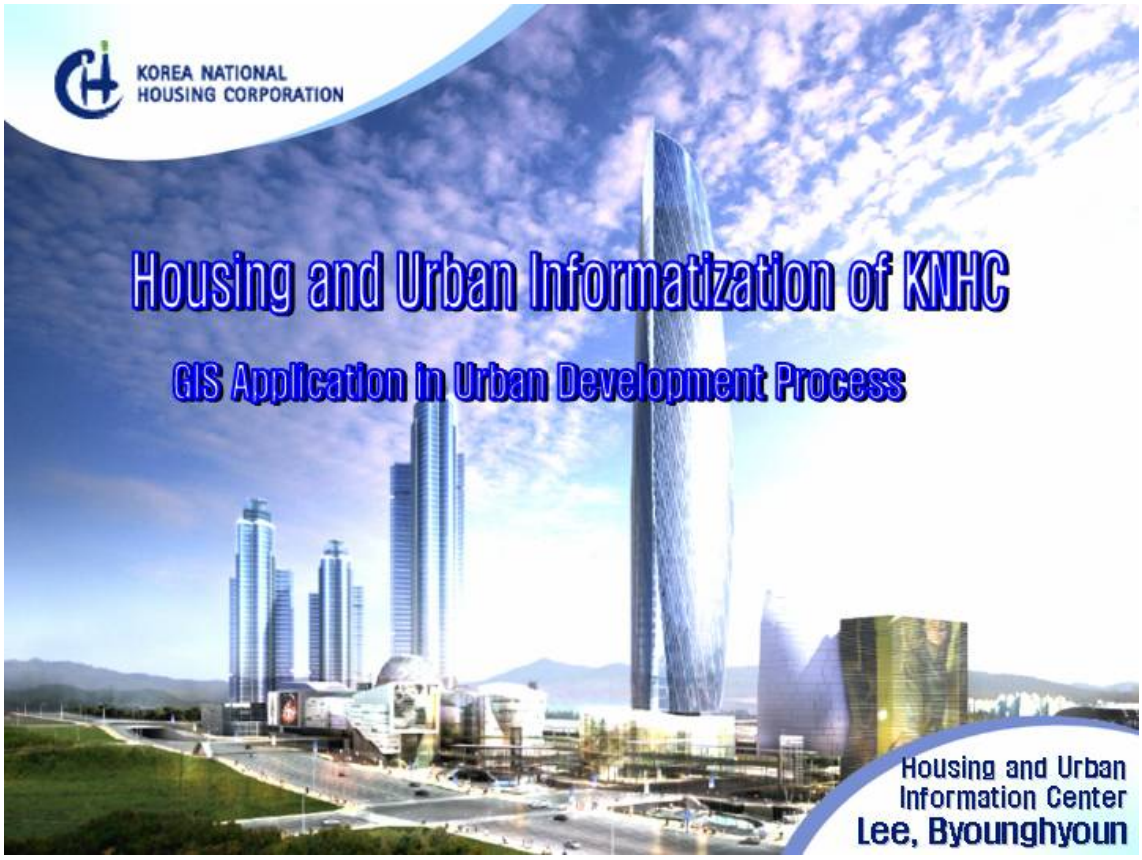


Contents

1. Vision and Strategy of Housing and Urban Informatization
2. JUGIS I
GIS Application in New Town Development Process
3. JUGIS II
GIS Application in Urban Redevelopment Process
4. Direction of Future Informatization

