GSDI-9 Conference Proceedings, 6-10 November 2006, Santiago, Chile

The Applications of Geospatial Information Technology in Land Management: A Case Study of Lagos, Nigeria

Albert Osei
Department of Mathematics and Computer Sciences, Oakwood College. 7000 Adventist Blvd. Huntsville, AL 35896, U.S.A. Tel: 256-726-7269, Fax: 256-726-7267. Email: osei@oakwood.edu

Edmund C. Merem
Department of Urban and Regional Planning, Jackson State University, 3825 Ridgewood Road, Jackson, MS 39211 USA, Tel: 601-432-6856, Fax: 601-432-6862. Email: edmund.c.merem@jsums.edu

Yaw A. Twumasi
Center for Hydrology, Soil Climatology, and Remote Sensing. Department of Plant and Soil Science. P.O. Box 1208. Alabama A&M University, Normal, AL 35762, U.S.A.
Tel: 256-372-8021, Fax: 256-372-5429. E-mail: yaw.twumasi@email.aamu.edu

Abstract

In the past several decades, Lagos Metropolis emerged as one of the fastest urbanizing cities in the West African Sub-region. In the absence of a regular use of information management systems, limited effort had been made to keep track of change in the rapidly growing city for policy making in land administration. The ubiquitous energy radiated by the rapid urbanization rate in the area not only created unprecedented consequences by diminishing the quality of the environment but it raises serous implications for land management in the region. The factors fuelling the land crisis in the area which are not far fetched consists of socio-economic, ecological and policy elements. To tackle these issues in a mega city, up-to-date knowledge would be required to capture and analyze land information in order to control city's expansion as well as infrastructure development and make well-motivated choices in planning and (spatial) designs. This study investigates the implications of the rapid expansion of metropolitan Lagos for land management using Geographic Information Systems (GIS) and Remote Sensing technology. These tools could provide a major tool for enabling planners and policy-makers to improve land administration by sharpening their competence in decision-making.

Keywords: Urbanization, Land Management and Administration, GIS and Remote Sensing