

Integrated Parcel Boundary Survey and Mapping: a Pilot Project to Improve Spatial Data and to Accelerate Complete Systematic Land Registration (ptsl)

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Key words: Cadastre; e-Governance; Engineering survey; Geoinformation/GI; Land management; Photogrammetry

SUMMARY

Complete Systematic Land Registration (PTSL) is a National Program in order to accelerate land registration in Indonesia with a target of 126 million land parcels to be completed by 2025. From the results of the implementation since 2017, these issues are still found as follows: PTSL is mapped sporadically instead of systematically, gap and overlap between previous land parcels and new measurements, and a lot of existing certified land parcels that have not been mapped (K4).

This project tries to demonstrate Integrated Parcel Boundary Survey and Mapping. In general, the steps in this pilot are divided into several stages. The first step is to get an aerial photo image of a village with accuracy that has been defined. Second, the boundaries survey method is focused on using aerial image photos, so people identify their boundaries on aerial image photo or using surveying if it is not visible. Third, collect the information of land parcels owners and land use, land utilization. Last, verify the spatial data of people and announce land parcels map. This method is also complied with the Fit-For Purpose Land Administration (FFPLA).

The goals of this project are expected to improve parcel boundaries spatial data, to accelerate Complete Systematic Land Registration (PTSL) and to complete the coverage basemap of Indonesia using aerial photo map. It is focused on mapping the village as one complete target, which means whole land parcels in a village, either registered or unregistered, should be surveyed and mapped. As a result, there are many significant differences in area, shape and position between previous boundaries that have been certified and new survey boundary parcels, though they also have similarities. These new boundaries of parcels would be used for the existing spatial data. Next conclusion is the speed of the Boundary Survey and Mapping using the identification boundaries on aerial image photos is better than surveying whole land parcels. Then it really helps to map K4 by identifying the information of land parcels owners with the owner's name on existing certified land

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parcels which have not been mapped. Yet, the result also found several overlapping land parcels. This information is used as information to map land disputes.

Keywords: Integrated Parcel Boundary Survey and Mapping, Complete Systematic Land Registration (PTSL), Land Administration

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