



u-City Construction: Issues and Strategies

Emergence of a next-generation u-City

According to the National Communication Association, Korea's Information Society Index ranks the world's third following Sweden and the US as of 2005. The Internet penetration rate tops the world; its Internet users per 100 population are world's third; and it stands as the fifth highest level of e-government. Also, Internet banking users total 22.9 million as of 2005 with an e-trading volume amounting to 314 trillion won as of 2004. Korea has the world's best information & communications technology (ICT) infrastructure. As many as 220 million items of knowledge information resources from major five areas, including science and technology, education and culture have been digitized with over 8.2 million items used per month.

Faced with various challenges at home and abroad, the nation needs to make full use of its world's best ICT infrastructure as a new growth engine. In this respect, the recent trends of u-City construction in many existing cities and New Towns, aimed at enhancing the quality of people's lives and city's global competitiveness, are considered to be desirable.

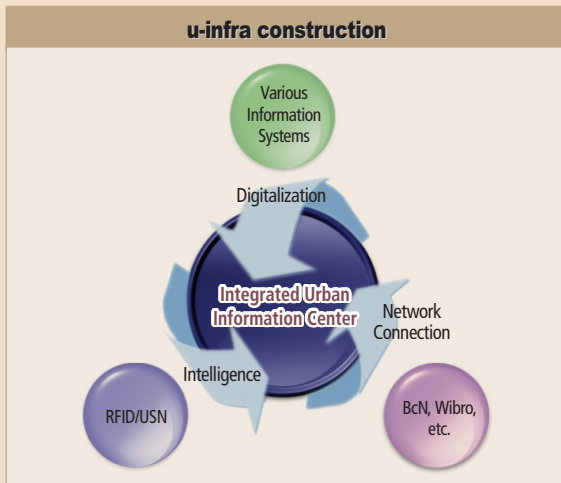
The word 'ubiquitous' hails from the Latin word 'ubique,' meaning everywhere. Ubiquitous computing refers to an environment in which people easily gain access to the Internet whenever and wherever, and obtain information and services they want. u-City, the combination of 'ubiquitous' and 'city,' can be defined as a city where urban functions are highly advanced through ubiquitous technology, and thus quality of people's lives and competitiveness of a

city are enhanced based on improved economic, social and cultural services.

u-City is gradually taking root as a new urban model to enhance global competitiveness and creativity of the private sector through the combination of hardware construction industry with software ICT infrastructure. It is expected to overcome the limitations of government-driven physical urban development and management. In order to effectively integrate a city with high-tech ICT infrastructure, cutting-edge ICT is being integrated into physical urban environments from the planning and construction stage of a city.

Current status of u-City promotion

Recently, local governments across the nation have been announcing, in a competitive manner, plans for u-City projects, with as many as over ten local governments actively promoting them including Seoul, Busan, Jeju, Incheon and Daejeon. u-City promotion activities are becoming visible in New Town development sites in Incheon/Songdo, Hwaseong/Dongtan, and Paju/Unjeong, and a u-City strategy plan or master plan has been established and is being promoted for the Innovation City, Enterprise City and Multifunctional Administrative City. Many local governments and urban developers are vigorously promoting u-City construction targeting urban problems such as environmental contamination, underprivileged classes, parking and traffic congestion while improving competitiveness and quality of life of a city on the basis of ICT.



Overseas, ubiquitous technology is emerging as a new paradigm of informatization in Japan and Europe as well as in the U.S. In these countries, governmental investment, research & development, and various pilot projects are being implemented in order to prepare for a ubiquitous network society that is just around the corner. However, foreign cases mostly focus on small scale building complexes or individual buildings, and differentiate from domestic ones in which u-City projects are conducted for an entire city as a whole.

Policy issues for u-City construction

Numerous challenges lie ahead in realizing the u-Cities. Since there are virtually no cases that can be benchmarked either at home or abroad, the nation must find its own way forward. The following are some of the major issues to be addressed for u-City realization:

The nation still lacks original technology necessary for u-City realization. There is confusion regarding u-City construction without a strong consensus on the concept and scope of u-Cities. There are not enough discussions on u-City construction regarding developers, their roles and distribution of expense burden. Technical and institutional measures to handle private information leaks, information gap and information security have yet to be set in place, and these issues are expected to increase as the ubiquitous age advances.

Standards and procedures required to provide various ubiquitous services to people have not been prepared, let alone guidelines for service standards and approvals. Specific strategies to promote role sharing among the public and private sector, and investments

are not satisfactory. Instead, supplier-oriented ubiquitous services are being enumerated without a thorough examination or analysis on people's demand.

In legal and institutional respects, without vision or long-range comprehensive plans, u-City construction is being promoted mainly based on a digital network by each individual developer. It will pose an obstacle to linking and managing the systems at the national level in the future. Under current urban planning systems, mistakes and confusion appear to be unavoidable when implementing u-City construction without any stipulation to refer to for u-City introduction. Also, u-City requires various stakeholders to be linked with each other along with enormous expense and time, while legal support for this is not satisfactory. As for regions, people might be hesitant to invest in u-Cities depending on the concerned region's financial independence, which will consequently cause information disparity among regions.

Strategies for a successful u-City construction

u-City projects should be promoted by the nation, businesses and people altogether so that they can play the leading role, as national growth engine, in pre-occupying the global market. To this end, the following strategies are suggested to be promoted:

At the national level, detailed guidelines should be prepared on the goals, scope and operating bodies concerning intelligent urban facilities. Guidelines on spatial data, standard systems, distribution systems and partnerships are required in order to put urban spatial data on-line. In order to realize an urban network, it is suggested to provide comprehensive strategies for both wired and wireless digital networks. Also, other guideline needs to be prepared by the Integrated Urban Information Center where all of the information is concentrated, on the location, function, operation and management.

