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The Korea Research Institute for Human Settlements is a non-profit research institution established in 1978. It specializes in the field of national planning, housing and land policies, transportation, regional development, urban design, environment, and construction economy.

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

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SPACE and ENVIRONMENT

Growing SOC Investments Expected to Boost Construction Industry

Will construction activity grow despite the stagnation in the housing market? Experts speculate that the government's plan to increase the investment on the social overhead capital(SOC) will facilitate the growth of construction industry in general although the housing market continue to stagnate.

Recent prediction by KRIHS shows an upturn cycle as construction demands continue to grow and become larger in scale as the nation undergo socio-economic and political changes – globalizing economy, settling down local autonomy and becoming a member of OECD etc. Construction investment is expected to grow from 58 trillion won in 1996 to 103 trillion won in 2005 and maintain its 20% of GDP level.

There is, however, a continuous downturn in housing construction industry after the completion of the two million housing project, and the average annual growth rate is expected to stay around 5.6% between the years 1996 and 2005. By the end of last year, the housing supply ratio reached 84.2% and it would lower new demands. Considering this cyclical trend of the housing market, at least for the time being, redevelopment and reconstruction of housing will lead the market despite the strengthened regulatory controls on them.

On the other hand, various SOC projects such as railroads, airports and harbours are expected to lead the growth of the construction industries in the future. Twenty trillion won will be invested for five major government-led projects including Inchon International Airport and Kyongbu High Speed Rail by year 2000. Such major projects will be a boost to the industry since they will create new demands and attract subsequent developments at the surrounding areas of newly built stations of high speed rail and of multi-function development complex and newtowns in the vicinity of new airports and harbours. An average annual growth rate of 7% in the investment on civil engineering is predicted.

Furthermore, the growing demand in leisure and recreational activities will expedite investments in tourism, hotels and other resort facilities. The growth in income level will require more service sector facilities as well as office buildings which will also increase construction investments.

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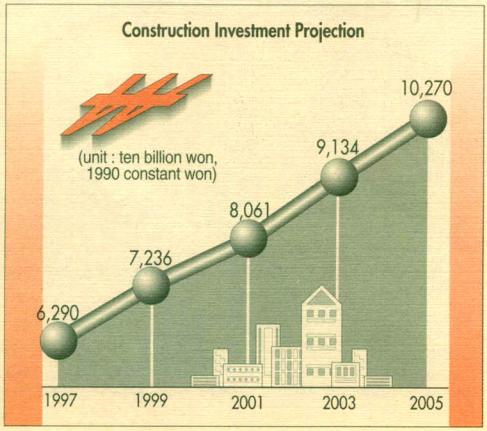


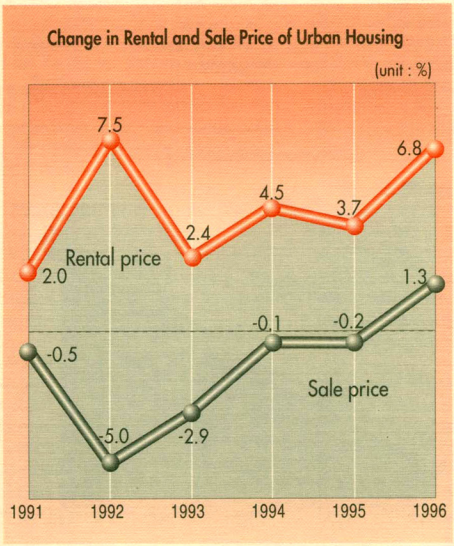
Sharp Rise in Rents Stirring Housing Market

Debate continues as to whether the recent skyrocketing rents for housing around Seoul Metropolitan Area will eventually affect the house price. The potential buyers who chose to live in rental units for a more convenient living arrangement over the last two years, when the housing market was comparatively stable, may feel threatened to purchase by the sudden rise in the prices.

The government announces, however, that the recent rise in rents is a predicted phenomena due to the improved living conditions by government-led two million housing program and recent newtown projects at Bundang and Ilsan and that sales prices will not be affected.

