KRIHS Gazette

SPACE AND ENVIRONMENT

**SPACE & ENVIRONMENT**
May 2009, Vol. 35



***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.*

*KRIHS is a government-sponsored research institute founded in 1978 to carry out research on territorial planning and policies of Korea.*

# Development Strategies of Mega Economic Regions to Improve Competitiveness of the National Territory

In this study, a variety of theories on mega economic regions are reviewed together with their application overseas, which will enhance competitiveness of the national territory. Analysis is conducted to examine interregional structures concerning industry and commuting. Specific rationale behind the delimitation of mega economic regions is examined, and suggestions are made on how to improve the mega economic regions by using factor analysis.

To examine the formation of mega economic regions, region states theory, super region theory, polycentric city-region theory, city-region 30 theory, global city-region theory etc. were reviewed. Delimitation of mega economic regions and their development strategies in France, Japan, and Germany were also examined.

England designated nine mega economic regions based on the regions' historical backgrounds and upon a minimum population of 5 million. Each economic region has its own development methods, which are in line with the regional plans. The six mega economic regions of France were designated based on geographical conditions (i.e., river areas), historical backgrounds, and economic activities. Each region has its own governing body that searches for competitive projects, and selects themes and strategies for development. Japan, instead of a comprehensive statewide territorial plan, established eight regional plans for eight mega economic regions. The regional divisions are based on a minimum size population, historical background, economic independence, and other factors. A taskforce is set up for each region to establish plans for development. A great deal of discussion is underway regarding the establishment of Doshusei, which is similar to semi-federalism. If it is adopted, local governments would be created. In Germany, those regions that come under direct influence of the metropolis constitute the

eleven mega economic regions. In the future, when the regions that are indirectly influenced by the metropolis also become included in mega economic regions, Germany will have 10 economic regions across the nation.

These overseas examples demonstrate that in order for each region to become a competitive mega economic region, historical factors should be taken into consideration, and a minimum amount of population should be present. The forms of regional government differ from country to country, ranging from a minimalistic taskforce to a large, integrated local government. The development strategies, then, would greatly vary depending on the types of the government.

In case of Korea, the regions are divided according to the interregional network. Analysis revealed that 16 cities and provinces can be combined into mega commuting regions, and 165 cities and localities can be grouped into local commuting regions. First, Kangwon-do, Chooongcheong-do, and Jeju Island constitute a large mega commuting region around the capital, with South Choongcheong region sometimes delimitated as a separate mega commuting region. Second, Kyungsang mega economic region encompasses areas such as Busan and Daegu. The region might also be divided into North Kyungsang region and South Kyungsang region. Third, Jeolla mega economic region is designated, with South Jeolla region potentially delimitated as a separate mega economic region. In essence, the mega commuting regions are mostly divided into three or four regions, even though the boundaries may vary slightly. The regions can also be divided into four or five smaller regions. The greater and smaller divisions can be seen in the chart below.

Analysis of cities and local districts revealed that they have the characteristics of city-regions and could be primarily divided into 13 industrial regions or 15 commuting regions. The commuting regions can also be divided into smaller units of 28 or 29 zones.

The manufacturing industry can be subdivided into 19 types, and the service industry into 13 types. Through the analysis of interregional relationships among 16 cities and provinces, mega industry regions were established. The country of South Korea can be divided into three large industrial districts: i) mega capital region around Seoul and Kyunggi-do, ii) Jeolla region around Kwangju in South Jeolla-do, and iii) Kyungsang region around North Kyungsang-do. In terms of the manufacturing industry, the country can be divided into two regions: i) the large industrial region around Kyunggi-do, South Choongcheong-do, and South Jeolla-do, and ii) the region around North Kyungsang-do and Ulsan. Aside from regions where the central industries are specialized industries, such as the shipping or airline industry, the regions display similar interregional features. Moreover, the country can

Figure 1: Comparison of Mega Commuting Regions

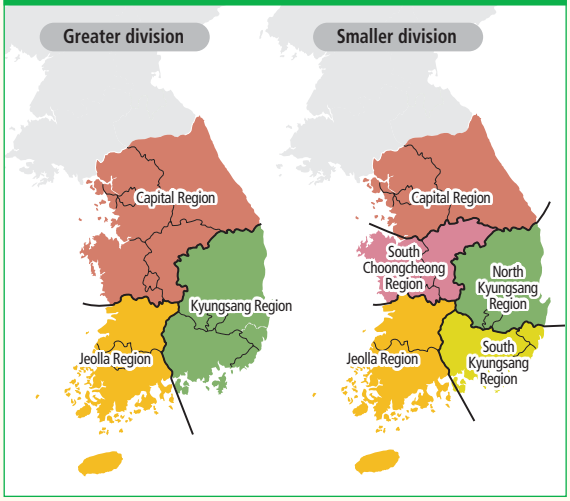
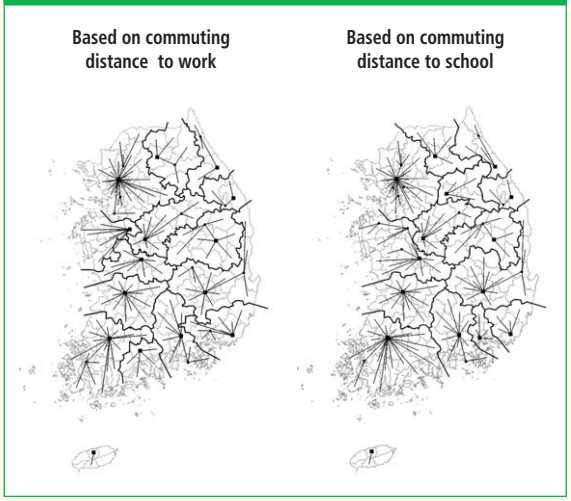



Figure 2: Comparison of Local Commuting Regoins



be divided into three service industry regions: i) a large region around Seoul and Kyunggi-do, ii) a region around Busan in South Kyungsang-do, and iii) South Jeolla region. North Jeolla-do tends to be grouped together with Seoul and Kyunggi-do.

In a nutshell, the boundaries of mega industrial regions slightly vary depending on whether the industry prevalent in the region consists of manufacturing or service. In this study, three types of divisions are examined: industry as a whole, the service industry, and the manufacturing industry.

