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## User-centered Mobile Transit Information Services

The Korean government has designated “u-Korea (ubiquitous-Korea)” as its new national strategy, a strategy of fully employing information technology. In the transportation area, the government is vigorously pursuing the construction of u-city, ubiquitous transportation (UT) research and development studies, and other projects. As part of the initiative to develop better transportation systems using low-carbon green growth, the government continues to introduce advanced public transport systems (APTSs) such as Transport Advice on Going Anywhere (TAGO) and BIS (Bus Information Systems).

With the expansion and development of APTS technology, the paradigm on public transportation information (PTI) service is changing in the direction of better accommodating users’ needs by, for example, providing user-specific information, user-selective information, and location-based service (LBS). As a result of the paradigm changes, a new type of PTI service has become necessary, and this research paper will describe in detail the R&D project on user-centered mobile transit information services, which reflects the changed paradigm. The development of the prototype has been completed and the field test is planned to begin in August 2009.

### Concept of Mobile Public Transportation Information Service

Mobile PTI service refers to Mobile Transit Information Service for Activity Plan in Real Time (MOTISAR). By providing real-time PTI, the service helps users make, implement, or change their activity plans.

Three concepts underlie the MOTISAR: i) a user-centered activity plan that utilizes information on public transportation, ii) a barrier-free connection, and iii) a simple, intuitive, and easy-to-learn user interface. To implement these concepts, three conditions are required: i) equitable use and open source, ii)

wireless environment using wide/local area networks (WLAN), and iii) free public access.

As can be seen in the concepts above, the MOTISAR aims to help users make their activity plans based on real-time PTI. The core service concept is that of a user activity planning service, namely, a scheduling service. Scheduling service refers to the service of providing users with activity-related public transportation information (location, time, travel patterns) so that users can set up their activity schedules by accessing real-time PTI through their mobile devices.

The MOTISAR provides real-time PTI and supplementary information to help users not only make and adjust their schedules but also create new schedules. The MOTISAR has three important roles in supporting user activity:

- Co-scheduling of activity: to effectively implement users' activities and to offer activity planning with other persons using real-time PTI.
- Re-scheduling of activity: to effectively adjust activity plans due to unexpected conditions (e.g., traffic accidents, road construction).
- New-scheduling of activity: to create new activity by providing additional information

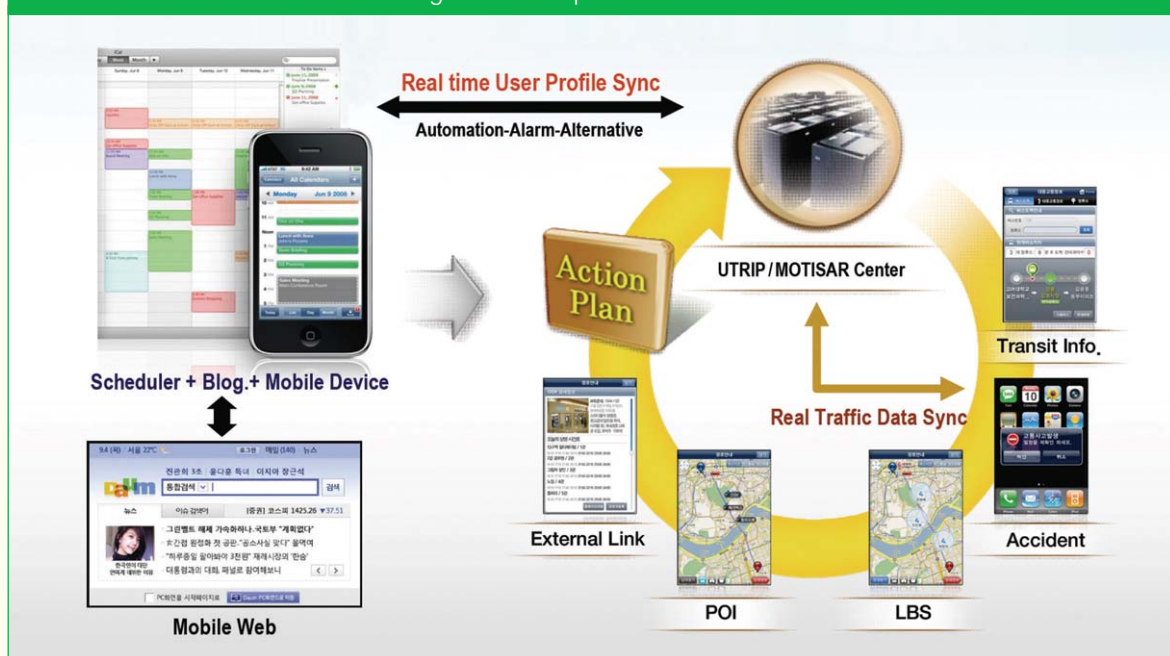
(e.g., education/culture/leisure information), which will generate new activities.

### Mobile Public Transportation Information System and Implementation Strategies

The MOTISAR aims to create various new information contents, linked to LBS, by utilizing an environment that provides free connection and free access to information and by developing mobile-specific PTI services by offering a simple, intuitive, and easy-to-use user interface. To implement this, the MOTISAR has designed wireless network connections with information provision devices for bus stops (e.g., Bus Information Terminal) or in-vehicle, that is to say, information provision devices functioning as an Internet hub for the use of mobile Web services. Owing to wireless network connections, users are able to use mobile Web services free of charge (or at minimum cost) and this will lead to maximum use of PTI.

The MOTISAR aims to provide contents and services that are linked with users' activity plans (e.g., event, location, time, schedule sharer) so that users can more easily and frequently use public transportation. Figure-1 illustrates the scheme of the MOTISAR.

Figure 1: Concept of the MOTISAR



Specifically, the information center of the MOTISAR links user profile information with real-time PTI and offers additional contents and information through the mobile Web. The mobile device acts as the channel through which user-specific PTI and additional information are offered. The MOTISAR is a repetitive, recycling process where users' activity plans are always transferred to the information center and the information at the center is fed in to users' mobile devices. Through the mobile Web, the system can be expanded to provide more useful contents.