1. Vision and Strategies of Housing and Urban Informatization

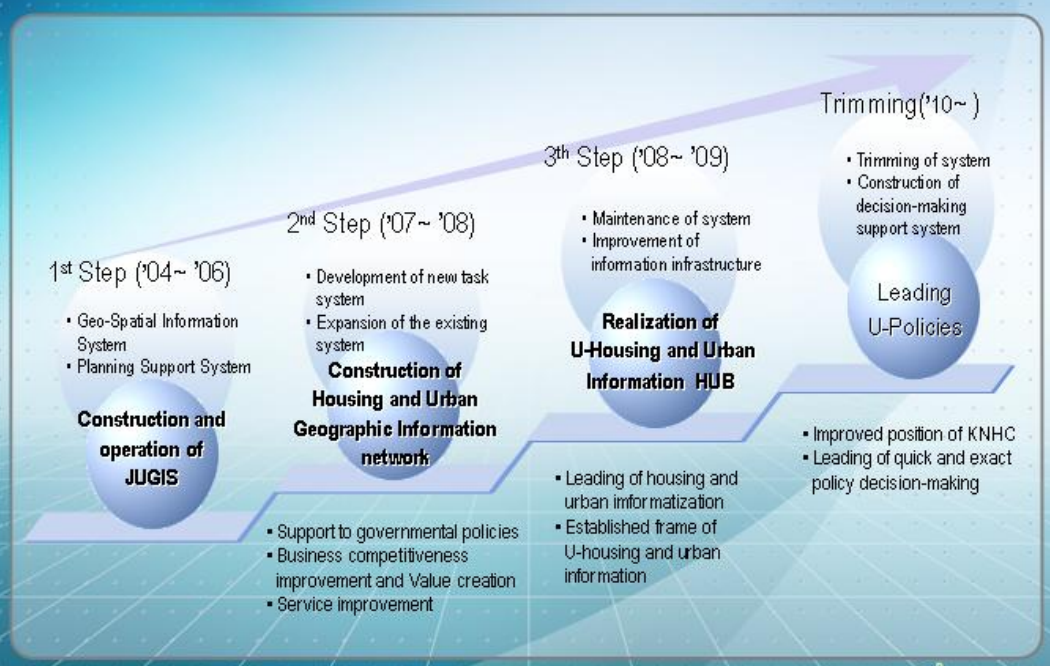
1.1 Vision and Strategies

1. Vision and Strategies of Housing and Urban Informatization

1.2 Objective Image

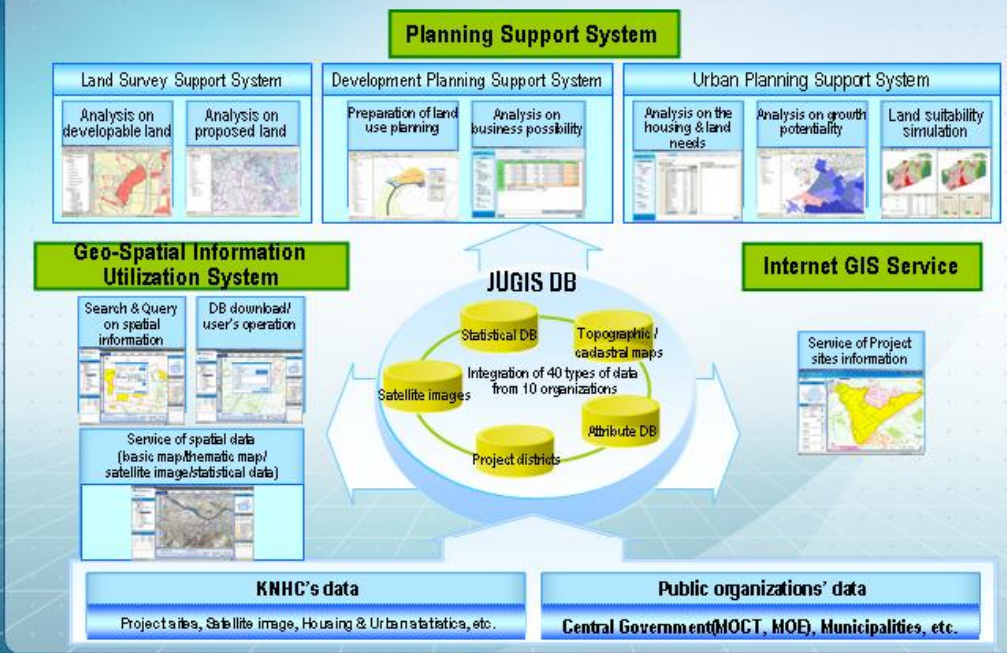
1. Vision and Strategies of Housing and Urban Informatization

1.3 Phases of Implementation



2. JUGIS I

2.1 Configuration of the System



2. JUGIS I

2.2 Geo-Spatial Information Utilization System

Three-dimensional map

- Three-dimensional topography

Satellite image service

- Satellite image with high-level resolution (QuickBird)
- SPOT satellite image
- LANDSAT satellite image

Statistical service

- Housing and urban statistics
- Urban planning statistics
- Year book of Housing and Urban statistics