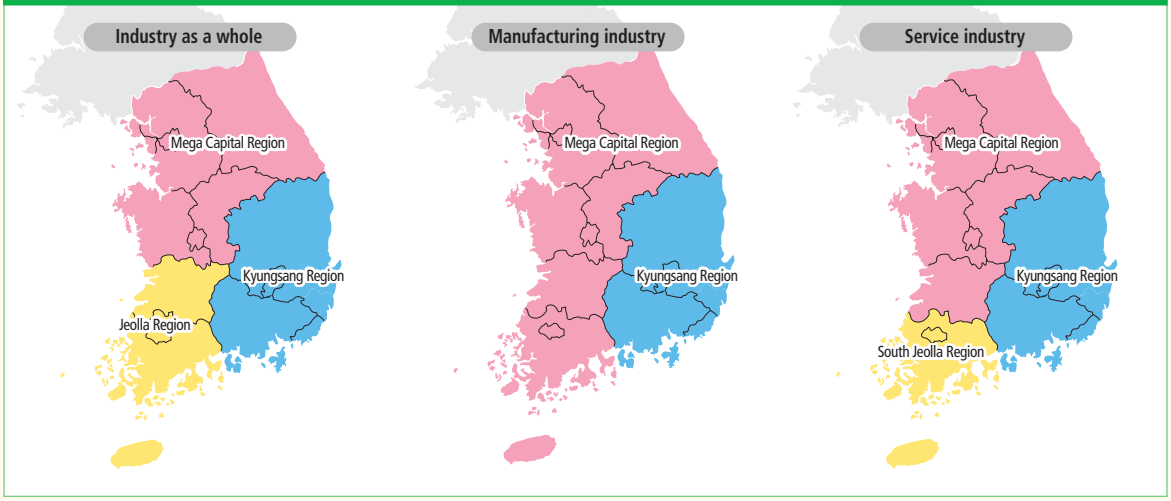
Entire industry-wise, the country is divided into three regions: i) mega capital region, which includes the capital region, Choongcheong region, and Kangwon region, ii) Jeolla region which includes Jeju island, and iii) Kyungsang region. The division according to service industry is similar to that of the entire industry, except for the inclusion of North Jeolla-do in the mega capital region, which enlarges the capital region. In the manufacturing industry context, the mega capital region's influence extends to Jeolla-do. So in this case the land is divided into the mega capital region (capital region, Choongcheong region, Jeolla region, Kangwon-do, and Jeju island), and Kyungsang region. The mega capital region can be subdivided into South Choongcheong region (Daejeon, South Choongcheong-do, and North Jeolla-do), and Jeolla region (Kwangju, South Jeolla-do, and Jeju Island).

The final point to be covered is the Korean government's plan to develop mega economic regions. The government has suggested three initiatives: i) to launch pilot projects ii) to establish legal basis, and iii) to set up implementation systems.

This study suggests three short-term development initiatives: i) to establish an effective regional organization for implementation ii) to set up interregional plans for cooperation through in-depth review of each mega economic region and iii) to set up a system to finance cooperative interregional projects. As a mid- to long-term initiative, this study suggests building a governance system in stages to develop mega economic regions, exploring ways to mutually profit, and improving the development potential of each mega economic region.

*Gwangik Kim (kikim@krihs.re.kr)*

Figure 3: Comparison of Mega Industrial Regions



# Climate Change and Sustainable Land Management Strategies in Korea

Recently climate change has become one of our main concerns, as it affects various aspects of human life. However, the policies regarding climate change in Korea have not dealt with these issues effectively. This partly is due to a lack of studies, in particular, on establishing relevant spatial and attribute databases. After building GHG (Green House Gases) inventories at a regional level and understanding the characteristics of emissions and the potentials for GHG reduction in each region, it is possible to address targets for GHG reduction levels and subsequently to set out suitable policies regarding climate change. However, there is still a long way to go.

## Sources of GHG Emissions

The categories of emissions cover only the following sectors: i) energy, ii) agriculture, iii) waste, and iv) land use change/forests, although the IPCC (Intergovernmental Panel on Climate Change) guidelines suggest seven categories, including industrial processes, solvents and the use of other products. This is because it is difficult to identify GHG emissions from industrial processes and solvent production. At the same time, because of data constraints, only three greenhouse gases are considered in this research. They are carbon dioxide ($CO_2$), methane ($CH_4$) and nitrous oxide ($N_2O$), although GHG inventories generally take account of other gases such as hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride ($SF_6$). The time period of the research includes the years 2000, 2003, 2005, and 2006, while the study areas cover 234 local authorities.

## Distribution and Characteristics of GHG in Korea

GHG emissions are divided and summarized into the following categories: i) annual emission rates and emission/absorption sources of GHG, ii) metropolitan and regional geographical units and iii) emissions based on cities and population sizes. For the period 2000-2006, the total emissions rose slightly. In terms of emission and absorption sources, GHG emissions increased in the energy sector, whereas they decreased in the agriculture and waste sectors. At the same time, the absorption rates decreased. This indicates that it is necessary to mitigate GHG in the energy sector, in particular, by saving energy and protecting the absorption sources of GHG through institutional support.

In the energy sector, emissions from the use of petroleum are declining, whereas those from electricity use are increasing. This indicates that energy consumption relies mainly on electricity in Korea. Regarding GHG emissions per capita for cities, medium- to large-sized cities showed the highest emissions. The amount of emissions decreased in the following order: i) medium to large, ii) large, iii) small to medium, and iv) small cities. In other words, when taking into account the population size, the cities with populations ranging from 300,000 to 500,000 are likely to emit more GHG than metropolitan cities.

Comparing the average value of total emissions per capita in Korea, medium- to large-sized cities showed higher GHG emissions, whereas large, small to medium and small cities showed lower emissions. It also revealed that the more the GHG absorption rate per capita increases, the smaller the population size is or the smaller the cities are. In other words, GHG absorption is more active in the regions with smaller population sizes. On the contrary, GHG emissions in the agricultural sector generally rise when city size declines. The reasons behind this will be understood when we investigate the relationship between local conditions and GHG emission rates.

