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ABSTRACT:

Mangrove, the intertidal halophytic vegetation, are one of the most significant and diverse ecosystem in the world. They protect the coast from sea erosion and other natural disasters like tsunami and cyclone. In view of their increased destruction and degradation in the current scenario, mapping of this vegetation is at priority. Globally researchers mapped mangrove vegetation using visual interpretation method or digital classification approaches or a combination of both (hybrid) approaches using varied spatial and spectral data sets. In the recent past techniques have been developed to extract these coastal vegetation automatically using varied algorithms. In the current study we tried to delineate mangrove vegetation using LISS III and Landsat 8 data sets for selected locations of Andaman and Nicobar islands. Towards this we made an attempt to use segmentation method, that characterize the mangrove vegetation based on their tone and the texture and the pixel based classification method, where the mangroves are identified based on their pixel values. The results obtained from the both approaches are validated using maps available for the region selected and obtained better accuracy with respect to their delineation. The main focus of this paper is simplicity of the methods and the availability of the data on which these methods are applied as these data (Landsat) are readily available for many regions. Our methods are very flexible and can be applied on any region.

Link- http://www.int-arch-photogramm-remote-sens-spatial-inf-sci.net/XLI-B8/555/2016/