

Sub Project 7 – Sustainable Development – Urban Sprawl

1. Project Statement

During the period 2000-2005 a sprawl type pattern of development became established in the Dublin and Mid East Region (Greater Dublin Region GDR). The sprawl seems to have started in earnest before 2000 because the 2002 census picked up a very substantial shift in relative growth rates between the Dublin Region and the Mid East region with the latter growing very much faster than the former. Research in the Department of Planning and Environmental Policy (PEP) of CSO and Housing statistics show that its population growth continued to increase as the region's share of national population increased from 38.8% to 39.2% over the period from 1996 to 2002 (CSO, 2002). Uncertainty surrounding demographic and economic projections indicates that the spatial implications of a range of such projections would be a useful aid to all participants in the urban development and environmental management process

The realities of emerging development patterns differs substantially from stated policy in the National Spatial Strategy (NSS, 2002) and from international best practice as represented by the European Spatial Development Perspective (1999). This new urban form and emerging development trends require examination as to the impacts of such patterns on the environment and its implications for sustainable development policy aspirations. The negative externalities resulting from sprawl patterns of development are recognised as reducing individual well being and are often inequitable in terms of their geographic spread. Potential measures to create a more positive environmental context including urban containment and improved public transport have been identified as policy aspirations. However localised development pressure and inadequate governance and management structures often negate such policies. Evidence based research on existing development trends and its implications are therefore essential in assisting in the development and management of effective policies for sustainable urban development.

This research will draw on work already underway on settlement strategies, urban and environmental policy implications at UCD and research on the suburbanisation of services employment and its regional development implications at Trinity College Dublin, linked to analysis in this and other sub-projects of the environmental impacts it produces

2. Objectives and Targets

- . • To develop an integrated model for examination of the forms and patterns of development activity in the Dublin Region in 2006.
- . • To examine the role of changing employment patterns in such trends.
- . • To integrate settlement and employment data into the MOLAND model.
- . • To incorporate in this model projections for future urban form, settlement patterns and land use considerations in 2010, 2020 and beyond
- . • To evaluate economic costs of infrastructure provision associated with alternative forms of development
- . • To examine environmental and quality of life issues for inhabitants of the region of emerging trends

3. Review of State of Knowledge

Evidence of the increasing effective market size of metropolitan regions is emerging internationally (Parr et al 2002). This is associated with developments in transportation and technologies as modern economic growth is often based upon the knowledge industries including financial services and ICT industries. The major thrust if such growth is towards larger capital and administrative cities creating tensions with other regions not benefiting from such growth. Rapidly growing areas often experience major surges of growth at their edges and also in a dispersed manner into their hinterland .Concerns often emerge about the impact of such growth on the environment and quality of life within such regions.

Fragmented decision-making processes internationally present particular difficulties within a region in dealing with vital infrastructure. As infrastructure is vital to urban development (Hall 1998) and the economy (World Bank 2003), pressures for reform towards effective co-

ordinating capacities at a regional level are likely to continue. It is therefore essential that mechanisms be developed at an appropriate regional level to ensure that an organising capacity exists at this level to plan and implement development policy. The absence of coherent regional governance strategies is especially relevant in addressing environmental issues. Fragmented and competing local public agencies/authorities can attempt to capture the benefits of development while refusing to accept or share responsibilities for resulting externalities.

As North America is the region most affected by sprawl the debate on its consequences has been ongoing since the late 1970s. In defence of sprawl, some commentators document that sprawl is ubiquitous, and will continue. Sprawl settlement patterns are driven by choice of consumers for improved housing and living standards, reflect the modern choices for car based living and negative quality of life impacts are considered overstated (Glaeser and Kahn 2003).

Opponents of sprawl point to congestion an environmental damage and a declining sense of community as among the negative impacts of the resulting uneven spatial economic and social developments (Squires2002). Such commentators further allege that sprawl is not an inevitable function of market forces and choice but has been supported by public policies favouring new build green-field and roads based development (Rusk 1999).

