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Development of Various Types of Housings for the Elderly	1
Improvement of the Construction Industry in Korea	4
Rebirth of Ancient Capital Cities of Korea Through Preservation Plan	6
Strategies for Promoting Green Transport Mode	9
Utilization of Islands' Natural, Historical, and Cultural Features in Development	12
International Cooperation	15
News & Announcements	16

SPACE & ENVIRONMENT is primarily intended to help foreign experts and professionals in relevant fields understand overall present situations of spatial planning and policy of Korea, and published quarterly by KRIHS.

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Development of Various Types of Housings for the Elderly

Currently, the kind of housing for the aged being supplied in Korea includes housing and welfare facilities and public rental housings for the elderly. However, only 0.3% (as of 2007) of the total number of senior citizens reside in the housing and welfare facilities because the types of housings are not diverse or effective enough to meet the different demands.

In order to develop various types of housings that are customized to individual needs, an accurate diagnosis should be conducted on the senior citizens' current economic status, health status, housing status, family characteristics, and hobbies. In addition to providing more varied types of housings, sustainable management and operation of the housings are essential. In order to attract the elderly and supply types of housings that cater to the demands of the Korean society, opinions of the current residents should be solicited and the problems in the operation of the housings should be resolved one by one.

Physical Status of the Housings for the Elderly

Reviews were conducted on four fronts: location and characteristics of the housing complex, exclusive area, communal area, and outdoor area. Universal design, which often is applied in elderly housing, was assessed in terms of its user-friendliness, accessibility, and safety.

- **User-friendliness:** Generally, large facilities and housings took into consideration the convenience aspect. In some places, furniture tailored to the users' size and height was used, sliding doors were installed to help users easily open and close the doors, and small benches were placed in the lobby. However, in some cases, light reflected against kitchen furnishings generated flashes, causing discomfort when working in the kitchen. In the communal area, signs were posted in large letters to help legibility. In the case of A—communal living household for the aged—and B—communal nursing home for the aged—the designs were not particularly adjusted to accommodate the elderly; they assumed the appearance

Figure 1: Facilities Examined

Names	Sk Grace Hill	Samsung Noble County
Exterior		
Classification	Welfare Housing for the Aged (Charged)	Nursing Home (Charged)
Names	Gimje Welfare Town for the Elderly	Seochen Amenity Welfare Village
Exterior		
Classification	Comprehensive Welfare Complex for the Aged	Comprehensive Welfare Complex for the Aged
	A. Communal Living Household for the Aged	B. Communal Nursing Home for the Aged
Exterior		

of regular housings. In some cases, movable materials such as curtains were used to partition areas, to help the elderly with mobility problems and their nurses.

- **Accessibility:** Most facilities and housings minimized offsets and had wide door openings to facilitate accessibility. Still, access to many areas such as bathrooms, lobbies, and outdoors remained inconvenient due to offsets. In case of outdoors, some pedestrian walks were steep, making it virtually impossible for wheelchair users to use those walks by themselves. Also, some pedestrian walks between the buildings were without some form of a canopy to shield pedestrians against rain.

- **Safety:** Many areas were equipped with safety handles, emergency phones, emergency bells, lights for footing, anti-slippery tiles, and others, but some places had no safety devices other than anti-slippery

Figure 2: Examples of User-Friendliness

	Sign at Samsung Noble County
	Door and Handle of Samsung Noble County
	B Living Quarter of the Communal Nursing Home for the Aged

tiles. In particular, communal living households for the aged did not contain any safety features. In communal areas, safety handles were installed; and different colored materials were applied to pedestrian walks and roads to distinguish the two; and control systems were installed in each space. However, in some facilities the floors were made of marbles or shiny vinyl, which reflects the light and blinds the eyes; safety handles and janitors' offices stationed on each floor were removed for cost reasons; and surveillance cameras were not installed, creating gaps in safety.

Interview of Senior Residents on Their Satisfaction Levels

Current residents of the elderly homes were interviewed to identify their reasons for residing in these homes, their experience and opinions on the private and communal areas, cost, manpower, and the service level of the facility.

- The residents acknowledged that the current residences were more convenient than their previous homes. According to the interview, urban residents counted convenient transportation and nearby facilities, residents in the suburbs considered the easy access to metropolitan cities and the beautiful landscape, and rural residents deemed the natural environment as the affirmative factors.

Figure 3: Examples of Accessibility

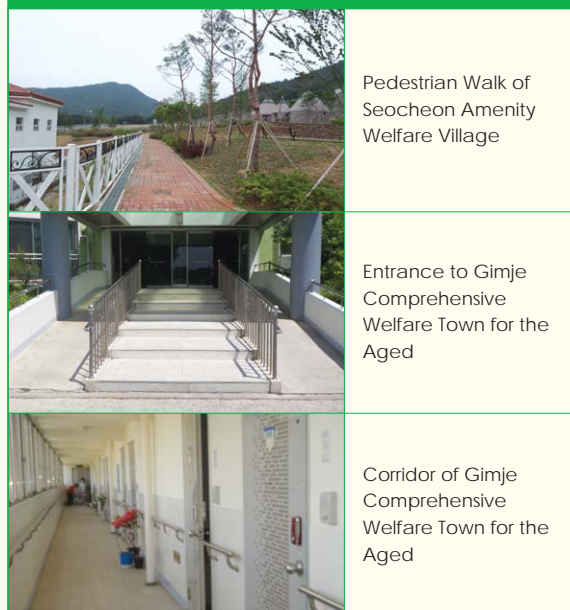


Figure 4: Examples of Safety



• In terms of the physical environment, the residents did not mention any safety issues and it appeared that they were unaware of any inconveniences or risks. However, they expressed dissatisfaction over the long distance between the residential building and the communal area (welfare) building.

The cost of living in the welfare housing for the aged was covered either by themselves or their children, and the purchase or rental expenses and operational and management expenses of these housings were deemed high. However, the residents of the comprehensive welfare complex for the aged, which is supplied by local governments, were satisfied with the cost.

• According to the interviewees, the workers in elderly homes were kind but not professional. Also, even though convenience facilities—health care, safety, culture and leisure services—were provided by the welfare housing for the aged, the level of medicare and medical facilities were below expectations and were not properly connected to local hospitals.

