Data Quality Control in the Process Massive Land Survey According to the LADM_col Model

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SUMMARY

In the new vision of Land Administration in Colombia the decentralization of the cadaster data maintenance is sought at several levels: First of all, the Government seeks to enable territorial entities to provide services as a Cadastral Administrator, these entities will be responsible for attending all the procedures related to maintenance of the cadastral information in the assigned municipalities. Secondly, it seeks to enable cadastral operators, companies that will be in charge of carrying out the data capture operation on the field in a massive way, and deliver it to the Cadaster Administrator for validation, acceptance and publication of official data.

The National Land Agency (ANT), is the highest authority of the nation's land and is the entity responsible for carrying out activities for the allocation of rights and the regularization of different land tenure situations in the rural sector. In 2017, the role of cadastral manager was assigned to it (Decree Law 902-2017).

In this context, the ANT and the USAID have developed a pilot project in the municipality of Ovejas - Sucre, where the intervention was carried out using the massive parcels methodology, in accordance with the technical product specifications defined by the cadastral authority, Geographic Institute Agustin Codazzi (IGAC).

In the process of consolidating the information, USAID project delivered the structured information according to the LADM_COL model version 2.2.1 in the INTERLIS exchange format *.xtf, the project assumed the challenge of being the first pilot to consolidate information in this format under the definitions made by the IGAC and the Notary and Registry Superintendence (SNR)

The information delivery in interlis format (*.xtf), according to the current LADM_COL (*.ili)

model version by the operator also implies a challenge for the institutions in the articulation of the information and the optimization of the processes of data validation and data implementation on the systems of the entities

IGAC, with the support of the Swiss Cooperation Project “Modernizing Land Administration in Colombia”, financed through the State Secretary for Economic Affairs (SECO), has been working on the definition of a quality control scheme, under the principles of efficiency and effectiveness, for this, it is necessary to have technological tools that optimize the automated data validation according to the LADM_COL model.

One of the main advantages of having LADM_COL modeled in Interlis format (*.ili), and data delivered by USAID project in Interlis format (*.xtf) is that it allowed to do the data validation in a semantic way to apply business rules to perform the data quality control process to the data delivered by the operator in relation to the technical product specifications defined by the multipurpose cadaster authority.

The review of large data sets against the LADM data model trough INTERLIS language and related tools that allows automated processes are a breakthrough in the framework of the implementation of the multipurpose cadaster policy in Colombia