

# Flexible Land Information System Championing Reform Towards Formal Cadaster in Developing Countries

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## SUMMARY

Establishing flexible land information system is crucial in developing countries where land governance and service delivery are weak as a result of ineffective land administration systems. The Social Tenure Domain Model (STDM) has emerged as an alternative flexible land information system that is increasingly being recognized by many governments especially in Africa. This is partly due to its robustness, but also as a result of the broad experiences from the various application context. The current version is currently being used in about 7 countries and has demonstrated the potential of addressing land tenure security in a simple, fast and least cost approach. The uptake by the government is paving new dimensions for its development towards a digital cadastre solution that supports electronic management of land transaction and electronic registers.

STDM is based on the global Land Administration Domain Model (LADM) (Lemmen, 2012, Augustinus et.al 2010). The flexibility of STDM allows for easy data modelling and customization following international good practices and standards in land administration. Therefore, it is providing an intermediate approach for achieving the goals of LADM quickly and with flexibility. The immediate impact includes continuous automation of business processes and improvement in digital archiving processes through conversion of existing manual records into digital archives. Additionally, the open and transparent methodologies for citizen participation in cadastral processes and field land surveys is improving transparency and good governance.

Without modernizing the cadastral systems in developing countries, issues of land conflicts, women access to land as well as pertinent issues of urbanization will continue to escalate. The urban population is expected to reach 70% by 2050 (UN Habitat 2010). African cities are already grappling with issues of informal settlements, inadequate services provision, lack of updated

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registers and informal practices. Without reform to cadastre, these challenges will continue. Flexible systems such as the Social Tenure Domain Model (STDM) are responding to these challenges by providing alternative and scalable solutions utilizing low cost technologies to modernize land administration systems (GLTN 2016).

This paper discusses three case studies covering automation of cadastral business process in Democratic Republic of Congo, automation of land registration processes in Namibia and transformation of cadastral workflows in Nepal through use of STDM. The impact will demonstrate evolution of change management process as well as improvement in service delivery that is locally situated and sustainable. The overall aim of the paper is to demonstrate that STDM is robust as a subset of LADM and provides the necessary building block towards effective cadastral systems in Africa.

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