Base map service

- Topographic map
- Cadastral map
- Urban management planning map

Thematic map service

- Land data (KLIS)
- Environment/agriculture data
- Land use regulation data

Project site information service

- General information
- Progress status
- Related libraries

2. JUGIS I

2.2 Geo-Spatial Information Utilization System

Geo-Spatial Information Utilization System

Survey on public regulations

Survey on natural environment

대한주택공사

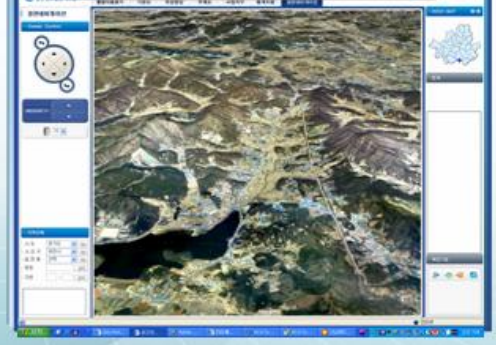
2. JUGIS I

2.2 Geo-Spatial Information Utilization System

Geo-Spatial Information Utilization System

Field Survey

Three-dimensional Landscape Navigation

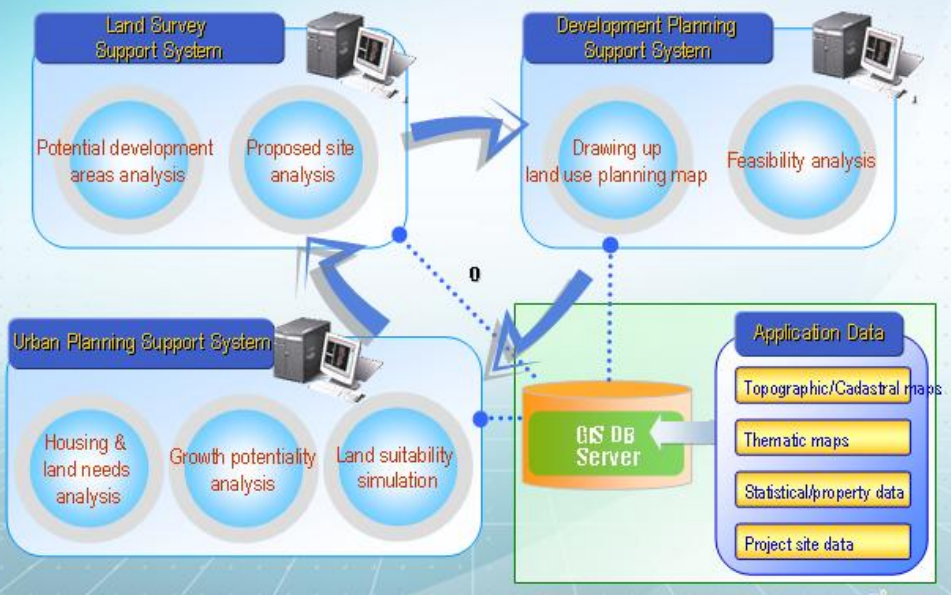


대한주택공사

2. JUGIS I

2.3 Planning Support System

Structure of the system

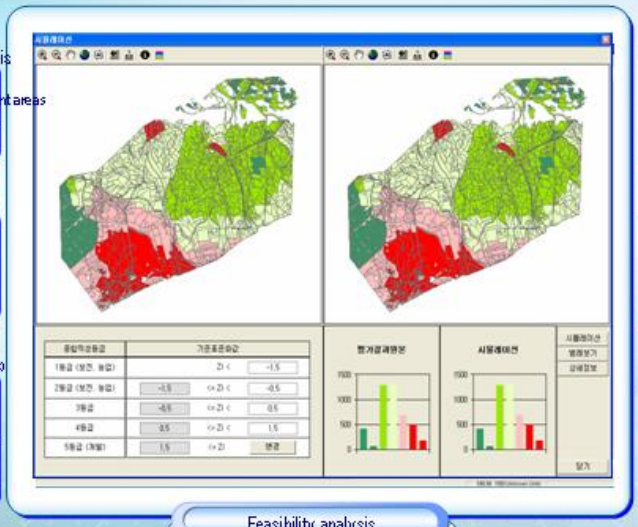


대한주택공사

2. JUGIS I

2.3 Planning Support System

Main screen



Potential development areas analysis

- Simulation on Potential development areas
- Analysis on exclusion/coincidence of spatial information

Proposed site analysis

- Analysis of statistical and geographic data
- Analysis of the priority of the proposed site considering circumstances

Drawing up landuse planning map

- Auto-preparation of land use plan and housing plan with spatial data
- Analysis of three-dimensional landscape

Land suitability simulation

- Land suitability assessment
- Analysis on data of managed land

Growth potentiality analysis

- Spatial information + statistical analysis
- Evaluation of growth potentiality

Housing & land needs analysis

- Analysis by District/zone units
- Consideration of various planning factors

Feasibility analysis

- Application of both cadastral map and noticed land price
- Automatic calculation of land cost
- Suitability analysis through business simulation

