# URBAN SUSTAINABILITY AND EXPANSION ORGANIZATION IN SOUTH MEDITERRANEAN

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### **Abstract:**

In the Western context, notions of sustainable development often refer to the need to adjust existing economic models in order to maintain better balances between economic growth and social needs, while protecting local ecologies and reducing the negative impact of growth on the global environment.

In the developing world, however, sustainable development takes on a rather different meaning. With the agendas of developing nations focused on addressing basic developmental challenges such as economic growth, water scarcity, food security, and health, other environmental and social aspects are considered secondary at best and, for the most part, a luxury that a developing nation cannot afford. During the past three decades, Major South Mediterranean city-regions have experienced considerable physical, economic and social transformations. Globalization and economic restructuring has resulted in these city-regions receiving the full impact of urbanization pressures. City-regions such as Dubai, Masqat, Beirut, Amman, and Cairo have advocate expansion organization approaches giving particular interest to urban sustainability in an attempt to ease these pressures. These approaches promote efforts to achieve the triple bottom line sustainability by balancing economic and social development, and environmental protection, and putting (more emphasis on compact and optimum development of urban forms). This paper evaluates the South Mediterranean cities and assesses their experiences in managing their urban forms whilst promoting sustainable patterns of urban development. The findings show that sustainable urban development initiatives employing a top down approach has yielded encouraging results in these case study city-regions. However the need for a more concerted effort towards the overall sustainability agenda still remains vital.

**Key Words:** Sustainable urban development, expansion organization, compact urbanization, cityregions, South Mediterranean

## Introduction

Sustainable development means improving the quality of life of a population within the capacity of Earth's finite resources. The needs of the present generation must be met, particularly those of the poor, without compromising the ability of future generations to meet their own needs (Sheth and Atul 1995).

This is a dynamic process whereby the decision makers involved in any area plan, implement and then re-examine their ideas and policies over time. In South Mediterranean city-regions such as Beirut, Amman, and Cairo, the goal of sustainability has been increasingly highlighted over the past few decades as problems and issues arise from unsustainable practices and developments. Technology plays a vital role in creating the goal of sustainability. Arguably it is the misuse of technology that works against this goal.

Since early 1980s, policy-makers have been looking for ways to move city-regions towards more sustainable forms (Sorensen, Marcotullio & Grant, 2004). The continued expansion of city-regions makes sustainability an issue of significant concern because of scarce world resources (Lindsey, 2003). This continued growth, both in population and consumption, is now putting our ability to a test in managing urban regions more sustainable and effective ways.

This paper explores the implementation of expansion organization efforts in the South Mediterranean Cities. The methodology employed in this paper is a thorough policy evaluation. The paper first reviews the concept of urban sustainability, focusing on the nature and trends of urban development, and its consequences. The second section looks at solutions for addressing problems of

urban growth by introducing concepts and strategies for promoting urban sustainability through compact urbanization. The final section discusses the implications of expansion organization strategies for the South Mediterranean region.

## Urbanisation, sustainability and expansion organization

Interest in sustainability and urban development has steadily grown in recent years among. It has become central in planning and managing urban areas in Europe and North America. The various dimensions of urban life – environmental, economic, social and culture – are interwoven and success in urban development. That can only be achieved through an integrated approach.

Measures concerning physical urban renewal must be combined with measures promoting education, economic development, social inclusion and environmental protection. In addition, the development of strong partnerships between local citizens, civil society, the local economy and the various levels of government is a pre-requisite. This has transformed cities in Europe and North America into mega-cities and metropolises. The associated economic development and prosperity experienced by these European and North American cities have prompted Asian cities to emulate these achievements.

There is a strong belief that urbanization is crucial to the process of development, and an inevitable process of creating a modern state (McGhee, 2009). Indeed, the rapid urbanization of Asian cities in general has brought about rising income and living standards to the cities' population. The world development indicators data compiled by the World Bank, for example, shows that developing countries in South Mediterranean have been experiencing a significant growth of their GDP over the last 10 years and their share of the global economy has risen from 13 percent in 1995 to 19 percent in 2005 (World Bank, 2009). However, Asian cities, cities in South Mediterranean ern particular, are struggling to keep up with the rapid urbanization pressures caused by rapid population increase and expanding city sizes. These pressures have created what is generally known as urban sprawl, characterized by low density suburban development patterns. Urban sprawl takes three main forms: suburban expansion into the countryside, commercial expansion along arterial roads, and residential sprawl outside existing settlements (Daniels, 1999).

