seasonal) | 12. Under-utilised/degraded forest (Agriculture) |

Area in sq.km

12	13	14	15	16	17	18	19	20	21	22	23	Total	TGA
0.04	--	--	--	--	--	--	--	2.09	--	0.21	--	303.22	1786
0.00	--	--	--	--	--	--	--	2.09	--	0.21	--	298.61	
-0.04	--	--	--	--	--	--	--	0.00	--	0.00	--	-4.61	
1.59	--	--	--	--	--	--	--	0.14	--	0.35	--	209.06	950
1.59	--	--	--	--	--	--	--	0.14	--	0.35	--	210.18	
0.00	--	--	--	--	--	--	--	0.00	--	0.00	--	1.12	
--	--	--	--	--	--	--	--	0.12	--	--	--	1103.60	3091
--	--	--	--	--	--	--	--	0.19	--	--	--	970.06	
--	--	--	--	--	--	--	--	0.06	--	--	--	-133.54	
--	--	--	--	--	--	--	--	0.00	--	--	--	764.36	1615
--	--	--	--	--	--	--	--	0.08	--	--	--	726.81	
--	--	--	--	--	--	--	--	0.08	--	--	--	-37.55	
--	--	--	--	--	--	--	--	--	--	1.44	--	546.68	2026
--	--	--	--	--	--	--	--	--	--	1.44	--	548.59	
--	--	--	--	--	--	--	--	--	--	0.00	--	1.91	
--	--	--	--	--	--	--	--	1.56	--	1.53	--	1489.19	4228
--	--	--	--	--	--	--	--	2.42	--	1.53	--	1519.47	
--	--	--	--	--	--	--	--	0.87	--	0.00	--	30.28	
0.00	--	--	--	--	--	--	--	--	--	--	--	303.89	1628
0.00	--	--	--	--	--	--	--	--	--	--	--	303.58	
0.00	--	--	--	--	--	--	--	--	--	--	--	-0.32	
--	--	--	--	--	--	--	--	--	--	--	--	385.85	1255
--	--	--	--	--	--	--	--	--	--	--	--	486.87	
--	--	--	--	--	--	--	--	--	--	--	--	101.02	
1.63	--	--	--	--	--	--	--	3.92	--	3.53	--	5105.86	16579
1.59	--	--	--	--	--	--	--	4.92	--	3.53	--	5064.17	
-0.04	--	--	--	--	--	--	--	1.00	--	0.00	--	-41.69	

TGA - Total Geographical Area

13. Degraded pastures/ grazing land	19. Sands-Semi Stab.-Stab 15-40m
14. Degraded land under plantation crop	20. Mining Wastelands
15. Sands-Riverine	21. Industrial wastelands
16. Sands-Coastal	22. Barren Rocky/Stony waste
17. Sands-Desertic	23. Snow covered /Glacial area
18. Sands-Semi Stab.-Stab>40m	