## Capabilities of GHG Inventories for Sustainable National Land Management

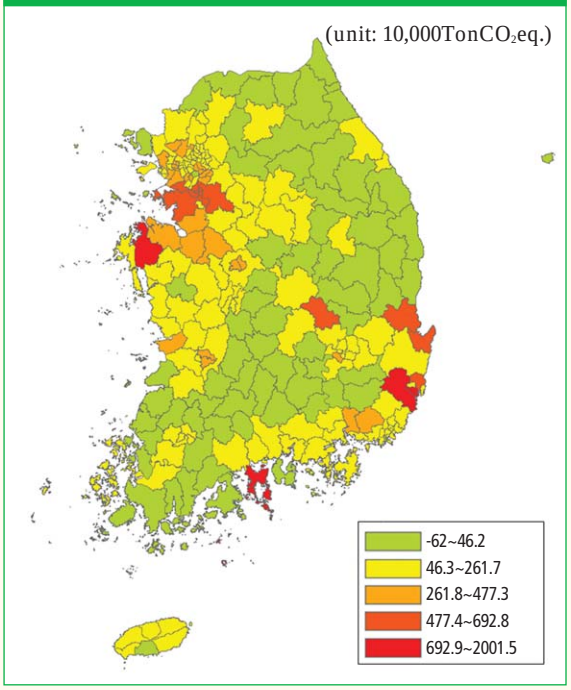
In order to help shape adequate GHG reduction policies, correlation analysis is carried out between carbon dioxide emissions per capita

(dependent variable) and 39 independent variables, which represent local conditions. According to the analysis, GHG emissions are positively related to built-up areas per 10,000-person population, the proportion of the industrial districts, and car ownership. They are negatively associated with green space. This reveals that parks and green spaces, as GHG absorption sources, play a significant role in mitigating GHG. In addition, these results make it possible to identify the main sources that determine GHG emissions. Finally, it was found that the size of the land, patterns of land use, and transportation factors are more closely related to GHG emissions than socio-economic characteristics. In other words, the findings suggest that GHG reduction can be achieved by improving urban physical structure in relation to urban land use and development. As various human activities have impacts on characteristics of $CO_2$ emissions, types of land may determine the levels of $CO_2$ emissions. Thus, it would be very useful to adapt the basic unit of $CO_2$ emission for each type of land use to pursue the goal of a low carbon society.

As a case study, we will consider the GIS database, which includes comprehensive information on energy use and land use by address, created for the metropolitan city of Daegu. When averaging $CO_2$ emissions for each type of land use, commercial facilities emit the greatest amount of GHG, totaling 315.9 ($kg/m^2 \cdot year$, $CO_2$), whereas facilities in relation to industry and distribution of the goods emanate 193.6 ($kg/m^2 \cdot year$, $CO_2$) on the basis of floor space. In the domestic sector, detached houses and apartments respectively emit 63.3 ($kg/m^2 \cdot year$, $CO_2$) and 48.5 ($kg/m^2 \cdot year$, $CO_2$). Apartments emit less carbon dioxide based on the basic unit for floor space. Furthermore, common commercial buildings and central commercial buildings emit 163.4 ($kg/m^2 \cdot year$, $CO_2$) and 83.0 ($kg/m^2 \cdot year$, $CO_2$) and 83.2 ($kg/m^2 \cdot year$, $CO_2$), respectively. Thus, it is found that central commercial buildings emit less $CO_2$ than common commercial buildings.

In aiming to cope with climate change and address sustainable national land development strategies, this report is significant in these three aspects. First, it paves the way for establishing a variety of strategies and action plans by calculating GHG emissions at a local authority level. Next, it begins revealing the dominant factors that have an impact on GHG emissions by analyzing the relationship between GHG emissions and local conditions. Third, by using the basic emission unit for each land uses type, the study provides help in seeking ways to mitigate GHG emissions.

Figure 1: Total Emissions by City/Region (2005)




Recently, green growth has become a major issue in Korea. The central government and local authorities have tried to develop a new policy regarding green growth. A new national agenda for tackling climate change as well as overcoming the energy crisis is suggested. In order to make green growth successful, we desperately need to shape a Low Carbon society. This must begin with the mitigation of GHG. Then a new growth mechanism should be adopted to develop new renewable energy sources and renovate green technologies. In turn, this will lead to the mitigation of GHG emissions. In this context, there is no doubt that identifying the current status of GHG emissions across regions is key to achieving successful green growth.

*Yeongkook Choi (ykchoi@krihs.re.kr)*

# Korea's City Vision 2020

To solve current urban problems and respond to the changing circumstances, the government should create and execute a national vision for the cities. The study aims to help provide such a vision and propose ways to solicit administrative and financial support.

In the past, quantity-oriented urban policies generated problems such as deteriorated housing conditions, shaky economic foundations, and uniform urban scenery. In addition, the government has had to respond to changing socioeconomic circumstances such as population decrease, an aging society, climate change, democratization, and decentralization. In order to meet such challenges, a paradigm shift from a quantity-oriented growth to quality-oriented growth became imperative. Thus the theme of "building a pleasant settlement with citizens" was proposed as Korea's urban vision for 2020.

To establish a target and strategies for future urban policies, a survey was conducted among experts and municipal government officials. From the results, urban goals of "nurturing the growth engine," "improving urban living conditions," "establishing urban identity," and "restoring the natural environment" were generated. To accomplish these 4 goals, 10 action plans have been established:

### Goal 1: Competitive and Lively City

The first strategy is "bringing life back to city centers through urban renewal." To accomplish this goal, ideas should be sought regarding how to cultivate old and new towns together. To address degenerating urban areas, ideas should be sought to invigorate the city through clustering.

The second strategy is "establishing a foundation to nurture competitive, core industries of the future." The focus is on reorganizing and nurturing existing industries to make them more competitive. This can be done by revamping

Figure 1: Pressing Problems Facing the City

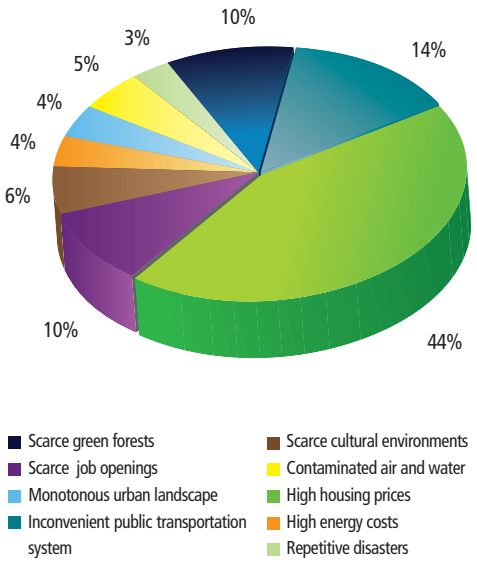
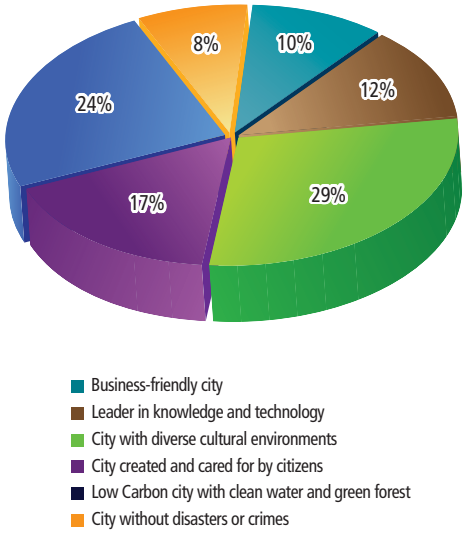



