THE MEASUREMENT OF URBAN LAND CONSUMPTION AS A SOURCE OF INDICATORS OF ECONOMIC PERFORMANCE AND SUSTAINABILITY

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ABSTRACT

Once context is adequately ascertained, urban land consumption analysis may serve to simultaneously measure economic performance and sustainability of cities. The Urban Observatory of the Ministry of Housing and Urban Development carries out a continuous measurement of urban land consumption in Chile, combining the use of Geographical Information Systems (GIS) and statistical examination. The results of the analysis are published by means of indicators of urban land occupation, urban densities, non-occupied urban land and construction permit trends for different land uses. The sources of information have been satellite images, used to measure the situation in specific moments in time (so far, 1993, 2003 and 2008), complemented by the analysis of construction permits. The latter provide a monthly source of information that is used to analyze short term (three monthly) as well as longer term dynamics, made public by means of three monthly bulletins. This paper comments the methodologies used, the main results obtained, estimated errors as well as the shortcomings of the process of analysis carried out since 2005. Doubts have been resolved validating the findings with qualified actors, both public and private sector. The dissemination of results is complemented by the extensive publication of the method used and the open discussion of uncertainties, leading to the propagation of information in a manner that invites new forms of interpretation and further analysis.

Keywords: Land Use, Urban Development, Land Indicators, GIS, Construction Permits, Urban Sustainability, Urban Land Demand