### Main Implementation Strategies of the MOTISAR

The MOTISAR can be largely divided into one basic service and three strategic services. The basic service is real-time PTI service. Users can subscribe for PTI related to their schedules. They can instantly access all information related to public transportation even when not using the scheduling service, but when the scheduling service is provided together with the PTI service, the user can receive PTI that is specifically connected to his or her schedules and activities. The contents offered are as follows: public transportation information (bus, subway), additional information (life, culture,

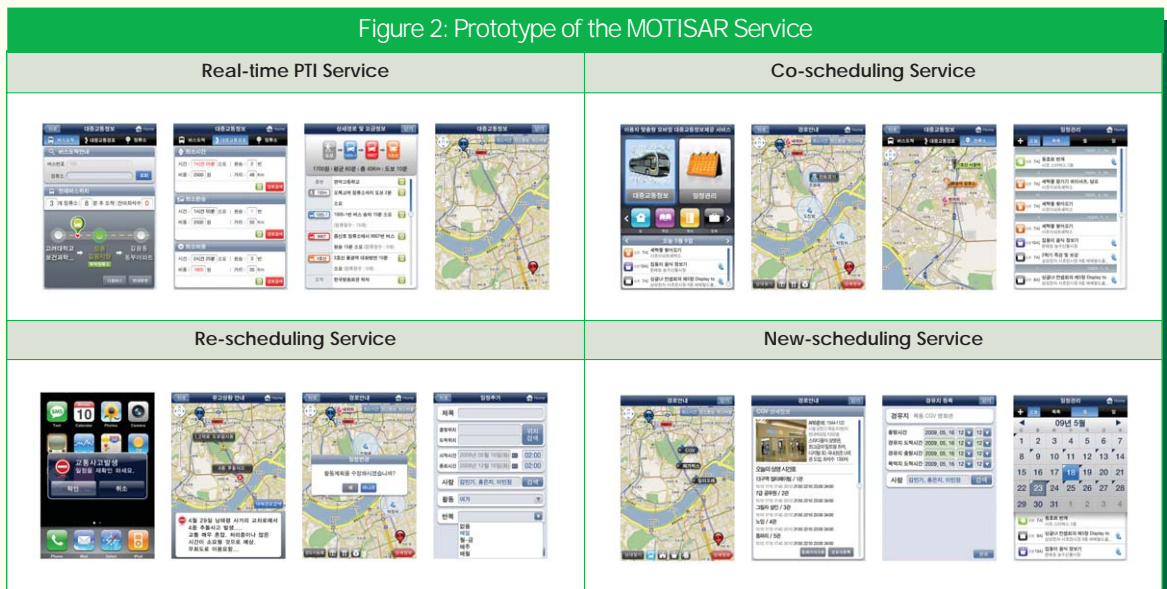
point of interest), and schedule advisers (time, location, starting point/destination).

The first strategic service offered by the MOTISAR is the co-scheduling service. By offering real-time public transportation information, MOTISAR helps users make activity plans. When the user makes schedules to meet someone, it is possible to identify the counterparty's location, adjust schedules by utilizing real-time PTI, and set up new schedules. The user-specific functions are as follows: schedule checks, people finds, location identification, meeting place selection (recommending destinations), PTI (routes for different types of transportation), and schedule change and confirmation, among others.

The second strategic service, called the re-scheduling service is a service using artificial intelligence. It provides optimum transportation solutions in the event of unexpected situations. More specifically, it helps users adjust or make additional schedules by offering information on unexpected events (unexpected traffic conditions/accidents). User-specific contents alert the user to sudden traffic changes, check whether the user changes his or her schedules, provide alternative routes, time to destination, and similar information, and manage user's changed schedules.

The last strategic service is the new-scheduling

Figure 2: Prototype of the MOTISAR Service



service. Offering diverse information related to public transportation helps transportation users make new schedules. More specifically, it directly provides additional real-time PTI, such as distance, time to destination, and activities. It also allows users to directly access point-of-interest (POI) information through the mobile Web. User-specific contents are POI information and supplementary information on traffic, public sites, culture, and life.

In conclusion, the services described above are the major services representing the MOTISAR,

which seeks to help users make plans anywhere anytime based on PTI. It is expected that the services will be expanded to link information on private modes with users' scheduling services, mobile services, Web services, blogs, and similar services, and, thus, provide more variety of services and contents.

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## Job Creation by Stimulating the Housing Market

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As a result of the world's economic crisis caused by the sub-prime mortgage meltdown in the United States, the Korean economy has suffered, seeing a decrease in exports and in domestic sales. The housing market is also seriously stagnating, with housing sales prices dropping since October 2008 and Chonse<sup>1)</sup> prices falling since November 2008. The number of unsold apartments as of the end of 2008 reached 165,559, about 2.5 times higher than the 10-year average, and the number of residential construction permits was only 371,285, which was 75% of the last 10 years' annual average. The number of housing transactions was 1,192,000 in 2008, which is 80% of the annual average number of transactions from 2001 through 2006.

### Main Measures to Energize the Housing Market

Recently, nine housing policies, represented by the 6.11, 9.19, 10.21, 11.3, and 2.12 stimulus plans, were announced, each named according to the date it was released. The aim of these policies is to stabilize and normalize the housing market

and increase housing welfare. The gist of the policies is as follows:

First is the normalization of the housing market by mitigating restrictions. The main details involve reforming the real estate tax system, reducing restrictions on reconstruction, and alleviating tax burdens on the financial sector.

Second is increasing housing welfare for the working class who are not house owners and for those in the low-income bracket. The major policy was the 9.19 stimulus plan of 2008, which stated that 5 million houses (annual average of 500,000 houses) would be provided over the next 10 years (2009~2018) to meet the housing demand, out of which 1.5 million houses (annual average of 150,000 houses) would be allocated as "nest housing" for the working class who are not house owners and for the low-income group.

Third is solving the unsold apartment issues. The major policies were the 6.11 stimulus plan of 2008 and the 2.12 stimulus plan of 2009. Despite the 6.11 stimulus plan of 2008, the statistics showed an increase in the number of unsold houses. As a result, on February 12, 2009, the

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<sup>1)</sup> Chonse is a unique Korean lease contract in which the tenant pays an up-front deposit, typically about 40 to 80% of the value of the property, with no requirement for periodic rent payments. At the contract maturation, the landlord then returns the nominal value of the deposit.

