

Meeting the Needs of Sustainable Land Management (SLM) in Africa Through Utility of Open-source Geospatial Infrastructure for Urban Growth Assessment

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SUMMARY

Sustainable land management in Africa has attracted a flurry of discussions and international collaboration. Still, the recent increases in the magnitude and trajectory of urban area and the data relating to poverty incidences, food insecurity, and socio-economic quandaries suggest that sustainable land management in Africa is far from reality. A major reason for this situation is the lack of data to delineate accurately the actual status of land resources in the region and to predict future scenarios vis-à-vis increasing human population and climate vagaries. Recently, there have been an upsurge of interest in the development and availability of open-source geospatial data and associated tools. However, the precise location of these datasets, their potential, usability and parametric issues linger within the environmental sciences and land management literature. This study attempts to throw light on these issues, using an integrated approach. First, it outlines the sources, prospects and limitations of geospatial resources that are currently available at no cost for land resources management in Africa. Then it uses one of these resources to assess the urban growth in Lagos, Nigeria, which represents a major city in Africa with rapid urban growth. This research highlights the usefulness of open sources geospatial datasets for land management in data poor locations such as Africa. Although a major null hypothesis exists regarding the spatial processes which cause urban growth in Africa. These data sets can only converge to randomness. This research is of significant importance to urban planners and policy makers towards sustainable land resources management in Africa.

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