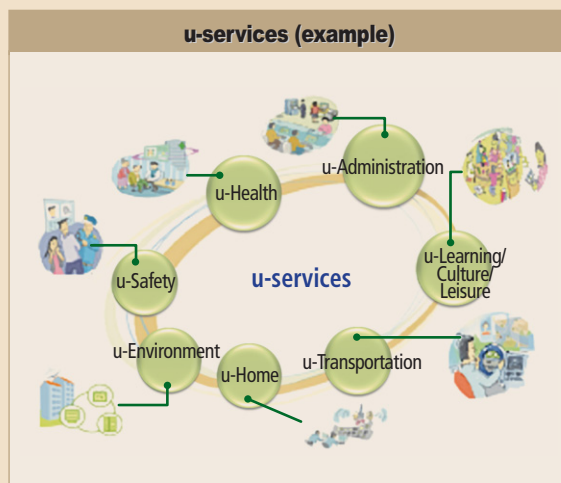
In terms of ubiquitous services, both the public and private sector should set a common goal, and explore and provide new ubiquitous services in collaboration with each other. Technologies, procedures and approval criteria for the services should be prepared in a cooperative manner, and they must come up with strategies to lead the global standard market by participating in the International Organization for Standardization. A series of infrastructure services required for urban life should be preferably developed. Additionally, specialized services reflecting on

regional characteristics should be actively developed. Also, demand-oriented ubiquitous service models should be explored and commercialized.

In terms of laws and regulations, the scope of urban planning, which is currently limited to physical space, is estimated to expand to electronic space. Therefore, a series of process rearrangements are required regarding the targets for planning, plan establishment procedures, plan contents and discussion procedures among organizations concerned.

In addition, as for a promotion body, an exclusive agency should be newly installed at the central and local government level. At the same time, an exclusive office should be prepared. In other cases, existing offices may additionally take the u-City-related tasks. It is also necessary to have the public and private sector rationally share the roles and work closely with each other. Measures to draw funds are required to invigorate u-City construction.

The strategies for the promotion are as follows: at the planning stage, an overall framework for u-City construction is set, and priorities among businesses are set according to a mid- to long-term road map related to infrastructure technology and services. At the construction stage, investment resources are pre-



pared at the governmental level, and measures for cooperation among public and private sector are explored, as well as issues regarding role sharing. Lastly, at the operational stage, operation plans are established. An operating body is installed and budgets are secured for maintaining and operating infrastructure and services.

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Environmental Degradation of the Territory: Diagnosis and Countermeasures

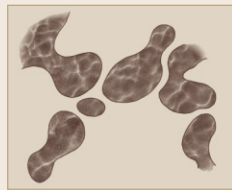
Current status of sustainable development

The success of sustainable development depends on the commitment to environmental conservation. In 2003, the Framework Act on National Territory, and Act on Planning and Use of National Territory were enacted, both of which have sustainable development as their fundamental vision. They are intended to introduce environment-friendly planning while suggesting the 'planning prior to development' principle. However, the controversy over degradation of natural environment under the Acts has continued.

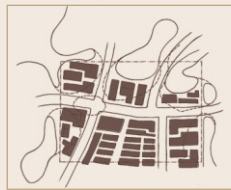
For sustainable development, conservation should be integrated into development. They have in common the goals of a pleasant living environment and healthy ecosystem. In other words, for environment-

friendly development, we need to recognize the significance of the 'regular' natural environment around us, as well as those considered to be worth protecting such as designated protected areas and protected species. This is because, in general, it is the natural factors within development sites such as green areas and streams that are destroyed with development, rather than those within protected areas. Therefore, it is crucial to prepare institutional frameworks to reduce environmental degradation within development sites and further, maintain the connectivity of the nature within these sites to its surrounding ecosystem. In order to minimize environmental degradation and create a pleasant and beautiful territory, practical tools should be prepared to control the process of plan establishment and environmental impact assessment (EIA).

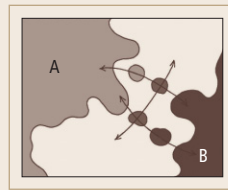
Types of environmental degradation



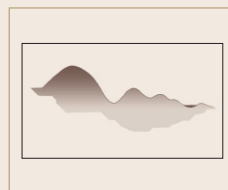
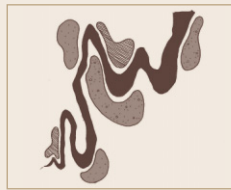
Green areas and plant habitats reduction



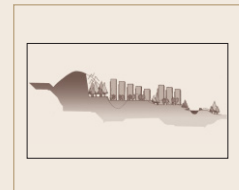
Loss of stepping stones



Stream topography transformation or straightening of the streamlines



Slopes flattened



Environmental degradation: the meaning

What environmental degradation means depends on perspective. Some consider development itself as nature degrading activities. Others do not agree, pointing out the inevitability of natural degradation following development for the sake of human beings. While it is difficult to reach a consensus on environmental degradation in terms of its definition and scope, this passage attempts to make an operational definition of the phrase as follows: an artificial behavior to reduce or deprive essential characteristics or capacity of natural environment, in particular, that resulting from facilities installation and natural environment transformation following the use and development of the territory. The definition is based on dictionary and institutional definitions of degradation and environmental degradation, and the contents of environmental conservation suggested in relevant literatures.

Causes of environmental degradation

The study has identified the causes of environmental degradation based on the examination of the following four development projects: housing site development, road construction, river and stream maintenance, and housing site development in suburban areas. Relevant institutions and plans, results of the environmental review, field studies and expert surveys have been also referred to for identifying the

causes as follows: i) development plans ignoring the problem of environmental degradation; ii) incomplete process of the environmental review; iii) insufficient consideration of the area-wide green axis system, and lack of legal institutions for potential areas for protection; iv) plans focused on distribution of facilities for human convenience rather than consideration for nature; v) differing understanding of development and conservation among people; vi) plans based on excessive confidence in science and technology; vii) and development behavior using loopholes in the law.