The consequences of sprawl have been viewed differently by planning scholars. Benefits of sprawl include private and social benefits to new residents and the community, for example in terms of housing costs (Kahn, 2001), potential for population growth accommodation (`Brueckner, 2000), and symbol of economic prosperity (Nelson & Duncan, 1995). However, this phenomenon has also been associated with an array of undesirable physical and socioeconomic effects (Nelson & Duncan, 1995; Boyle & Mohamed, 2007). These include: scattered development, excessive commuting and transportation costs, infrastructure and services provision costs, socio-economic segregation through inequitable land and housing markets, increasing consumption of natural open space, and other 'quality of life' problems (Nelson & Duncan, 1995; Carruthers, 2002).

### **Urban management strategy options**

City governments introduced a variety of approaches to control sprawl and limit further damage to the limited resources that they have due to the problems associated with rapid urbanization. The term urban management or urban expansion organization has been used interchangeably to reflect these efforts, and a variety of expansion organization techniques have also been introduced to apply expansion organization concepts into practice. The reason for adopting expansion organization approaches in cities was coming from the need to achieve a balanced and sustained urban development. Urban sustainability has long and flourishing roots in Europe and North America, where urban sprawl was first identified. Calls for adoption of sustainable urban development and management were at its height at the Rio Summit in 1992 following the World Commission on Environment and Development report on sustainable development.

Many believe that compact urban development contributes to urban sustainability, which is one of the key aims of expansion organization initiatives (De Roo & Miller, 2000; Assumer, 2006). A number of strategies have been developed and employed to achieve compact urban development (Nelson & Duncan, 1995). Containment based management supported by sustainable urban transport has been one of the most successful compact urbanization strategies (Nelson et al. 2004; Yigitcanlar and Bunker 2009). This strategy attempts to promote the following: compact and contagious urban development patterns with easy access to public services; travel-self containment with reliable public transport options and integrated land use and transport planning, and; preservation of rural and

agricultural land and natural resources (Nelson & Duncan, 1995; Duvarci & Yigitcanlar, 2007; Yigitcanlar and Bunker 2009).

Compact urbanization strategies determine the direction of public infrastructure investment, execute development regulation and shape the nature and intensity of development. Containment scales vary between sub-metropolitan (development shaped to take a specific form), unbounded (development within urban service boundary), bounded (development within a designated growth boundary), and natural containment (development restricted by geographical constraints) (Nelson et al., 2004). Around the world many cities implemented a variety of containment techniques that range from urban growth boundary to urban service area, and from land taxation to open space preservation. Successful implementation of containment techniques and experiences from North America and Europe provide invaluable insights to many city-regions seeking sustainable urban development. The implementation of strict development regulations associated with containment techniques enables local authorities to encourage development in existing urban cores and dilapidated inner areas through infill and redevelopment projects, including not only prestigious but also affordable residential development. The promotion of higher residential densities in these infill areas helps to offset the high development costs resulting from urban containment and to minimize public infrastructure provision. Zoning is commonly used for such a purpose. It allows for higher density development on the land used to accommodate low-rise dwelling units, hence making the properties more affordable to a majority of urban dwellers.

## **Sustainability indicators**

The increased environmental agenda has brought about the need to employ indicators as a key mechanism for assessing environmental impacts (Hemphill, 2004) and as policy instruments in the transition toward urban sustainability (Hezri, 2005). There is a common view that sustainability indicators can be meaningful provided they are applied at the appropriate level (Brownhill and Rao, 2002, cited in Hemphill, 2004). Such indicators can be crucial in developing an awareness of urban problems and advocating the need for the achievement of sustainable development (Stanners and Bourdeau, 1995). They can contribute to the assessment of the performance of individual agencies/interventions, and of the overall effectiveness of partnerships to improve economic, social and environmental wellbeing of urban settings.

However, most indicator-based approaches only highlight issues; they do not provide answers as to why differences exist. Key indicators must be supplemented by qualitative and quantitative information on impact and performance from the perspectives of users and beneficiaries. In recent years, the best starting-point for assessing sustainable practices has been the Bellagio principles developed by the International Institute of Sustainable Development (IISD) (Hemphill, 2004). These principles serve as guidelines for the assessment process, including the choice and design of indicators, their interpretation, and the communication of results, to provide a link between theory and practice.

## Sustainable urban development in south mediterranean

During the past three decades, cities in South Mediterranean region have undergone massive transformations (Marcotullio, 2004). Major cities experienced vibrant population growth, and major physical and functional urban transformations.

These city-regions received the full impact of urbanization pressures due to the rapid pace of globalization and economic restructuring. In an attempt to ease these pressures, major cities have advocated expansion organization approaches giving particular interest to balanced economic and environmental sustainability and put more emphasis on compact and optimum development of urban forms (Degree, 2005).

