

The Systematic Land Verification (SiLVer) Protocol

Louie Balicanta and Rosalia Balicanta (Philippines)

Key words: Cadastre; Digital cadastre; Geoinformation/GI; Land management;

SUMMARY

Currently in the Philippines, cadastral database is on a transition from paper-based to computer-based. Encoding and plotting were done using the original cadastral lots. However, cadastral data are regularly updated because of various processes and events. Monitoring and updating are done by two land agencies, the Department of Environment and Natural Resources-Land Management Sector (DENR-LMS) and the Land Registration Authority (LRA). These updates affect the spatial and attribute characteristics of the cadastral parcels. The most common events and processes that affect the change in spatial characteristics include a parcel's subdivision or splitting, consolidation or merging, consolidation-subdivision and boundary adjustment. Ideally, the topological relationship and integrity of the affected cadastral parcels must be maintained as the changes happen. The objectives of the research are to determine and evaluate the factors affecting changes in the cadastral database, provide a protocol that updates the main cadastral database and place the previous and historical data to a history layer and maintain the topology between the cadastral parcels and between the history and current layer. These will greatly help the key land agencies once the computerized cadastral database has been completed. To test the protocol a portion of a cadastral database was obtained from DENR-LMS and implemented using third party GIS software.