Implementing tools for environmental degradation reduction

Basic directions to environmental degradation reduction are first of all, a shift from the Dominant Social Paradigm to the New Ecological Paradigm. Others include the conservation of natural environment in general, as well as designated protected areas and protected species, and territorial planning stressing philosophical perspective and on the basis of culture and ecology instead of physical factors and facilities. The six categories of implementing tools to reduce environmental degradation, suggested based on the above directions, can be summarized as follows: strengthening the environmental review in spatial planning; drawing out environmental plans as guidelines for development; unifying and linking systems

of the EIA; preparing stipulations on environmental degradation reduction and landscape considerations; systematically introducing ecosystem services; and drawing an environmental map.

The descriptions of the six types of implementing tools are, firstly, to newly establish a plan to reduce environmental degradation as sectoral plans when setting up various spatial plans, while linking it to upper level and environmental plans, and analyze potential development sites focusing on potential protected areas.

Secondly, since environmental plans as development guidelines are to conserve the environment against land use, they should basically include items related to natural environmental conservation and landscape management; to this end, the plans should be set up from a spatial perspective. In addition, environmental plans should include, on the basis of natural environment analysis and assessment, practical information in order to support development plans.

Thirdly, in order to unify and link systems of the EIA, it is crucial to integrate the operation of a prior environmental review into strategic environmental assessments, improve the EIA system and introduce post-evaluation processes on whether the EIA has been implemented or not.

Fourth, through stipulations on environmental degradation reduction and landscape considerations, countermeasures should be explored at the planning stage against inevitable degradation following development.

Fifth, in order to systematically support ecosystem services, suitable plans and guidelines should be drawn to identify types of ecosystem services and provide with the services. Along with this, green infras-

tructure planning is suggested to be set up in order to provide ecosystem services in a planned manner.

Lastly, an environmental map should be drawn, which is necessary to properly promote the five types of implementing tools above. This map will be a construction of basic information based on the biotope data, and considered to be key in addressing environmental degradation.

Starting point: shift in awareness of nature

Among measures suggested for environmental degradation reduction, the top priority should be put on the shift in awareness of nature, environment and development. This will lay the ground for providing institutional tools to realize sustainable development in the proper sense of the word. In addition, a plan establishment system should be transformed so that territorial plans can be prepared based on considerations of the quality of nature along with philosophical thought.

Nature does not tell us what to do. It simply accepts what we do to it, and returns that to us. The consequences of environmental degradation following development have been an unpleasant living environment and unhealthy ecosystem. Now it is time to heal our environment. Suggestions for institutional improvements in this study, which are adoptable in the course of plan establishment and environmental review, are minimum measures to reduce environmental degradation. Through more study and interest, it is expected that, in the near future, we will consider it natural to pursue development adapted to the environment.

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Implementing tools for reducing environmental degradation	
Strengthen the environmental review in spatial planning	<ul style="list-style-type: none"> • Set up a new sectoral plan against environmental degradation • Secure linkage among upper and lower level plans • Analyze potential development sites focusing on potential protected areas • Link to environmental plans
Draw environmental plans as development guidelines	
Unify the EIAs and link them to each other	<ul style="list-style-type: none"> • Unify the EIA process • Improve the EIA and introduce a post-evaluation • Link planning to the environmental review process
Prepare nature considerations stipulations	
Prepare conditions for systematic ecosystem services provision	
Draw environmental maps	

Housing Stock Management Policy: the Way Ahead

With the consistent supply since the 1960's, as of 2005, the total number of the housing units of the country is 1,322 with the ratio of the number of houses to the total households, except a single-member household and non-relative family, reaching 106%. Though this rate still remains at a 90% level in Seoul, most metropolitan areas have topped 100%. In many small and medium-sized cities in provinces, the rates are as high as 130%~140%. Therefore, it has become more important to systematically manage the existing housing stock as much as providing new housing, and the significance will further grow in the future. However, the housing policy is still focused on the supply of new housing mainly in and around Seoul whereas little attention is currently being paid to housing stock management.

While the government endeavors to promote programs for housing stock management, they are not as effective as expected. Rather, they trigger confusion in the housing market in some aspects since devised measures tend to be piecemeal and short-sighted without comprehensive goals or strategies. Besides, in small and medium-sized provincial cities, where housing supply is sufficient, housing reconstruction, or remodeling and rehabilitation is being detained by inadequate policies. This accelerates the dilapidation of existing housing. Accordingly, a need has been raised to evaluate current government policies on housing stock management, and to prepare clear policy goals and effective strategies to achieve them.

Goals and visions of housing stock management

The ultimate goal of the housing policy would be to enable people, regardless of their social class, to enjoy better housing service. To realize the goal, quality housing stock should be sufficiently provided and housing must be affordable. Reflecting on the characteristics of the current housing stock in the nation, the following considerations are suggested to be taken to ensure quality housing stock in the future:

First, the types of housing should be diversified to avoid filling the entire city with monotonous

skyscraper apartments and to meet various preferences and needs of households. For this, it is very important to transform the current low-density communities to more livable and attractive places by providing sufficient parking spaces, open spaces such as playground for children and neighborhood parks, and community centers.

Second, housing should be diversified in size. While the supply of small-sized houses is necessary for low-income households, the potential demand for medium-sized and large houses should be also addressed. This is because it is expected that in the near future, a house must be equipped with a work space as web-based work-from-home jobs become increasingly more common.

Third, elderly-friendly housing should be sufficiently supplied while gradually improving the existing housing stock to meet the Korean Standard of Universal Design - a design that is suitable for the elderly, disabled and others in need of special physical care. Physical characteristics of the elderly and ultra-elderly, and expediency may be the key factors in setting the standard.