On the contrary, real estate experts claim that the steady rise in rent is a "prelude" to a hike in house sales prices and that the upturn in the housing market cycle also implicates a rise in the house sales prices. They predict that the narrowed differences between the newly built and existing houses as well as between the sales price and the rent will lead the potential buyers to hastily buy, creating a sudden hike in demand resulting in higher sales prices. Housing construction experts also support the view that the house sales price will rise if rent reaches 70 to 80% level of house prices.

Both parties agree, however, that the rise will not be as dramatic as in the late 80's with the strengthened regulatory measures such as real name mandatory ordinance and the establishment of computerized land ownership database systems.



Chul Ko of Housing Research Division touched this issue in his recent research and addressed that the sudden rise in the housing prices manifested in the late 80's came at the time when the international trade surplus was over 30 billion dollars and the housing supply ratio remained at 60%. He added that the situation now is very different because the housing supply ratio is over 80% and the economic outlook is not as good. He concluded that the recent rise in rent is a temporary and sporadic phenomena confined to large apartments in Kangnam area in Seoul and in new satellite towns due to improved living conditions.

But the concern still remains among the public whether recent rise in rents will result in house demand "bubble" in Korean housing market again.

Per Capita Residential Area in Seoul is Less Than Half of Tokyo

Physical area of Seoul Metropolitan Region(SMR) is about the same as Tokyo Metropolitan Region (TMR) but residential area per capita in SMR is less than half of that of TMR due to inefficient urban land use and planning.

According to the recent paper by KRIHS president Gun Young Lee, "Comparative Analysis of Land use patterns of Seoul Metropolitan Region and Tokyo Metropolitan Region," physical area of SMR and TMR are 11,725.0km^2 and 13,548.5km^2 respectively. Population density, however, is 37.0% higher and per capita administrative area is smaller for TMR than for SMR.

In terms of urban areas within the metropolitan region, Seoul is a lot smaller, 3,550.5km^2, than Tokyo, 9,315.8km^2. Population density within urban area is 5,135 persons per km^2 for Seoul and far less of 3,253 persons for Tokyo. Most striking of all the differences between Seoul and Tokyo is residential area per capita. It is 82.1m^2 for Tokyo and less than half of that, 30.1m^2, for Seoul.

The study also revealed that 99.0% of the entire metropolitan population, which amounts to almost 18 million, live within 40km^2 radius from Seoul, whereas 78.4% of the entire Tokyo metropolitan population, about 23 million, live within the same radius from Tokyo. There are 21 cities in SMR whereas TMR has more than 5 times as many of 114.

The study outlined reasons for the differences as follows : (i)Seoul has huge amount of greenbelt within the metropolitan boundary, (ii) Seoul has stricter control on land use conversion for urban purpose, (iii) SMR's lagging investment on social overhead capital, such as roads and rails, compared to TMR (iv) and strict growth control policies for SMR and unsuccessful spatial planning.

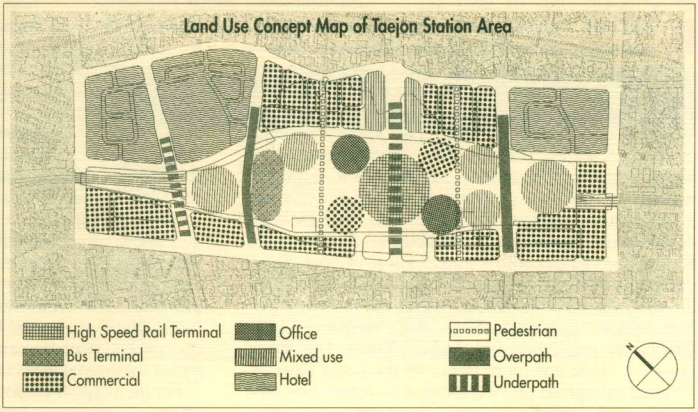
Taejon High Speed Rail Station and Its Vicinity to Be Developed from Next Year

The construction of high speed rail station at Taejon and the development of its surrounding area will start early next year. It will be developed under the private and public partnership by setting up development corporation jointly. The construction of the station will be completed by 1999 in time for a pilot operation of Kyongbu High Speed Rail planned for year 2000.

