

An Establishment of Key Issues and Planning Goals of Sustainable Urban Regeneration

Kyu In Lee^{1, a}, Jang Ook Rhee^{2, b}

¹ Professor, Dept. of Architecture., Ajou University, Suwon, Korea, 443-749

² Master Course Student, Dept. of Architecture., Ajou University, Suwon, Korea, 443-749

^a kyuinlee@ajou.ac.kr, ^b litjjang@ajou.ac.kr

ABSTRACT

The aim of this study is to identify key issues and planning goals for sustainable regeneration of urban areas. For the purpose of this study, this paper firstly defines sustainable urban regeneration. Secondly, it specifies essential issues of sustainable urban regeneration through reviewing principals and topics from mainly British experiences and domestic research. Then, it establishes planning objectives of sustainable urban regeneration through literature reviews and research group debates. The results of this study are expected to lay groundwork for step-by-step research strategies for sustainable urban redevelopment.

KEYWORDS: Urban regeneration, Issues, Planning goals, Sustainable development, Sustainable Urban Regeneration

1. INTRODUCTION

Since the 1960s, the urbanisation rate in Korea has soared from 39.1 % (1960) to 90.1 % (2005) through the industrialization (KNSO, 2007). Despite such city population centralization, the QOL (Quality Of Life) in Korean cities is far lower than other competitive international cities; Seoul ranked 87th among 215 cities world-wide in 2007 in an annual survey by MHRC (Merces Human Resource Consulting) (MHRC, 2007). The preceding Korean city developments have concentrated on fulfilling quantitative and physical demands rather than considering QOL (HURI, 2006). These trends have caused various city problems and unbalanced growth in urban developments. On the other hand, the scale of Korean UR (Urban Regeneration) within 8 important urban maintenance operation example sectors is estimated at about 200 billion (over a 5-year period). Furthermore, it is expected to have a gradual increase hereafter (KICTEP, 2006). However, any holistic and organic considerations have not yet been established in Korea because former redevelopment operations have focused on only enlivening city-centres at the level of physical maintenance, since the first redevelopment district was designated in Seoul in 1973 (Im, 2006). Accordingly, recent domestic research has tried to set the general framework in order to propose a national-level orientation. Kim et al. (2003) and some other researchers suggested growth management. Park and Oh (2004) and others studied policies and systems comparing with some successful international while Im (2006) and others examined them through local projective cases.

Long before, in developed countries, urban regeneration policies were popular means of sorting out urban problems related to development without consideration for the environment and QOL deterioration in existing cities. Mainly, they were performed through growth management (USA), community development (Japan) and sustainable development (UK). Though there are various courses of urban redevelopment, most finally conclude with the sustainability concept.

2. SUSTAINABLE DEVELOPEMENT

2.1 Definition

In Brundtland, SD (Sustainable Development) was defined as ‘development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs’ (The World Commission on Environment and Development in United Nations, 1987). From that time forward, SD has become a universal concept (Lee, 2001) and the concept has improved in many ways.

2.2 10 Issues

Since the Habitat Agenda announced at the UN Habitat II Conference in 1996, the concept has started to evolve into human settlement issues. Lee (2001, 2002) identified 10 principal issues through examining the Habitat Agenda. Each issue is classified into 3 domains (Social, Economic and Environmental) of sustainability. Figure 1 shows the issues that are evolved further into the main issues of Korean Sustainable New Town Planning.

Social Sustainability	Social Development (Creation of Productive Employment, Social Integration)	Population Management and Development of Habitat	Preservation and Restoration of Historical and Cultural Heritage	Disaster Prevention, Reduction and Rehabilitation
Economic Sustainability	Improvement of Urban Economy	SUSTAINABLE HABITAT (Habitat Agenda)		Balanced Development in Agricultural Habitat
Environ- mental Sustainability	Sustainable Land Use	Sustainable Transportation and Information Technology System	Ecologically Healthy and Vital Habitat	Sustainable Energy Use

Figure 1. 10 Issues of Sustainable Habitat (Lee 2002)

3. SUSTAINABLE URBAN REGENERATION

3.1 History and Process of UR

BURA (2000) puts the evolution of UR reports together and identifies as roughly 5 phases: master plan-based reconstruction in the 1950s; suburban and peripheral growth-oriented revitalisation in 1960s; in-situ renewal and neighbourhood schemes in the 1970s; many major schemes of redevelopment in the 1980s; a more comprehensive form of policy and an increased emphasis on integrated treatments in the 1990s. Throughout the history of urban regeneration, leadership has shifted from local to national, but participation opportunities has been expanded to more stakeholders and the policies have become more integrated and comprehensive.