Fourth, housing and its environment should be healthy, pleasant and convenient to live in. Healthy housing has sufficient sunlight and natural ventilation, which prevent bacteria and pollutants and allow residents, children, in particular, to live and play safely. Pleasant housing has sufficient open spaces and natural elements such as trees, grass and earth in the surrounding areas, in addition to the preconditions of healthy housing. Convenient housing is well equipped with parking spaces, access roads and welfare facilities including nursery facilities, kindergartens and community centers nearby.

Fifth, securing durable and long-lasting housing is a must. Currently, local apartment buildings are reconstructed less than 20 years after initial construction. This raises the need for more durable construction materials and materials that are easily replaceable with new ones upon renovation or remodeling. Additionally, the interior of a house should be transformable according to the life cycle of the family, or change in the way people live in the house.

Lastly, housing should be energy efficient. It is

desirable that the construction of excessively energy-consuming housing should be limited and instead, standards for housing construction should include a system for obtaining sufficient sunlight.

Promotion strategies

To set up a Master Plan for Mid- to Long-term Housing Stock Management From a mid- to long-term perspective, the goals of housing stock management, and a 'Master Plan for Mid- to Long-term Housing Stock Management' should be established to effectively achieve the goals. A committee aimed at setting the Master Plan can be constituted with mainly an expert group. It is desirable that the proposal of a Master Plan for housing stock management is suggested to the government, on the basis of a thorough analysis of the current housing stock over a two to three-year period. Once the Master Plan is prepared, programs related to housing stock management should be adjusted and coordinated to suit the mid- to long-term goals and strategies suggested in the Master Plan.

To differentiate policies by region and increase the role of local governments The housing stock

should be managed differently according to the conditions and situations of each region. For this, the role and responsibility of regional governments should be increased in managing the housing stock, allowing regional governments to prepare standards under their ordinances depending on the circumstances of the local governments.

To grant incentives for renovation and remodeling While programs for supporting housing remodeling and renovation are currently set in place, their actual effectiveness is extremely poor. Therefore, strong incentives should be introduced.

To establish high-quality spatial planning and community renovation programs Community renovation programs should be prepared and provided by the central government to provincial governments along with a required budget. Through the programs, local governments will be able to enhance the quality of the existing housing stock by equipping a general residential area of a single family housing mixed with a small scale apartment complex with parking spaces, a playground for children, neighborhood parks and a community center.

Improvement of programs for housing stock management	
Program	Promotion Strategies
Reconstruction	<ul style="list-style-type: none"> • Differentiated incentives or regulations among regions <ul style="list-style-type: none"> - Regions with low rent increase rate: encouraging reconstruction by lowering development costs with financial assistance - Regions with high rent increase rate: delaying reconstruction through restitution of development gains • Preparing long-term policy tools as well as short-term policy tools • Controlling reconstruction under urban planning • Adjusting the years allowed for reconstruction
Remodeling	<ul style="list-style-type: none"> • Establishing principles for policies for remodeling • Developing remodeling policy to be promoted in combination with preventive maintenance and management policy • Reinforcing assistance for remodeling in areas other than the capital region • Expanding remodeling assistance to detached housing • Relaxing regulations on expansion • Strengthening tax credits and financial assistance
Rehabilitation	<ul style="list-style-type: none"> • Expanding financial support and tax credits • Supporting renovation of housing for the elderly and activating a reverse mortgage system • Expanding support for energy efficiency improvement projects

To set up housing standards to accommodate future circumstances. It is recommended that financial support be provided upon reconstruction or remodeling of housing on condition of applying future construction standards. To name a few, the construction should be elderly- and disabled-friendly; the standards for the structure and design strength should be lifted; and the interior of a house should be transformable according to the dwellers' demand.

The country's most influencing programs related to housing stock management currently are the housing reconstruction program, housing remodeling program and a set of incentives to promote the rehabilitation of old housing. The table on page 7 summarizes suggested measures to improve these programs.

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Joint Tourism Projects in North Korea for Inter-Korean Exchange and Cooperation

Significance of inter-Korean cooperation in tourism

Compared to its land size, North Korea has a number of tourism resources, each of them with unique characteristics. Also, thanks to strict control by the authorities, historical remains, cultural assets, picturesque scenery and regional specialities have been well-preserved and maintained in North Korea. These tourism resources could be utilized for cooperative projects by South and North Korea, and should this happen, both North and South Korea will benefit in several respects.

In terms of politics, this cooperation will bring about a reconciliatory mood to the Korean Peninsula, helping ease tension and restore stability in the region. Cooperation in this regard will also accelerate the opening of the secluded state to the world, which will ultimately lead to peaceful reunification of the two Koreas. In terms of economy, it will contribute to solving economic difficulties of the two nations and expanding the prospects of foreign investment, which will enliven regional economies and increase the exchange of products between the two Koreas. Lastly, socially and culturally, by providing a chance to jointly excavate, restore, create and exchange the cultural and tourism resources of the two states along with related information, it will contribute to overcoming heterogeneity between the two Koreas created since the division of the country more than half a century ago.

In this context, this study has been carried out to assess the overall conditions for tourism development in North Korea - this has been done through

the analysis on the potential and demand for tourism in the nation - and identify suitable types of tourism development matching the actual conditions of the nation. Based on this, directions to utilizing tourism resources have been suggested in order to activate economic collaboration between the South and North, as well as among other Northeast Asian countries.

Pilot projects selection

First of all, the study has explored and selected as pilot projects those that are feasible for South-North, and Northeast Asian cooperative projects. Since the open-door policy and will to open of North Korea are crucial factors in this, the connectivity to the tourist attractions that the North has decided to open to the outside world has been a major factor in selecting the pilot projects. Major criteria for the selection are proximity to infrastructure such as airports, seaports, railways and national highways, accommodations, estimated demand, consumer preference, and the North's willingness to develop.