• Most residents were positive about the elderly engaging in economic activities and expressed their willingness to work when the opportunity is provided or when suitable work is found.

• The residents met their neighbors in communal areas or by participating in programs or circles.

However, they regretted the limited range of relationships, or lacking an opportunity to communicate with the younger generation since only senior citizens reside in these facilities.

Direction of Developing Korean Style Housings for the Aged

Welfare housing for the aged that caters to demands

• Leisure activity-oriented elderly housings are for healthy couples in the middle or upper class who spend much of their time in leisure activities. To meet their demands, various convenience facilities, clubhouses, and sports facilities such as swimming pools or golf ranges should be incorporated so that residents can enjoy leisure activities in a safer environment.

• Medical service-oriented elderly housings refer to those having easy access to medical services. The housings make up a community, and various medical services and direct nursing services are provided. On a smaller scale, it refers to a place where medicare is provided according to residents' health conditions, and on a greater scale, it refers to a place that provides lifetime care service, i.e., comprehensive housing service, private service, nursing service, and other services.

Community-oriented welfare complex for the aged

In the welfare complex for the aged, various facilities are built to promote health, pleasant living conditions, leisure and cultural activities. It is designed to help the elderly within the complex and those in the vicinity receive various services easily.

- Welfare complexes for the aged should be located in easily accessible areas. Transport infrastructures should be built to enhance mobility of the residents in the vicinities.

- Welfare complexes also can provide various programs or services. In case of “Kawakoenam” in Japan, the facilities are opened up to the public for free markets or cooking classes in order to promote

exchanges among villagers.

- Regulations can be adjusted to allow the construction of social welfare facilities, kindergartens, and sports facilities within comprehensive welfare complexes for the aged. Also, within the comprehensive welfare complex, more housing options should be provided to the elderly according to their characteristics, health status, and preferences.

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Improvement of the Construction Industry in Korea

Once read in a news article by the president of a construction company that many people think of “dishonesty,” “fraudulence,” and “corruption,” as the three words that come to mind when they think of the construction industry in Korea. However, the construction industry of Korea has served as the principal force that spurred Korea's economic development. Basic infrastructures of Korea's economic development such as highways, railroads, ports, airports, electricity facilities, industrial complexes etc. have been supplied in a timely manner, and the construction industry served to bring in precious foreign currencies by penetrating the construction market in the Middle East in the 1970s and was the fertilizer for economic growth. Despite such achievements, however, in the process of quantitative growth, the construction industry also assumed negative images stemming from the collapse of large structures such as Seongsu Bridge, collusion during the bidding process, and bribes.

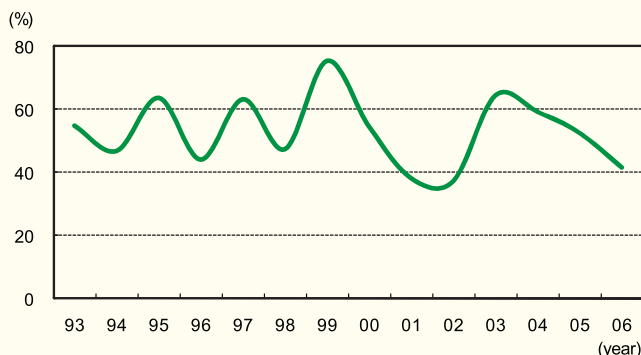
In order to remove such negative images and to make the construction industry of Korea take a great leap forward to join advanced construction industries, various specialists in the construction industry,

academia, research institutes, and the government gathered together to form a “Committee for the Advancement of the Construction Industry.” Among its seven subcommittees is the “Transparency Subcommittee.” Many institutional improvements, technological innovation, and improvement in the efficiency in construction are needed to advance the construction industry, and one area for improvement is transparency. The main role of the Transparency Subcommittee is to suggest ways to uproot corruption. The inclusion of the Transparency Subcommittee in the Committee for the Advancement of Construction Industries testifies that elimination of corruption is important to advance the construction industry.

Corruption in Korea

Many people think that corruption is most serious in the construction sector, but is this true? Let us examine the degree of corruption in Korea before determining the severity of corruption in the construction industry. According to the 2008 Corruption Perceptions Index of Korea submitted by the Transparency International, which shows the level of corruption of Korea as perceived by the

Figure 1: Changes in the Percentage of Corruption in the Construction Sector Within the Entire Corruption Framework



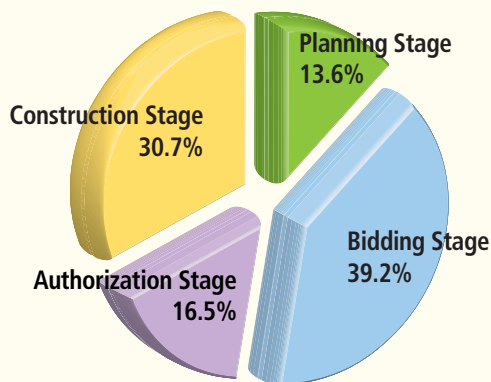
Source: The Citizens' Coalition for Economic Justice, Korea

international community, Korea scored 5.6 out of the maximum of 10 points, which makes Korea 40th among 180 countries examined, and 22nd among the 30 OECD countries. This reveals that despite astonishing achievements such as rapid economic growth and democratization, Korea still is seen as corrupt.

Corruption in the Construction Industry

Various surveys on corruption demonstrate that the construction industry plays the core role in corruption. According to the Citizens' Coalition for Economic Justice, out of 765 cases of corruption

Figure 2: Corruption Rate by Construction Process



Source: The Citizens' Coalition for Economic Justice, Korea

reported in the media from March, 1993 to July, 2006, 412 cases, i.e., 53.9% of those are related to construction.

Corruption occurs throughout the process of construction. According to the statistics by the Citizens' Coalition for Economic Justice, in most cases, 39.2% of the corruption occurs during the bidding stage, 30.7% during construction, and 16.5% during the authorization stage. The authorization stage is said to show signs of improvement with computerization of the process, but not much improvement is found in the bidding and construction stages.

