Potential of high-resolution satellite data and other Geo-ICT for Land Valuation in Urban areas

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Abstract: The use of satellite-based Remote Sensing (RS) data, Global Position System (GPS) and Geographical Information System (GIS) are being established in various applications and the process of semantic spatial information systems has now became a reality. The urban development is a complex phenomenon, which is changing rapidly. Hence, it require enormous amount of dynamic data to support the decision system. RS technology has proved to be time effective and cost effective. High-resolution satellite data can be used for base map preparation, land-use map preparation and many other maps of the urban area, which can be updated frequently. These base-map can be made more accurate using GPS. These data, along with GIS software, has enabled surveyors to create more detailed maps for surveys.

This conceptual paper reviews land valuation methodology followed in Karnataka in general and with respect to Bangalore in particular. Though, a well-established system is available for Land Administration as well as for land valuation in Karnataka, it is not efficient and effective in serving the growing need of common man in urban area. In order to make an efficient land valuation system, various factors can be taken into account and different scenarios can be visualized through GIS and arrive at a comprehensive property valuation module which will enable general public to know the cost of their property according to Government rules.