Figure 2: Korea's City Vision



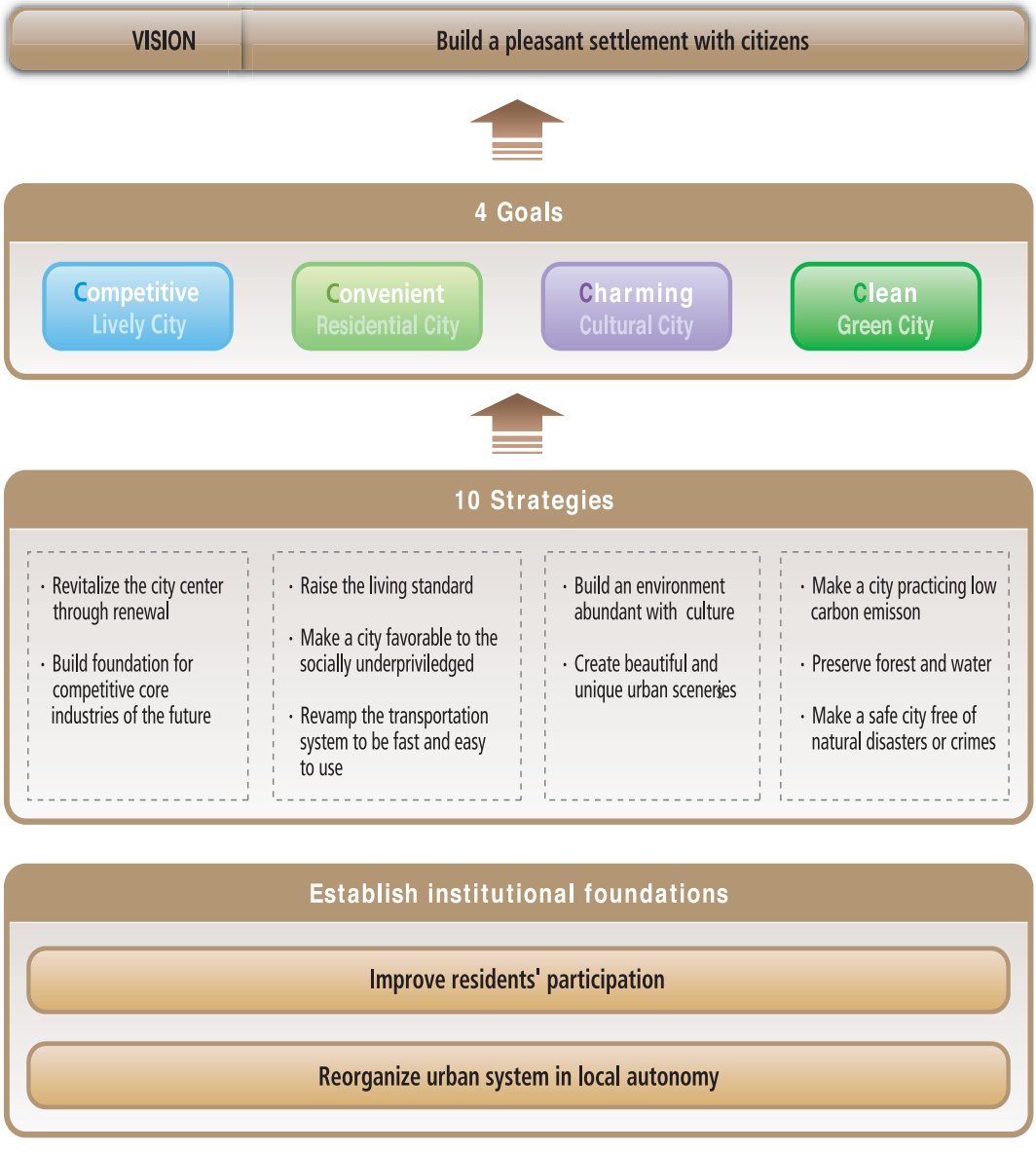
industrial sites of existing towns, improving aging industrial complexes outside towns, and preventing rampant factory construction through planned management, etc.

**Goal 2: Convenient Residential City**

The first strategy is "raising the living standard to make the city more pleasant and attractive to live in." To accomplish this goal, residential areas should be improved after assessing the degree of dilapidation and characteristics. Public facilities should be renovated, and various programs should be devised to create a cohesive community.

The second strategy is "making an urban

Figure 3: Vision of Korean Cities: 4 Goals and 10 Strategies



environment livable for the socially underprivileged." To meet this goal, public housing policies for the elderly, the handicapped, and other vulnerable or low-income groups should be established, and a minimum standard of living conditions should be stipulated. In addition, the city infrastructure should be planned in such a way as to provide easy access to social service and convenience facilities.

The third strategy is "improving the public transportation to make it fast and easy to use." To realize this, the public should be made aware that public transportation is the best mode of transportation, and the public transportation network should be made safer. Also, trails for bicycles and pedestrians should be built.

**Goal 3: Charming Cultural City**

To turn the city into an attractive, culturally rich area that urban residents can be proud of, the following strategies are suggested.

The first strategy is "making a city abundant with cultural attractions." To accomplish this goal, cultural characteristics unique to the city should be explored, and programs and spatial strategies should be set up to cater to a multi-cultural society. Vacant spaces should be utilized for cultural events, more cultural facilities should be set up in each living quarter, and more support should be provided for any industry that nurtures urban culture.

The second strategy is "building beautiful and unique urban scenery." For this, designs of public facilities, landmark structures, and skyscrapers should be renewed. Guidelines should be established to maintain the urban landscape, and beautiful natural spots such as hills and rivers should be preserved. The urban landscape should be created in such a way as to exhibit its geographical and historical characteristics.

**Goal 4: Clean and Green City**

To build a clean green city that can meet the challenges of climate change, the following strategies were suggested. The first strategy is "creating a city that features low carbon emissions practices." Efforts should be made to save energy and procure renewable energy by creating microclimates and adopting pro-environmental material.

The second strategy is "creating green forests and clean water." To protect water quality and create microclimates, creation of riverside ecosystems and green networks are suggested.