4. Description of Work

- A full analysis of current national and international studies involving spatial data analysis on the Dublin Region.
- An analysis of the changing employment location trends in the region and their development impacts.
- Integration of these data into the MOLAND model.
- The results of these analyses will be compared with stated policy objectives and compliance or deviation identified.
- The causes of such deviations as exist whether administrative, political or economic will be evaluated. A survey on public attitudes and preferences in terms of infrastructure environment and services provision will be undertaken. [This 1500 household survey will be funded separately]
- Recommendations in terms of policy evaluation tools and approaches will be developed

5. Project Management

This work package will be directed by Dr. Brendan Williams of the School of Geography Planning and Environmental Policy at UCD .The work on spatial dispersal on employment will be conducted by Dr. Andrew MacLaran at Trinity College, Dublin.

6. Expected Results

- A full report and analysis of spatial development trends in the Dublin Region.
- Model projections of alternative urban form and settlement patterns based upon the Mol and model.
- Estimates of the economic costs of alternative models of infrastructure provision.
- An evaluation of environmental and quality of life issues of inhabitants of the region.

7. Composition and Experience of Team

The Department of Planning and Environmental Policy has made a major contribution to published research on urban and environmental issues. Dr Brendan Williams is an experienced academic researcher with national and international experience of research on urban development issues. PEP staff involved in the project will include Professor Peter Clinch whose input will involve work on the economic costs of infrastructure provision. Dr Mark Scott on urban /rural migration; Dr Declan Redmond on housing policy and Dr Paula Russell on planning policy.

8. Facilities/Capabilities

The Department of Planning and Environmental Policy and the Urban Institute at UCD will

provide necessary office, IT and other facilities required by the research team

References

Clinch, P., Convery, F. and Walsh, B. (2002) *After the Celtic Tiger, challenges ahead*, Dublin, O'Brien Press.

CSO (Central Statistics Office) (1979-2002) *Central Statistics Office Data and Small Area Population Statistics (SAPS)*, Dublin, Stationery Office.

Gemaca II Project (2002) EU INTERREG II C, 'Research on the Economic Competitiveness of the European Metropolitan Areas', IAURIF, Paris. Publication: Les Cahiers, Economic Performance of the European Regions, Quarter 4, 2002. Sections by Cheshire, P.; Knapp, W.; AND Williams, B.

Glaeser E and Kahn M (2003). *Sprawl and Urban Growth*, Harvard Institute of Economic Research, Harvard University, MA.

Hall, P (1998) *Cities in Civilisation*, Weidenfeld and Nicholson, London..

Parr et al (2002) Agglomeration and trade: Some additional perspectives. *Regional Studies*, 36(6), pp 675-684.

Rusk (1999) *Inside Game Outside Game. Winning Strategies for Saving Urban America*, Brookings Institution Press Washington DC. Cited in Squire (2002)

Squire G (2002) *Urban Sprawl and the Uneven Development of Metropolitan America in Urban Sprawl: Causes, Consequences and Policy Responses*. Ed. G, Squires. Urban Institute Press, Washington DC pp1-19

Williams, B. and Shiels, P. (2000) Acceleration into sprawl: Causes and potential policy responses in Quarterly *Economic Commentary* June 2000, Economic and Social Research Institute, Dublin.

World Bank (2003) *World Development Report: Sustainable Development in a Dynamic World* Oxford: Oxford University Press.

8. Declarations on Other Sources of Funding and on Tax Clearance

UCD, TCD and NUIM rely on this funding to cover marginal costs and have not sought additional funding; whereas ERA-Maptec provides 50% funding through their own sources.

University College Dublin will provide a current Tax Clearance Certificate, on request from the Environmental Protection Agency.

9. Compliance with National Policies on the Environment, Gender and Poverty

Urban Institute Ireland (UII), UCD (Project leader) UCD conforms with the university policy with respect to best practice in the areas of ethics, the environment and socio-cultural matters, including poverty. In particular, this project focuses on the development of an in-depth understanding of the environmental issues associated with urban areas. University College Dublin has an Equal Opportunities Committee with the brief to support Gender Mainstreaming within the university.