As you can see in Figure 2, a variety of themes and topics are involved in contemporary UR and the multiplicity of interrelated outputs. As cities are continuously changing, a diversity of internal and external drivers of change are involved in urban problems and requirements. Therefore, a more comprehensive analysis and integrated treatment are inevitably needed to sort it out. The sustainable point of view is suitable to analyzing the matters being faced, and to synthesise all opportunities and challenges through interplay between these inputs and outputs from the UR process for making strategies and presenting goals.

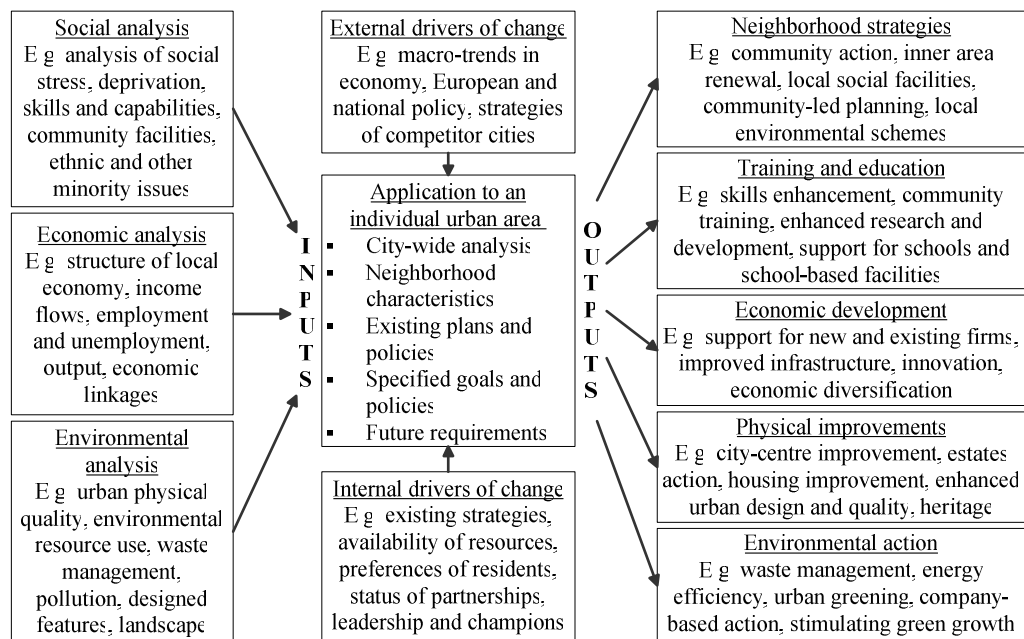


Figure 2. The Urban Regeneration Process (Roberts, 2000)

3.2 Definition

As mentioned above, UR has been carried out in order to enliven urban societies and economies and to rehabilitate deteriorated urban functions and lands. These performances then definitely give new opportunities and better environments to the next generation in many ways. Therefore, UR itself already includes the concept of SD. As Roberts (2000) stated, urban regeneration can be defined as comprehensive and integrated vision and action that leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been, or is subject to, change.

Likewise, SUR (sustainable urban regeneration) is not only about the physical redevelopment in cities, but rather total quality control of a city and the city-life. SUR can be defined as ‘the holistic vision and action that secures the quality of the present generation’s life within minimizing adverse effects on the quality of future generations’ at the urban level’.

4. ISSUES AND PLANNING GOALS FOR SUSTAINABLE URBAN REGENERATION

4.1 Methodology and Range

Though SUR is the holistic vision and action, real UR is presented in a particular place at a specific moment in time. It needs not only comprehensive issues to achieve integrated goals but also planning items to closely approach practical objectives. For that purpose, this paper establishes key issues and planning goals of SUR corresponding contemporary Korean condition. This paper concentrates on literature surveys mainly from British experience and the current considerations in Korea.