Korea High Speed Rail Construction Authority (KHRCA) is now discussing, based on the master plan recently completed by KRIHS, detailed development package and financing scheme with related local governments.

According to the plan, a total of 560 thousand m^2 is allocated for the station and surrounding development. The terminal building will be equipped with elevator transit systems and there will be various annexed facilities within the vicinity of 300 meter radius. Residential and commercial functions will also be provided within the vicinity of 800 meters. A total of 200 thousand m^2 is planned for annexed services including 110 thousand m^2 for passenger service facilities and 65 thousand m^2 for transit stations.

After the completion of the station in 1999, annexed service facilities and the development of the surrounding area will be followed until 2008. The authority predicts the expected cost to be 400 billion won for the station and 1 trillion won for other service facilities. The authority is planning on inviting private corporations as well as public sectors including the Korea National Rail, the Korea Land Corporation and the local governments to participate in the financing of the project.



Growing SOC Investments *from page 1*

Five Major Government Financed SOC Projects

(unit : 100 million won)

Type	Completion year	Total expected cost
Inchon International Airport	Dec. 2000(1st Phase)	42,713
Kyongbu High Speed Rail	2002	107,400
Gadeokdo New Harbour	2011	55,000
Kwangyang Harbour	2011	25,000
Asan Harbour	2011	29,000

Private Sector Financed SOC Projects

(unit : 100 million won)

Type	Content	Total expected cost
Uijungbu Light Trains	14.9km	4,490
Doubling Lanes for Uijungbu-Nuenggok Line	31.8km	2,000
Seoul-Kanghwa National Road	26.0km	4,091
Ilsan-Toegyewon Outer Ring Expressway	32.6km	16,870
Seoul-Hongchun-Yangyang Expressway	180km	23,000
Hanam-Chunchon National Road	66.5km	6,720
Toegyewon-Tongduchon National Road	36.5km	3,646
Doubling Lanes for Su-In Subway Line	52.8km	5,710
Honam Area Integrated Cargo Terminal	Changsung, 310 thousand pyong	7,577
Ulsan New Harbour Berthing Facilities	3.5km	17,232
Pusan General Marine Park	Tourist Facilities	5,500
Chungbu Area Integrated Cargo Terminal	Chungwon, 400 thousand pyong	7,033
Youngnam Area Integrated Cargo Terminal	Kimchon, 270 thousand pyong	6,970

1 pyong = 3.3 m^2

Cooperative Development of the Coastal Areas of Shandong Province and the Korea's West Region

KRIHS has embarked a two-year cooperative project with the Institute of Geography, Chinese Academy of Sciences in September 1996. This project is designed to examine the status and prospects of industrial cooperation and spatial division of labor between Shandong's coastal area and Korea's west coast area. The major motivation for the study is the realization that Sino-Korea economic cooperation has brought a significant impetus for economic growth in Shandong province and it will continue to play an important role in Shandong's development. Having received about one-fourth of total Korean foreign direct investment toward China, Shandong has built up a close relationship with Korea, through which Korea's industrial restructuring has also been affected. In addition, Shandong's Weihai city has a direct ferry connection with Inchon, Korea. The city of Qingdao alone has more than one thousand Korean-invested enterprises and it has direct air connection with Seoul.

Recognizing the significance of increasing economic interdependence between Korea and China, the project aims at providing strategic guidance for cooperative development between the coastal areas of Shandong and Korea's west coast. Major topics that will be covered in the study are: (i) appraisal of current status of economic development in Shandong's coastal area focusing on resource exploitation, adjustment of industrial structure and infrastructure improvement; (ii) investigation of the investment environment of the major growth centers within Shandong, namely, Qingdao, Yantai, and Weihai focusing on the role and behavioral characteristics of foreign-invested firms, particularly Korean-invested firms; (iii) comparative study of Shandong's coastal area and Korea's west coast focusing on the possible spatial division of labor and technological and economic cooperation between the two areas and feasible measures to promote a cooperative and sustainable development of both coastal areas; and (iv) prospects of Sino-Korean economic cooperation and regional development strategy for the coastal areas of Shandong and Korea's west.

