

How Is the Development in the World of Cadastre towards More than Two Dimensions?

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ABSTRACT

In our shrinking earth use of space is not limited to the surface. Especially in the big cities it is necessary to exploit the underground extensively. Not only for technical infrastructure, but also for business and living. Both in regulated and unregulated areas great creativity is shown in utilising any kind of free space.

As long as it is rented space there is limited need for any complicated system to map and register the situation. But in some countries it has become possible to establish ownership below, above or even inside the main surface property. In cases like that it is necessary both for the owners and the government to have more exact information on these properties.

Thus some countries have developed a cadastre that can handle properties in strata. Although commonly named as a 3D cadastre there is still no cadastre that define all property as three-dimensional. Even the fourth dimension is sometime used to describe temporary properties or to limit the ownership of rock or air properties that are not going to be built.

Accidents can happen when you do not know in any detail what is below the ground. This is often used to promote the establishment of a 3D cadastre when in reality it would be better to have a 3D underground map of both properties, transport infrastructure and utilities.

This paper will focus on the state and fate of the 3D cadastre and give examples from some countries and regions in the world.

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