

CADASTRAL MAPS – HOW TO MAKE DIGITAL FROM GRAPHICAL

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ABSTRACT

Korean cadastral system keeps graphical maps made by the plane table method from 1910's. The fact is that the graphical maps grafted on paper cover about 95% of the whole land (MOGAHA, 1999). The needs are arising to transform the graphical cadastre to a digital one in compliance with modern technologies. Korean government has already begun to digitise the old maps from 1999. A nation-wide land information system will be established after the digitising project is completed. However, the accuracy of the digitised coordinates cannot meet the needs of cadastral surveyors and landowners at all because it cannot exceed that of the paper maps. The definite solution will be surveying all the parcels again and making new digital maps.

A project will commence in 2004 to satisfy those needs by the Ministry of Government Administration and Home Affairs. Re-surveying 34 million parcels cannot be done at once. The strategy should be dividing the country into county-wise or grid-wise pieces and surveying one by one. Municipal governments of counties, cities or urban districts will be the major sponsors of the project but the costs will hardly be affordable at a time. For the purpose of resolving the financial problem, each municipality can split its own project into smaller ones by year base. There is accordingly a great possibility to create inconsistency over the divided project areas caused by different techniques applied, different equipments used and/or mismatches of borders. Meanwhile, it also provides some merits. The people in completed areas will be satisfied with the enhanced accuracy and feel safe in land transaction, which stimulates land markets and, in turn, improves overall nation-wide economic situation. Thus, the main issue of the thesis shows how to make the cadastral re-survey project scalable. Guidelines to perform the job will be derived from some experienced cases.

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