The third strategy is "making a safe city free of natural or man-made disasters." Relevant measures include: flood control measures by region, fortification of existing disaster prevention facilities, development of and investment in disaster prevention technologies and systems, and readjustment of related rules and regulations.

**Direction of Institutional Measures**

To meet these goals, institutional support is required, for which two major directions are suggested. The first is soliciting residents' participation in establishing and executing projects, and the other is reorganizing the cities under municipal governments toward decentralization. Then the roles of the central government, mega city municipal governments, and local governments can be reestablished.

*Younga Lee (yalee@krihs.re.kr)*

# Low Carbon, Green Growth Transportation Policy in Korea

Reflecting the worldwide green revolution, our nation is promoting the policy of green growth. In an effort to keep pace with global trends, the nation is attempting to build compact urban spatial structures and eco-friendly, green cities to expedite Low Carbon, green growth. To this end, the nation is fast-tracking policies such as institutionalizing the green highway, expanding modes of public transportation and bicycle paths, and commercializing green cars.

Currently, green growth is the nation's top priority. This is because urban regions have suffered from increased social expenses caused by traffic congestion, inadequate transportation systems, environments unsuitable for green transportation, and lack of long-distance public transportation.

For long-distance trips in Seoul and Kyunggi - do, passenger vehicles make up 39.7% of the total. This is quite high, and the cost of the fuel consumed amounts to over 14 trillion KRW annually. As passenger vehicles increase, the congestion expense skyrockets, and this is causing the quality of life and urban competitiveness to decrease. Under such circumstances, the nation may soon hit a wall if it continues to take a quantity-oriented approach, disregarding the fact that Korea has a small amount of land and a high population density. At this moment, we should take some time to reflect upon what green growth means in urban public transportation and consider how to solve urban problems through green transportation.

In this low carbon era, the direction of urban transportation policies of the future can be largely classified into the following five categories.

First, urban spatial structures should be reorganized, taking into account the function and characteristics of the land when developing the transportation system. In the short term, major routes leading to the city center, public transportation routes, and public transportation stations should be linked together. When establishing a land use plan, the characteristics of the area should be taken into consideration. A transportation system should improve accessibility and mobility to the city and spur development. Also important is reinforcing the transportation network. Transit to and from the public transportation stations should be facilitated, and efforts should be made to ease the traffic to the city center by expanding beltways in the capital region.

Second, the central and municipal governments of mega cities should share roles and responsibilities to curb traffic congestion by

Figure 1: Current Energy Consumption by Sector

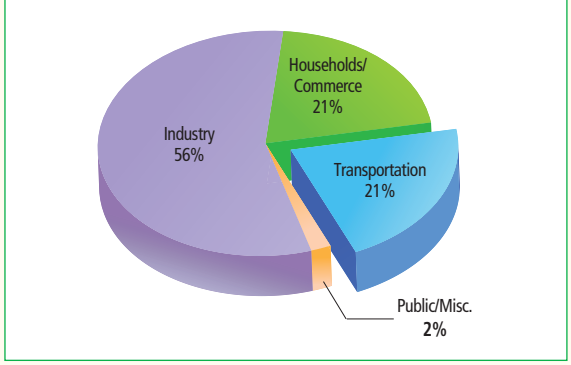



Figure 2: Current Energy Consumption in the Transportation Sector

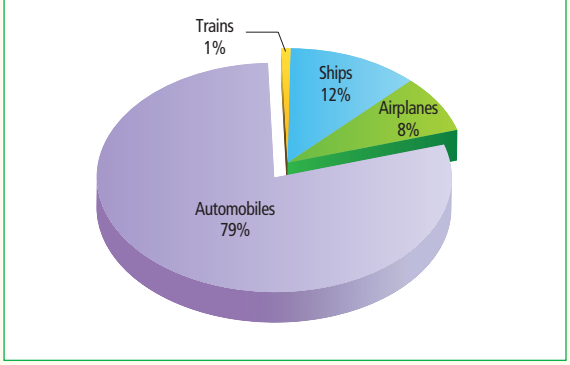


Figure 3: $CO_2$ Emissions per Capita in the Transportation Sector (2005)

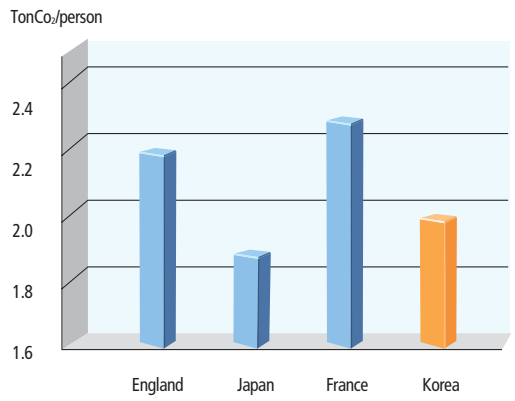
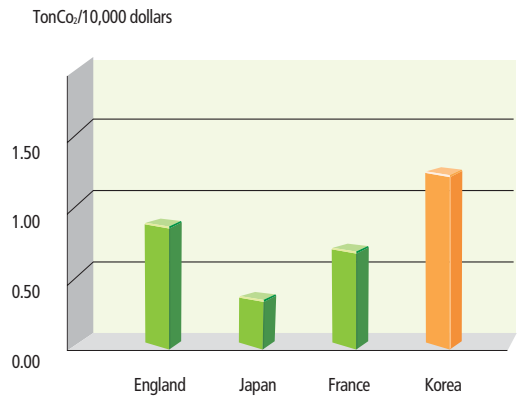



Figure 4: $CO_2$ Emissions per GDP in the Transportation Sector (2005)




introducing a set of measures such as charging congestion fees. Parking quotas need to be applied in more places; the quotas should be dependent on the function and the size of the area.

Third, energizing the public transportation system is so crucial that it can even be referred to as the core policy for green growth. The competitiveness of buses should be enhanced by providing bus-only and bus-priority lane. From the administrative side, policies should be enacted to provide compensation for those lines not generating profit, and to encourage and partner with model public transportation companies.

Fourth, an environment should be created that favors the use of bicycles, which is a main mode of green growth transportation. Creating connecting bike trails is the most urgent matter at hand. In addition, convenience facilities for bicycles should be provided when the demand arises, instead of supplying them all at once. This will generate more return for investment. Above all, measures should be taken to draw the public's attention. Legal and administrative measures should be established to expedite the use of bicycles, and bicycling should be advertised as a secure and energy-saving mode of green transportation.

