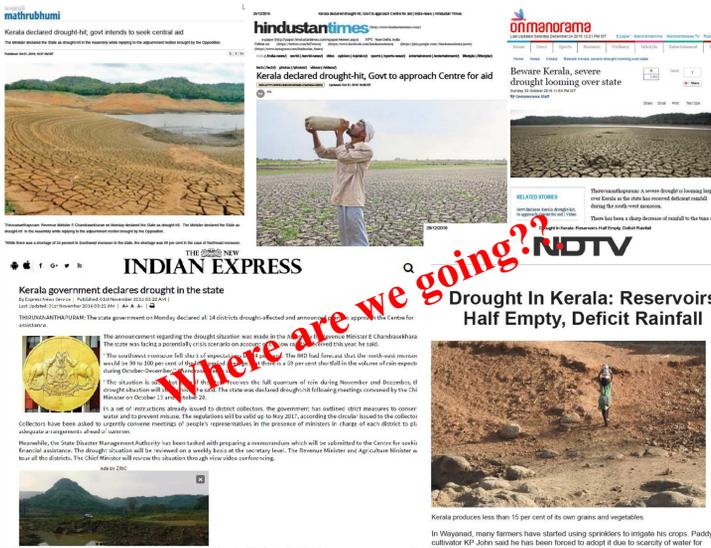


FOUR DECADES OF FOREST LOSS → DROUGHTS IN KERALA

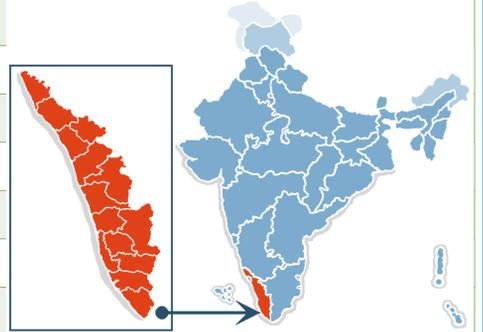
Energy and Wetland Research Group, Centre for Ecological Sciences,
Indian Institute of Science, Bangalore; Web: Url: <http://wgbis.ces.iisc.ernet.in/energy/>



The state of Kerala has been gifted with vibrant climate and vivacious geological features to support different types of ecosystems. Blessed with such a great diversity in the State's

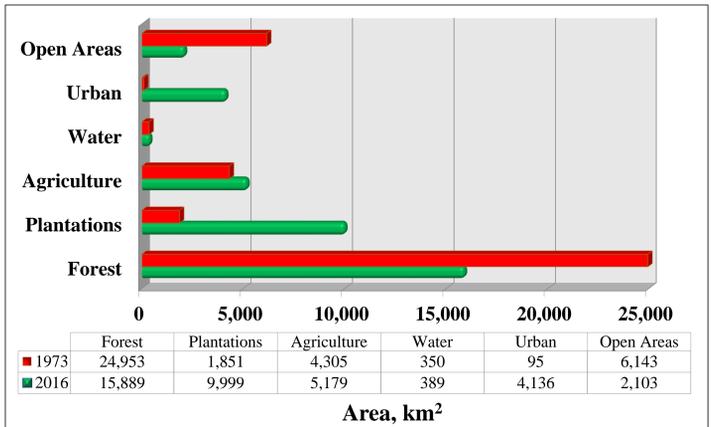
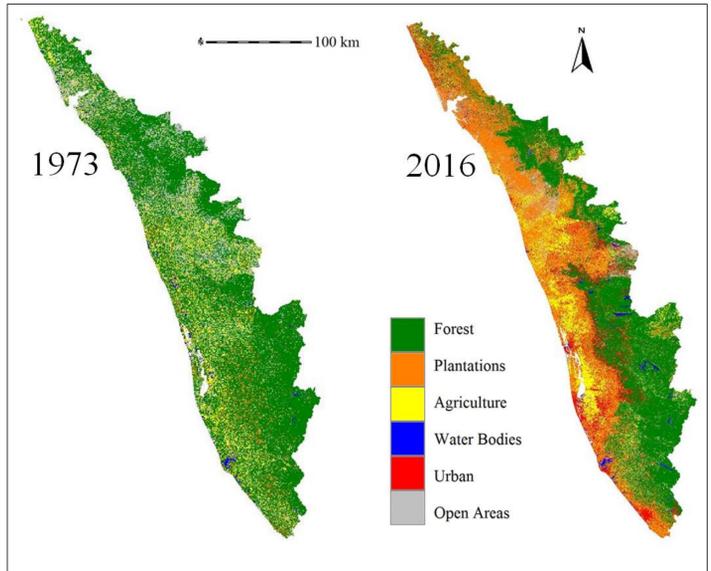
Kerala - Geography and Demography

Latitude	8°18' to 12°48' N
Longitude	74°52' and 77°22' E
Language	Malayalam
Area	38,863 km ²
Elevation	2,695 m to -2.2 m
Population	33,387,677 (2011)
Annual Rainfall	2,923.4 mm



physical settings, it is no surprise that the urban population of Kerala has registered a huge growth over the last few decades. This has given rise to several changes within the state, demographic as well as economic. What started with a gentle push from the government policies set in place in the 1940s received a further lunge due to a shift from food crops towards export-oriented crops in the 1960s. Kerala has been the subject of various changes in development patterns over the past few decades. Increasing urbanization rates require access to more free land for development, which has become detrimental to our existing forest cover.