The evaluation of the proximity is focused on the distance to a major transport network with that of accommodations on facilities annexed to them and guest rooms. Along with these, estimated demand and preference based on surveys have been analyzed, and lastly, the nation's willingness to open the area to the world has been considered. Applying these criteria comprehensively, the screening results show that the Pyeongyang, Mt. Geumgang,



Gaesung, Mt. Baekdu and Najin-Sunbong Zones appear to be highly suitable for implementing pilot projects.

Methods for promoting the pilot projects

Stages of pilot project promotion

The promotion of the pilot projects are divided into three stages: opening promotion, opening expansion and opening settlement. In the opening stage, North Korea promotes an open-up policy while realizing inter-Korean cooperation at limited levels. To be specific, plans for expanding the Mt. Geumgang tour, and collaboration in tourism projects in Gaesung, Pyeongyang and Mt. Baekdu are promoted at this stage.

In the opening expansion stage, the scope of the opening is expanded, with exchange and cooperation between the two Koreas becoming active, and inter-Korean collaboration taking root. In detail, plans are set up to expand eco-tours that link Mt. Geumgang to Mt. Sorak in the border region, and strategies are explored to make full use of cultural and historical heritages spread in Gaesung, Ganghwa-do, islands in the Yellow Sea, and coastal areas in North Korea. It is also possible to simultaneously promote eco-tours in and around Mt. Baekdu, and in the neighborhood of the Duman River and Amur River Basin of Russia.

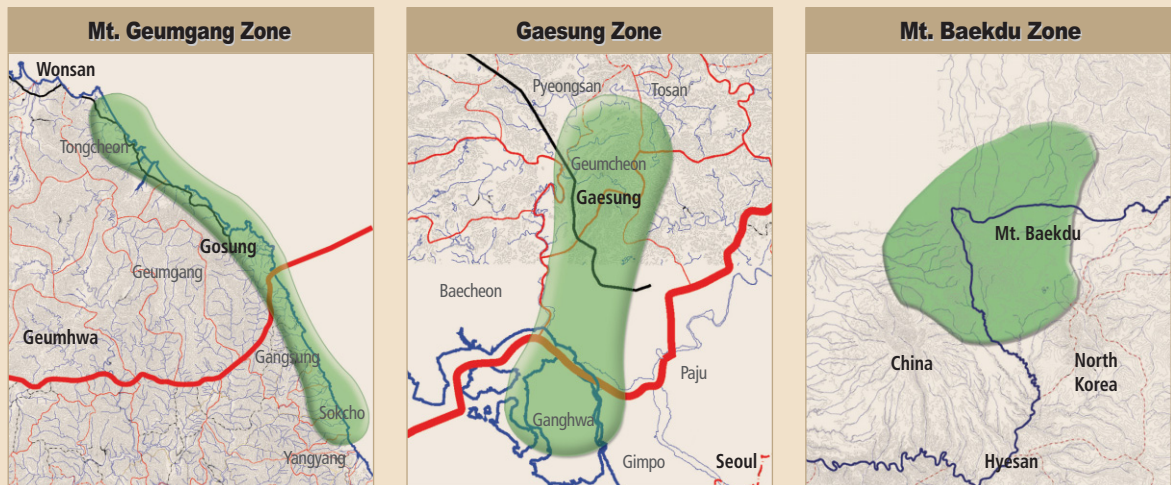
In the final stage, free economic exchange and cooperation are accomplished prior to political reunification of the two Koreas. To be specific, tourism is promoted in the Demilitarized Zone, and a tourism hub project is launched that links all the tourism resources of all the Northeast Asian countries of South and North Korea, China, Russia and Japan. At the same time, the entire tourist attractions across North Korea are linked to each other to facilitate combined tours.

Proposals of detailed plans for each pilot project

Mt. Geumgang Zone At the first stage of the project, a joint plan for a cooperative project should be established and a Framework Agreement between the two Koreas signed as a basis for the promotion of the South and North Korea Joint Tourism Project. To do so, an agreement should be signed prior to this so that the establishment and promotion of the plans for a combined Wonsan-Mt. Geumgang-Mt. Sorak tour can be facilitated.

What has to be done at the next stage is to join disconnected roads and expand transportation infrastructure in both nations. Specifically, the National Highway No.7 and the Northern Donghae Line should be completed, and roads expanded that are currently under promotion for the Mt. Geumgang tour. Special attention should be paid to the expansion of tourism infrastructure in the Wonsan Zone. Then, cross-border tourism should be implemented between the South and North while internationalizing tourism products of the North at the final stage. That is, tourists from the South should be exchanged with those from the North, and international tourism projects should be promoted simultaneously.

Gaesung Zone At the initial stage, an agreement should be signed on the methods for project promotion, financial investment, infrastructure construction, and treatment of costs and profits, which will consequently lead to the establishment of cooperative plans for a combined tour to historical and cultural sites in Gaesung and Ganghwa-do, and a conclusion of the Framework Agreement. Next, in order to join disconnected roads and expand transportation infrastructure in both nations, the existing National Highway No.3 and the Gyeongui Line should be completed, and roads for tourism expanded. Tourism infrastructure



should be also expanded. In addition to this, marine transportation, railways and roads that connect Ganghwado and Gaesung should be provided to satisfy the needs of tourism. At the final stage, methods for cross-border tourism should be explored that will allow tourists from the South to go to the North, and vice versa.

Mt. Baekdu Zone An agreement should be signed at the first stage that will guarantee the establishment of joint plans for linked tours, implementation of pilot tourism projects mainly around current tourist attractions, and promotion of the projects. Next, disconnected roads should be reconnected and infrastructure expanded at the second stage, for which the Samjiyeon Airport and accommodations should be complemented and year-round tourism should be

encouraged through the development of diverse tourism products. At the final stage, tours for people from the South should be fully developed while promoting cultural and historical tourism at the historical remains of Gojosun, Gokureo and Balhae Dynasty in Manchuria. In particular, the following tourism projects are suggested to be linked to this tourism project: railway tours to three provinces in northeastern China, tours to Beijing via overland transportation and airways, eco-tours in the Cheongjin-Najin-Mt. Chilbo area, cultural tours in North Korea and Russia in the surrounding areas of the Goryeo people's residence, and eco-tours in the Amur River Basin in the Maritime Province of Siberia.