For the purpose of investigating the investment environment, enterprise survey will be conducted in the above three cities. Based on the survey results, there will be a conference in 1997 and the final conference is scheduled in 1998 to discuss major findings of the research.

STATISTICAL ABSTRACT

Comparison of Construction Activities Among Asian Countries(1995)

Indices	Unit	Hong Kong	Indonesia	Japan	Philippines	Singapore	Korea
GDP	bil.($)	142.2	190.3	4,253.4	74.1	70.1	456.0
Construction production(A)	bil.($)	12.8	19.1	836.2	7.2	11.0	75.9
A/GDP	%	11.1	10.0	19.7	9.7	15.7	16.8
Construction company(B)	thousand	0.91	65	552	8.2	4.1	19.4
A/B	mil.($)	14.1	0.294	1.51	0.878	2.68	3.91
Construction employees(C)	thousand	130	4,500	6,630	1,300	n.a.	1,720
A/C	-	0.098	0.004	0.126	0.006	n.a.	0.044
C/B	-	142.9	69.2	12.0	158.5	n.a.	88.7

Disparity in Infrastructure Development Great Crux to Unification

Professor Werner Köhl of Karlsruhe University, Germany asserted that there is high possibility of unification in Korean peninsula in no distant future but that the great crux of it is how to overcome economic disparity between the North and the South. Professor Köhl was invited to KRIHS to discuss matters of national physical planning scenarios after unification in Korea. He was involved in national development planning for unified Germany.

Illustrating the cases of Germany which invested over 57 billion DM on infrastructure development for six year period after unification, he suggested South Korea's assistance to the North on infrastructure development to be most crucial element determining the timing as well as possibility of the unification. Unified German government selected 17 national development projects of highway construction, new rail system and refurbishing ports which are now evaluated to contribute to the enhancement of the overall quality of life of residents in old East German territories.

Among the infrastructure facilities, rail system, he argued, would be the most urgent to be reconstructed for the unified Korea. It is easier and less costly than to construct and connect whole road network. Germany emphasized rail and a canal system at the beginning and even once implemented a policy transporting trucks by rail. But in the long run, road transport system should be reconstructed to accommodate ever increasing car ownership.

Over two million people moved from East Germany and a lot more people are expected to move from North Korea, upon unification, to South Korea and other countries. To reduce the social turbulence and confusion of the unification and move into stabilization promptly, movement of the people should be minimized and key to it is the adequate provision of infrastructure facilities. Among others, connecting transport network between North and South, especially rail, will be most important and now is the time to start planning and preparation.

Socio-Economic Indices of North and South Korea(1994)

Indices	Unit	South Korea(A)	North Korea(B)	B/A
Population	thousand	44,453	22,953	0.52
GNP	100 mil.($)	3,769	212	0.06
Trade	100 mil.($)	1,984	21	0.01
Road	km	58,088	34,000	0.59
Expressway	km	1,579	549	0.33
Rail	km	6,462	5,112	0.78
Seaport	number	27	8	0.29
Airport	number	12	10	0.83

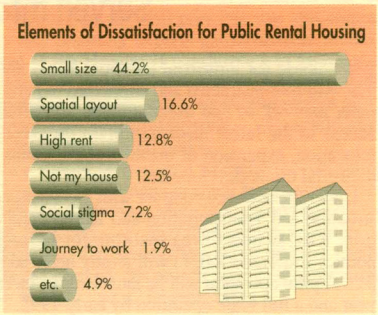
Survey Shows Public Rental Homes Are Too Small

People living in public rental homes are dissatisfied the most with the small size of their living space. The size of the rental home most people favor is 90m^2. An informal form of saving known as "GYE" proved to be a more popular means of financing in Korea rather than through formal financial institutions.

