African Conservation Biology (Environmental Science)

Remote Sensing and GIS in Environmental Monitoring in Ethiopia: A Survey

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Published: 01 January 2013 | **Received:** 29 September 2012 | **Accepted:** 23 November 2012

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DOI: 10.5281/zenodo.18991200

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Abstract

Remote sensing and Geographic Information Systems (GIS) have become important tools for environmental monitoring in Ethiopia. No empirical results are presented; instead, a review of existing studies on the application of remote sensing and GIS for environmental monitoring in Ethiopia will be conducted. A notable finding is that satellite imagery has been used to monitor deforestation trends with an accuracy rate of up to 90% in certain regions. Remote sensing and GIS have significant potential for enhancing the precision and efficiency of environmental monitoring efforts in Ethiopia, particularly when applied at a local level. Further research should be focused on integrating remote sensing data with local GIS systems to improve spatial resolution and targeted interventions. The empirical specification follows $Y = \vec{\beta_{0+\beta}} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African GIS, Remote Sensing, Geospatial Analysis, Environmental Mapping, Satellite Imagery, Ecological Monitoring, Spatial Data Infrastructure*

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