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Territorial Policy Overseas and Its Implications for Korea

The core of Korea's territorial development policy is a balanced regional development and decentralization. However, these are not the goals that can be found only in Korea's territorial policy. Broadly speaking, the territorial development policy which is regarded as a product of the unique circumstances of a nation, is prepared in a similar manner with a common backdrop globally. To name a few, France, the Netherlands and Ireland, as well as neigh-

boring Japan and China put high priority on balanced territorial development, promoting similar policies.

Accordingly, a comparative study on territorial development strategies of major countries of the world can provide crucial policy implications for future territorial policy development of Korea. In this vein, a study has been conducted to review the strategies, examining current issues in territorial development, territorial policy paradigm, and strategies for

sub-issues of major policies of the countries. The following are the major findings of the study, and policy implications drawn from the review:

Comparative study on the territorial policy

France

In France, the territorial policy paradigm has recently shifted from balanced regional development to the strengthening of competitiveness due to reasons including the inauguration of new government, progress of globalization and economic slump. This is well reflected in the restructuring of the CIADT (Comité interministériel d'aménagement et de développement du territoire) to CIACT (Comité interministériel à l'aménagement et à la compétitivité des territoires), and expansion of the DATAR (Délégation à l'aménagement du territoire et à l'action régionale) to DIACT (Délégation interministérielle à l'aménagement et à la compétitivité des territoires) in late 2005. This indicates the government's strong will to integrate industrial and territorial policies of the nation, and enhance territorial attraction while maintaining existing support for underdeveloped areas.

In addition, concession of central government's power to regions aimed at strengthening competitiveness has produced secondary effects of expanding the main actor of regional development, from the central government to local governments, councils and even the private sector. Coupled with this, vertical and horizontal cooperation and contracts among them have become common amid the growing need for linkages among different actors. As a result, multilateral governance systems have been fully established in the nation now.

The Netherlands

The major territorial issues that the Netherlands are currently coping with are to achieve a competitive territory and conserve nature and natural resources aimed at improving quality of life. The National Spatial Strategy (NSS) of the country contains directions to territorial development to address these issues.

Under the NSS, the nation is promoting the following strategies to establish a desirable spatial structure: networking cities and reinforcing key economic areas; developing various types of ports; and improving accessibility to high-speed transportation. Addi-

tionally, one of the exemplary strategies the NSS presents is to develop the capital region or RandStad, for which the recent stress is put on gaining international competitiveness through the urban network. For example, under the plan, the four major urban zones - Rotterdam, Amsterdam, Hague and Utrecht - are to specialize in differentiated functions, and a complex Deltametropolis is to be constructed that includes, as the development concept, the three planning factors of Delta (Environment), Metro (Transport Network) and Polis (Nodal Region).

Ireland

The biggest territorial problem Ireland is confronted with at present is socio-economic unbalance among regions. To solve this problem, the National Development Plan has been established which is geared to addressing regional disparities in income and economic capacity; strengthening the local industrial base; and enhancing the quality of people's lives. The basic framework of the plan is a balanced territorial development. In addition, the plan intends to improve the effectiveness of the Dublin region, the center of the national economy, which contributes to a balanced regional development through smooth exchanges with surrounding or connected regions. It also attempts to stratify the territory into Gateway, Hub, and County/Town, and build a settlement system via dynamic rural development of various types.

Another project under its territorial policy is to relocate public agencies which has been promoted since 2003 as a tool for balanced regional development, a key objective of the country's national development scheme. The project will see a total of 10,300 public officials move to 53 provincial regions in 25 counties from central Dublin.

China

With the reform and opening-up policy promoted mainly in coastal areas equipped with a well-maintained infrastructure, economic disparity between coastal cities and inland regions, and urban and rural areas has been ever aggravated. To address this problem, the government has been announcing since 2005 such policies as a large scale development plan for western China, a plan to boost former industrial bases in the northeastern region, the promotion of central



region development and the reinforcing of the development of the east.

In accordance, the territorial planning of China has been transformed from the previous three-pole structure of east, west and central region to a four-pole structure of east, west, northeast and central region. Under this scheme, detailed strategies for each individual region are being developed. Additionally, development based on regional cooperation is gradually being stressed to achieve balanced regional development.

Japan

In 2005, Japan revised laws and regulations related to territorial planning in order to actively utilize marine resources and expand regional power. This was to prepare the nation for the age of low growth and population reduction with an increasing aging population. The Comprehensive National Development Plan developed in 1962, which had significantly contributed to the economic growth of Japan, was renamed as the New National Land Sustainable Plan (NNLSP).

Sub-plans of the NNLSP that appear to have significant implications for Korea, are the Plan for Cap-

ital Region Renewal and Program for Tokyo Region Renovation. The former is to promote orderly development of the capital region and deals with the following programs: the formulation of a decentralized network spatial structure, designation of a specific district in which special measures are applied in terms of land use regulation, business running and taxation, and restructuring of the central business district. Under the Program for Tokyo Region Renovation, the MetroECOPlex is proposed as the future image of the region which is envisioned to accomplish an affluent living environment and conserve history and culture in the Tokyo region through an original and brand-new vitality.

Policy implications for Korea

Korea has pursued growth strategies that place higher emphasis on quantity rather than quality under the dual spatial structure: capital region and the rest of the region. However, with a \$30,000 per-capita-income era just ahead, Korea needs to shift its territorial development paradigm to qualitative from quantitative growth, which encompasses both the capital and other regions. In shifting the paradigm, the cases of territorial development of France, the Netherlands, Ireland, Japan and China, have important policy implications for us as shown above.