Reason for Corruption in the Construction Industry

Then, what is the reason for this huge amount of corruption in the construction sector? Almost without exception, those directly involved in the construction industry or relevant organizations or researchers say that first, it is attributable to too many regulations, and second, to the fact that it inevitably involves the bidding process. However, most of those regulations are related to the construction of buildings, and some claim that Europe far outruns Korea in terms of the number of building regulations. There also are claims that most construction businesses are related to the construction of infrastructures such as roads, railroads, ports, airports, and dams, which are used by a great many people and therefore, definitely need regulations for safety reasons. Furthermore, even though there are many regulations related to the construction market, they are employed mostly to coordinate and protect the interests of different groups within the construction industry, i.e., protect small and medium sized regional enterprises or help classify different sectors or businesses. It cannot be concluded then that the excessive regulations are the substantial cause of corruption. Also, it is difficult to say that the bidding process that characterizes the industry is the cause of corruption. Prior to offering legal services, a case should first be won. Likewise, the bidding process

is undertaken in most service industries and the construction industry is no exception. Whatever the inherent cause of corruption, no one will argue that one cause is the small amount of cost incurred as opposed to the great gains from corruption.

Measures Against Corruption

Until now, various measures and policies have been pushed, but ultimately the solution to corruption would be to diminish the gains from corruption and increase the cost incurred. To reduce corruption, fair rules of play should be established, improvement measures employed, and the construction process made more transparent. To make the cost incurred outweigh the gains from corruption, administration of penalties should be made more stringent. Some point out that perennial corruption is due to weak penalties, but the penalty for bribes and collusion is not weak compared to the international standard. Rather, the problem lies in the ineffective administration of the penalty. Most penalties are imposed in the form of restricting the company from engaging in the bidding process, temporary business shutdown, or removal of the company from the business register rather than proper administration of judicial penalties, such as filing of lawsuits and periodic remissions. The first time a violation occurs, economic penalties should be imposed instead of an order for a temporary shut-down to make economic losses much greater than economic gains from corruption. For repeated violations, on top of the economic penalties, companies should be ordered to temporarily shut down their businesses. Penalties should be imposed incrementally, with more penalties for recurrent violations, and when the company is found to have committed three

Table 1: Four Main Strategies to Promote Transparency

- | |
|---|
| 1) Improve transparency by opening up the construction process further |
| 2) Prevent corruption in the first place by controlling information related to construction |
| 3) Enforce tougher financial penalty rather than limiting company's business activities |
| 4) Improve its image by offering volunteer services with its unique resources |

violations, a complete business shutdown or equivalent measures should be ordered.

It is important to push various measures such as the assessment of transparencies of construction companies, protection of internal whistle-blowers, continuous education, and self-correction activities, but ultimately the corruption issue is related directly to the national mentality and these measures will be effective only when the mentality of all those involved in the construction industry is altered. Along with efforts to make the construction industry transparent, it also is very important to polish the image of the construction industry by fulfilling its social responsibility. Recently, the efforts to fulfill corporate social responsibilities are spreading, and construction companies are collaborating with local governments to build welfare facilities for the socially underprivileged. The construction industry is contributing to the society by utilizing its unique resources, but it also is part of a future-oriented investment strategy for publicizing the construction industry.

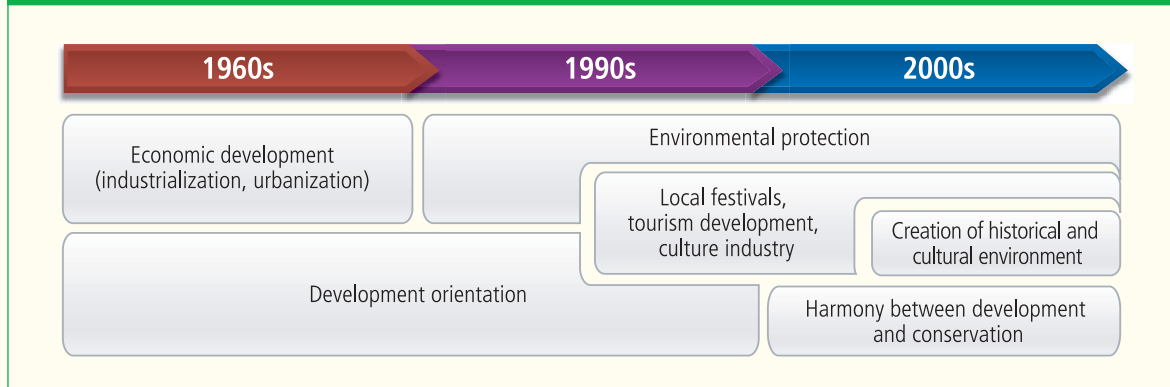
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Rebirth of Ancient Capital Cities of Korea Through Preservation Plan

The ancient capital cities of Korea, such as Gyeongju, Gongju, Buyeo, and Iksan, are experiencing rebirth. As Korea was experiencing

rapid growth over the last half century during the era of industrialization, major cultural assets such as temples, towers, and palaces were seen as

Figure 1: Change of Regional Development in Korea



hindrances to development. However, with the advent of the era of cultureonomics, culture began to be seen as a medium that generates values, and this laid the foundation for cultural assets to be reborn as new growth engines of Korea. Against such a backdrop, the Ancient Capital City Preservation Plan, the aim of which is to recreate globally competitive historical contexts through planned spatial management, is being prepared. Through this, the ancient capital cities of Korea, which abound in cultural assets, are making themselves ready to take a gigantic leap forward to be reborn as world-famous ancient capital cities.