2. JUGIS I

2.4 Application in the Process of New Town Development

Institutions of new town development

1. Related Regulation

   the Act of Housing Site Development Promotion

2. Objectives

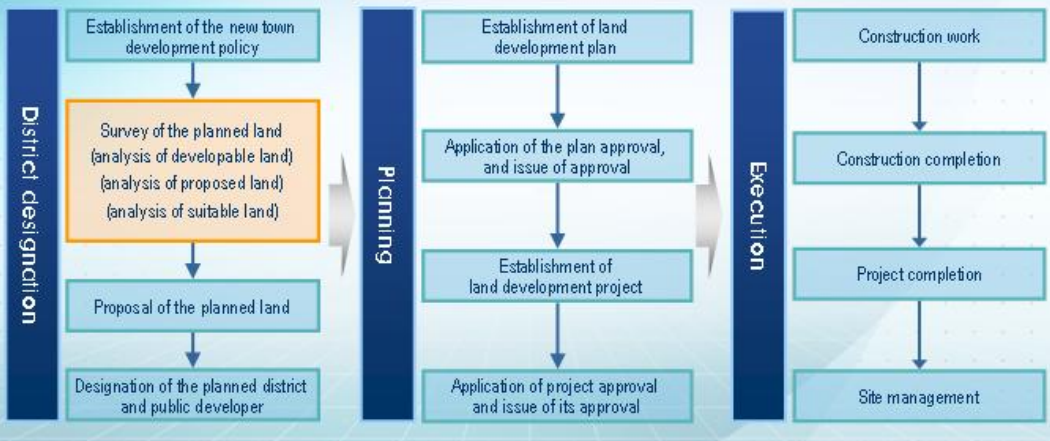
   The development and supply of housing sites necessary to construct houses for solving the problem of site shortage in urban areas are;

- To contribute to improving the national housing stability and welfare
- To expand the urban infrastructure including roads, train, etc.
- To induce the balanced national development with development profit reinvested to the public section
- To prevent the speculation in real estate and encourage the stability of land price with the large development of public housing land

2. JUGIS I

2.4 Application in the Process of New Town Development

Procedure of new town development



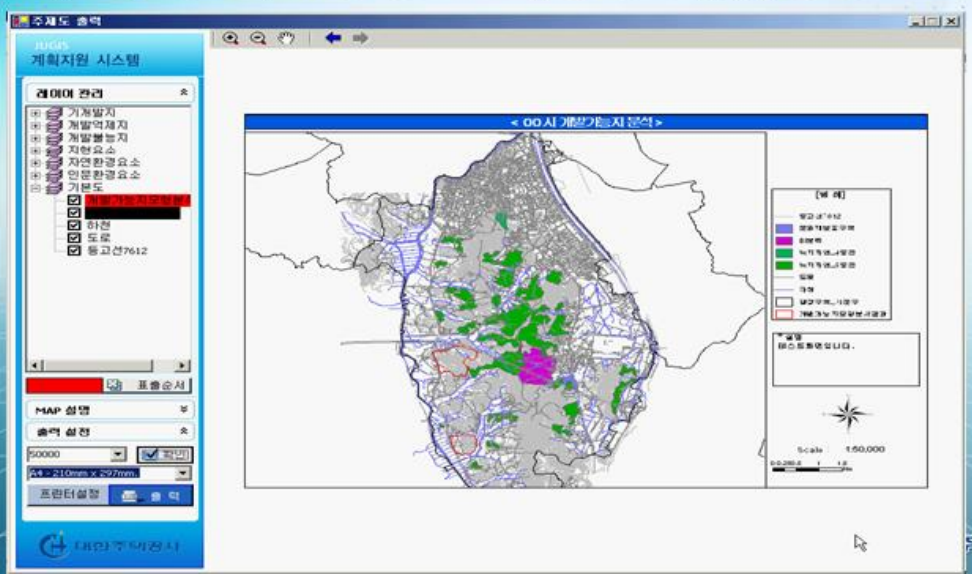
대한주택공사

2. JUGIS I

2.4 Application in the Process of New Town Development

Potential Development Areas Aanalysis

Preparation Scope determination/ data preparation → **Analysis** Definition of developable land model → **Establishment of developable site boundary** → **Completion** confirmation and search of analysis result → **Reporting**



