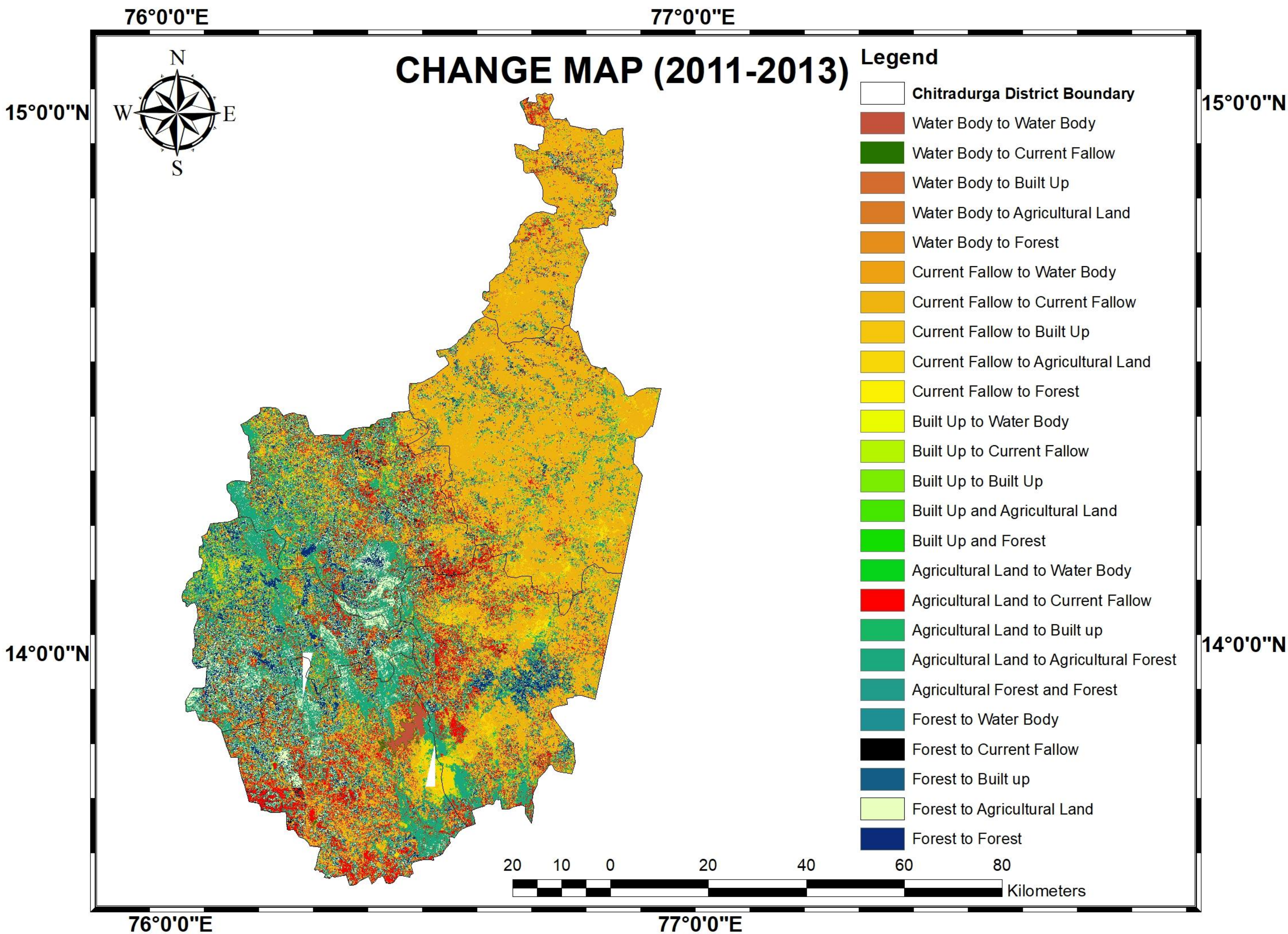


Title: Land Use and Land Cover Change Map of Chitradurga (2011-13)

Map description and analysis



Introduction:

Land use and land cover change is a general term for the human modification of Earth's terrestrial surface. Though humans have been modifying land to obtain food and other essentials for thousands of years, current rates, extents and intensities of change are far greater than ever in history, driving unprecedented changes in ecosystems and environmental processes at local, regional and global scale.

About Map:

Change map is showing 25 classes, showing changes in features from 2011 to 2013. Red colour is showing agricultural land converted into fallow lands. Centre, eastern and southern portion are having patches of red colours. Dark green colour is showing water body is changed to fallow land. Boundary of lake (South) is having dark green colour. Some forest areas are also converted into agricultural land.. It is quite visible that water bodies, forest and agricultural lands are negatively changed. As a result fallow land is having positive change. Kappa Statistics means level of agreement and as per the result, the overall kappa is 0.96 which mean there is high level of agreement.

Conclusion:

As a conclusion, I would say that due to insufficient rainfall Chitradurga district is facing drought condition since 2001. It leads to the negative impact on land use land cover features. Fallow land / Barren land is increasing at the cost of agricultural land, water body and forest.

% of Correctness	98.15729
Kappa (overal)	0.96850
Kappa (histo)	0.96856
Kappa (loc)	0.99994

	Class color	2011	2013	Δ	2011 %	2013 %	Δ %
Water Body		58.53 sq. km.	32.89 sq. km.	-25.64 sq. km.	0.724066297181	0.40690316916	-0.317163128022
Current Fallow		3610.23 sq. km.	4245.67 sq. km.	635.44 sq. km.	44.6625941463	52.523632472	7.86103832568
Built up		313.80 sq. km.	356.12 sq. km.	42.32 sq. km.	3.88210296323	4.40565705186	0.523554088639
Agricultural Land		3131.89 sq. km.	2860.65 sq. km.	-271.23 sq. km.	38.7449064733	35.3894639847	-3.35544248855
Forest		968.90 sq. km.	588.01 sq. km.	-380.89 sq. km.	11.98633012	7.27434332224	-4.71198679775

Data courtesy: BHUVAN

Software
Used – QGIS

Team Name: Nature Restorer

Topic: LULC Change Map

Team member/lead: Kumar Ranjan

Data Used – LISS 3

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