Change of the Preservation Policies in Korea

With the full-scale economic development since the 1960s, Korea has experienced dramatic changes tangibly and intangibly. Rapid industrialization was followed by urbanization, which called for sweeping restructuring of the national territory. Unique regional characteristics and protection of the environment were ignored in the process, and the entire territory assumed a somewhat monotonous appearance until the 1990s. The excuse employed for this uniform development was the absolute shortage of urban land spaces. However, as the 1990s began, interest in environmental conservation grew, and with the introduction of local autonomy system, eyes began to be opened to the importance of regional culture industries. Furthermore, with the advent of the year 2000, “the harmony between development and conservation” began to be accepted as the basic direction of the national-level territorial management, and the scope of

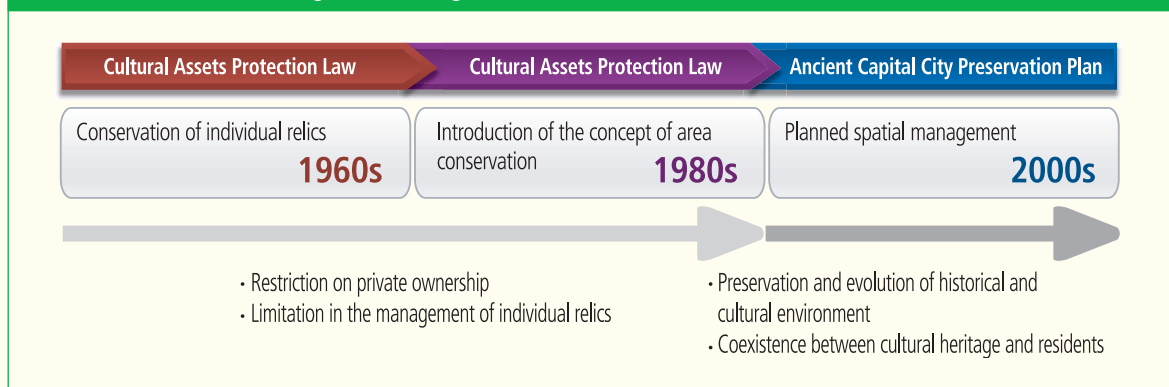
conservation started to expand. Previously, only conservation of the environment was highlighted, but now, individual cultural relics as well as the regions around the cultural heritage began to be included in conservation. This led to the establishment of the Special Law for the Preservation of Ancient Capitals in 2004.

Before this law was enacted, conservation of the cultural assets relied solely on the Cultural Assets Protection Law, which posed two main problems. First, according to this law, each cultural relic was preserved mostly by restricting the proprietorship of the owners of surrounding lands, which touched off serious complaints among residents. Another problem was that the law did not offer any guidelines on the management and development of the areas surrounding the cultural assets; therefore, it could not effectively prevent the surrounding areas from being turned into ones that are totally discordant with the cultural sites. On the contrary, the Special Law for the Preservation of Ancient Capitals aims to recreate, preserve, and advance historical and cultural environments in their entirety by harmonizing them with the surrounding cityscape. The Special Law for the Preservation of Ancient Capitals and the Ancient Capital City Preservation Plan, which is based on the law, are expected to both benefit the locals and help with the conservation of cultural assets. Meanwhile, it also will serve as the cornerstone that boosts not only regional competitiveness but national competitiveness as well.

Rebirth of Ancient Capitals in Korea

The four ancient capitals of Gyeongju, Gongju, Buyeo, and Iksan have been the political centers of

Figure 2: Change of Cultural Asset Conservation Policies

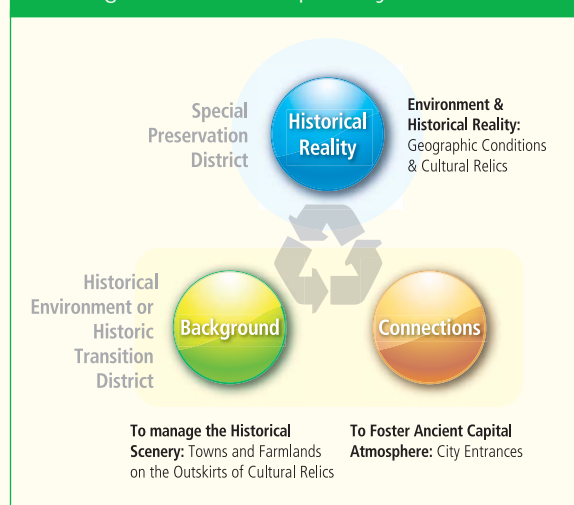


ancient Korea rich in cultural assets. Therefore, the effect of conservation can be felt most keenly here. To re-create the historical reality, the ancient capital region should first be divided into a Special Preservation District and Historic Environment District in accordance with the Ancient Capital City Preservation Plan, and the methods of management must be established by district. The aim of the Special Preservation District is to restore the historical identity and reality of the ancient capital cities, and the goal of the Historic Environment District is to create a venue or room that could provide a land- or urban-scape that is in harmony with the major cultural heritage. Along with such spatial management goals, the Ancient Capital City Preservation Plan aims to establish measures against potential residential complaints arising from proprietorship restrictions and at the same time, suggest ways to stimulate the regional economy using historical assets and through this, create a condition for the residents themselves to be involved in capital city restoration process. The main details of the Ancient Capital City Preservation Plan are aligned with the three requirements prescribed recently by UNESCO (Management of the areas around the cultural heritage based on the historical reality, re-creation of historical contexts through planned spatial management, and establishment of a sustainable ancient capital city management system through resident participation) for designating major historical cities as the world's cultural heritage sites. Therefore, the establishment and effective implementation of the Ancient Capital City Preservation Plan will raise the likelihood of the ancient capital cities of Korea being registered among the world's cultural heritages. In other words, the

Ancient Capital City Preservation Plan is expected to help Korean cities receive international recognition, which, in turn, would greatly spur regional development and boost national competitiveness.

There has been a great change in the national mentality regarding the creation and preservation of historical environments. Korea went through the industrialization era of the 1960s and 1970s when the conservation of the cultural heritage was recognized as a necessity but a threat to the progress of national economies. Also, it experienced the 1990s when the gains from the conservation were converted into gains only at the national level and not at the individual level, and conservation still was seen as an obstacle to economic activities to the local residents living around

Figure 3: Features and Roles of Each District According to the Ancient Capital City Preservation Plan



the cultural assets. However, from 2000, eco-friendly policies came to be linked with industrialization, and the policies that, in the past, were regarded as deterrents to economic growth began to be accepted as the driving force for future economic growth. Likewise, the recreation and preservation of the historical environment of the ancient capital cities of Korea, by being connected with the cultural industry of the future, is expected to translate into not only actual economic benefits for both the nation and local residents but also contribute greatly to the social and psychological advancement of Korea. The full scale

execution of the Ancient Capital City Preservation Plan began with the restoration of Buyeo, the ancient capital city of Bakje, which is one of the ancient countries of Korea 1500 years ago, and this Ancient Capital City Preservation Plan will illustrate to the world the arrival of a new era of advanced territorial management, moving away from a unilateral territorial management focused on economic growth.