These findings were revealed by a recent KRIHS survey, using a sample of 2100 residents of public rental homes and leased homes in 6 largest cities including Seoul. The findings were reported in a paper titled the "Policy Direction of Public Rental Housing."

The study showed that 44.2% of the respondents selected "small size" as the main cause for dissatisfaction for their present homes. The second ranking cause for dissatisfaction was "inconvenient interior structure." Responses such as "high costs including deposit, rental, and maintenance expenses"(12.8%), "not mine"(12.5%) and "socially degrading"(7.25%) followed in this order.

The research also revealed that 3 respondents out of 4 (74.9%) was planning on "buying their own house" and that the most popular size was 90m^2 with 3 bedrooms. As regards to the means of financing for future purchase, 40.6% of the respondents selected "installment savings" or "GYE," 34.9% "subscription savings" and 12.0% "subscription deposit." 12.5% replied that they were not financially prepared.



Intelligent Transport System
A New State of the Art in Transport Management

Intelligent Transport Systems (ITS) is a new state of the art in integrated transport management which provides real-time traffic information to all modes of transportation and make all roads practically intelligent and eventually accident-free.

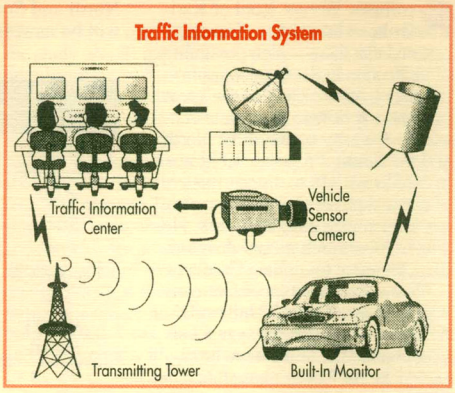
KRIHS announced the plan to develop ITS by 2001 that includes intelligent road network with advance warning system to prevent accident and fully computerized systems of traffic light, road management, logistics, and fare collection with a total budget of 350 billion won. It will also provide information on vehicle location through satellite system and can spot the frozen areas and control illegal vehicles.

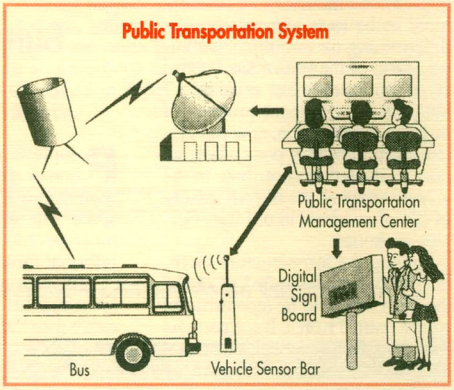
In order to run the system for general use, KRIHS has set out four major areas to be studied ; i) on-road traffic facility system, ii) road to vehicle integration system, iii) transport communication system, and iv) ITS operation system.

The first phase will entail a pilot project with a budget of 156.4 billion won by 1998, followed by a second phase of full installation for common use by 2001. ITS is expected to create the effect of expanding road capacity by 15%. 15% increase in road areas in Seoul is estimated to cost, about 8 trillion won.

Expressway capacity will also be increased by 20% and logistics cost will be reduced by 6%. By 2011, ITS will save labor cost of 980 billion won for fare collection as well as lower the cost of traffic accident by decreasing drive-induced accident rates by two thirds.

United States, Japan and EU are all pushing very hard to implement this integrated transport management system of ITS for common use across the nation. The US Department of Transportation is planning on investing 200 billion dollars for this effort and EU and Japan have already invested 1.1 billion dollars and 460 billion yen, respectively.





Database for Industrial Location will be in Full Operation and Served through PC Network by 1998

Database for industrial location, home and abroad, will be constructed and connected to personal computer network so that users at home and office can get access to the latest information on the development, relocation, expansion of manufacturing plants and new industrial estate development.

Under the research contract with the Ministry of Construction and Transportation and Korea Land Corporation, KRIHS and Korea Institute for Industrial Economics and Trade(KIET) will jointly undertake the project. A pilot operation will be launched by the end of this year and a full scale operation by early 1998.

