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CHANGE DETECTION OF THE SUNDARBAN PART OF BANGLADESH USING REMOTE SENSING AND GIS TECHNIQUES WITH MACHINE LEARNING ALGORITHMS

Abstract

Sundarbans, the world largest mangrove ecosystem is experiencing a multidimensional threat of degradation. The present study was aimed to understand these problems and search for proper remedies by applying suitable remote sensing technologies. This study aims to examine the landcover changes and quantifying the changes and present status of mangrove forest in the Bangladesh part of Sundarbans by using multitemporal Landsat data. The analysis shows the superabundant growth of the buildup areas near the reserve forest area where the classified maps have been assessed through different classification methods. Based on analyzed data, the result shows and predict the expected urban growth, deforestation rate and compare its performance based on different machine learning algorithms. The experimental result indicates and aims to provide an idea about theforest cover whichis constantly evolving due to deforestation, aggradation, erosion, and forest restoration programs in the reserve forest of Sundarbans.