In conclusion, within the context of resource constraints, sustainable urban development has been a key factor in the adoption of urban expansion organization initiatives promoting viable use of scarce resources for urban expansion whilst at the same time minimizing uncontrolled urban sprawl. Within this context, the use of a whole range of policies designed to control, guide, or mitigate the effects of urban growth is seen as a practical way to promote compact development (i.e. Nelson & Duncan, 1995). The rapid population growth and urbanization in South Mediterranean City -regions has indeed placed great pressures on their environments. Whilst a few cities in the region, have adopted some form of urban management policies towards minimizing or alleviating these pressures, many other cities within the region are still without suitable urban expansion organization strategies

(i.e. Bagdad and Damascus). In these cities, higher land consumption, expansive and discontinuous urban development will continue into the future. Local authorities and planners should, therefore, look into the possibilities of implementing sustainable urban growth/development management strategies for their cities. Both case studies investigated in this research display top-down approaches to ensure that planning at the district and local levels is properly guided to achieve state and regional standards and goals. In some cases (Cairo and Amman), urban development is facilitated and governed by statutory planning legislation and flexible planning processes and approaches. This ensures that all development will have some degree of standardization and will occur in harmony with existing development. It seems that from these cases, a top-down approach is a key factor to trigger sustainable urban management practices. However, these top-down approaches need to be balanced with bottom-up, collaborative strategies in order to provide a more transparent and democratic platform for citizen participation in the urban planning and development process.

### **References:**

Amman Housing Authority, Retrieved on 2007

Amman population in 2011. Amman voice, General transport usage ratio, http://ammanvoice.blogspot.com/ (15 June 2011).

André Sorensen, Peter J. Marcotullio, Jill Grant (2004), Towards Sustainable Cities, East Asian.

Boyle, R., & Mohamed, R. (2007). State Growth Management, Smart Growth and Urban Containment: A Review of the US and a Study of the Heartland. Journal of Environmental Planning and Management, 50(5), 677-697.

Brueckner, J. K. (2000). Urban Sprawl: Diagnosis and Remedies. International Regional Science Review, 23(2), 160-171.

Carruthers, J. I. (2002). The Impacts of State Growth Management Programmes: A Comparative Analysis. Urban Studies, 39(11), 1959-1982.

Daniels, T. (1999). What to do About Rural Sprawl? Paper presented at the American Planning Association Conference.

EIU (Economic Intelligence Unit). (2008). Country Profile: Singapore: EIU: Economist Intelligence Unit. Elkin, T., McLaren, D., & Hillman, M. (1991). Reviving the City: Towards Sustainable Urban Development. London: Friends of the Earth.

Greater Amman Municipality, www.ammancity.gov.jo, Retrieved on 2007-12-07 and 2009-1-09.

http://www.trueknowledge.com/q/amman\_population\_in\_2011 True Knowledge. Retrieved on 2011-12-09.

International JUTE study group, http://www.jute.org/wjp/cp\_jordan.htm, GDP – per capita: \$5,900 (2011 EST.)

Lindsey, G. (2003). Sustainability and Urban Greenways: Indicators in Indianapolis. Journal of the American Planning Association, 69(2), 165-180.

Marcotullio, P. J. (2004). Why the Asian Urbanisation Experience Should Make us Think Differently About Planning Approaches. In A. Sorensen, P. J. Marcotullio & J. Grant (Eds.), Towards Sustainable Cities: East Asian, North American and European Perspectives on Managing Urban Regions (pp. 38-58). Aldershot: Ashgate.

Nelson, A. C., Dawkins, C. J., & Sanchez, T. W. (2004). Urban containment and residential segregation: a preliminary investigation. Urban Studies, 41(2), 423 - 439.

Nelson, A.C., Duncan, J.B., 1995. Growth Management Principles and Practices. Planners Press, American Planning Association, Chicago, IL. North American and European Perspectives on Managing Urban Regions, Ashgate.

Sheth, Jagdish and Atul Parvartiyar (1995), "Ecological Imperatives and the Role of Marketing," in *Environmental Marketing: Strategies, Practice, Theory, and Research*, Michael Jay Polonsky and Alma T. Mintu-Wimstatt, eds. New York: Waworth Press, 3-2

Teriman, Suharto and Yigitcanlar, Tan and Mayere, Severine (2009) Urban growth management for sustainable urbanization: examples from Asia-Pacific city regions. In: Proceedings of the International Postgraduate Conference, 5-6 June 2009, Hong Kong Polytechnic University, Hong Kong.

Yigitcanlar, F., and Bunker, J. (2009). A decision support system for sustainable urban development: the integrated land use and transportation indexing model. Proceedings of the Postgraduate Infrastructure Conference. Brisbane, Australia, 26 March. Queensland University of Technology.