The future territorial policy of Korea should focus on harmonizing the quality of life through balance and growth, each of which has been sought separately until now. In addition, self-sufficiency, self-control and power decentralization should be taken seriously. Other focal points to reflect upon include environmental considerations following development, urban regeneration and rural reconstruction, cooperative mechanism and cross-regional integration.

Along with this, it is necessary to form a territorial structure of a multi-nucleus decentralized type and a network type. Customized programs and projects that reflect on regional characteristics should be also devised. Lastly, all of these initiatives should be coupled with such strategies as combined and integrated approach by multiple sectors, policy at the global level, establishment of an independent organization for a territorial policy, and the reformation of legal and institutional basis.

Korea-Egypt Joint Project: Establishment of Monitoring Systems to Evaluate Land Policies of Egypt

In Egypt, 96% of the entire territory is desert, and most of the population is concentrated in the remaining 4%, which are largely comprised of urban areas. The steady influx of population since the beginning of the 20th century into urban areas, which are small and narrow compared to the total land, has caused various urban problems in urban centers and surrounding farmland such as informal settlements and housing shortages. In this context, the Egyptian government asked Korea, which has an experience of successfully solving similar land problems in a short period in the recent past, for assistance regarding land policy, urban planning, policy evaluation, and urban indicator development in Egypt. Accordingly, the Korea Research Institute for Human Settlements (KRIHS) has launched a joint research project with Egypt's General Organization for Physical Planning, financially sponsored by the Korea International Cooperation Agency of the Korean government.

The research, titled "The Project for the Establishment of National and Local Monitoring Systems to Observe and Evaluate Land Development Policies in Egypt," was conducted over 18 months from 2005 to 2007 in collaboration with a consultant group of faculty members from major universities of Egypt. The following is a summary of major results of the research:

Policy proposals from a comparative study

While Egypt has a strong president-centered political system, it supports a local autonomy. The regional

administrative units are divided into Governorate and Markaz. At the Governorate level, the Governor exerts power over the general administration of the region. However, since the Governor is appointed by the President instead of being elected by the people, regional governments are highly dependent on the central government. Accordingly, there has been controversy over regional land regulations and urban development projects which do not reflect on regional specialities nor people's demand.

The research has provided, referring to Korea's experiences and systems of relevance, the following policy implications and suggestions for improving land-related systems of Egypt: firstly, the spatial planning system of Egypt should be restructured in the way regional governments set up land plans on their own. Efforts should be made to have regional governments build a capacity for planning. Secondly, concerning the development permit system, the central government should create National Guidelines on development permits and distribute to regions a Regional Guidelines, a more detailed set of guidelines considering regional specialities, thus consequently helping regional governments handle development permit tasks. Thirdly, successful land readjustment projects in Korea should be introduced to Egypt. Lastly, New Towns to be built in the desert surrounding urban areas should be equipped with rental housing and infrastructure, hence, increasing social mobility of low-income citizens.

Comparison: land development systems of Korea and Egypt

Analysis criteria	Korea	Egypt
Power	Decentralized	Centralized
Development regulations	Binding force strong	Binding force weak
Development control tool	Zoning system	Development permit system
Officers in charge	Non-expert	Non-expert
Decision-making	Rational & technical decision-making	Cultural & political decision-making
Development method	Land exchange & overall purchase	Public development
People's participation	Active	Inactive
Development gains	Systematic restitution	Restrictive restitution

Methods of development for case study areas

Based on the comparison of Korea's system with Egypt's, a development model has been suggested to each individual case study area after applying proper development methods for existing cities and New Towns of Korea. Tanta City, selected for a case study of existing city development is located in the Nile Delta, and the country's most infamous example of informal settlements are formed here due to consistent population influx and strong farmland protection policies on urban outskirts. The research has suggested methods for land title conversion and compensation, and measures to evacuate residents by introducing land exchange and land expropriation to this area, so that Egypt can practically solve the problems with the development of existing cities.

In terms of New Town development, the research has suggested a public-driven housing site development for an Upper Egyptian city of Assiut. That is, development gains should be regained through a public-driven high-rise and high-density building development, and the problems of housing supply and vacancy rate should be addressed at the same time through area-wide infrastructure expansion.

Urban indicators and urban monitoring system

Urban development projects like urban renewal and New Town construction are based on correct awareness of urban problems and future forecasts. However, most of the developing countries like Egypt lack basic urban indicators, which poses difficulties for the estimation of

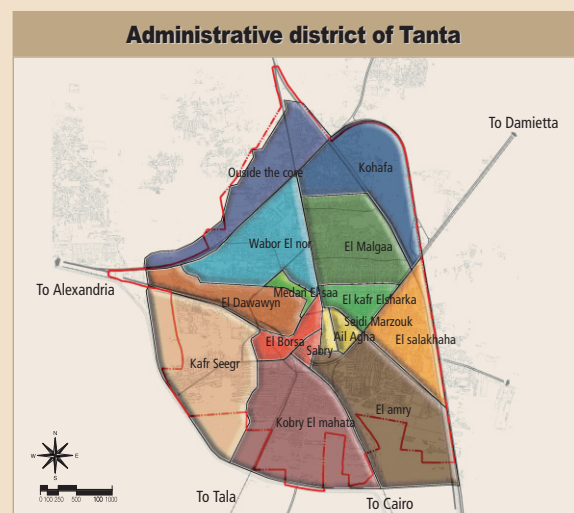
rational urban development demand and comprehensive diagnosis of urban problems. Recognizing this problem, the Egyptian government has long been developing related urban indicators with aid from various international organizations. KRIHS also conducted a research on housing indicators of Egypt in 2003.

So far, urban, housing and environmental indicators have been developed; however, the problem is that the nation has failed to collect basic statistics and data required to compose indicators. That is, the efforts of data collection, statistics handling and indicators/ indices development fall short of urban monitoring system construction.