Fifth, continuous investment in railroads is required for green growth. Policies should be created to energize railroad transportation, and more express trains should be built nationwide. Within the capital region, more express subway lines should be built. In order to encourage the use of trains, convenient and user-friendly systems should be provided. Comprehensive and integrated transit stations and multi-dimensional intermodal transit facilities should be built. Also, bicycles-only lanes should be built and bicycle-loading facilities should be installed on buses and trains.

To combat global warming, a goal of reducing green house gas emissions by 60% by 2030 to a maximum of 80% against the year 1990 has been set. Through media broadcasts, we are very familiar with the meltdown of the icebergs in the North Pole. The whole world is suffering from the negative impacts of global warming, i.e., concentrated heavy rain, severe dry spells, and typhoons. The government is to be commended for making low carbon green growth a priority in the national policy. Korea is ranked number 10 on the list of countries emitting the most green house gases, and this is an urgent issue that should be resolved.

Green growth transportation cannot be realized by simply revamping the transportation system. Transportation is an organic system where the network is built upon the land, and vehicles run upon the network. The competition on green growth is growing fierce, and we should be able to demonstrate to the world the dynamic power that is generated from green transportation.

*Ilho Chung (ichung@krihs.re.kr)*

# A System for Improving the Real Estate Market Forecast

Recently, Korea's real estate market has become more segmented than ever; subsequently, the behaviors of the market players have developed more complicated features. As a result, establishing the proper policy to stabilize the real estate market by identifying its patterns, which vary day by day and region by region, becomes increasingly difficult.

The purpose of this study is to develop and operate a real estate status board and a forecast chart, through which the real estate market situation can be viewed at a glance. The status board and the forecast chart utilize market surveillance and a forecast model called "The KRIHS model for Real Estate Market Analysis and Pre-estimation," (hereafter, K-REMAP) which is based on the analysis of consumer psychology, real estate policies, and regional markets. Up to this point, not many analyses had been performed in these areas.

Normally, real estate problems arise directly out of imbalance in supply and demand, usually from the scarcity of goods. This scarcity subsequently manifests itself as an excessive price increase or decrease. Accordingly, means should be sought to minimize price fluctuation and imbalance in supply and demand, and policies should be established to bring about stability in the market. Predictability and improvement in housing situations should result.

## Current Status and Problems in Real Estate Market Information

The information produced in the real estate market is divided clearly into public and private categories. Note, however, that subsequent real estate information created by public and private sectors is inadequate and cannot adequately predict the future of the real estate market. Data on the current real estate market as produced in the public and private sectors have the following problems:

First, most of the information collected by the private sector is limited to information on private housing, which is easy to obtain. Second, the data collected by the public sector has its merits in that the data is huge and objective, but it has its limitations in that the data renewal cycle is long and cannot adequately reflect the changing market conditions. Third, there is a problem in the objectivity of the data. The private sector does not specify the method of generating the statistics, and objective comparison or verification is difficult. Fourth, data should be made more compatible through clear standards. This way, it would become easy for the private and public sectors to share data, and this will enhance market surveillance capability.

## K-REMAP Analysis Model and Development of Information System

Unstable price is the hallmark of instability in the real estate market. However, the problem is caused by a variety of factors, such as economic situation, consumer psychology, and household income. Therefore, it is very crucial to analyze real estate consumer confidence, impact of policies and various other factors, and reflect these elements when forecasting the future of the real estate market.

The K-REMAP real estate market analysis and forecast model was developed to systematically analyze and forecast the real estate market situation, using various methods of analysis. Data is generated for these levels: district, province, mega city, and country. The purpose of this model is to identify abnormal signs in the real estate market through a status board and a forecast chart. Then "customized policies" can be made to remedy the situation at the right time and in the right place.

The model integrates analysis of consumer psychology, effect of real estate policies, data spread throughout the public and private sectors, and the real estate market situation, and provides visual graphic information. To reflect such factors, K-REMAP consists of four individual models: analysis of market indicators, analysis of consumer psychology, analysis of policy effects, and analysis

of price changes. Furthermore, in order to accurately diagnose and forecast the real estate market based on information collected from diverse organizations, two systems--the data collection system and real estate market analysis system--have been built to facilitate the operation of the model.

The K-REMAP information system for diagnosing and forecasting the real estate market condition is comprised of the data collection system, real estate market analysis system, and real estate market information service system. These will provide citizens with online information about real estate (to be available from 2009). The data collection system manages a database, and the real estate market analysis system analyzes the market indicators, price changes, consumer psychology, and the effect of policies. The results then appear on the real estate forecast chart and control board.

## Real Estate Market Forecast Chart and Status Board

The real estate forecast chart of the K-REMAP information system shows the present and future of the nation's real estate market. A good analogy is the weather forecast. Individual analysis models in the information system are combined to generate the forecast chart. The current situations are expressed through K-REMAP's diagnosis index, and the market forecast through K-REMAP's prospective index. According to the indexes generated, the real estate market situation is classified into 5 colors: abnormal market (black-period of contraction), stagnation(gray), stable (blue), warning (yellow), and abnormal market (red-period of expansion).

The status board is more specific than the real estate market forecast chart, which shows the situation of the real estate market through comprehensive indexes. The status board shows the market situation in more detail through maps, charts, and tables, reflecting market indicators, price changes, consumer psychology, and real estate policies.

## Conclusion

With its real estate forecast chart and status board, K-REMAP is expected to play a significant role in setting the direction of market policies. First, it will maximize the effectiveness of policies by providing just-in-time, just-in-place information. At an early stage, it can detect abnormal symptoms in the atmosphere and see where they are headed.

Second, it is possible to establish and execute consumer-oriented, customized policies. The K-REMAP generates results tailored to each market, market participants, and issues. It provides diverse countermeasures at a national level, capital region level, provincial level, and district level.

Third, through K-REMAP, simulations can be conducted prior to the adoption of a certain policy. Depending on the simulation result, the most appropriate policies can be chosen and executed, and this will greatly contribute to minimizing policy failures.