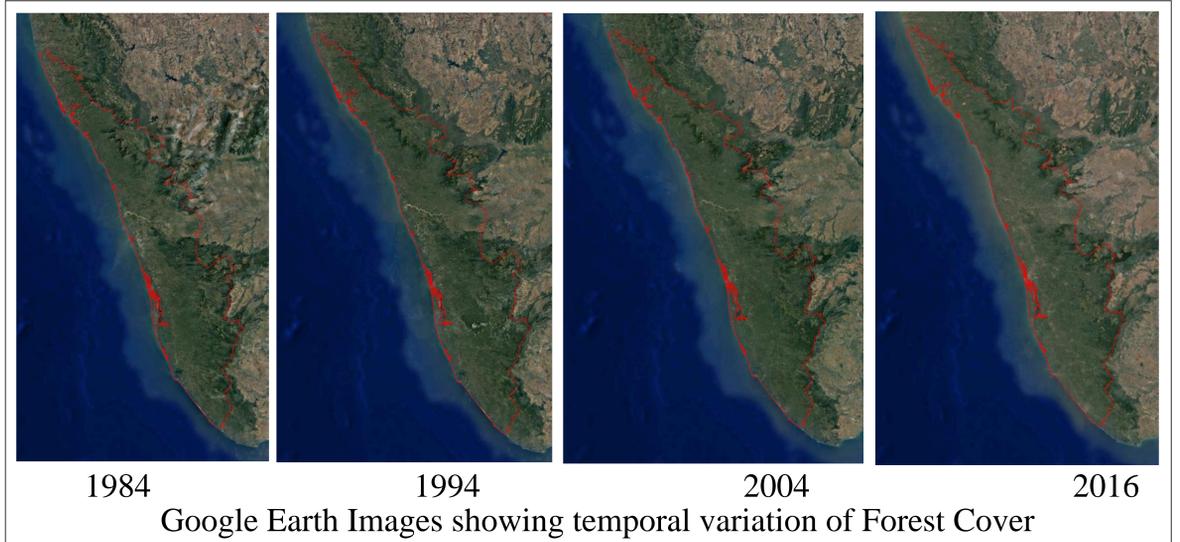
LAND USE DYNAMICS OF KERALA



Temporal variation of Land Use in Kerala (Area covered shown below chart, in km²)



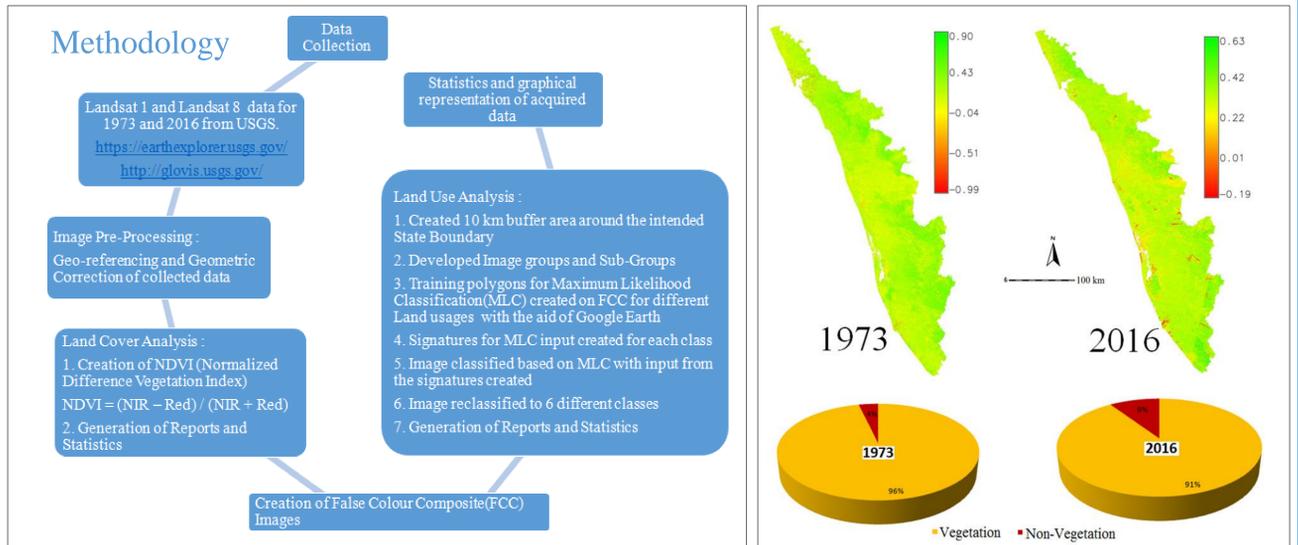
Images showing rapid urbanization of two sites from 2003 to 2016 (Centre image shows emerging built up areas in red)



Google Earth Images showing temporal variation of Forest Cover

Evidence of deforestation, although not available on paper, is widely visible and rings a warning bell against the unsustainable use of land in the state. Another factor that put the cogs of deforestation in motion is interregional migration within the state, leading to an imbalance in ecology. Rapid urbanization with a high % of urban population of 47.72%, also encourages acquiring more agricultural or forest land near the urban centres, thus catapulting the process of deforestation even more.

LAND COVER DYNAMICS



CONCLUSION: Change in land use patterns and urbanization leads to several undesirable conditions within the state. The state of Kerala receives orographic rainfall which depends on the Western Ghats. Loss of forest cover on the Ghats could affect the rainfall patterns in such a case. A reduction in forest cover even results in flash floods with no forest cover to arrest the intensity of runoff. Due to the run-off water facilitating erosion of top soil, silting happens in dam reservoirs which could count towards a noted average reduction of 22% in State's dams' water storage compared to last year September. This could indeed point us in the right direction as to why the state is witnessing one of its worst drought/ periods till date.

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