

Applicability of Social Tenure Domain Model and 3D modeling by UAV photogrammetry to mountainous region in Indonesia

Ayako Oide and Hiroyuki Hasegawa (Japan)

Key words: Cadastre; Capacity building; Geoinformation/GI; Land management; Photogrammetry; Remote sensing; Social Tenure Land Management; 4D- Image Map Archive; Photogrammetric 3D modeling; UAV bundle aerial triangulation

SUMMARY

Cadastral system includes not only Land Administration Domain Model but also Social Tenure Domain Model and UN-habitat initiative. UN-Global Geospatial Information Management (GGIM) and UN-Global Geodetic Reference Frame (GGRF) initiatives are resolved in Social Economical commission of United Nations. This research proposes the methodology for cadastral survey by applying aerial photogrammetry. The method have been applied on the mountainous region in South Sulawesi, Indonesia, where the land registry system is still undeveloped. On the context of sustainable land management, the development of cadaster system in this region is keen issue to be solved, technologically, sociologically. Satellite photogrammetry to create 3D stereo models is not only for mapping but also for infrastructural analysis has established with 3D photogrammetric system and 3D stereo viewing system with and without 3D glasses. For public projects, cadastral specification could be proposed as ALKIS German cadastral survey established as German style GIS. Simultaneously, cultivation and inheritance situation of mountainous slope are to be reported as successful findings from cadastral specification.

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FIG Congress 2018

Embracing our smart world where the continents connect: enhancing the geospatial maturity of societies
Istanbul, Turkey, May 6–11, 2018