

Pioneering the Use of Unmanned Aerial System (UAS) for Land Surveys and Titling in the Philippines

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SUMMARY

To date, there are still around 2 to 4.8 million untitled parcels in the Philippines. In its 10-point socioeconomic agenda, the present Duterte administration promised to “ensure security of land tenure to encourage investments, and address bottlenecks in land management and titling agencies.” One of the areas that is seen to contribute to this agenda is the conduct of subdivision surveys of cadastral lots, particularly agricultural lands, among other activities.

To increase the pace of titling, the use of unmanned aerial system (UAS) for land survey and mapping was introduced. To start off, it was a must to determine the accuracy of UAS-generated data and their acceptability. With this, several researches and pilot flights were conducted to determine whether UAS can meet the accuracy standards of the government. Partnerships were formed among the academe, professional associations, private sector, public sector and a non-government organization. The results yielded that the use of UAS can be an alternative tool to generate orthomosaic images that when processed correctly can provide parcel information comparable to information obtained ground survey.

Moreover, the results of the studies were used as input into the development of policy that would recognize and accept UAS as an additional or alternative survey technique that could help titling programs of the government. This led to the adoption of a drone policy by the government and to the increasing use of the said technology by government offices, private surveyors, and academic institutions. In addition, capacity-building activities have also been conducted to demonstrate the use of the UAS technology.

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