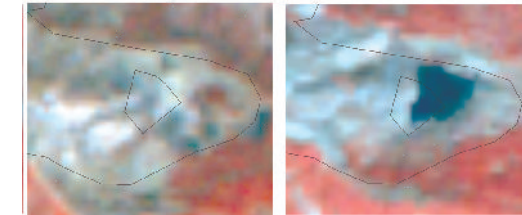


Salient Features

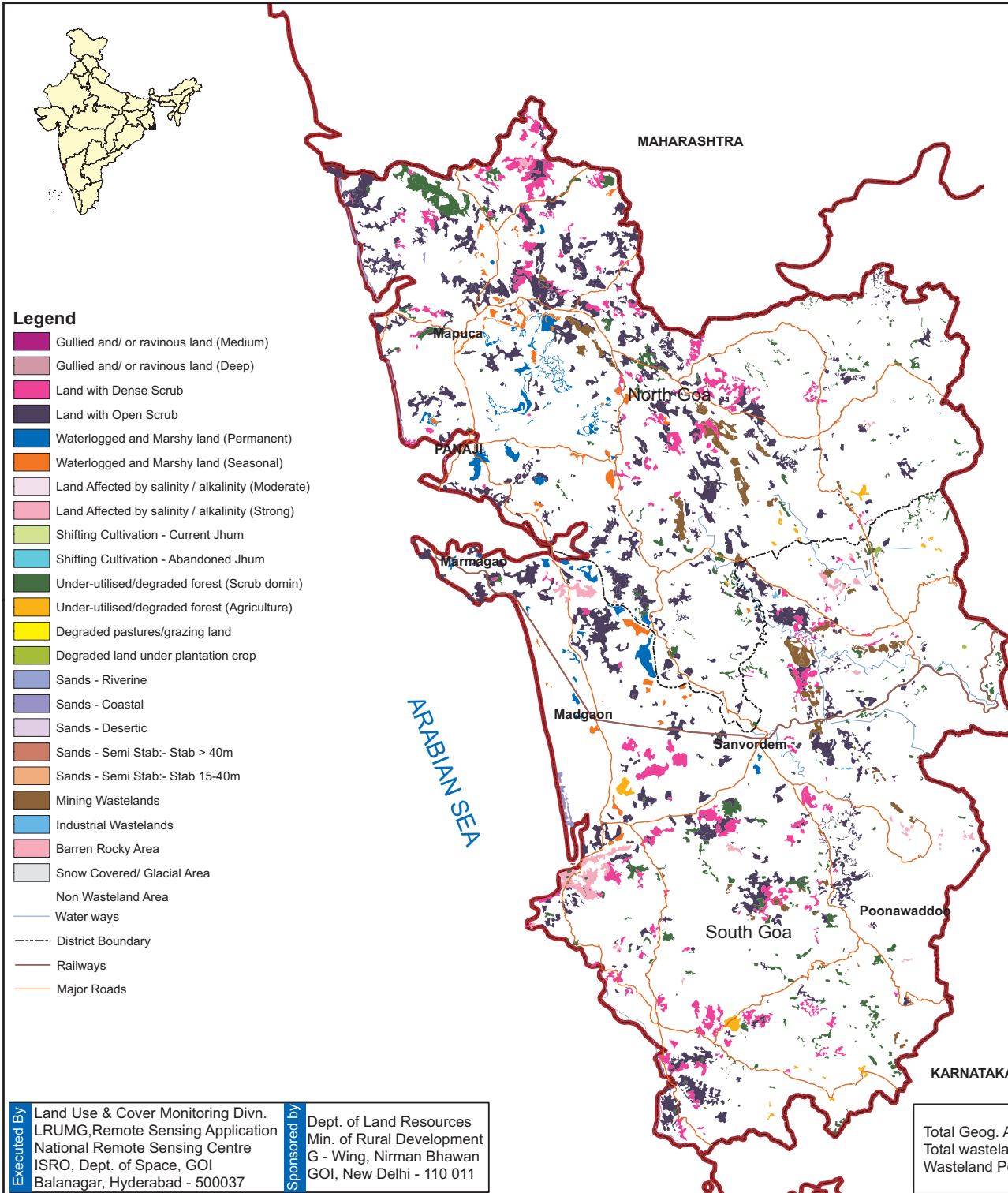
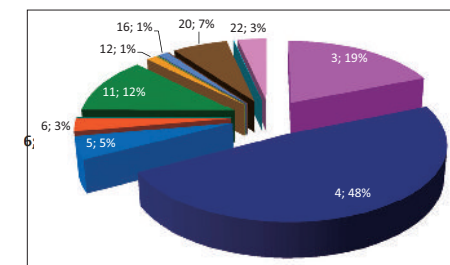
- Slight increase in area under wastelands by 1.11sq. km.
- North Goa district witnessed net decrease in wastelands by 2.28 sq. km.; Area with **open scrub land** category reduced by 4.33 sq. km.
- Slight increase in wastelands area (Dense Scrub) to the tune of 3.39 sq. km.in South Goa.
- 2 sq. km. of **land with open scrub** converted to cropland i.e., Wastelands to Non- Wasteland.



