

Generating Automated Land Use Taxes in Kano State, Nigeria Using Cadastral Records and Geospatial Information System

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Key words: Cadastre; e-Governance; Geoinformation/GI; Implementation of plans; Land management; Property taxes; Spatial planning; Land parcel; Land use tax; Land record; Spatial display; Python programming; Spatial database; Kano

SUMMARY

Tax collection on Land uses is one of the tangible ways a government can generate revenue to enhance good governance and the development of infrastructures for its citizens. Kano municipal is one of the most populous and commercial hubs in Nigeria, as such, there have been a lot of business activities taking place, which are spatially related to land records. The collection of land use taxes in the area using the existing method has been tedious, slow, time-consuming, and prone to errors and corruption, among other things. Therefore, to improve on the existing method, there was a need to adopt a science-based approach using cadastral records available in the State Land Bureau for Land Management and Kano State Office of Surveyor General. This paper explained how the cadastral survey records were utilized to generate land use charges for various land use categories using classified python programming codes and geoprocessing technology in the ArcGIS software environment. The technology involved the use of land parcel database attributes like size, location, land use type, ownership, and rate per square to assign recommended or exact land use tax ideal for each land record and to produce output by way of spatial display of the property as a map template as well as attribute information attached to the land parcel. The system also incorporated the recovery of previous years' unpaid tax charges in case of nonpayment and added them to the current year's bills. It is however programmed to accommodate changes in rates of tax charges and updates for every incoming year. Adoption of this new method of land use tax collection has since its inception witnessed an upward inflow of land revenue generation in the Kano State Bureau for Land Management and could be applied anywhere for the same purpose. The ArcGIS software was similarly used to make a comprehensive database for land tax records and verification of claims and various resolutions. It is recommended that this method be adopted by various government agencies dealing with land use tax collection for better and improved revenue generation.

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FIG Working Week 2023

Protecting Our World, Conquering New Frontiers

Orlando, Florida, USA, 28 May–1 June 2023