

Implementing Remote Sensing and Drone Mapping Technology for Land Management in Indonesia's Boundary Zone

Budi Jaya Silalahi, Albert Midian Panjaitan, Faus Tinus Handi Feryandi, Pandapotan Sidabutar and Andri Novijandri
(Indonesia)

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SUMMARY

Indonesia is an archipelagic state, which has border with other states on the land, sea, as well as on the air. In the sea, Indonesia has direct borders with 10 countries, namely: India, Malaysia, Singapore, Thailand, Vietnam, Philippines, Republic of Palau, Australia, East Timor, and Papua New Guinea. As for the land, Indonesia has direct borders with 3 countries, namely Malaysia, Papua New Guinea and Timor Leste.

As we know, Indonesian people who live in boundary zone are generally in poor conditions with lack of public services, such as: social, transportation and education service and facilities. However, the changing of government paradigm in the last two decades has prompted greater attention to this area. Recently, various government programs are driven to the border region, notably in provinces that have land borders, that is West Kalimantan, East Kalimantan, East Nusa Tenggara, and Papua Provinces.

This paper will present about the land management programs in general which carried out in the Indonesia's border area, for example in Entikong, Sanggau Regency, West Kalimantan Province, and Motaain, Belu Regency, East Nusa Tenggara Province. The main focus in this paper is the using of remote sensing and drones or unmanned aerial vehicle (UAV) data for supporting those programs. Furthermore, by promote the cooperation with other agencies and encourage community participation in the border zone, those programs can be succeeding in result. The conclusion of the study shows that the utilization of drones and imagery data is the key point of innovation in land management program in order to support the acceleration of sustainable development in the border region.

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