GOA Spatial Distribution of Wastelands 2015-16



Lat : 15°31'16.11"N Long : 74°3'44.5"E,
District : North - Goa
08-09 : Dense Scrub; 15-16 : Water bodies



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
- District Boundary
- Railways
- Major Roads

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): 3702.00 sq. km.
Total wasteland area : 515.66 sq. km.
Wasteland Percentage: 13.93

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

GOA
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	5	6	11	12	14	16	20	21	22	25	26	29	Category Total	Grand Total
3	80.11	1.91							0.06			0.06			82.14	514.55
4	17.47	245.31											2.00		264.78	
5			25.46												25.46	
6				13.98											13.98	
11					63.59									0.28	63.87	
12						6.34									6.34	
14							0.50								0.50	
16								6.35							6.35	
20		0.45							32.60						33.05	
21										0.39					0.39	
22											17.71				17.71	
999		1.88		0.61					0.97							
Category Total (2015-16)	97.58	249.55	25.46	14.58	63.59	6.34	0.50	6.35	33.62	0.39	17.71	0.06	2.00	0.28		
Grand Total (2015-16)	515.66															

WL Category	Reduction from 0809 to 1516		Increase from 0809 to 1516	
	Area	No of polygons	Area	No of polygons
3	0.06	1		
4	2.00	1	1.88	5
5				
6			0.61	2
11	0.28	1		
12				
14				
16				
20			0.97	2
21				
22				
Total	2.34	3	3.45	9

Wastelands becoming Non-wastelands (-) **2.34** **Green** denotes Change from wasteland to non-wasteland
 Non-wastelands becoming Wastelands (+) **3.45** **Red** denotes change from non-wasteland to wastelands
 NET Change (2015 - 16)- (2008 - 09) (+) **1.11** **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)	9. Shifting Cultivation - Current Jhum	17. Sands-Desertic	24. Built-up	25. Industrial Area	26. Cropland
2. Gullied and/ or ravinous land (Deep)	10. Shifting Cultivation - Abandoned Jhum	18. Sands-Semi Stab.-Stab>40m	27. Fallow Land	28. Plantation	29. Forest-Dense/Open
3. Land with Dense Scrub	11. Under-utilised/degraded forest (Scrub domin)	19. Sands-Semi Stab.-Stab 15-40m	30. Forest Plantation	31. Grasslands	32. Waterbodies
4. Land with Open Scrub	12. Under-utilised/degraded forest (Agriculture)	20. Mining Wastelands			
5. Waterlogged and Marshy land (Permanent)	13. Degraded pastures/ grazing land	21. Industrial wastelands			
6. Waterlogged and Marshy land (Seasonal)	14. Degraded land under plantation crop	22. Barren Rocky/Stony waste			
7. Land affected by salinity/alkalinity (Medium)	15. Sands-Riverine	23. Snow covered /Glacial area			
8. Land affected by salinity/alkalinity (Strong)	16. Sands-Coastal	999. Non-Wasteland Area			

Goa

Wastelands Area Changes – 2008-09 and 2015-16

District	WL_Class	1	2	3	4	5	6	7	8	9	10	11	12	13
North Goa	2008-09	--	--	44.35	154.75	16.30	9.81	--	--	--	--	33.67	1.57	--
	2015-16	--	--	46.71	150.42	16.30	9.81	--	--	--	--	33.39	1.57	--
	Change	--	--	2.36	-4.33	0.00	0.00	--	--	--	--	-0.28	0.00	--
South Goa	2008-09	--	--	37.79	110.02	9.16	4.17	--	--	--	--	30.19	4.77	--
	2015-16	--	--	50.87	99.13	9.16	4.77	--	--	--	--	30.19	4.77	--
	Change	--	--	13.08	-10.90	0.00	0.61	--	--	--	--	0.00	0.00	--
Grand Total	2008-09	--	--	82.14	264.78	25.46	13.98	--	--	--	--	63.87	6.34	--
	2015-16	--	--	97.58	249.55	25.46	14.58	--	--	--	--	63.59	6.34	--
	Change	--	--	15.44	-15.23	0.00	0.61	--	--	--	--	-0.28	0.00	--

Goa contd...

Wastelands Area Changes – 2008-09 and 2015-16

Area in sq.km

District	WL_Class	14	15	16	17	18	19	20	21	22	23	Total	TGA
North Goa	2008-09	--	--	3.14	--	--	--	17.31	--	1.12	--	282.02	1733
	2015-16	--	--	3.14	--	--	--	17.28	--	1.12	--	279.74	
	Change	--	--	0.00	--	--	--	-0.03	--	0.00	--	-2.28	
South Goa	2008-09	0.50	--	3.20	--	--	--	15.74	0.39	16.59	--	232.53	1969
	2015-16	0.50	--	3.20	--	--	--	16.34	0.39	16.59	--	235.92	
	Change	0.00	--	0.00	--	--	--	0.60	0.00	0.00	--	3.39	
Grand Total	2008-09	0.50	--	6.35	--	--	--	33.05	0.39	17.71	--	514.55	3702
	2015-16	0.50	--	6.35	--	--	--	33.62	0.39	17.71	--	515.66	
	Change	0.00	--	0.00	--	--	--	0.58	0.00	0.00	--	1.11	

TGA - Total Geographical Area

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