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Strategies for Promoting Green Transport Mode

The popularity of passenger vehicles in the twenty-first century has led to innovations in transport modes and contributed greatly to economic and social growth, but the current transport system centering on passenger vehicles faces a huge crisis. Korea is ninth among the world's countries producing greenhouse gases, and its rate of CO₂ increase ranks first among OECD countries. By 2013¹⁾, Korea will have to join international efforts to curb greenhouse gases, in accordance with the Kyoto Protocol. In order to reduce the demand of passenger vehicles, the Korean government has implemented transit projects such as the construction of subways and BRT²⁾. Despite such efforts, the number of passenger vehicles is on the rise. Since 1996, the government has constructed 125km of urban railways and employed Bus Rapid Systems in Sudokwon³⁾. However, public transportation's mode share decreased 1.6% while auto's mode share increased 5.1%⁴⁾. Moreover, more than half of the total number of commuting vehicles are passenger vehicles with

only the driver aboard, and this high cost, low efficiency transport system is causing significant damage to the nation's economy.

Even though transportation is essential to daily life, the fossil fuel-based transport system has negative effects on the environment and the economy. This article tried to define the concept of green transport mode and offers ways to encourage its use, based on a survey of commuter's mode choice behavior.

Concept of Green Transport Mode

A green transport mode that uses manpower or renewable energy is one of the sustainable transport systems. Passenger vehicles, operated by fossil fuel, are not classified as a sustainable transport mode, but the mode that demonstrates high transport efficiency and incurs low burdens on the environment can be classified as green transport mode. In this article, green transport mode is defined as one that emphasizes eco-friendliness and

1) The second green house gas emission reduction period (2013-2017)

2) Bus Rapid Transit

3) Sudokwon is the name of a metropolitan area that includes Seoul, Incheon, and Kyunggi-do. The population of Sudokwon accounts for more than half of the population of Korea.

4) *Basic Plan on the Transportation of Mega Economic Regions*, by the Ministry of Land, Transport and Maritime Affairs, 2007.

Table 1: Survey Overview

Categories	Details
Survey Period	August 10, 2009 ~ August 14, 2009
Survey Respondents	Commuting workers
Survey Area	Sudokwon (capital region)
Number of Samples	Total of 407 surveys distributed (402 were valid samples, valid return rate was 98.8%)

efficiency, so pedestrian walks, bicycles, subways, buses, and green cars (electric cars, hybrid cars etc.) are considered green transport modes.

The Satisfaction Survey of Transport Mode

Survey overview

A survey was conducted on the commuting workers in August, 2009. Factors such as personal information, satisfaction level over transport modes, and reasons for avoiding public transportation and bicycles were examined.

Result of survey on inertia effect of mode choice⁵⁾

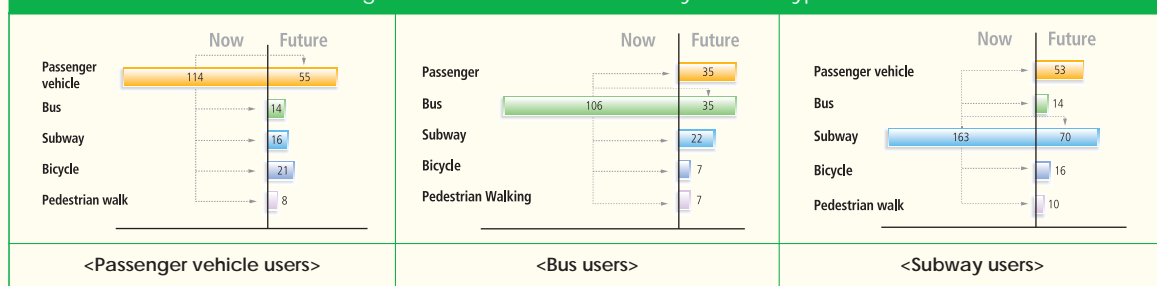
The inertia effect of mode choice was examined by asking the respondents about the using mode and the desired mode. The survey revealed that 48.2% of the current users of passenger vehicles wished to continue using passenger vehicles in the future for commuting purpose. Among passenger vehicle users, 51.8% wanted to change to a different transport mode, and their preferred mode choice was in the order of bicycles (18.4%), subways (14.0%),

and buses (12.3%). This demonstrated that bicycles are a highly attractive mode of transport for those who currently use passenger vehicles for commuting.

Among bus users, the percentage of respondents wishing to continue to use the bus was 33%, but the rest of the 67% wanted to change to a different transport mode. In particular, 33% chose passenger vehicle as the most preferred transport mode to change to, and 20.8% wanted to shift to subways. In the case of subway users, 42.9% of current subway users expressed their desire to continue using subways for commuting, which is 9.9% higher than that of the bus users. Just as bus users, the most preferred mode by the subway users was passenger vehicles, comprising 32.5% of the respondents, and 8.6% showed the intention to change to buses. Next to passenger vehicle users, subway users exhibited the highest inertia effect of mode choice.

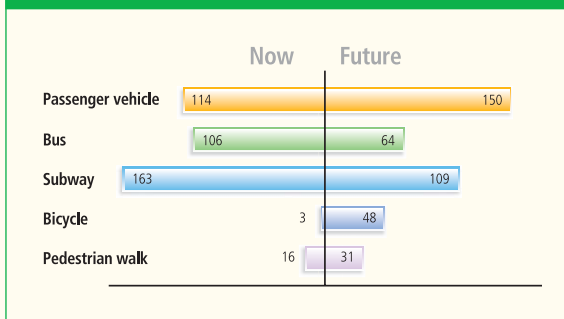
The survey on the intention of modal shift demonstrated that unless significant change occurs in transportation system, the demand for passenger vehicles is expected to increase in the future, so appropriate measures are needed to handle the demand. Among green transport users, bus users especially showed a strong desire to change into

Figure 1: Users' Future Choice by Transit Type



5) Dictionary definition: Resistance or disinclination to motion, action, or change unless external force is applied on an object
Definition in this article: Tendency or habit of continuing to choose what one has chosen before

Figure 2: Change in the Preferred Mode



passenger vehicles. Without an effort to improve the quality of the bus service, the bus's mode share is expected to drop continuously, and actions are required to respond to such a situation.