2. JUGIS I

2.4 Application in the Process of New Town Development

Proposed Site Analysis

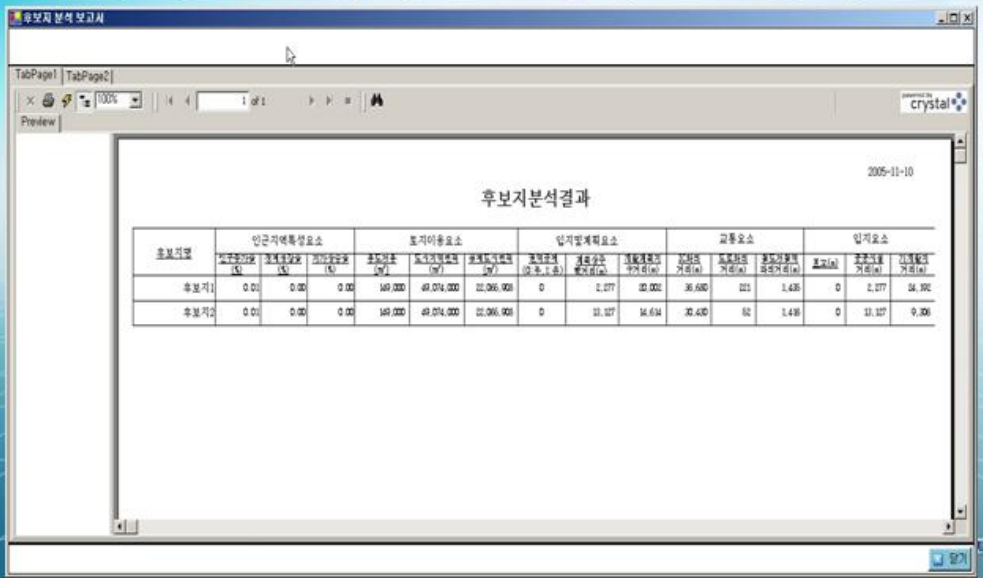
Preparation
Scope determination/ index establishment