Table 1: Major Housing Policies

Major Housing Policies		Housing Policy Details
Policies to normalize the housing market	Reform real estate tax system	<ul style="list-style-type: none"> <li>• Raise the ceiling for imposing capital gains tax (600 million KRW→900 million KRW), increase special deduction for long-term holding (Annual rate of 4%→Annual rate of 8%), reduce tax rate(9%~36%→6%~33%)</li> <li>• Freeze the comprehensive real estate holding tax rate to the 2007 rate (80%), lower the annual tax rate (300%→150%)</li> </ul>
	Mitigate reconstruction restrictions	<ul style="list-style-type: none"> <li>• Shorten reconstruction process by eliminating red tapes (3 years→1 ½ years), shorten safety check process (Twice→Once)</li> <li>• Abolish obligation to "build first and sell next" obligation, abolish prohibition on the transfer of cooperative member status, modify quota for small apartments, etc.</li> </ul>
	Modify restrictions on house financing, tax system, and housing transactions	<ul style="list-style-type: none"> <li>• Extend grace period of one household owning two houses (1 year→2 years)</li> <li>• Modify requirement for tax support for rental house owners outside the capital region</li> <li>• Other than three Kangnam areas at the capital, do not designate any areas as "heated speculation zones" or "speculation zones"</li> <li>• Shorten the period required to hold on to the newly purchased apartment before reselling it (Capital: maximum of 10 years→7 years Outside the Capital: 5 years→1 year)</li> </ul>
Policies to increase housing welfare for the houseless working class and for the low-income group		<ul style="list-style-type: none"> <li>• Over the next 10 years (2009~2018), the government will supply 1.5 million nest houses (annual average of 150,000 houses) in the urban or suburban areas for the working class who do not own houses</li> <li>• The number of houses to be provided: by region (1 million in the capital region, 500,000 outside the capital region), by type (700,000 apartments for sale, 800,000 houses for lease), 200,000 houses for purchase through down payment, 100,000 houses for long-term lease, 400,000 public rental housing, and 100,000 houses for permanent lease</li> </ul>
Policies to resolve unsold apartment issues		<ul style="list-style-type: none"> <li>• Reform tax system to resolve unsold apartment issues: Provide exemption to capital gains tax over the next five years after the purchase of unsold apartments or provide 50% tax deduction and additional tax deduction for real estate investment trust (REIT) fund investing in unsold apartments, etc.</li> <li>• Provide a 50% acquisition and registration tax deduction when purchasing unsold apartments before the end of June 2010</li> </ul>

government announced additional measures to solve this problem. The central idea of the 2.12 stimulus plan was providing exemptions or offering a 50% deduction on capital gains tax and also a 50% deduction on acquisition and registration taxes, etc., when purchasing unsold apartments.

### Job Creation through Housing Market Stimulus Plan

Investment in the housing industry makes up approximately 5% of gross domestic product (GDP) and about 30% of the total investment in construction, playing a vital role in the national economy. Also, the housing industry creates more jobs than any other industry. Therefore, if the

government establishes policies that promote investment in the housing sector, these policies are expected to contribute greatly to the growth of the national economy and to job creation.

Analysis is conducted on the effect the execution of a plan has on job creation, but only for those plans that can be measured, which are as follows: plan for solving unsold apartments, plan of providing nest houses, and plan for providing 500,000 houses annually. The effect can be measured through the total worker requirement coefficient, which refers to the amount of labor directly required for one unit of industry output (worth 1 billion KRW). According to the inter-industry analysis by the Bank of Korea, the total worker requirement in the housing construction sector is estimated to be 18.43, which means

Table 2: Estimated Investment and the Number of Apartments Sold through 2.12 Stimulus Plan

Scenarios	Number of Apartments to be Sold (House)	Total Space per House <sup>1)</sup> (m <sup>2</sup> )	Investment per 3.3m <sup>2</sup> <sup>2)</sup> (10,000KRW)	Total Investment (1 billion KRW)	Number of Jobs Created (Person)
Scenario 1	20,000	116	584	4,088	75,000
Scenario 2	30,000	116	584	6,132	113,000
Scenario 3	40,000	116	584	8,176	151,000

Note 1) 116m<sup>2</sup>, the total space per house, is calculated based on the size of the land under residential building construction permit and the number of houses provided (2006~2007).

2) Investment per 3.3m<sup>2</sup> is the sum of basic construction cost (4.71 million KRW per 3.3m<sup>2</sup>) and the total land price (weighted sundry expenses, used to create the plot of land since 2000, was 1.13 million KRW per 3.3m<sup>2</sup>), from which land compensation cost is excluded.

when 1 billion KRW is invested in the construction of houses, it would create jobs for 18.43 persons per year. The amount of investment that goes into housing construction is calculated based on the sum of the standard construction cost and the cost of building sites, excluding the land compensation cost.

Currently, it is difficult to estimate the effect that the 2.12 stimulus plan for unsold apartments would have on housing demand, but it is possible to indirectly estimate the number of jobs to be created based on the premise of selling a certain number of houses. In this paper, the effect is calculated based on the assumption that 20,000 to 40,000 apartments would be sold annually. According to scenarios 1 through 3, which assume annual sales of 20,000 to 40,000 apartments, the estimated annual investment is from 4.088 trillion KRW to 8.176 trillion KRW. Also, according to scenarios 1 through 3, the number of jobs to be

created as a result of the increased investment is about 75,000 to 151,000.

When the housing market operates normally, the annual housing demand is expected to be around 500,000, in view of which the government has announced its plan, the 9.19 stimulus plan of 2008, to furnish 5 million houses within the next 10 years. Supposing that the average investment and space per house is as described in Table 2, when the total worker requirement coefficient is applied in housing construction, 1.884 million jobs will be created annually if 500,000 houses are supplied annually, which indicates that for every 100,000 houses being undersupplied, about 377,000 persons can lose their jobs each year.