For identifying significant issues, firstly this paper reviews key issues of sustainable habitat from the Habitat Agenda (UN, 1996) for providing a link between sustainability and urban regeneration and extracts some preliminary issues. Secondly, it studies the British urban regeneration process, strategies and visions in order to identify principals and topics. Then, it examines contemporary topics (BURA 2000, UTF 2005). It also examines contemporary topics about Newtown projects (Lee 2005) and research topics in Korea (KICTEP, 2006) to get characteristic items from the current Korean condition. Finally this paper classifies identified issues into 3 domains of sustainability.

For building planning goals, firstly this paper reviews objectives and indicators of Sustainable New Town Planning Standard (MOCT, 2005) for seeking a link between SD and UR from the Korean point of view. Secondly, it studies frequent aspects from applicable cases in Britain and Europe (Roberts et al., 2000) to benchmark planning elements from pioneers. Then it examines British visions and recommendations presented in British experiences (UTF 1999, 2005). Moreover, some indicator-based approach studies are helpful to give ideas about the extraction of essential considerations (Hemphill 2003) and investigation of the SUR factors related with QOL (Ng, 2004). After researching these international documents, it reviews, thirdly, articles from 11 newspapers in Korea (2000~2007) and selects related items and suggestion points of UR documents (KICTEP, 2006) in order to extract contemporary critical items of Korean UR.

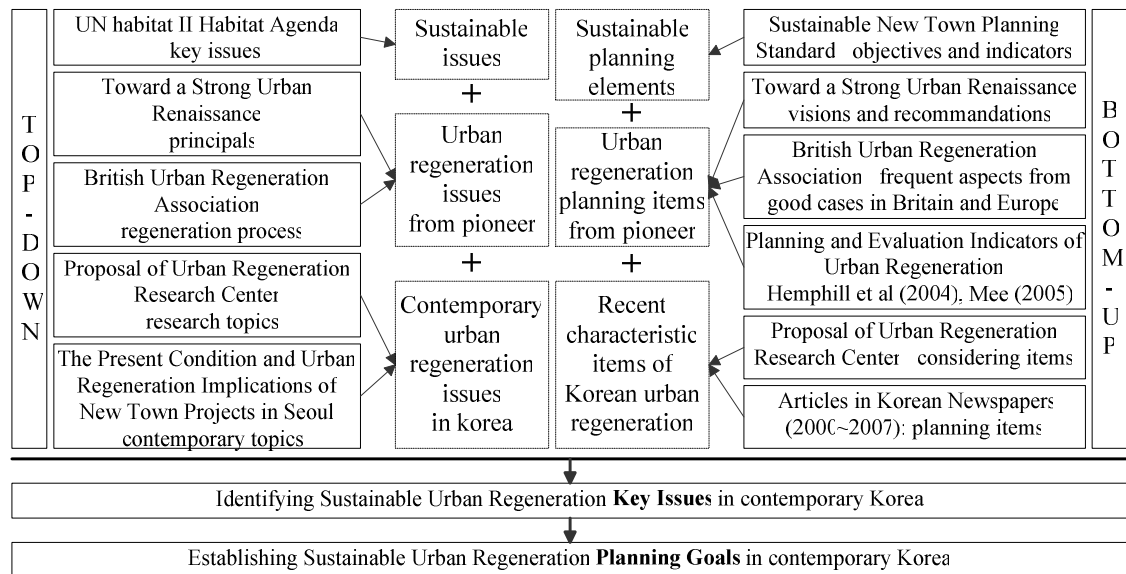


Figure 3. Research Methodology

4.2 12 Issues

After the process mentioned above, this paper identified 4 key issues in each sustainability domain. While Britain has carefully put forth efforts into social and environmental areas with all-inclusive concern of 3 domains, Korea contemplates the economic sector and more or less overlooks environmental domain. In comparison with new developments, SUR needs more concern about the economic domain: especially the issue of balanced development with existing context by step-by-step balancing growth, and the social domain: encouraging participation issue including third sector partnerships and town making.