Drawing of proposed land boundary

Analysis on each of proposed sites

Confirmation Result

Reporting



2. JUGIS I

2.4 Application in the Process of New Town Development

Drawing up Landuse Planning Map

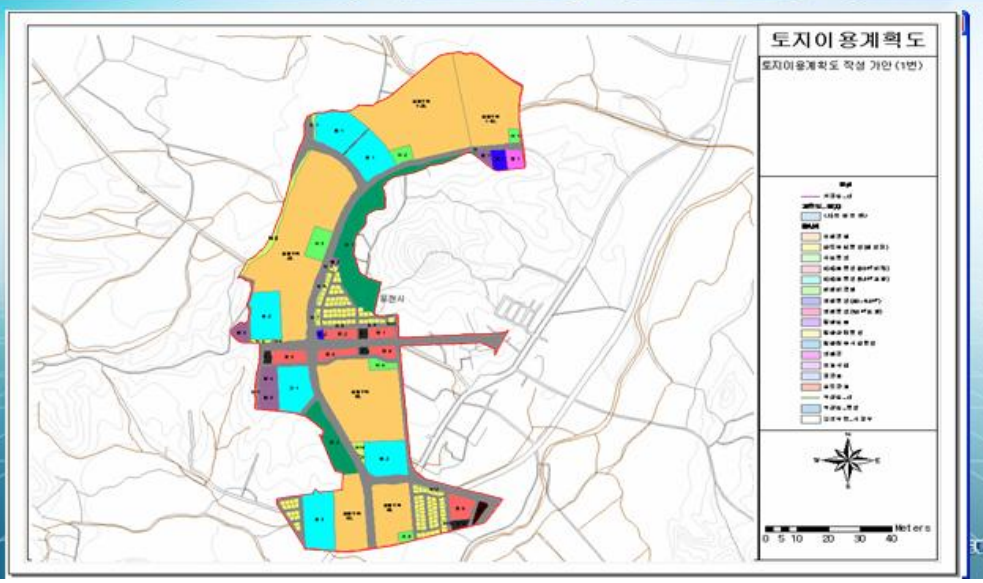
Preparation
Selection of planned land

Drawing
Drawing tool

Confirmation of land use plan

Making of Land use plan & housing plan table

Reporting

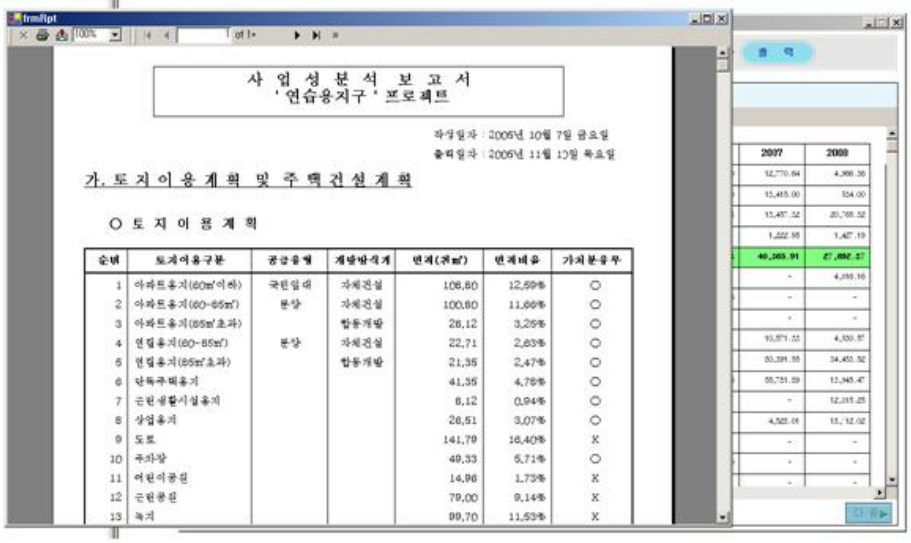


2. JUGIS I

2.4 Application in the Process of New Town Development

Feasibility analysis

Preparation → Housing land part → Housing part → Cost analysis → Reporting



사 업 성 분 석 보 고 서
'연습용지구' 프로젝트

작성일자 : 2006년 10월 7일 금요일
출력일자 : 2006년 11월 13일 목요일

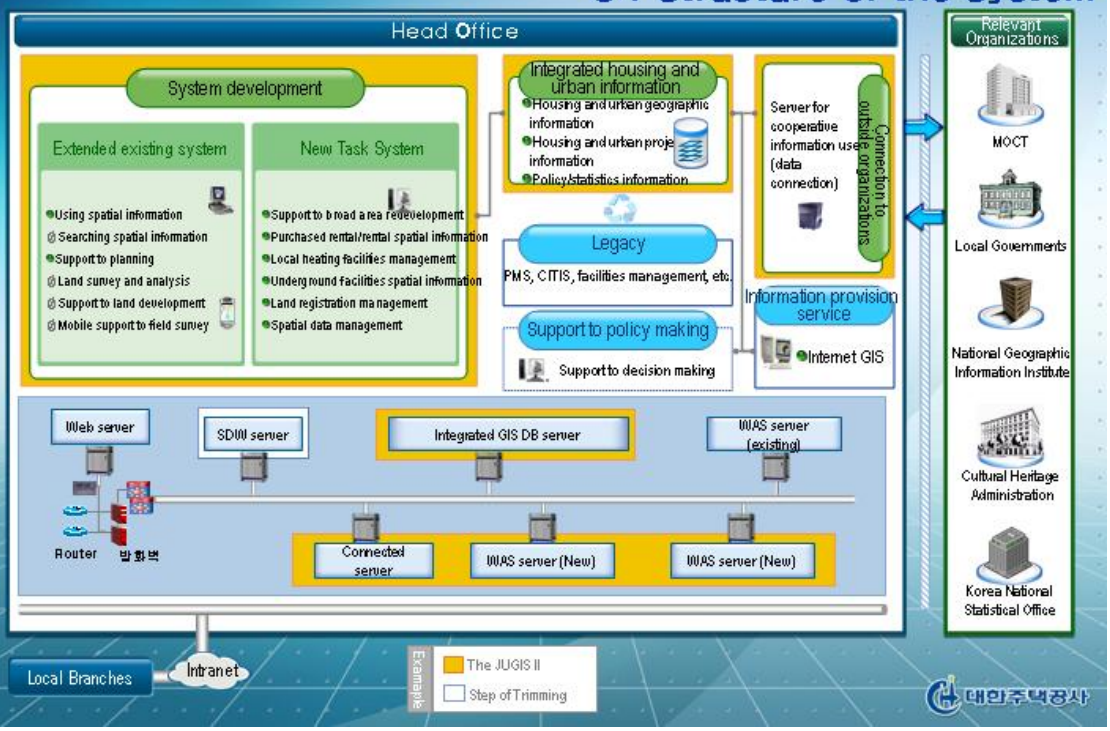
가. 토 지 이 용 계 획 및 주 택 건 설 계 획

○ 토 지 이 용 계 획

순번	토지이용구분	공급유형	개발방식구	면적(㎡)	면적비율	가치분등부
1	아파트용지(60㎡이하)	국민임대	자체건설	108,80	12,59%	○
2	아파트용지(60~85㎡)	분양	자체건설	100,80	11,66%	○
3	아파트용지(85㎡초과)		합동개발	28,12	3,25%	○
4	연립용지(60~85㎡)	분양	자체건설	22,71	2,63%	○
5	연립용지(85㎡초과)		합동개발	21,35	2,47%	○
6	단독주택용지			41,35	4,78%	○
7	근린생활시설용지			8,12	0,94%	○
8	상업용지			26,51	3,07%	○
9	도로			141,79	16,40%	X
10	주차장			49,33	5,71%	○
11	어린이공원			14,86	1,73%	X
12	근린공원			79,00	9,14%	X
13	녹지			99,70	11,53%	X

