2D and 3D Crowdsourced Cadastral Surveys - Looking Ahead

Charalabos Ioannidis and Chryssy Potsiou (Greece)

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SUMMARY

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Abstract

Chryssy Potsiou and Charalabos Ioannidis

In traditional field cadastral surveying the land surveyor would use the legal evidence of the parcel ownership and would search for evidence at the site. Land surveyors also would seek the contribution of land owner, or any other elder member of the local community, to identify boundary corners. When photogrammetry was first introduced in some systematic cadastral registration projects, demarcation of boundaries was encouraged prior to the aerial photography. In both methods citizens, mainly property owners or even some other local people who had good knowledge of the parcel structure in the area being surveyed, were asked to participate and contribute in order to ensure the best outcome of the project. Cadastral surveying has always been a participatory effort. Recently, the Fit-For-Purpose approach has been described as a cost-effective, time-efficient, transparent, scalable and participatory approach to build a land administration system, including participatory surveying, volunteered land administration and crowdsourcing techniques. It is suggested that in many cases it may be sufficient just to identify boundaries in the field visually using imagery, and that land administration systems should be as plain as possible at the start and may improve over time whenever necessary or possible. Some examples of implementation of such Fit-For-Purpose land administration projects in Africa have already been published.

However, the perception that "only developing countries may adopt crowdsourcing techniques" is

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FIG Working Week 2019 Geospatial information for a smarter life and environmental resilience Hanoi, Vietnam, April 22–26, 2019 untrue as are other myths, such as that "societies are reluctant to voluntary participation" and "land surveyors are hostile to crowdsourcing techniques". Countries and land surveyors are already testing and introducing crowdsourcing techniques and mobile services in land administration and management projects in developed property markets where complex legal rights exist always aiming to a AAA cadaster. It is anticipated that in the coming decade we will see more action in this field as long as the procedures, roles and responsibilities are clarified. Fit-For-Purpose examples from Africa as well as two AAA examples from Greece are presented.

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