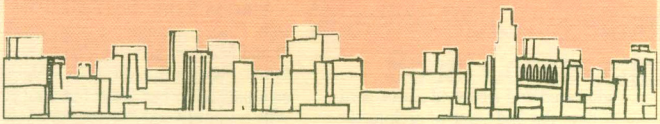
This network will provide information on existing space of industrial estate available and the location of new ones. Land use plan, types of industry admitted, net areas of industrial plant site, expected completion date, sale and rental price can all be accessed through PC network.

It is expected to alleviate various logistical burdens such as having to directly visit the sites before making locational decision. It is also hoped to assist corporations' investment abroad by providing information on foreign industrial estate.

VIEW POINT

Are Cities What They Ought to Be? Planning For Environmentally Sustainable Cities

Gun Young Lee



We have buildings but we don't have a city. We have a forest of monotonous buildings of similar height, shape and color. But we don't have, in a real sense of the word, a city, humane, attractive and environmentally friendly to people.

Nature is a Life

I feel rich with life when I hike through the woods inhaling crisp air, and drinking from the mountain spring. The air and the water that we have taken for granted are now becoming a scarce and a valuable resource. Korea has succeeded in economic growth during the developing years at the expense of our environment. We will not be able to buy back clean air and water with what we earned.

"Unlivable land" is dead land. Water where fish cannot live is considered dead. Land where grass or moss cannot grow is also dead. If land dies, the entire ecosystem is broken down. Food chain will also be destroyed. If men neglect nature, nature will desert them.

Nature is a living thing. It has lived for a long time. We now need to find a way to coexist with nature and the environment. The entire nation of 50 million people needs to live with this land and with the nature, where we, at the same time, have to build places to live and to work.

Inevitably, the forests have to be destroyed to build roads, seas must be reclaimed to build factories and wastes have to be buried. Korea is the highest energy consuming nation, as well as the highest waste producing country in the world. Fierce competition is numbing the consciousness of environmental protection. This is the prices we pay for economic growth.

Self-Purifying Development

However, we can not give up growth and development. What we should do is the development with minimization of pollution. This is what, I believe, sustainable development is all about.

Nature has its own purifying system. The advancement of technology in the past has kept pace with this self-purifying cycle, enabling the maintenance of clean environment. Today, the pollution has outpaced the cycle.

It is time now to change the philosophy of the development. Instead of just building houses and factories, we have to build cities. Cities environmentally friendly and attractive to people must be created. Many nations have already implemented the concept of "environmentally friendly" cities.

I remember that the suburban cities of the United States and England where I used to live were some of the many cities of advanced countries that were clean and environmentally friendly. Cities of the Netherlands were designed for people bicycling around with comfort. They were not like the dreary suburban cities of Seoul surrounded by huge screen of concrete structure.

Cities must be designed isolating the industrial areas so that they can be protected from pollution from the very planning stage. Our cities will not be livable if factories are built sporadically in between houses, contaminating the areas with polluted gases and killing streams with factory wastes. Automobiles will also continue to increase.

Exhaust gas from automobiles is the worst contaminaor of air in cities. An environmentally friendly cities will need an effective public transportation system that will be convenient for bicyclers and pedestrian.

Moral Rule in City Planning

City planner, Marcia Lowe, once stated in his book "Shaping Cities: Environmental and Human Dimensions" that the world now needs to adopt new ethical standards for an environmental and humanistic approach to city planning. Since the Charter of Athens in 1933, the first charter of city and city planning, the Charter of Machu Picchu in 1977 and the recent Charter of Megaride in 1994 all proclaimed the same principle that cities are sustainable only if they are in harmony with nature.

Korean government announced in March that we build a "Green Nation." This principle was also emphasized by city planning experts gathered from all over the world at the Habitat II Conference in Istanbul in June. Instead of building high-density, high-rise apartments in redevelopment areas, we should restore green areas. Instead of reclaiming rivers, we should save streams, and create natural parks.

