Introduction to Dublin 2026: The Future Urban Environment

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Introduction

The increasing concerns across Europe for the likely future urban environments of its major city regions are often modelled within a set of planning and sustainable development frameworks (European Commission, 2006). In Ireland, the Environmental Protection Agency (EPA) has taken a lead in considering urban environmental futures through a range of funded research projects. One core project, the Urban Environment Project (UEP) has involved the development of a multi-disciplinary model of the future Dublin city-region based around the spatial modelling tool, "Monitoring Land Use/Cover Dynamics" (MOLAND) (Williams and Convery, 2010). Though the principal objective of the project was to incorporate and embed current indicators into a predictive model of the future urban environmental fingerprint, there was considerable interest in the ways in which existing planning policy also critically informed the likely future shape of the city (Walsh, 2008). As a summary of the work of the UEP project, the team, in conjunction with the Forum for Irish Urban Studies, organised a one-day workshop on Friday, November 13th 2009 in Trinity College Dublin to disseminate its findings and discuss a range of key themes that might shape the urban environment of the Dublin city region in 2026. The outcomes of the presentations and discussions that took place in that workshop form the basis of this special issue. The presenters and invited audience represented a range of academics, planners, community organisations and local authorities, all of who had an interest in the future of the city.

Context of the Papers

The EPA-funded UEP project was managed by a team of researchers drawn from the lead agency, Urban Institute Ireland at UCD, led by Frank Convery, together with academic partners from Trinity College Dublin and NUI Maynooth, and private sector partners including ERA-Maptec. The wider brief of the project was to adapt and create a generic land-use model for the Greater Dublin Area (GDA) that could be applied to other urban areas in Ireland and that could be used with, and compared to, international models (Williams and Convery, 2010). Within the project, five distinct applied sub-themes were developed: urban sprawl, air quality, biodiversity, climate change and transport. All of the five sub-themes had overlapping components, which in turn were modelled within a cellular-automata framework. The cellular-automata approach utilised the MOLAND GIS model developed by the Research Institute for Knowledge Systems (RIKS) in the Netherlands (White and Engelen, 2000). At the same time, each of the sub-themes were explored by a team of research students and supervisors to examine a wider set of critical questions. It is this combination of modelling and deeper critical analysis that has shaped the material included here. While some work focused directly on MOLAND, other researchers took a wider perspective and extended the reach of the discussions to consider urban planning issues in a broader context.

In summarising the wider context around which the discussions took place, it is useful to list these as a variety of approaches emphasising technological, empirical, environmental and other planning considerations. The critical importance of the GDA as the engine of growth for the Irish economy makes this work relevant in a wider context of regional development and this has been recognised by its influence on the Regional Planning Guidelines, as well as on transportation, services and strategic environmental resource management planning throughout the region.

The Papers

While the papers in this issue vary in their direct connection with, and use of, the MOLAND approach, all are focused on the wider urban environmental implications of planning in the GDA with particular emphases on the interrelationships between planning policy and development trajectories in the region, both in the past and potentially into the future.

The first paper by Williams, Walsh & Boyle focuses on models of urban form and the differences in the drivers creating these forms. The notion of a more fluid *'zwischenstadt'* urban form provides an interesting view of currently experienced mobilities. Within the paper there is a strong focus on functional urban regions (FURs), framed against how FURs are in turn shaped by policy and governance. Perhaps the key finding is the relatively significant impact on meaningful sustainable development associated with the ongoing disconnect between functional and administrative spatial units. This is expressed on the ground in the types of urban sprawl identified in Dublin. To manage this more effectively into the future suggests a more meaningful engagement in the debates over governance and functional spaces.

A linked paper by Maclaran, Attuyer and Williams has a specific interest in patterns of office location, in particular in relation to inner-city and suburban shifts between 1960-2008. The paper clearly describes empirical patterns, with a more detailed discussion of critical causative factors. These include shifts in supportive policy, local authority reorganisation, and economic pressures, all of which are implicated in accounting for the spatial shifts described. The wider impacts on commuting and environmental sustainability associated with the mobile location of office developments is also usefully identified.

Both residential and commercial expansion, however, have particularly serious impacts on natural environments and these are explored by Brennan, Hochstrasser and Shahumyan. Modelled land use futures are shown to be particularly serious for habitat loss and fragmentation in coastal Co. Dublin where adverse impacts may be exacerbated by an increased risk of coastal flooding. Adaptive solutions are available and should be assisted by forthcoming planning legislation. The breathing space provided by the current economic slowdown, it is argued by the authors, offers an opportunity to implement a more far-seeing sustainable planning approach.

Environmental aspects are explored further by Brennan, Convery and Brennan, who provide field-based evidence of the linkages between various stages of urban development and biodiversity in the GDA. Green infrastructure is increasingly seen as an integral component of urban planning and this paper addresses the practicalities of how best to incorporate biodiversity considerations into urban design.

As city regions increasingly become the dynamic foci of economic and social activity within countries, issues of governance assume greatly increased importance. This is further complicated by globalisation blurring the jurisdictions between local, regional and national priorities and reducing democratic inputs into the planning process. O'Broin explores these themes for Dublin, identifying structural deficiencies and democratic deficits which hinder Dublin's performance on the international urban stage as it faces challenges such as climate and demographic changes, a shift to a low carbon economy, reorganisation of the global financial system, and the necessary restructuring of the city-region's economy. Democratic renewal and meaningful partnership are seen as the essential ingredients for tackling these issues and ensuring that a future Dublin prospers contentedly and sustainably.

This issue of the Journal thus exemplifies the multidimensional aspects of modern urban management, using the case study of the Greater Dublin Area. These complexities can be better understood using powerful modelling methodologies such as MOLAND. Pointers for where future concerns will arise can be incorporated into planning structures and alternative futures tested out to some degree. However, even during the short duration of the Urban Environment Project, fundamental shifts in circumstances have occurred for Dublin and new issues of consolidation and retrenchment for the city region have appeared on the horizon. Fundamental changes in the relationship between the core and periphery of the city region are emerging, exerting a new set of challenges. The papers described above offer some key pointers on how such challenges should be addressed using evidence-based approaches founded on good spatial analytical techniques at appropriate scales of investigation. The crucial significance of the planning process and governance of that process is also highlighted, together with the need to prioritise to a greater extent the sustainability of both the natural and social environments as they are impacted by economic drivers. Ultimately, the project demonstrates that if the lessons of the past are learned, they can be incorporated into a new approach to planning for a different, more environmentally and socially sustainable, and better governed, Dublin City Region.

References

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