Assuming that annually 150,000 nest houses can be provided through the 9.19 stimulus plan of 2008, the annual investment is estimated to be at the level stated in Table 3. When 150,000 nest houses are provided annually, the annual

Table 3: Estimated Investment for Nest Houses

Type	Annual Provision (House)	Exclusive Space (m <sup>2</sup> )	Total Space per House (m <sup>2</sup> )	Investment per 3.3m <sup>2</sup> (10,000 KRW)	Total Investment (1 billion KRW)	Number of Jobs Created (Person)
Permanent lease	10,000	40	53	584	934	17,000
Public rental	40,000	50	66	584	4,672	86,000
Long-term lease	30,000	65	86	584	4,555	84,000
Public sale	70,000	75	99	584	12,264	226,000
Grand total	150,000	-	-	-	22,425	413,000

investment is expected to be around 22.425 trillion KRW, which will generate a total of about 413,000 jobs each year.

### Implication and Policy Direction

The analysis revealed that the stimulus plans did have a significant effect on job creation. This implies that the government's intervention to energize the housing market has greatly contributed to growth of the national economy and to job creation.

Together with this, a new challenge is to provide a safety net for the working class and to vary the types of houses being supplied to meet demands for improved living conditions and

diverse housing. To build a safety net for the working class, the government should actively furnish nest houses, introduce housing vouchers for the poor, and activate a reverse mortgage system to prepare for the fast-aging society. In addition, policy should be set up to diversify the types of houses being provided: 2 million green homes which will serve as green growth engines, apartment-type factories to reduce the commuting distance of city workers, rental houses, and small apartments. Building a safety net for the working class and varying the types of housing will propel the creation of new jobs.

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## Vision and Plan for the Mutual Benefit and Common Prosperity of the Korean Peninsula

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Building a community for peace, community for economic prosperity and community for happiness based on the advancement of inter-Korean relations for mutual benefits and common prosperity(MBCP) through pragmatic and result-oriented approaches is the goal of the ROK government for the future of the Korean peninsula. In implementing the policy of mutual benefits and common prosperity (MBCP), the ROK government will heed the following ground rules: pragmatic and result-oriented attitude, firm principles and flexible approaches, national consensus, and balance between inter-Korean cooperation and international cooperation.<sup>1)</sup>

**C**ommon prosperity of the Korean peninsula is one of the South's policies toward the North that previous administrations have adhered to consistently. Under this policy, three goals have been set: preparation to implement "Vision 3000: Denuclearization and Openness," increased economic cooperation for mutual benefit, and mutual cooperation on moral grounds. Improvement

in economy, education, finances, infrastructure, and quality of life, the five major projects included in the "Vision 3000: Denuclearization and Openness" are closely related with national territory.

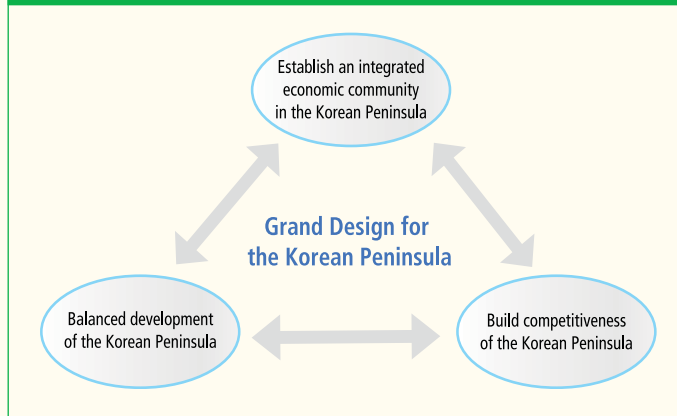
Even though the 'Vision 3000: Denuclearization and Openness' proposed by our government suggests mid and long term cooperation, it cannot adequately envision the future direction of the Korean Peninsula. In order to draw out the North's cooperation and international support under a long term vision of establishing mutual benefit and common prosperity, a comprehensive scheme and plan such as "Grand Design for the Korean Peninsula" is required. The goal of this Grand Design is to gradually create one economic bloc in the Korean peninsula, secure competitiveness in Northeast Asia and bring about a balanced development of the peninsula.

The following are four strategies for the formulation of a "Grand Design for the Korean Peninsula." First is maximizing the clout of the international community. We need to provide a

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1) The Ministry of Unification (MOU) <http://www.unikorea.go.kr/eng/>

Figure 1: Goal of the "Grand Design for the Korean Peninsula"



blueprint for the mutual benefit of the neighboring countries of Northeast Asia, instead of seemingly focusing only on the development of South and North Korea. We need to draw in the support of the neighboring countries by suggesting how the development of the Korean peninsula might be helpful to its surrounding nations. To do so, we should take advantage of the international traffic, logistics, and energy projects currently under discussion in Northeast Asia.

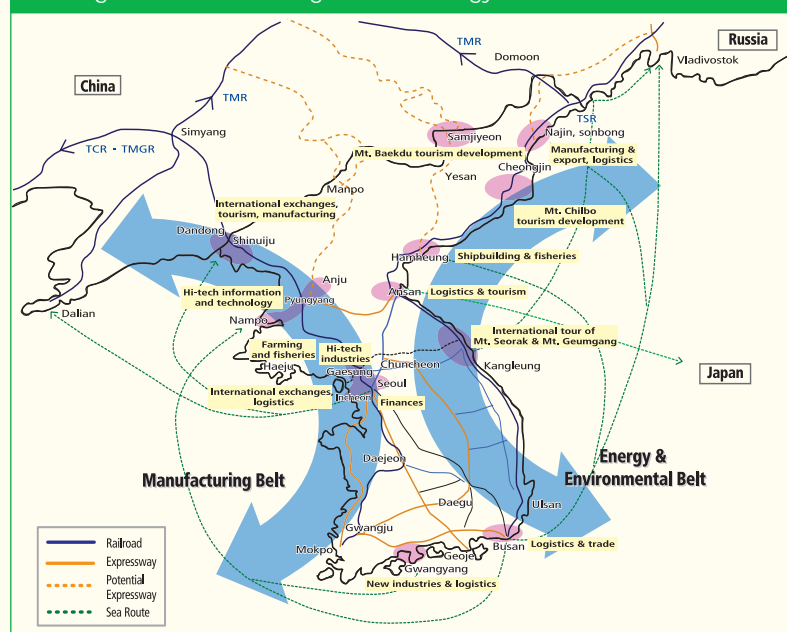
Second, to improve competitiveness and generate balanced development, a national territorial development project should be undertaken. It is crucial to integrate and implement by stages the major initiatives suggested in this study. In this respect, the establishment of an industrial belt (a manufacturing belt of the west coast and an energy and environmental belt on the east coast) concentrated around Gyungeui (Seoul-Sinuiju) railway and East Coast railway, and an environmental resource belt (water resource, agriculture, forest) concentrated around rivers and the Baekdu mountain range could serve as the basic framework for multilateral cooperation suggested in this study.

