

Scientists and Stakeholders working together on land use modelling at the regional scale: an input to urban sustainable indicators for Europe

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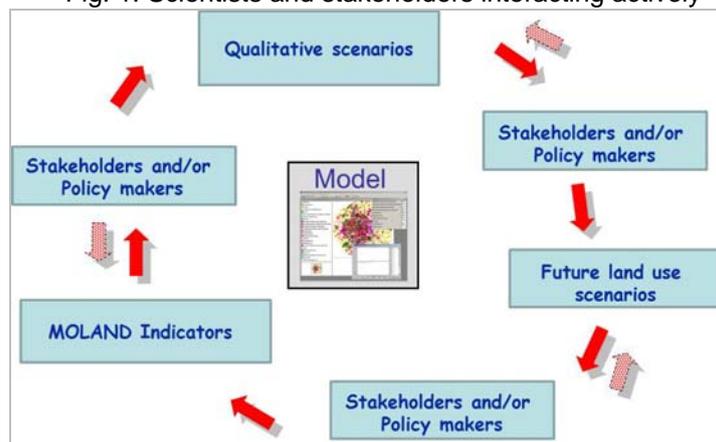
Abstract:

In the context of the current global recession, key concerns include rising unemployment, increased population flows and increased landscape degradation. The development of solutions to real world environmental and land use management problems is becoming increasingly urgent and requires that scientists and stakeholders/policy-makers exchange knowledge and experience.

Within Europe, Ireland is experiencing one of the severest recessions. It has undergone substantial changes over the past three decades: recession in the 1980s, boom in the 1990s and economic collapse at the end of the 2000s (Bartley and Kitchen, 2007). Over these periods there have been substantial land use changes and population variation (Williams et al., 2007). The paper investigates the Greater Dublin Region of Ireland where urban development has been intensive and poorly controlled, leading to changes in its spatial configuration and particularly the preponderance of a sprawl type pattern of development. Scientists and stakeholders/policy-makers during a summer school and workshop in 2009 took a closer look at four land uses in County Dublin: residential (continuous and sparse), industrial, commercial and services using a scenarios approach, combined with the urban and regional MOLAND model. Land use maps framed by the land use and regional planning policies were produced and meaningful indicators were selected to improve the existing MOLAND indicators of urban sustainability, land use and environmental performance and applied at a regional scale.

These initial results provide a platform for a methodology to be used by the two communities, scientists and stakeholders/policy-makers, to ensure effective further collaborations (Fig. 1). The four scenarios devised and implemented and the associated set of indicators calculated allow us to grasp crucial ideas about urban development processes, sustainable growth management and their possible consequences in the regional context of Europe and also worldwide.

Fig. 1. Scientists and stakeholders interacting actively



References:

- Bartley, B and Kitchen, R. (2007). *Ireland in the Twenty-first Century*. In: Understanding Contemporary Ireland, Eds. Bartley, B and Kitchen, R., Dublin: Pluto Press.
- Williams B., Hughes B., Redmond D. (2010). *Managing an unstable housing market*, UCD Urban Institute Ireland Working Paper Series 10/02.