A policy should be prepared whereby bicycle riding and walking are encouraged in small and medium sized towns rather than driving. More land should be secured for green areas and soil rather than putting buildings on patched land, so that eventually a green network can be established. Let us try out several model cities, environmentally friendly and sustainable cities.

Korea-France Conference on City Planning was held on November 18-22 in Paris and Lyon coohosted by KRIHS and the French Ministry of Equipment, Transport and Tourism. Presentations and discussions were held on four areas: Policies and Administrative Structures of City Planning, the Roles of the Central and the Local Government in City Planning Processes, Cooperations Among Local Governments, Management of Mega-Scale National Projects. This was the second international conference on city planning between France and Korea since the Korea-France Joint Conference on Public-Private Partnership in Urban Development Projects held in Seoul December last year. Madam Bersani, Director of Urban Affairs Bureau, received the Korean delegation led by Kyubang Lee, Vice President of KRIHS.

KRIHS hosted a two day international seminar for the second ASIA CONSTRUCT on October, 16 and 17 in Seoul. Experts from Hongkong, Indonesia, Japan, Korea, the Philippines, Singapore and Vietnam presented each country's trends in construction markets and discussed infrastructure developments and other international cooperation issues for the Asia region.

Secretary General, Guy Pluche of the Fondation Nationale Entreprise et Performance(FNEP) visited KRIHS on July 18 to gather data for comparative studies on national land development policies between France and Korea.

Professor Mee Kam Ng of Unversity of Hong Kong visited KRIHS and lectured on Globalization, Regional Restructuring, and Local Change in Hong Kong on August 30.

Professor Anthony Hobeika of Virginia Tech University was invited to KRIHS and delivered the lecture presentation on Current Status and Development Strategies of ITS on December 5. Background and development process of U.S. cases with some emerging problems were addressed and technical issues pertinent to the 2nd stage of architecturing ITS in Korea were discussed.

Nick Land, Neil Smith and Andrew King, Senior consultants from Ordnance Survey of United Kingdom, were invited to KRIHS in connection with Korea National Geographic Information System (NGIS) project between November 15 to December 20, 1996. This consultancy consists of two phases. The primary objectives of first phase are the review of the NGIS Master Plan and specification of the map data. The second phase that will begin early 1997 aims at the analysis and design of the data management system for topographic data.

Nie Zhenbang, Director of Department of Spatial Planning and Regional Economy, State Planning Commission of P. R. China, came to KRIHS on December 28 and discussed issues of national and regional planning in Korea and ways to collaborate and exchange between two institutes.

Martin Bloom, consultant to Territorial Development Service of OECD called at KRIHS on the information collection trip to East Asia. KRIHS is now conceiving to hold a joint conference with OECD on the topic of Sustainable Urban Development Strategies.

Internal Workshop on Prospects of Sino-Korean Economic Cooperation and Development Direction of Coastal Region was held on December 16 with Professor Li Wen-Yan of China Academy of Science and Professor Zhang Baoxiu of Beijing Union University. They conducted a large scale survey of Korean investors in Sandong Province, PRC and a preliminary result was discussed with KRIHS research staff. With the final outcome, an international conference will be held in Seoul, October, 1997.

Vincent Renard of Ecole Polytech, France submitted a paper tltled "Land Markets, Urban Planning and Public Policies in France" to KRIHS as a part of research contract ant it will be published early next year. While he was staying at KRIHS as visiting scholar, he also conducted 4 internal seminars on new town development, land bubbles and comparative land development methodology.

Professor Emeritus Hideo Nakamura of University of Tokyo visited KRIHS on October 30 and exchanged views on the status and the direction of national land use planning with Kim Eui-Won, the chairman of the board of directors, KRIHS. The visit was intended to exchange opinions on mutual cooperative relationship between Asian countries in relation to the 21C National Land Grand Design presently being established in Japan.

Professor Jinu Kim of New South Wales University, Australia gave a lecture on Prospects of Industrial Real Estate Market in Sydney on November 19.

President Gun Young Lee was reappointed as President of KRIHS on December 4 for another three year term.

Contact us with a response or a question, or comment on ideas we cover in the Gazette.

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