

# Image Acquisition Planning and Execution as a Foundation for Strengthening Institutional Services for Municipal Land Management and Planning: Lusaka, Zambia

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**Key words:** Access to land; Cadastre; Land management; Low cost technology; Real estate development; Security of tenure; Spatial planning; Valuation; peri-urban areas, Zambia, prevectoriation. image acquisition strategy and execution, municipal spatial planning

## SUMMARY

In order to strengthen the institutional services for a municipal government's land management system (Lusaka, Zambia City Council) and its capacity for spatial planning in the urban and peri-urban territories, Medici Land Governance initiated the process with image acquisition planning and execution. This included targeting areas that had been roughly demarcated, with estimated parcels and the strategy sequenced and prioritized. With flight operations and drone technology, MLG was able to ortho-rectify collected imagery to create accurate georeferenced shape files, with each pixel representing a GPS coordinate. This led to pre-vectorization of area boundaries, collection of landowner information by using mobile data collection tools, rigorous data quality checks for spatial and textual accuracy, supporting community verifications of land records by landowners and communities, and enabling government batch approval, This introduces digital processes in the city departments, including a digital payment system and a central database with necessary detailed land information and data, for land use planning procedures for the entire city.

The results in the first stages were significant: fully digitized records of 30 offices in the city's peri-urban areas, captured images of 107 square kilometres within the Lusaka jurisdiction, along with the data required to produce and deliver valuations of 34,000 parcels in the valuation registers delivered to the land tribunal by the local government. This enhances the local government's capabilities to manage peri-urban areas, often subjected to dispute and uncertainty. These capabilities include the necessary infrastructure, hardware, and software, modern procedures in place and technical knowledge for land management.

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FIG Congress 2022  
Volunteering for the future - Geospatial excellence for a better living  
Warsaw, Poland, 11–15 September 2022