Public consciousness on green transport use

It was found that 93% of passenger vehicle users chose cars despite available transit mode. Among the passenger vehicle users, 38.6% responded that they have the option of using buses and subways, and 30.7% responded that the bus is the only alternative. This signifies that people use passenger vehicles not because of an absence of transit line but rather for convenience sake or for personal reasons. Therefore, although increasing the number of public transport routes is important, establishing ways to improve the convenience of conventional public transport is more urgent. Before establishing policies to encourage the use of green transport mode, the convenience aspect of the green transport mode should be addressed.

Survey on the distance commutable by bicycles and respondents' willingness to use bicycles for commuting

According to the survey on the proper distance for commuting by bicycles and the respondents' willingness to use bicycles, the distance commutable by bicycles was thought to be 2.6km on average. The highest number of respondents, 131, said that the commutable distance is 3 to 5 km. This means that when planning new towns, bicycle paths should be extended to more than 3 to 5 km in order for them to be effective for commuting. As for the respondents' willingness to use bicycles if home

is close to the workplace, quite a high percentage of respondents, 67.6% or 272 respondents replied that they would use bicycles if the distance between home and the work place is short. If various efforts are exerted to facilitate the use of bicycles, it appears that bicycle use for commuting can be encouraged.

Strategies for encouraging the use of green transport modes

Based on survey results, the following four methods are suggested to stimulate the use of green transport modes.

- Manage users' habits of choosing the familiar transport mode

People's habit of choosing the familiar mode engenders inefficiency in the society. Users should choose the mode of transport selectively. In particular, the inertia effect of mode choice appeared to be highest among passenger vehicle users, so measures are needed to systematically manage their habitual choice.

- Control transport demands through systematic education and publicity campaigns on green transport modes

According to the survey, passenger vehicle users rated public transportation's punctuality low whereas public transportation users rated the punctuality of passenger vehicles higher than the reality. A program that educates the public on the benefits and the necessity of using green transport is required.

- Solidify the role of bicycles as a transport mode and a means to a healthy life

Currently, the preference toward bicycles appears to be high, so ways should be sought to encourage the use of bicycles through such means as the reduction of traffic hazards and expansion of bicycle routes. In addition, the distance commutable by bicycles was identified to be 3 to 5 km, and this fact should be taken into account when making plans for new towns or developing housing sites.

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Utilization of Islands' Natural, Historical, and Cultural Features in Development

With the enactment of the Special Act on the East-West-South Coastal Area Development in December 2008, the development of the South Coast began to take off. However, there has long been an interest in the development of the South Coastal region and the idea of development is not new. The South Coast is an area where Korea's largest shipbuilding industry is located in and often is called the "archipelago" or "clean region." This pristine natural environment is increasingly receiving attention with the start of the five-day work system and growing interest in leisure activities.

With the dramatic increase in demand for marine recreation and sports, marine tourism, and vacation tours, the South Coast began to receive attention as the place to meet those demands. Fortunately, however, there was an understanding that the environment and the history of the South Coast are unique and that the development should be conducted in an integrated and gradual manner rather than disconnectedly or intermittently. Emphasis is placed on the need to establish a comprehensive plan for the South Coast development, and foundations are being laid to implement the comprehensive plan, which includes the development of industries, ports, and logistics, together with tourism and natural environment.

Then, how can we preserve the culture, history, and the beautiful environment of the South Coast which is beyond recovery once the damage is done, while at the same time, turn it into a tour resource to meet the demands of the society? What are some desirable ways of developing the islands? To answer this question, lessons should be derived from the past. A good example would be the development of San Juan Islands, one of the archipelagoes located in the Northwestern border of the United States and Canada.

Similarities between the South Coast and San Juan Islands

San Juan Islands are major vacation spots of Washington State, the center of recreation and sports, and most beloved areas for spending time

after retirement. In particular, the method of development of these islands has vast implications for the development of Korea's South Coast because they were developed in ways that actually bring out the beauty and historical and cultural characteristics to the maximum. In this article, the similarities between the South Coast and San Juan Islands are examined. After reviewing the development methods of San Juan Islands, the way to apply this example to the South Coast will be discussed.

First, it is easy to see that the islands of the South Coast resemble San Juan Islands in many ways. First, the geographic characteristics are similar in that they both are archipelagoes. The vast stretches of inhabited and uninhabited islands of various sizes seen around Wando in Jeollanam-do also can be found in San Juan County. In the South Coast alone, there are 2,500 islands, or 80% of the total number of islands in Korea; About 450 islands make up San Juan Islands, which are at the border of the United States and Canada. San Juan Islands in Washington State are small in size compared to the combined regions of Busan, Jeonnam, and Gyeongnam in Korea. However, the two share common features in that a vast stretch of inhabited and uninhabited islands of various sizes constitute the islands and that many people visit the areas for relaxation, recreation, and sports.

Secondly, the two regions have their own unique cultures—different from inland cultures. These cultures were developed because the regions are isolated geographically, with fishing as their main source of income, and these unique cultures have been well preserved and handed down to this day. As Jindo and Wando of Jeollanam-do are famous for Chang and Pansori (genre of music in Korea), and as Tongyeong of Gyeongsangnam-do is famous for music and novels, San Juan Islands are famous for their local painting, pottery, and poems, reasons why many artists and filmmakers visit often.

Finally, the two share a common history of having been the places for trade and wars. The geographic characteristics have made them stages for frequent trades and wars, and age-old historical remains related to these can be found on the islands. In the South

Coast, there are many historical battlefields where Admiral Lee Sun-shin fought to protect the country from Japanese invasion. The San Juan Islands have been split into two with the British and the American army confronting each other for the possession of the islands, which ended in the victory of the American army. Such historical sites remain on the islands. In addition, the place has been noted for its fur trade and fruit-farming from of old. It harvested and supplied apples, crops, and sea foods to the surrounding areas, and many such traces can be found easily.