Under this supra regional two-belt framework, the initiatives of each area should be implemented together and by degrees. In the short and mid-term, industrial complexes, transportation network, energy, housing, and tourism at special economic zones on the coast should be developed first. In the long term, initiatives of each area should be implemented together with the support of the industrial infrastructure belt to be constructed along the Gyungeui railway and East Coast railway. As is revealed in the economic impact analysis, to build an industrial infrastructure and drive initiatives, Gyungeui railway

should be rebuilt first.

What is especially important is the multilateral development of industrial complexes, transportation network, and energy infrastructures. In this regard, the special economic zones to be established in the short term will serve as a bridgehead for combining industrial complexes and infrastructures. For this multilateral development, a progressive approach should be taken, through which North and South collaborate to maintain and repair transportation and energy facilities and through a public-private partnership fund a full-scale

Figure 2: Manufacturing Belt and Energy &amp; Environmental Belt



development of special economic zones and the development of Gyeongui railway and East Coast railway.

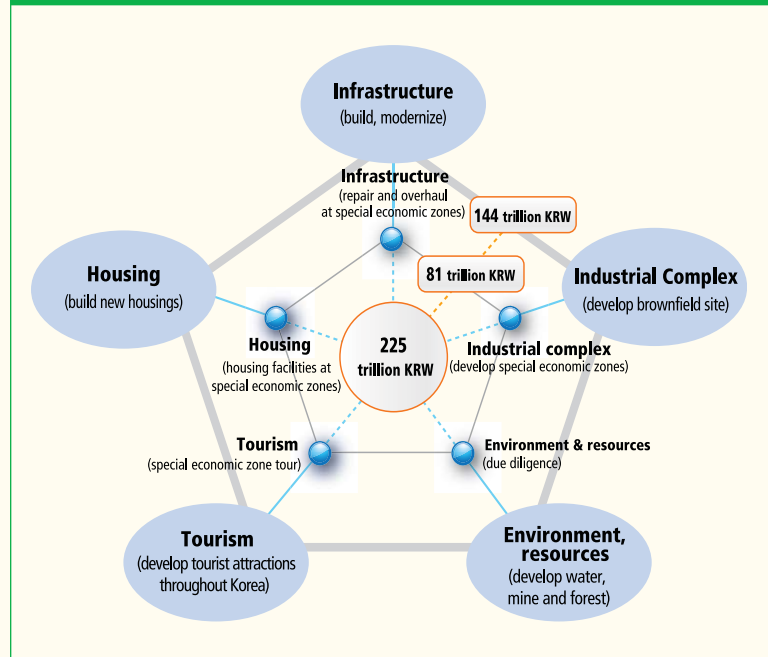
Third, the industry on which we can have a competitive edge should be designated as a growth engine. It is important to identify where to position the industry designated as the growth engine and how South and North Korea can collaborate in shared roles and responsibilities. By looking at the past examples of nations that underwent regime changes, we can predict the following: in the near future, tourism industries, and in the far future, logistics industries together with some manufacturing industries would serve as North Korea's new growth engines.

Fourth is implementing various territorial initiatives while raising up qualified labor. The reason for this is that implementing various territorial development initiatives and securing a pool of qualified labor who could play a vital role in nurturing the growth engine are the core foundations for North Korea to become competitive and achieve balanced development. To raise up manpower, there needs to be a short and mid-term support of neighboring countries such as China, Japan, Russia, and USA.

It is important to examine the details required for the implementation of the territorial initiatives and estimate the cost. According to the study, the budget requirement for short and mid-term projects are 81.1 trillion KRW, and for long-term projects 143.5 trillion KRW. In total, over a 20-year period, the estimated budget requirement is 224.6 trillion KRW. As can be seen from the example of transition economies such as Vietnam, most territorial initiatives can be financed only when there is the support of the international community, the South Korean government included.

The "Grand Design for the territorial development of the Korean Peninsula" is

Figure 3: Detailed Requirements to Implement Territorial Initiatives



significant in that it entails not only the strategies for developing an inter-Korean relationship but also the strategies for improving Korea's standing among Northeast Asian countries. It also provides a direction for private construction firms planning to expand their businesses into North Korea. At the government level, effort should be exerted to establish the Grand Design by stages, and for this purpose, two-track preparations are required. The first is making internal preparations and promoting cooperation between South and North Korea. At the government level, a planning committee composed of related experts should draw up a blueprint on the future of the Korean peninsula, set up initiatives by area, prioritize them, and with this, approach North Korea to draw out the North's agreement. The second preparation is building an international cooperation network. We need to solicit the support of the international community by proposing plausible initiatives such as the formation of a "working group for the development of the Korean Peninsula" through a six-party talk framework.

## Multi-purpose Corridors for Human Health, Culture and Ecology(CHCEs)

Over the past few decades, Korea has experienced rapid economic growth and urbanization. This has made it possible to meet people's basic needs, particularly for residential housing. Accordingly, a majority of the Korean population has become interested in enhancing personal health and quality of life. This has led to an increase in popularity of leisure activities such as trekking, cycling and exploring the Korean cultural heritage. Such activities are fueled by increases in average income level and the adoption of a five day work system.

This trend in turn has meant increasing demands on public spaces, such as forests, rivers, beaches and parks, for health, culture, sports, and leisure activities. The idea of corridors for human health, culture and ecology (CHCEs) has emerged to meet such demands as well as to preserve ecosystems and green spaces. Thus, there is a need to set up comprehensive supporting systems and strategies for facilitating CHCEs.

### The Need for CHCEs and Reviews of Similar Concepts

According to Maslow (1970), human motivation is related to happiness, harmony, self-achievement, self-esteem, respect of others and well-being. In Korea, this motivation was not a

major issue during the periods of rapid economic development and urbanization. Recently, however, trekking and cycling have become popular thanks to an increase both of income levels and of interest in a healthy life. This reflects a changing society in terms of the leisure cultures in Korea.

