

Cadastral System Implementations Using GIS

Amir Bar-Maor and Kees de Zeeuw (Netherlands)

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SUMMARY

Abstract

Globally, guiding principles (like IGIF and FELA), methods (like Fit for Purpose Land Administration) and standards (like LADM) are available for setting-up, maintaining, and developing land administration systems. Using these, national and local implementations should provide citizens access to tenure security and proper land management services through formal or customary land registry and cadastral systems.

In this paper, insight is given how GIS can be used in cadastral system development. Based on evolving challenges and requirements, a range of solutions is given, allowing for scalable and sustainable cadastral support. The challenges are discussed (from security issues to capacity needs, from data quality assurance to IT capabilities) and examples are given. Also, standardization of processes versus customization of solutions is debated and experience with approaches to successful implementations are shown.

Given examples are taken from the different continents, focusing on the recording and mapping of cadastral data, in so called systems of records, insight and engagement. This can range from systems for a first-time registration to system modernization, including GeoAI and 3D requirements.