3. JUGIS II

3.1 Structure of the System



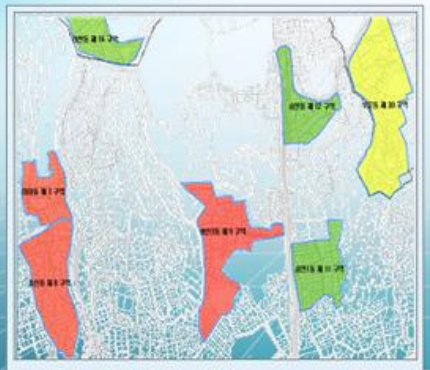
3. JUGIS II

3.2 Main Contents

■ **Broad-Area Redevelopment Project Support System**

- Analysis on the proposed sites and infrastructure cost, Simulation of sharing urban infrastructure cost

[사업후보지분석]

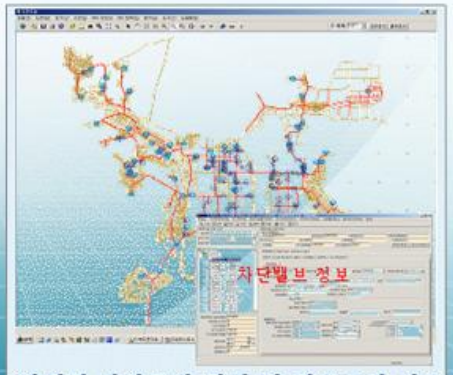


인구 및 주택밀도는 ....

■ **Local Heating Facilities Management System**

- Management of facilities and houses, early detection and treatment support of disorder, etc.

[열배관 시설물 관리]



열배관 시설물의 관리 및 정보조회 가능!

대한주택공사

3. JUGIS II

3.2 Main Contents

■ Support System of Purchased Rental / Rental Housing Information

- Search and query of applied buildings, support to occupants and housing management

[입주자 및 주택관리]

통합검색 및 관리!

■ Facilities Spatial Information System

- Support of facilities management, establishment of the underground facilities DB, and its management guideline

[시설물도면 DB구축]

체계적인 도면관리 가능!!!

대한주택공사

3. JUGIS II

3.3 Application in Urban Redevelopment Process

Institution of Urban Redevelopment

1. Related Regulation

the Special Act for Urban Redevelopment Facilitation Project

2. Objectives

The institution to support urban-redevelopment facilitation projects for the purpose of improving residential environment, extending infrastructure sufficiently and restoring the urban functions for urban deteriorated areas

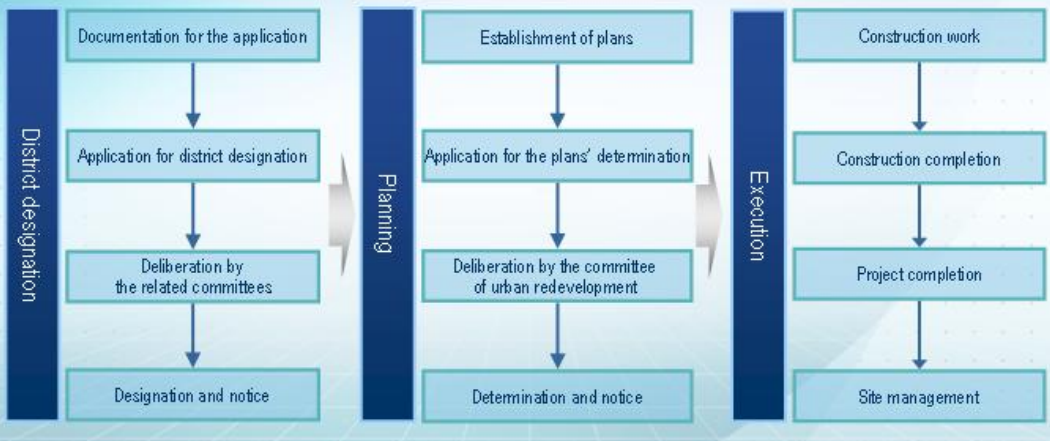
- To improve residential environment through infrastructure construction at broad urban deteriorated areas
- To expand housing supply with the modified construction regulations
- To prevent excessive individual profit through collecting development profit