Table 1. Sustainable Urban Regeneration Key Issues Identification

Sustain-ability	Key Issues	UN (1996)	BURA (2000)	UTF (2005)	Lee (2005)	KICTEP (2006)
Social domain	social development	●	●	●	●	●
	historical and cultural identity succession	●	●	●	●	
	human and urban resource management	●	●	●	●	●
	encouraging participation		●	●		●
Economic domain	urban economy revival	●	●	●		●
	balanced development		●	●	●	●
	value management				●	●
	security, safety and disaster preservation improvement	●	●	●		
Environ-mental domain	sustainable land use	●	●	●	●	●
	sustainable resource and energy use	●	●	●	●	
	sustainable transport and ubiquitous system	●	●	●	●	●
	sustainable and healthy urban environment restoration	●	●	●		

4.2 Planning Objectives

With the process mentioned above, planning goals are established from a number of planning items through research group debates and expert advice. The social integration between existing communities and newcomers and lower-income inhabitants is a distinguished fact in social domain. Also related with the importance about population management issues, education system enhancement and the redevelopment speed keeping up with income increasing rate are proven as critical objectives. Goals of productive employment creation is weighed to consider the urban economy revival issue in economic domain and coincidentally, affect human resource management issues in the social domain. In the Korean situation, while restraint of speculation in real estate goals in the economic domain is a valid objective to solve the problems being faced, interests in ubiquitous-based infrastructure in the environmental domain is an unexplored item.

Table 2. Sustainable Urban Regeneration Key Issues and Planning Goals

Sustain ability	Key Issues	Planning Goals	①	②	③	④	⑤	⑥	⑦	⑧
Social domain	social development	community revitalization	●	●	●	●	●	●	●	●
		social mix and diversity	●	●	●	●	●	●	●	●
		coexistence with social weakness	●	●	●	●	●	●	●	●
	historical and cultural identity succession	regional culture identity	●	●	●	●	●	●	●	●
		restoration and conservation of historical heritage	●	●	●	●	●	●	●	●
		excellent design with local character	●	●	●	●	●	●	●	●
	human and urban resource management	original inhabitants resettlement	●	●	●	●	●	●	●	●
		enhanced educational systems	●	●	●	●	●	●	●	●
		local public service enhancement	●	●	●	●	●	●	●	●
		physical infrastructure enforcement	●	●	●	●	●	●	●	●
	encouraging participation	Third sector partnerships	●	●	●	●	●	●	●	●
		town making agreement and support	●	●	●	●	●	●	●	●
Economic domain	urban economy revival	local economy revitalization	●	●	●	●	●	●	●	●
		city marketing	●	●	●	●	●	●	●	●
		productive employment creation	●	●	●	●	●	●	●	●
	balanced development	step-by-step balancing growth	●	●	●	●	●	●	●	●
		balancing environmental protection with business development	●	●	●	●	●	●	●	●
		connection with superior institution	●	●	●	●	●	●	●	●
		reservation area establishment	●	●	●	●	●	●	●	●
	value management	share in increased values created	●	●	●	●	●	●	●	●
		restraint of speculation in real estate	●	●	●	●	●	●	●	●
		efficiency and integrated management of public investment	●	●	●	●	●	●	●	●
	security, safety and disaster preservation improvement	urban security and safety enhancement	●	●	●	●	●	●	●	●
		disaster prevention system and prompt recovery	●	●	●	●	●	●	●	●
Environmental domain	sustainable land use	urban greening	●	●	●	●	●	●	●	●
		sustainable density distribution	●	●	●	●	●	●	●	●
		considering existing resource	●	●	●	●	●	●	●	●
		brown field reuse	●	●	●	●	●	●	●	●
	sustainable resource and energy use	energy efficiency	●	●	●	●	●	●	●	●
		efficient waste management	●	●	●	●	●	●	●	●
	sustainable transport and ubiquitous system	Intelligent Transportation System(I.T.S.)	●	●	●	●	●	●	●	●
		green transportation network	●	●	●	●	●	●	●	●
		well-integrated with public transport	●	●	●	●	●	●	●	●
		accessibility improvement	●	●	●	●	●	●	●	●
		eco-friendly parking planning	●	●	●	●	●	●	●	●
		ubiquitous communication system	●	●	●	●	●	●	●	●
	sustainable and healthy urban environment restoration	local environmental management scheme	●	●	●	●	●	●	●	●
		urban ecology rehabilitation	●	●	●	●	●	●	●	●

① MOCT (2005) ② Roberts et al. (2000) ③ UTF (1999), UTF (2005) ④ Lee (2005) ⑤ KICTEP (2006)

⑥ planning items from 11 News papers in Korea (2000~2007) ⑦ Hemphill (2003) ⑧ Ng (2004)

6. CONCLUSIONS

The paper establishes key issues and planning goals for sustainable urban regeneration through literature reviews and debates. Before identifying them, it defines sustainable urban regeneration.