Furthermore, this societal change has led to demands for leisure spaces in which the natural environment is preserved. We refer to these spaces as "corridors of human health, culture and ecology (CHCEs)." Various spatial resources can be used as such corridors, such as old paths, riverside roads, abandoned railroad tracks, coastline roads and narrow village roads.

CHCEs create new green jobs as well as beautifying national lands. CHCEs can both lead to green, healthy activity for all citizens while maintaining the health of the environment and economy as well.

Similar concepts to CHCEs, such as green poles, green ways, ecological networks, and green networks are popular. By and large, the main purpose of these is to preserve ecology and to provide leisure activities such as walking, exploring culture, trekking, and cycling.

CHCEs have been created in the U.K., the U.S., France, Japan and Spain, connected in nationwide grids. In addition, as CHCEs are implemented in

Figure1: Concept of Corridors for Human Health, Culture and Ecology

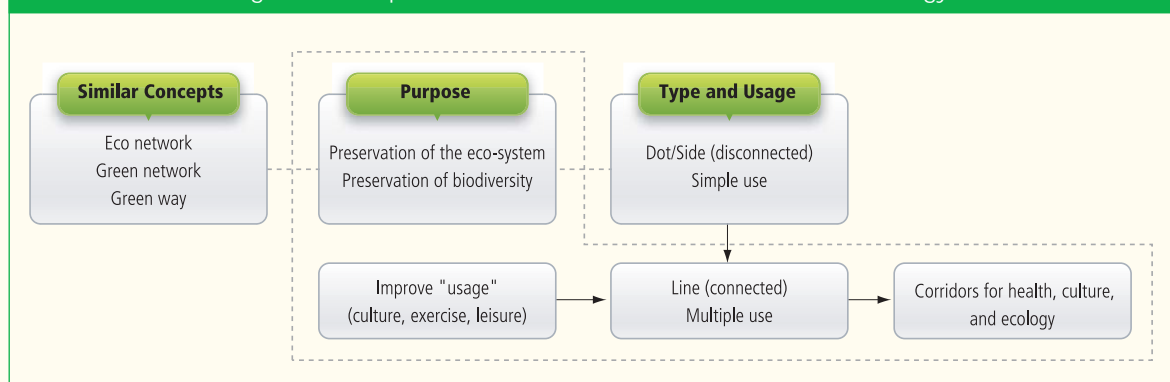
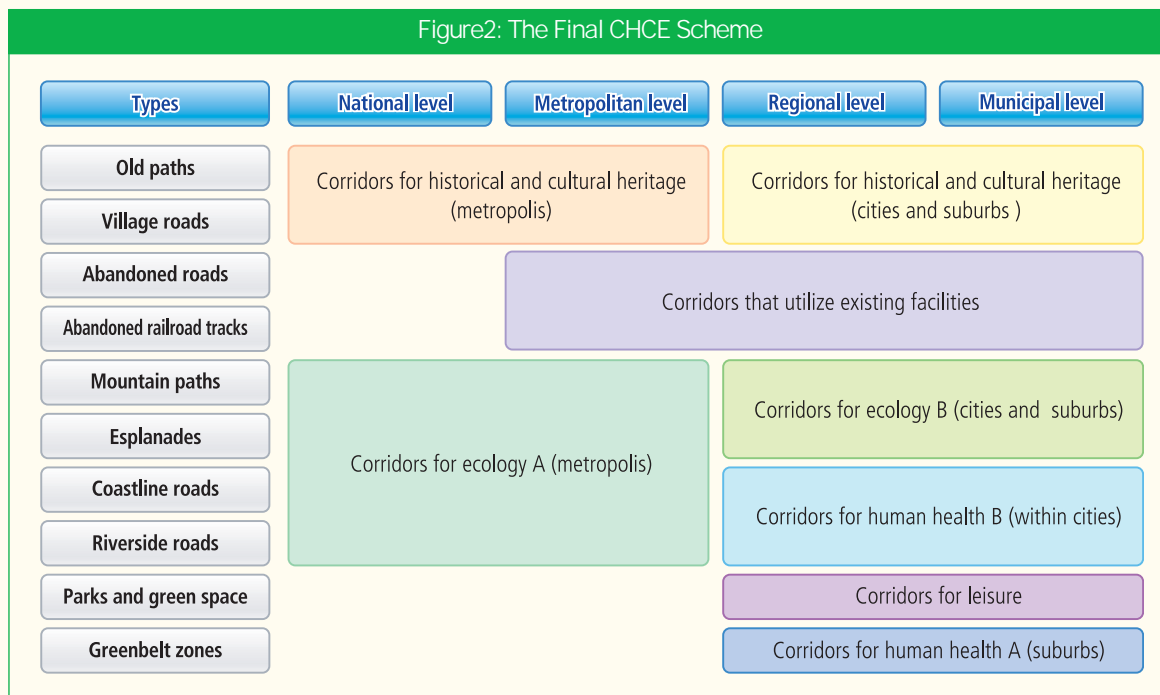


Figure2: The Final CHCE Scheme



a systematic way, they can be divided on the basis of spatial scale and travel time. Management-wise, central and local governments play different roles, and NGOs dynamically participate in the implementing of CHCEs.

### Roles and Types of CHCEs

Literature reviews show that CHCEs can be divided by their characteristics (ecology, human health, historical and cultural heritage, and leisure) as well as their locations and the types of resources used. It is also possible to categorize CHCEs based on their scales (i.e., national, regional, metropolitan and municipal levels) and their purposes (i.e., preservation and practical use).

By considering spatial hierarchy and the values of preservation, various types of CHCEs have been suggested in this study. Their single and multiple roles are also taken into account when categorizing CHCEs. Next, the possible resources which can be used for the creation of CHCEs are identified, including old paths, village roads, abandoned roads and railway tracks, paths to mountains, esplanades, coastline roads, riverside roads, and green belt zones. This study takes into account their levels of practical use and reviews

their appropriate sizes at national, regional, metropolitan and municipal levels (see Figure 2). The eight types of CHCEs are suggested after considering their scales and the characteristics of the resource conditions.