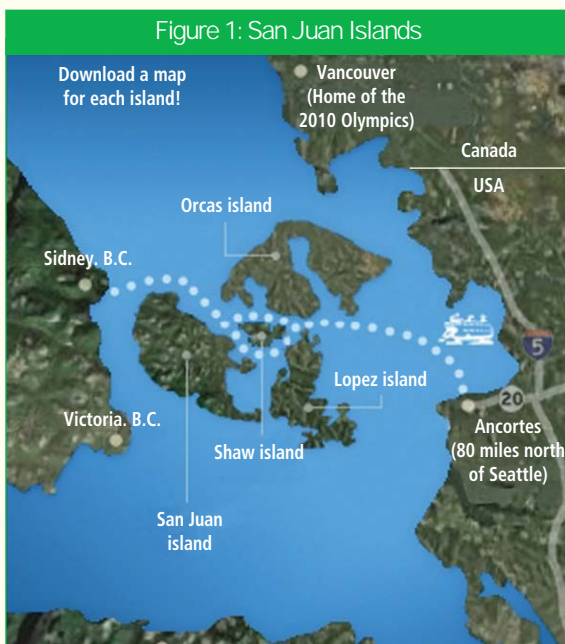
Ways to Catch Two Birds, “Development and Preservation”

To preserve and utilize their unique historical and cultural resources, San Juan Islands have established and abided by a set of principles on development. The first principle is utilizing the islands’ unique natural resources in development. There are four main islands in San Juan County—San Juan Island, Orcas Island, Lopez Island, and Shaw Island. Among these, Shaw Island has not yet been developed and therefore does not have many visitors, but the remaining three islands are the most famous vacation spots in Washington State. Each of the three islands has its own unique characteristic.

San Juan Island is the biggest of the three and has well-developed marinas and resorts, with activities such as whale-watching and kayaking. In Orcas Island, there are nice hiking trails that visitors can use to enjoy the view of two great mountains and the ocean. Finally, Lopez Island is a cyclists’ heaven. With only a bicycle, visitors can see each nook and cranny of the island.

The second principle is seeking ways to minimize the impact of development. Large-scale development is sure to cause environmental damage, so to minimize such impacts, performing various due diligences is the basic step. Massive developments are undertaken only when they are absolutely necessary, but even then, the environmental aspect is considered as the top priority. Second, the area’s compatibility with the surrounding scenery is taken into account. When I visited the Roche Harbor Resort, the only large tourist facility on San Juan Island, some buildings were under construction, but because they were so similar to one another, it was difficult to distinguish between the old and the new buildings. It was notable that in San Juan Island, the locals were encouraged to perform the development to minimize environmental impacts. It was assumed that if the locals and not outsiders developed the area, their attachment and interest in the development would directly affect the environment.

Third is reducing the speed of development by restricting transportation. With the start of the first ferry service in the 1930s, the San Juan Islands began to be loved as recreation spots. Many people have continued to visit the islands over the last 70 years, but only one mode of transport has been allowed. (Of course, private airplanes or seaplanes are allowed but only certain classes of people can use such transportation.) Therefore, in order to visit San Juan Islands, visitors must use ferries. The aim is to reduce the speed of development by restricting the means of transport. Because visitors can enter San Juan Islands only with the regular ferry service, only a certain number of visitors are allowed on the island, and the degree of damage can be estimated to a certain extent. One of the officials related to San Juan Islands emphasized that the most important aspect is the environmental resource, the so called “island,” and if this identity is lost, all is lost. The assumption here is that in the long run, the preservation of the natural environment and the community will determine the return rate of visitors to these islands.



Source : <http://www.visitsanjuans.com/>

Fourth is preserving the unique historical and cultural resources in their untainted form as much as possible. The British and American armies have long been at odds over the occupation of San Juan Island, and the “pig war” started when a pig crossed over the borderline. The English Camp and the American Camp on San Juan Island testify to the historical fact. These historical places are preserved, and no new facilities are built or the old facilities removed. The facilities that retell or provide information on the history are the only facilities that exist on the islands. Likewise, the Roche Harbor Resort, a place of barter and exchanges and also a site of a cement factory in the past, has been preserved intact, still emanating the vibe of the previous days. More lodging and marina facilities are being built, maintaining the atmosphere of the past days.

The last principle is including the locals in all planning and development stages. San Juan is famous in the United States as a place that sees the liveliest NGO activities. Diverse and specialized NGOs and NPOs work closely together in a network, and in the center of all these are the locals. The NGO network helps locals be informed of and understand all the goings-on in the community. Many times, various plans are established or relevant regulations are modified mostly by the central government, and all such processes are disclosed to the locals. The alterations are communicated first to the residents; then the representatives of the residents collect residents' opinions and have regular meetings with various entities such as government authorities, developers, or NGOs to reach an agreement.

Through this method of development, San Juan County earned \$130 million from tourism in 2008 alone. Also, revenue from tourism rose steadily at an annual average of 5.5% from 2000 to 2008, ranking the county tenth among the 39 counties in the state in terms of its tourism revenue. The method of

minimizing damages to the nature and utilizing its geographic, historic, and cultural resources to the maximum gave visitors the “Real Island” experience and enabled the county to catch two birds—development and preservation—with one stone. The case of San Juan Islands can be benchmarked and applied to the development of the South Coast region.

Application of Lessons Learned from San Juan Islands

First, instead of developing the many islands in the South Coast region in a uniform way, we might consider utilizing their natural environment and cultural resources and develop each island differently under its own unique theme. Examples would be an island where visitors can sail yachts and scuba dive while enjoying the local food to their heart's content, an island where visitors can enjoy mountain climbing, savoring the view of the ocean from the steep mountain top, an island offering the opportunity to taste all kinds of fruits, and an island filled with beautiful gardens.

The next point to consider is the method of development. If possible, limited means of transport should be provided so that tourists can understand the meaning of “an island.” In the short run, if a bridge is connected to the island, it will ease access and attract more tourists. However, this is detrimental to the natural environment and the preservation of the local community and, in the long run, it actually may destroy its original identity as an “island” that offers natural environment, which is the real reason for tourist visits.