대한주택공사

3. JUGIS II

3.3 Application in Urban Redevelopment Process

Procedures of Urban Redevelopment Facilitation Projects



대한주택공사

3. JUGIS II

3.3 Application in Urban Redevelopment Process

Outline on The Urban Broad-Area Redevelopment Support System

Outline

- This system supports the scientific and efficient establishment of urban redevelopment projects through analyzing various spatial information;
  - to analyze the proposed sites
  - to support the analysis of feasibility
  - to simulate the share of infrastructure construction cost
  - to support the policy of urban redevelopment

Direction

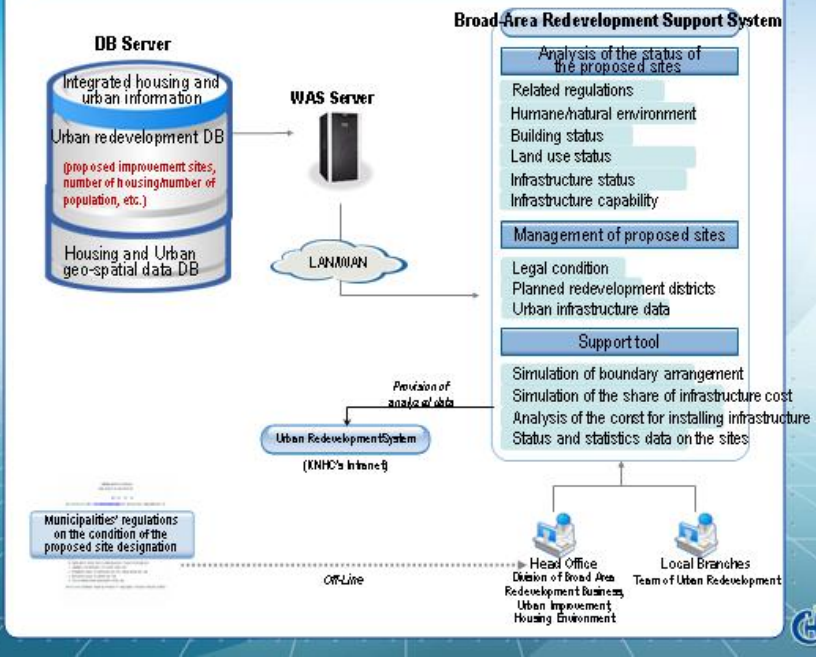
- To use the basic data including national map, cadastral map, etc.
- To use GIS data on the planned districts of urban redevelopment and the district plans
- To construct the practice application based on Web
- To use know-how / knowledge of urban experts
- To improve feasibility with rational spatial analysis
- To predict areas requiring urban redevelopment in the future

대한주택공사

3. JUGIS II

3.3 Application in Urban Redevelopment Process

Configuration of the Broad Area Improvement Support System



대한주택공사

3. JUGIS II

3.3 Application in Urban Redevelopment Process

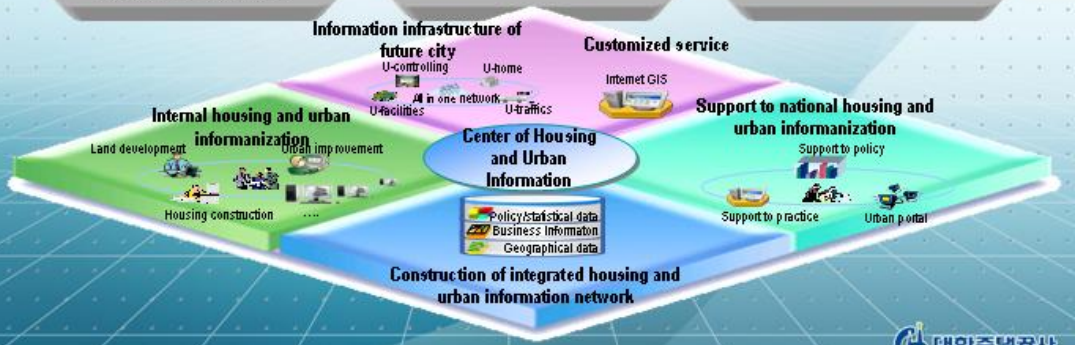
Show of The Urban Broad-Area Redevelopment Support System

대한주택공사

4. Direction of Future Informatizaion

Positioning as the World's Best Housing and Urban Information Organization

Information service for innovative value creation tasks	Support to governmental housing and urban policies And search for new informationization tasks	Improvement of housing and urban information service satisfaction
❑ Improvement of task execution efficiency through scientific analysis ❑ Improvement business competitiveness through housing and urban informationization	❑ Support to housing urban policy with related information ❑ Expansion of public role by national service provision	❑ Establishment of housing and urban informanization Hub ❑ Comprehensive housing and urban information service



대한주택공사