### Implementation of CHCEs

CHCEs can be set up at four spatial levels: i) the nation, ii) the metropolitan zone, iii) the region and iv) the inner urban area. For the capital zone, this study suggests the processes that can be used to select CHCEs for each level. First, it identifies preserved zones, focusing on protecting ecological corridors with the help of geographical information systems. Next, the available resources are detected from the statistical data. Third, the study addresses scenarios and methods of creating CHCEs by considering demands on their use. Next, the different concepts of CHCEs are defined for each type and subsequently the final routes are mapped.

CHCEs are designed at the national level based on the study of a new mountain range map, core ecological corridors and regional ecological corridors. In addition, taking into consideration the existing literature on old roads, CHCEs are

suggested at the national level. The four major rivers in Korea have been selected since they can be used for riverside CHCEs.

CHCEs at the municipal level are selected by reviewing the existing literature and interviews. Absolute criteria are employed to embrace protected areas in CHCEs, while relative criteria are used for the reflection of local conditions.

At the regional and municipal levels, the decision regarding what kinds of CHCEs to create is made by means of criteria in which not only the natural environments are conserved, but also their multiple roles are acknowledged. Accordingly, the final CHCE is selected by considering the convenience of CHCE users, the cultural importance of the surrounding environments, and the demands on use. The top 10% of areas derived from the assessment criteria are selected as hubs of regional and municipal CHCEs. Finally, the hubs and links of the CHCEs are designed in a planned and systematic way.

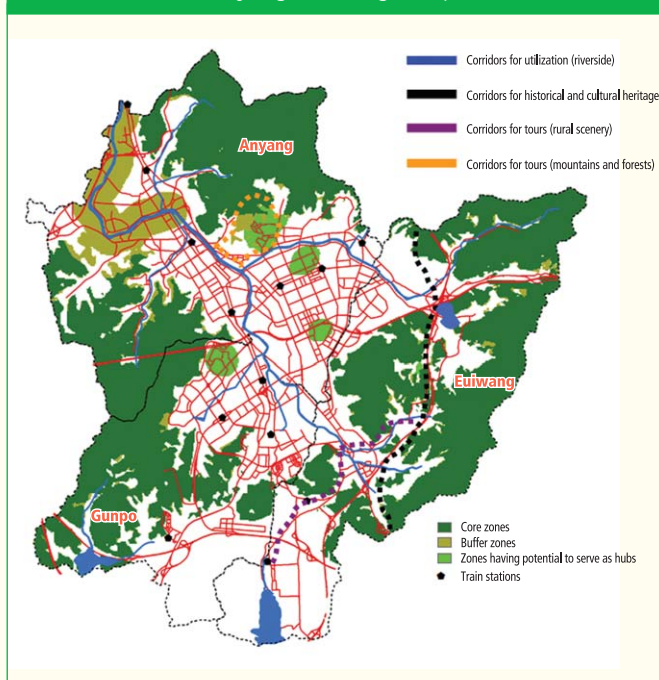
### Strategies for Implementing CHCEs

We propose the strategies to implement CHCEs in a planned and systematic way. These strategies are designed to incorporate CHCEs with basic plans, national land comprehensive plans, municipal plans and basic urban plans. It is also necessary to integrate them with other similar plans and projects managed by the Ministry of the Environment, the Office of Forestry and the Ministry of Culture, Sports and Tourism.

The central government needs to promote pilot CHCE projects for each region by selecting suitable policies and funding. Also, it needs to help local governments to implement CHCEs in a comprehensive way. Either penalties or incentives should be given to local authorities when assessing their progress on the projects.

In general, CHCE projects are associated with green growth, which can create a large number of new jobs. They also make a contribution towards improving the quality of life and pursuing sound

Figure 3: An Example of a Final CHCE Blueprint (Anyang, Euiwang, Gunpo)



green infrastructures. Thus, in order to identify the impact or effectiveness of CHCEs on green growth and on employment, it is necessary to undertake a pilot project in the near future.

Furthermore, it is necessary to improve the institutional systems for implementing CHCEs. In this context, we propose i) partly releasing constraints in relation to regional development for deprived areas, ii) addressing compensation schemes for private properties, and iii) inducing the active participation of citizens. In order to secure the practicalities in relation to CHCEs, it is necessary to introduce the process of giving certification. The central government would distribute funding to a local authority based on this certification. In addition, central government funding should be distributed in an indirect way after monitoring and assessing the progress and results of the projects.

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## INTERNATIONAL COOPERATION

### Ministerial-level Staff of Vietnam's Government Visited KRIHS (April 7, 2009)



Ministerial-level staff of Vietnam's government entities having a meeting with the president of KRIHS

Ministerial-level staff of Vietnam's Government entities related to Construction and Transportation visited KRIHS on April 7, 2009. Eight staff, including Duong Van Can, the head of the Institute of Construction Economy, attended seminars on major research areas of KRIHS, including territorial planning, new towns at capital regions, and GIS policies. A question-and-answer session and a discussion over lunch followed the seminars. At the end of the visit, the group expressed their satisfaction with the presentations and gratitude to the Counsellor of Construction and Transportation at the Korean embassy in Vietnam.

### Joint Seminar with Hiroshima University (May 20 & June 26, 2009)

The National Infrastructure and GIS Research Division held a joint seminar at Hiroshima University and at KRIHS on May 20 and June 26, respectively. The purpose of the seminar was to share information and knowledge on user-centered mobile transit information service, which uses the state-of-the-art information technology (IT) of Korea and Japan. It was meaningful in that both



Staff from KRIHS and Hiroshima University

sides exchanged findings from research and had opportunities to listen to Akimasa Fujiwara, a renowned scholar from Hiroshima University. The two sides will sign a Memorandum of Understanding (MOU) for continuous scholarly exchanges.

### KRIHS Signed MOU with International New Town Institute of Netherlands (June 10, 2009)



Left: Dr. Michelle Provoost, Director of the International New Town Institute

Right: Dr. Hyunsik Kim, Senior Research Fellow at KRIHS

KRIHS signed an MOU with the International New Town Institute (INTI) on June 10, 2009. To promote international research exchanges, the status of the "International Cooperation Task Force Team" at KRIHS had been raised to

## INTERNATIONAL COOPERATION

“International Cooperation Team,” and it played a vital role in the signing of the MOU. KRIHS is reinforcing cooperation and exchanges, forming an MOU with 66 “territorial initiatives research institutes” both at home and abroad.