Also, to instruct the public on the history, efforts should be made to preserve relics such as the ruins of Admiral Yi Sun-shin and battlefields as intact as possible rather than demolishing the old structures and constructing new ones or performing maintenance on fragile relics.

Finally, it is also important to provide a channel through which the locals can participate in all these planning and development processes. Until now, the locals were excluded from the development process, but it is necessary to involve the locals so they can serve as on-site watchdogs and steer the development of their hometown in the right direction.

Figure 2: View of the English Camp, San Juan Island



INTERNATIONAL COOPERATION

KRIHS Signs MOU With VIAP

On July 15, KRIHS signed MOU with the Vietnam Institute for Architecture, Urban and Rural Planning (VIAP). VIAP, formerly known as the National Institute for Urban and Rural Planning, has 300 research staff. Since the signing of the MOU, VIAP has been expanding its research collaboration with KRIHS. In particular, VIAP provided support for the Territorial Development Forum held in Hanoi in October, and staff and high officials of VIAP, including the vice president of VIAP, visited KRIHS.

Seminar on Symbiosis Industry Park

On September 11, 2009, KRIHS held a seminar on “The Case Study of Symbiosis Industry Park in Kalundborg, Denmark.” The guest speaker was Giancarlo I. Tammara, director of the Symbiosis Institute of Kalundborg, Denmark. He is a specialist in the construction of high-efficiency eco-housing and has provided consulting services to various European countries. The theme of the seminar was the experience and know-how from the Symbiosis Industry Park of Kalundborg, Denmark. President of KRIHS delivered a message of appreciation and presented souvenirs, and Dr. Kim Myung-soo and other staff of KRIHS attended the seminar.

The Territorial Development Forum

A territorial development forum was held in the National Convention Center in Hanoi, Vietnam on October 22, 2009. It was one of the forums of Vietnam-Korea week planned by 10 government ministries of Korea and the Vietnamese government. Presentation topics included “Land legislation for foreign investment in Vietnam,” “Land use planning in Vietnam, status and prospect,” “Current condition and prospect of urban construction in Vietnam,” and “Urban development system of Korea,” which were delivered by experts from Korea and Vietnam.

The sessions were followed by discussions, which provided an in-depth view of the subjects and enriched the forum.

KRIHS-OECD Joint Seminar

A joint international seminar by KRIHS and the Organization for Economic Cooperation and Development (OECD) was held at KRIHS auditorium on November 4, 2009, under the theme “Global Big Change and Urban Policy.” The seminar aimed to seek urban policies that would address the big issues happening around the world today, such as economic integration, climate change, competition among megapolises, and multiculturalism. In-depth discussions were held on the concept of green growth, the influence of green growth at the urban level, and different strategies for individual cities and countries.

KRIHS-World Bank Joint Conference



From November 9~11, 2009, a conference was held at the Seoul Millenium Hilton Hotel under the theme “Green Growth: A Paradigm Shift in Regional Development.” It was hosted jointly by the World Bank and KRIHS and was attended by domestic and overseas experts, 16 participants from Vietnam, Cambodia, Philippines, Mongolia, Thailand, Indonesia, Laos, and Malaysia, and staff of the World Bank and KRIHS. Participants in the forum discussed ways to promote regional development and green growth and increase energy efficiency in urban life and industrial activities.

NEWS & ANNOUNCEMENTS

Green-Infra Forum and Workshop

On July 27, 2009, the Green Infra Forum was launched, which was followed by the first Green-Infra Workshop. The Forum aimed to explore new Social Overhead Capital (SOC) policy initiatives that would foster green growth, build value-added SOCs, and generate creative values through convergence and merger of diverse sectors. After the Forum, a workshop was held under the theme "Green Growth and Infrastructure Policies." It was followed by a heated discussion among the president of KRIHS, researchers of green growth, related officials, and specialists from academia and industry sectors.

The Fifth AURI Humanist Forum

Since 2007, the Architecture and Urban Research Institute (AURI) has been staging AURI humanist forums to provide a venue for experts in the field of architecture and urban research to communicate with scholars in the humanities sector and discuss issues surrounding the centerpiece of human life, namely, spaces. At the fifth AURI forum held September 11, 2009, participants shared their thoughts on the "urban spatial problems and solutions." The 2009 AURI Human Forum was meaningful in that it was an opportunity for the experts who are receding into their respective mindsets and languages to turn their attention outward to diagnose current problems and search for solutions.

Dr. Lee Sang-keon Selected as the Convenor

At the 32nd Barcelona Plenary on September 18, TC204, a technical committee of the International Organization for Standardization (ISO) that supervises international standards in the area of intelligent transport system, selected Dr. Lee Sang-keon of KRIHS as the official convenor of Ubiquitous-Intelligent Transport System Ad Hoc Working Group. The nomination of Dr. Lee as the convenor made Korea the fourth nation to produce the chair of two ad hoc working groups in ISO/TC 204, after U.S., Japan, and England.

31st Anniversary Celebration and Seminar

On September 30, the 31st anniversary celebration was held at the KRIHS auditorium. Souvenirs were presented to long time workers, and official commendations of the Vice Minister of the Ministry of Land, Transport and Maritime Affairs were granted to Dr. Cho Chun-man, Dr. Im Eun-sun, and Dr. Ko Yong-seok of KRIHS, and the presidential citation was presented to Dr. Sohn Kyung-hwan, senior research fellow of KRIHS. The celebration was followed by a 31st anniversary seminar on the "Territorial strategy of the future" on October 28. At the seminar, various presentations were made by research staff of KRIHS.

KRIHS GAZETTE December 2009, Vol. 37

Korea Research Institute for Human Settlements (KRIHS) is committed to improving knowledge and understanding of the conditions and problems of the nation's resources and their interactions with people. It assists the government in formulating long-range development plans and makes policy recommendations on related matters.

KRIHS carries out various activities to collaborate with the international research community in solving theoretical and practical problems concerning human settlement issues and planning. Also, it provides research expertise and consulting services along with training programs for foreign governments and institutions.

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