In order for the SUR to complete the aim of presenting a comprehensive vision and actions securing the quality of urban life within environmental capacity as the definition, all the established issues and planning goals must be integrated with the most critical challenges and current conditions. As you can see in Table 2, for 'social' and 'economic' sustainability, each of the 4 key issues (social development, etc. for social; urban economy revival, etc. for economic) and 12 planning goals (community revitalization, etc. for social; local economy revitalization, etc. for economic) are established. Also, 4 key issues (sustainable land use, etc.) and 14 goals (urban greening, etc.) are identified in the 'environmental' sustainability domain. The 12 issues and 38 goals shown here can be used as the guidance and framework in future urban regeneration operations in Korea. Furthermore, the results of this study are expected to lay groundwork for step-by-step research strategies for SUR.

ACKNOWLEDGEMENT

This work was supported by the Sustainable Building Research Center of Hanyang University which has supported the ERC program of MOST (R11-2005-056-04005-0)

REFERENCES

- BURA (British Urban Regeneration Association, 2000), "Urban regeneration: a handbook", Sage publication.
- Hemphill, Lesley, McGreal, W.S. and Berry, J.N.(2003), "An Indicator-based approach to measuring sustainable urban regeneration performance: part 1, conceptual foundations and methodological frame work", *Urban Studies*, Vol.31, No. 4 (2004), pp. 725~755.
- HURI (Housing & Urban Research Institute, 2006), "Good cases and some suggesting points of urban regeneration in Japan" *HURI Focus* Vol. 22 (11.2006)
- Im, Yang Bin(2006), "A study on the urban regeneration project and its related laws in Korea", *AIK (Architecture Institute of Korea) journal* Vol. 22, No. 12 (12.2006).
- Kim, Young Hwan et al.(2003), " A study on the strategies and elements of growth management-typed city center regeneration", *KPA (Korea Planners Association) journal*, Vol. 38, No. 3.
- Ng, M.K.(2004), "Quality of life perceptions and directions for urban regeneration in Hong Kong", *Social Indicators Research* (2005) 71: pp. 441~465.
- MHRC (Merces Human Resource Consulting, 2007), "2007 Quality of Living press release"
- MOCT (Ministry of Construction and Transportation, 2005), "Sustainable New Town Planning Standard"
- KICTEP (Korea Institute of Construction and Technology Evaluation and Planning, 2006), "Final Report: prearranged research strategy of urban regeneration research centre".
- KNSO (Korean National Statistics Office, 2007), <http://www.index.go.kr/gams/default.jsp>
- Lee, Kyu In(2001), "A study on planning goals for the development of sustainable human settlements", *KPA journal* Vol.36, No.6.
- Lee, Kyu In(2002), "A study on the sustainability indicators for sustainable housing planning", *AIK journal* Vol.18, No.4.
- Lee, Seung Joo(2005), "The present condition and urban regeneration implications of new-town projects in Seoul", *Urban Forum 2005: Urban Regenesi*s, 4th presentation.
- Park, Cheon Bo and Oh, Deog Seong(2004), "A study on the policies and institutions for downtown regeneration of foreign country", *KPA journal*, Vol. 39, No. 5.
- Roberts, Peter(2000), "The evolution, definition and purpose of urban regeneration", vol. 2 of *Urban regeneration: a handbook*, Sage publication, pp.20.
- Roberts, Peter and Sykes, Hugh (eds.), 2000, "Current challenges and future prospects", vol. 14 of *Urban regeneration: a handbook*, BURA, Sage publication, pp.296.
- UN(1996), "The habitat agenda", *Habitat II*.
- UTF (Urban Task Force, 1999), "Towards a urban renaissance"
- UTF(2005), "Towards a strong urban renaissance"