*Soowook Lee (swlee@krihs.re.kr)*

Figure 1: Main Screen of a Forecast Chart Illustrating Real Estate Market Situation

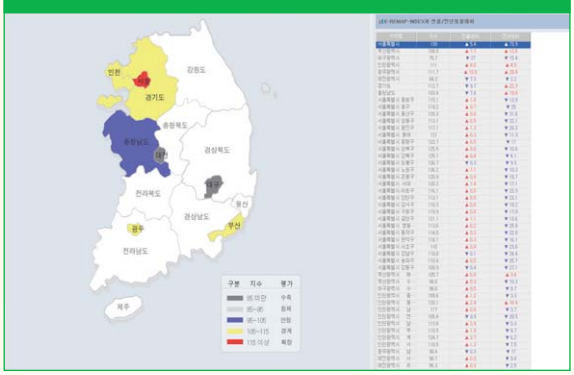
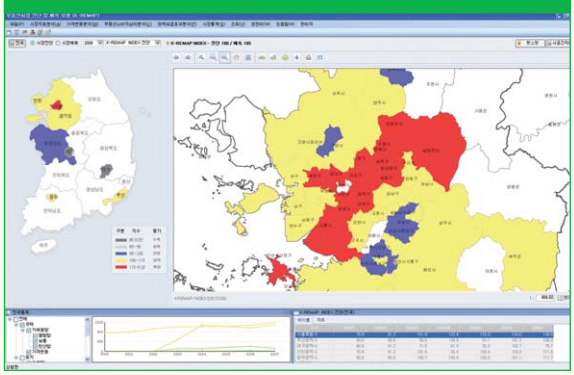


Figure 2: Main Screen of a Status Board



# INTERNATIONAL COOPERATION

**KRIHS Held Forum on Climate Change (Nov. 25, 2008)**

KRIHS held a forum titled "Research on Urban Development Related to Climate Change." The forum featured two speakers: Tony Clemson, Head of the Climate Change Section of the UK Embassy in Seoul, and Mingu Jeon, manager of the Asia Division of Sd3, currently known as "Two Tomorrows." Mr. Clemson outlined the UK's national policies related to climate change and three basic national laws (Climate Change Act, Energy Act, and Planning Act). Mr. Jeon discussed the "Strategic Programme Fund (SPF)-Low Carbon, High Growth" operated by the Ministry of Foreign Affairs in the UK.

**Specialists from Singapore's URA Visited KRIHS (Dec. 3, 2008)**


Officials from Singapore Urban Redevelopment Authority and KRIHS Staff

Singapore Urban Redevelopment Authority (URA) officials recently visited KRIHS, launching a partnership between KRIHS and URA. Catherine Lau, Deputy Director of Development Control Division, and two planners met with Eungwan Park, Research Fellow of the Urban Research Division, who delivered a presentation on urban planning systems and the recent trends of new town development in Korea. After the presentation, they had a discussion on urban growth management policies of each country.

**KRIHS Representatives Attended Astana Int'l Economic Forum in Kazakhstan (Mar. 12, 2009)**


Left: Dr. Dongju Kim, Director of the National Territorial Planning & Research Division
Center: Ms. Aigul Toxanova, Vice-President of JSC Economic Research Institute
Right: Dr. Jincheol Jo, Head of the International Cooperation Team

Dr. Dongju Kim, Director of the National Territorial Planning & Regional Research Division, and Jincheol Jo, Head of the International Cooperation Team, attended the Astana International Economic Forum to promote agency collaboration following the signing of an MOU with the JSC Economic Research Institute last October. The forum was held in Kazakhstan and hosted by the JSC Economic Research Institute. Dr. Kim gave a presentation on "Korea's National Territorial Planning Strategy Amid the Global Economic Crisis." He also had an interview with Ms. Toxanova, Vice President of the JSC Economic Research Institute. Both parties agreed to continue with cooperation and research exchanges.

# NEWS & ANNOUNCEMENTS

**KRIHS Held Conference on Road Policies for Low Carbon, Green Growth (Dec. 8, 2008)**

The Center for Road Policy Research held a Low Carbon, green growth conference on road policies for low carbon, green growth at the Grand Auditorium of the National Assembly. It was co-sponsored by the Office of Rep. Seongwun Baik under the Construction and Transportation Committee of the National Assembly, the Ministry of Land, Transportation, and Maritime Affairs, and the Korea Highway Cooperation, among others. The conference featured two presentations based on the awareness that a paradigm shift is required to solve the issues of climate change. During the ensuing panel discussion, various suggestions were made on how to evaluate progress toward the goal of low carbon green growth, and on the roles of the public and private sectors.

**KRIHS Invited Foreign Researchers for Joint Research (Nov. 2~Dec. 29, 2008)**

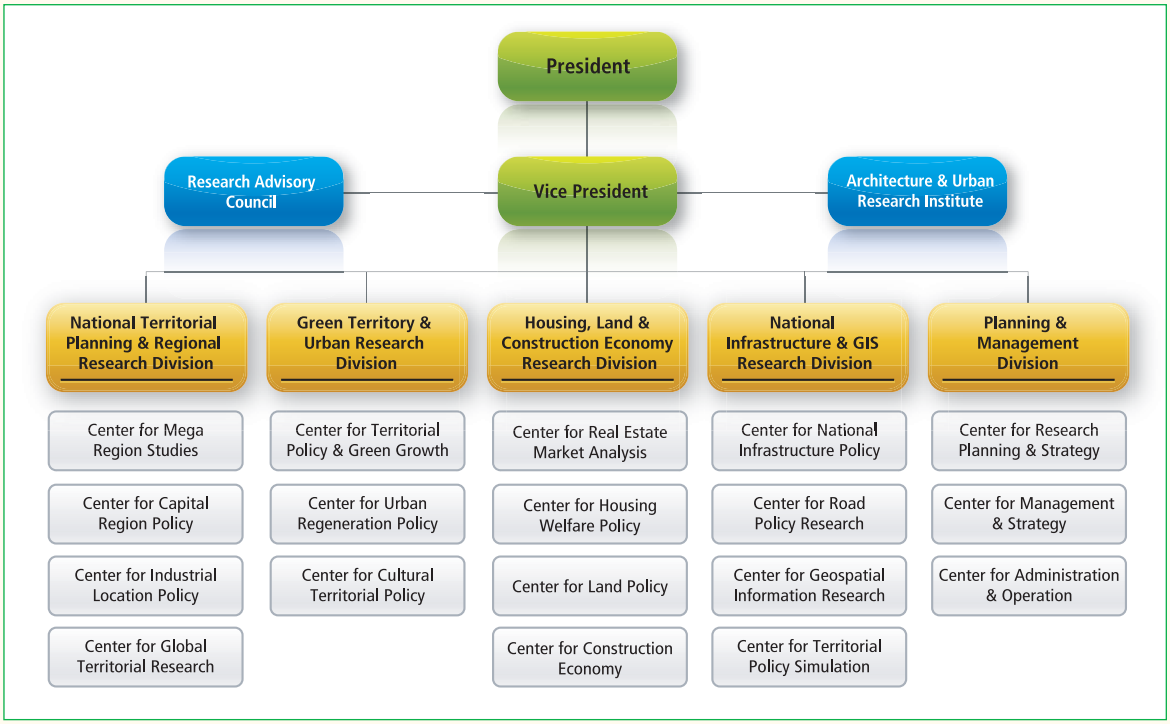
Left: Ms. Hang Tran Minh, official at the Ministry of Natural Resources and Environment in Vietnam
Center: Ms. Men Vouch Leang, official at the Ministry of Land Management, Urban Planning, and Construction in Cambodia
Right: Dr. Hosang Sakong, Head of the Center for Geospatial Information Research