### Training Program Commissioned by Korea International Cooperation Agency (June 22~July 2, 2009)



Mid-level officials from Africa and South America engaged in group discussions during the International Training Program

The International Cooperation Team of Planning and Management Division held a training program under the theme of “Land and Housing Policy” at the KRIHS auditorium for mid-level officials from five African nations and two South American nations. Experts on land and housing policies from within and outside KRIHS were invited to share Korea’s experience with the land and housing policies adopted during the period of dramatic industrialization after the 1960s. The training received a favorable response from the participants. Group discussions and hands-on design practices, as well as visits to the Public Housing Exhibition Hall, Korea Land Corporation, and Seoul Digital Media City, among others, were arranged, and the trainees had the opportunity to listen to reports on the trials and errors of various land and housing policies. The 14 trainees from

Morocco, Nigeria, Congo, Kenya, Zimbabwe, Bolivia, and Nicaragua were impressed with the training, as evidenced by their evaluation of the training program. The program was also acclaimed by Korea International Cooperation Agency(KOICA) as a model program.

### Sir Peter Hall’s Visit to KRIHS (July 9, 2009)



Center: Sir Peter Hall

An internationally renowned scholar Sir Peter Hall, a professor of the College of London, came to Korea to attend the PCRD (Presidential Committee on Regional Development) International Conference hosted by the Presidential Committee on Regional Development and the Ministry of Knowledge Economy. This is his first visit to Korea in 30 years, and he expressed his surprise at the progress of Korea. During his stay, he visited KRIHS on July 9th and spoke on “Regions and Regional Policy: A Global Review,” dealing with issues on urban and mega economic regions. He remarked that “Korea’s regional development policy promotes endogenous growth clusters” and stated that innovative cities are characterized by the merger between art and technology, the use of internet as the basic infrastructure, and new value-added services. In 1998, Sir Peter Hall was bestowed the title of “Sir” by the Queen of England, the first scholar conducting regional studies to receive such an honor. He has also published some 40 books on urban and regional planning.

# NEWS & ANNOUNCEMENTS

## Project Launched by the Center for Urban Regeneration Policy at KRIHS, Chosen to be Included in the “Making a Livable City” Program (March 12, 2009)



Residents of Gwanyang 2-dong

On March 12, the Ministry of Land, Transport, and Maritime Affairs, as part of its “Making a Livable City” program, announced the plan to provide funding of 14.4 billion KRW to 7 cities and 16 villages, as well as three successful model projects. The village renewal project of Gwanyang 2-dong at Anyang, Joongin, launched by the KRIHS Center for Urban Regeneration Policy, was chosen as one of the successful model projects. Local residents at Gwanyang 2-dong, KRIHS, Anyang YMCA, and Anyang University had successfully run a university program for local residents, through which residents identified the problems in their villages and came up with solutions.

## The Third Hanok Forum (April 27, 2009)

The Architecture and Urban Research Institute affiliated with KRIHS held the third Hanok (Traditional Korean Housing) construction forum at Seoul National University, under the theme of “Building a Foundation for the Construction and Provision of Hanok.” To upgrade the national image and improve competitiveness, the government chose six themes that would represent Korea, of which Hanok is one. The



From Left: Dr. Youngsang Kwon, Dr. Kugjin Ahn, Prof. Bonghee Jeon, Dr. Taeyeon Park, Prof. Jaesu Han, Prof. Seok Jeong

Ministry of Land, Transport, and Maritime Affairs is in charge of the initiatives related to Hanok, and this forum is sponsored by the Ministry to foster “research on Hanok construction techniques and standards.” At the forum, Professor Bonghee Jeon of Seoul National University made a presentation on a “Model for the Construction of Hanok,” Dr. Kugjin Ahn of G. S. Architects and Associates spoke on the “Standard Blueprint for the Construction of Hanok,” and Dr. Youngsang Kwon of the Architecture and Urban Research Institute described a “Sustainable Standard Hanok Village Plan.” Panel discussions followed each presentation, at which Professor Jaesu Han of Halla University and Professor Seok Jeong of Kyung Won University had a dialogue on the required foundation for the construction of Hanok.

## KRIHS Awarded “The Best Research Institute Award” by the National Research Council for Economics, Humanities, and Social Science (May 8, 2009)

KRIHS was nominated as the “best research institute of 2008” by the National Research Council for Economics, Humanities, and Social Science. This award is presented to those research institutes that have significantly contributed to the progress of national policies and R&D. Of the 23 research institutes and 3

# NEWS & ANNOUNCEMENTS



Left: Dr. Yangho Park, President of KRIHS  
Right: Dr. Saewon Kim, Chairman of the National Research Council for Economics, Humanities, and Social Science

affiliate institutes assessed, KRIHS received the highest score. The “Excellent Research Project Award” went to Dr. Yeongkook Choi, a senior research fellow of KRIHS, and eight others for their research on “Sustainable territorial management to meet the challenges of climate changes (I) : construction of green house gas inventory by region and analysis of regional characteristics.” This award is presented to those who contributed to the progress of research, who created constructive and creative methods to improve operation of businesses, and who proposed highly practical methods of establishing policies. Of all the research projects, five awards were granted to the developers of those projects that significantly contributed to the

progress of national policies. This “Award of Excellence for Contributing to the National Policy” was given to Dr. Hyeokjae Choi, a research fellow, and two others for their research on “Planned management of the land in rural areas.” The award ceremony was held on May 8 at the Leader’s Club on the 12th floor of the Diplomatic Center. Dr. Saewon Kim, Chairman of the National Research Council for Economics, Humanities, and Social Science, a planning and assessment manager, an assessment team leader, and about 30 awardees attended the ceremony.

## Seminar on the Creation of a Science-Business Belt (June 23, 2009)

On June 23rd, a “Seminar on the creation of science-business belt” was held at the Press Center under the supervision of KRIHS and the sponsorship of the Ministry of Land, Transport, and Maritime Affairs. Research Fellow Dr. Youngsu Kim of Korea Institute for Industrial Economics & Trade spoke on “The concept of a scientific city and overseas case studies,” and Professor Hyunsu Kim of Dankook University gave a presentation on “The new paradigm of the future city and the creation of scientific cities.” Following the presentations, a panel comprised of experts from the academia and industries shared their opinions on the presentations.

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*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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