

# Abstract

## **Assessing Biodiversity Threat in Sundarban Biosphere Reserve Using GIS and Satellite Imagery**

**Track:** Forestry, Wildlife, and Fisheries Management

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This paper presents the use of GIS and remote sensing for the assessment of temporal forest cover change in Sundarban region. The Sundarban is the worlds largest mangrove forest, located along the Bay of Bengal, which extends over 10,000 sq. km. in Bangladesh and India. This biosphere reserve has a globally significant ecosystem with rich biodiversity. Time series satellite data (1977-2000) over Sundarban explores how high population pressure and exceptional growth of shrimp culture become threats to the mangrove ecosystem. ERDAS IMAGINE image processing and ESRI's ArcGIS are used to process and analyze satellite images (Landsat, ASTER) and other vector data. A series of themes analyzes the vulnerability of mangrove forest with the effectiveness of remote sensing. Status, trends, a review of techniques and issues will be presented.

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