KRIHS invited Cambodian and Vietnamese government officers in charge of GIS to conducted joint research from Nov. 2 to Dec. 29, 2008. Invited researchers included Ms. Men Vouch Leang from the Ministry of Land Management, Urban Planning, and Construction in Cambodia and Ms. Hang Tran Minh from the Ministry of Natural Resources and Environment in Vietnam. The theme of the four seminars was the "Current Status of NSDI (National Spatial Data Infrastructure) Policy and GIS in the Urban Planning Field in Cambodia and Vietnam." GIS Research Center presented 12 lectures on the application of NSDI policy and Korea Land Information Systems, and KOPSS (Korea Planning Support Systems), among others. The foreign researchers also visited the National Geographic Information Institute and examined the process of producing numerical digital maps. They met with Ilshin & Youshin Corporation and Jeongdo UIT Corporation--suppliers specializing in GIS--to enhance their understanding of Korea's GIS industry. The guests from Cambodia and Vietnam requested the Institute for advice on the establishment of NSDI policy for their countries based on Korea's experience. All parties agreed to continued cooperation and technical advice.

**KRIHS Reorganized into 5 Divisions and 18 Centers (Jan. 1, 2009)**

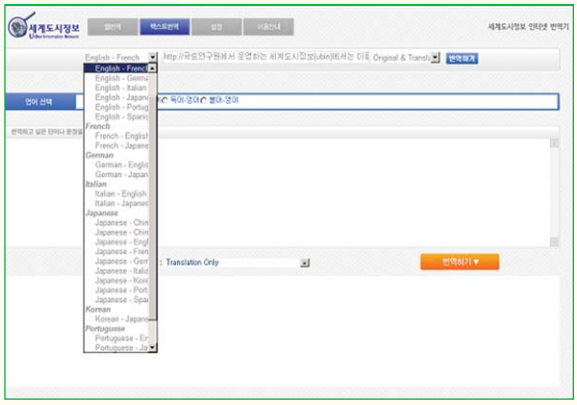
To better meet the demands of the rapidly changing socioeconomic circumstances and various policies, KRIHS was reorganized into 5 divisions and 18 centers on Jan. 1, 2009. The goal is to facilitate communication, improve expertise and enhance speed. Four divisions will serve as "base camps" to support research, and the Planning and Management Division will provide overall support. The 18 strategic centers will serve as the fast-moving "cavalry" troops that will perform research, make plans, and produce creative ideas.

# NEWS & ANNOUNCEMENTS




Orazanization Chart of KRIHS

## Urban Information Network Launched Multi-Language Translation Service (Jan. 5, 2009)



Multi-language Translation Service Screen

The Urban Information Network (UBIN), operated by KRIHS, has started a multi-language translation service. It includes English-to-French and English-to-German service. UBIN has had a Japanese-to-Korean translation service since 2007. Such a service is unique in Korea. Any users can log in and use the UBIN's service free of charge. Web site translation and text translation are provided. Unlike the translation service of other portals such as "Naver," there is no limit on the number of words to be translated, so users can translate a long text without having to rerun the program. The service utilizes many dictionaries to produce more accurate translation.

## KRIHS Held the First 2009 Biannual Korean Peninsula Meeting (Feb. 4, 2009)

On February 4, KRIHS held the first "2009 Biannual Korean Peninsula Meeting" in the grand conference room on the second floor of KRIHS. Twenty researchers, including Dr. Ildong

# NEWS & ANNOUNCEMENTS

Go, a senior research fellow of the Korea Development Institute and Professor Donghui Lee of the Institute of Foreign Affairs and National Security, attended this meeting to share findings from their researches on the economy of the North Korea and the issues surrounding the reunification of the two Koreas. The meeting will be held twice a year.

**KRIHS Held Symposium on Strategic Job Creation (Feb. 19, 2009)**

Symposium at KRIHS Auditorium

On February 19, under the sponsorship of Presidential Committee on Balanced National Development, the Ministry of Land, Transport and Maritime Affairs, and the National Research Council for Economics, Humanities, and Social Science, KRIHS held a symposium on "Territorial Strategies and Job Creation, a Way to Overcome the Economic Crisis" at the KRIHS auditorium. The symposium was held in three sessions. First, Dr. Hosang Sakong, head of the Center for Geospatial Information Research and Dr. Geunyong Kim, head of the Center for Real Estate Market Analysis, respectively made presentations on "Job Creation by Energizing Spatial Information Industry" and on "Job Creation by Stimulating the Housing Market." During the second session, "Restoring the Four Major Rivers and Job Creation" was presented by Dr. Youngsun Yoon, director of the Construction Policy Division at Construction & Economy Research Institute of Korea, and Dr. Hongki Ahn, a research fellow of KRIHS and Dr. Sungil Kim, head of the Center for Construction Economy spoke on "Job Creation by activating SOC Construction Market." In the last session, Dr. Wanggeun Lee, a research fellow of KRIHS introduced "Job Creation by Energizing Urban Renewal industries," and Dr. Seunghan Ryu, head of the Center for Industrial Location Policy, addressed the issue of "Job Creation through Renewal of Industrial Complexes." Finally, Dr. Dongwoo Lee, head of the Center for Capital Region Policy, described "Overseas Examples of Job Creation and Their Implications." The presentations helped the participants gain better perspectives on the methods of job creation.

**KRIHS GAZETTE** May 2009, Vol. 35

*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.*

*Copyright©May 2009*
*Korea Research Institute for Human Settlements*
*224 Simin-ro Dongan-gu Anyang-si Gyeonggi-do, 431-712, Korea*
*TEL: 82-31-380-0164 FAX: 82-31-380-0474*
*E-Mail: jincjo@krihs.re.kr*
*Homepage: www.krihs.re.kr*
*Publisher: Yangho Park*
*Editor: Jincheol Jo*
*Editorial Committee:*
*Soonsuk Bae, Chunman Cho, Myungsoo Kim, Taejung Kwon, Seungbok Lee, Soonup Park, Yeonmi Seo, Hajung Yoon*