In accordance, the research has suggested activating the land and housing registration system for consistent collection and management of basic data. Currently, the registration rate ranges from 4 to 10% among regions. Urban development projects are being delayed, the housing market is distorted, and unplanned development is on the rise in Egypt without a land and housing registration system.

In sum, after analyzing thoroughly the land policies and urban development systems of Egypt, the research has suggested concrete policy alternatives such as land readjustment projects, which are regarded as a rational alternative at the moment, and the expansion of rental housing supply. Along with this, activating the registration system for urban monitoring system construction has been suggested as an alternative to urban vicious circle caused by the lack of urban data.

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International Cooperation

Int'l Joint Workshop on Northeast Asian Transportation Network

The Northeast Asian Regional Development Center held a workshop on March 8-9 in Tokyo, Japan, which was one in a series of workshops for the one-year-long 'Collaborative Study on Transportation Network in Northeast Asia,' by the National Institute for Research Advancement of Japan, and Institute for Spatial Planning and Regional Economy of China, along with KRIHS. The joint research team from the three institutes discussed, based on the outcome of the former two workshops, a concrete action program on building the BESETO Corridor, a link between Beijing and Tokyo via Seoul, and drew up a proposal during the workshop.

Korea-Egypt Joint Research Project Successfully Completed

The Urban Research Division, and National Territorial & Regional Research Division of KRIHS held a presentation of the final report on the Korea-Egypt joint research project in Cairo, Egypt on March 6th. The project titled, 'The Project for the Establishment of National and Local Monitoring Systems to Observe and Evaluate Land Development Policies in Egypt,' was carried out sponsored by the Korea International Cooperation Office (KOICA).

The Chair of Egypt's General Organization for Physical Planning (GOPP), Dr Hazem El Quedi, and other GOPP staff members from central and local governments participated in the three-hour long presentation. They exchanged opinions on whether to implement the study results with researchers from KRIHS. After the presentation, Dr Hazem, complimenting researchers for their efforts to date, asked KOICA for training and follow-up projects so that Egyptian officials can share the research accomplishments and apply them to their work.

Prior to this on March 15, KRIHS President Byung-Sun Choe visited Egypt's top Cairo University and met with Dr Samir I. Saheen, Dean of



KRIHS President, fifth from right, Dr Saheen and Dr Dora in the middle, along with other Egypt project team members from both sides at the MOU signing in Cairo University

Faculty of Engineering, and Dr Mohammed Medhat H. Dora, Chair of Department of Architectural Engineering, signing the MOU between the two institutions.

Training Program for Egyptian Officials

From March 18 to 28, KRIHS held a workshop on 'Land Development and Management Policy' for 10 Egyptian government officials mostly from the GOPP of Egypt. As a follow-up program of the above Korea-Egypt joint project, the workshop provided an education on land policies to the Egyptian officials, all of whom participated in the above Korea-Egypt joint research project.

Sponsored by the KOICA, KRIHS provided an opportunity to share Korea's experiences in territorial and land development with Egypt through the program. During the workshop, KRIHS signed the Friendship Protocol with the GOPP.



NEW & ANNOUNCEMENTS

KRIHS held public hearings, sponsored by the Ministry of Construction and Transportation (MOCT), on the 'Area-wide Plan for the Multifunctional Administrative City (MAC) and Adjacent Areas' in 3 cities of the Chungcheong region from December 19-21, 2006. Covering the areas of Daejeon, Yeongi, Gongju, Gyeryong, Cheongju, Cheongwon, Jincheon and Jeungpyeong as well as the MAC, this plan is to improve the spatial structure of the region, enhance environmental soundness and coordinate inter-regional infrastructure. Experts, civic group members, and media from related fields participated in the hearings, discussing the contents of the plan that KRIHS had prepared. The plan will be subject to deliberation by the Presidential Committee on MAC Construction, and formally set up by the MOCT in the first half of 2007.

KRIHS was presented with the Planning and Budget Minister's award for innovative public institutions on December 27, 2006, achieving the highest grade among government-sponsored research institutes in Korea in the 2005 Evaluation of Public Institutions for Innovation. In 2005, KRIHS successfully entered the fourth stage of innovation, one level up from the previous year, according to the Evaluation for Innovation Implementation in public agencies of Korea. This marks the highest grade among the 23 research institutes under the umbrella of the National Research Council for Economics, Humanities and Social Sciences.

The Urban Innovation Center of KRIHS held a press briefing on the beginning of the web-service, 'UrBan Information Network: UBIN, <http://ubin.krihs.re.kr>' on 17 January. With in-house researchers and some 20 reporters participating, the center outlined UBIN construction and demonstrated the services at the briefing. UBIN is a free web-service that provides quality information, accumulated by KRIHS over the past 28 years, on cities around the world that have been selected according to different themes. It also includes information on cities and regions provided by various global institutions. UBIN services aim to assist central and local governments in establishing related policies, and support projects of inhabitant-driven city making.

KRIHS inaugurated the Office of Real Estate Market Research on March 15th, comprised of its two research divisions and a research center: a response to the growing demand, both internal and external, for scientific analysis and planned policy development for the real estate market. The tasks of the office are to secure various kinds of information on the real estate market, maintain a relevant database, analyze issues and trends in the property market and expert forecast, develop real estate policies, and investigate the overseas property market. In addition, it will hold expert forums and policy round-tables on a regular basis, creating a cooperative network link with outside experts.

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Korea Research Institute for Human Settlements (KRIHS) is a non-profit research institute established in 1978. It specializes in the fields of territorial planning, housing and land policies, transportation, regional development, urban design, environment and construction economy.

KRIHS seeks to improve knowledge and understanding of the conditions and problems of the nation's resources and their interactions with people, to assist the government in formulating long-range development plans and make policy recommendations on related matters, to collaborate with the international research community in solving theoretical and practical problems concerning human settlement issues and planning, and to provide research expertise and consulting services along with training programs for foreign governments and institutions.

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