

An Integrated Geospatial Approach to Mangrove Forest Mapping in Trinidad and Tobago Using High-Resolution Aerial Photography and Sentinel-2 Satellite Imagery

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Mangroves play an integral part in ecosystem services while providing numerous socio-economic benefits, however, they are under imminent threat from climatic and anthropogenic forces. Monitoring plays an important role in mangrove conservation and the advancement of GIS has allowed for geospatial mapping to aid in these conservation strategies, due to its high accuracy.

Geospatial mapping was utilized to monitor mangroves in Trinidad and Tobago and was able to precisely determine total mangrove forest loss and identify dominant mangrove types. This allows for the effective implementation of conservation strategies and aids in policy development, which is especially important given the vulnerability of mangroves in Trinidad and Tobago as well as the Caribbean.

What's Next:

Widescale implementation of geospatial mapping for mangrove monitoring in Trinidad and Tobago as well as the wider region needs to be prioritized. This method allows for accurate and time effective assessments of mangrove conditions to be done, which can be the difference between a successful rehabilitation or complete loss of a mangrove ecosystem.