

# Data Model Adjustments for Multipurpose Cadastre in Colombia According to the LADM\_col Profile

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## SUMMARY

The Multipurpose Cadastre project in Colombia has been developing for several years, in a first stage it contemplated the elaboration of technical specifications of the product, the standardization of data and to be able to develop pilots executed by private companies to generate a methodology that allows to be implemented. In the second phase of the project called the expansion phase, which defines the massive intervention of municipalities.

In this sense, before starting the expansion phase, a stage of adjustments to the technical specifications of the product is contemplated according to the lessons learned that were obtained as a result of the different pilots developed in the first phase, the LADM\_COL model being one of the standards to be implemented in this new public policy is one of the elements to be reviewed.

LADM has a model-based approach (MDA), which, among other relevant aspects, allows conceptual data models to be neutral to the technology of its implementation, which is very convenient for the field of land administration. On the other hand, when implementing LADM\_COL as a data model for the implementation of the Multipurpose Cadastre, it creates a challenge in the implementation for the institutions that are part of this project.

In the phase of adjustments to the model, the results obtained by USAID in the pilot project of mass formalization developed in the municipality of Ovejas-Sucre are analyzed mainly, among other aspects because this pilot managed to deliver the data of the massive survey in the field under the structure of LADM\_COL, but several difficulties were found to achieve this purpose, which are analyzed to make an adjustment in the model and to have the new version of LADM\_COL.

Having a set of related models to be implemented is necessary, but variables must be abstracted

according to the process in which the model is being implemented, in the case of Colombia, to standardize the delivery of information by operators from the field collection it is necessary to generate an application model, which has been called the operating model, this model is an abstraction of the Colombian profile LADM\_COL, which makes it comply with the defined semantics, but at the same time this should not affect The process of data validation.

The operating model according to LADM\_COL, seeks to be flexible and characterize only the attributes that must be captured by operators in the field, this allows to have a model that also serves for institutions to do quality control over this, which is articulated with The principles of territorial intervention cost efficient