Critical Assessment on the Implementation of LADM as per ISO 19152:2012 in Indian Scenario – Existing System, Challenges and Possible Implementation Strategies

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Key words: Cadastre; Capacity building; Digital cadastre; e-Governance; Geoinformation/GI; Land management; Positioning; Professional practice; Standards; Indian Scenario; LADM; ISO 19152:2012

SUMMARY

The existence of a robust spatial database for land administration is indispensable for the growth and development of any nation. It not only provides insights into the existing land use pattern but also helps the authorities to strategize for any prospective venture, whether an infrastructure project or a social scheme to serve its beneficiaries. As such, ISO 19152:2012 defines the conceptual schema of the Land Administration Database Model (LADM) which contributes to the Sustainable Development Goals (SDG) 1, 2, 9, 11, 14, and 15.

This paper presents a literature review on the current status of land management in the Indian scenario followed by analyzing and correlating the LADM with the available systems of geoinformation, pinpointing the gaps, if any, existing between the two and suggesting a way ahead to provide an efficient base for effective e-governance and for better decision making to achieve the SDGs. The paper will also discuss at length the various schemes and programs that the Indian government has undertaken in line with PM's vision such as SVAMITVA and DILRMP.

India is the second most populous and the seventh largest (by landmass) country in the world. It is also, perhaps, one of the most diverse countries in the world with 22 official languages in 28 states and 8 Union Territories with an essentially quasi-federal system of governance. As per the constitution of India, various subjects related to land administration are divided into Union, State, and Concurrent lists. This makes the compilation of the land administration data a complex area that requires in-depth knowledge of the legal framework of each state. The paper intends to compile these frameworks into a common database structure to understand the differences which play a substantial role in the implementation of LADM in India. This will be followed by an extensive study of the descriptive standard as given in ISO 19152:2012, to correlate it in the current Indian scenario and to identify the challenges which include the sheer volume of the database, data

interoperability, live data availability, updation and maintenance of a database of requisite spatial positioning accuracy within the current legal framework.

Based on the aforementioned, it is intended to present a possible mechanism for the implementation of LADM by recommending changes in the legal framework, data acquisition techniques, and integration of multiple digital cadastres into a unified database.