

The Cadastre of Korea

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Restructuring of Korea' s Cadastral System

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Topic of Interest for the Future
Cadastral System



1. Cadastre

1) Definition

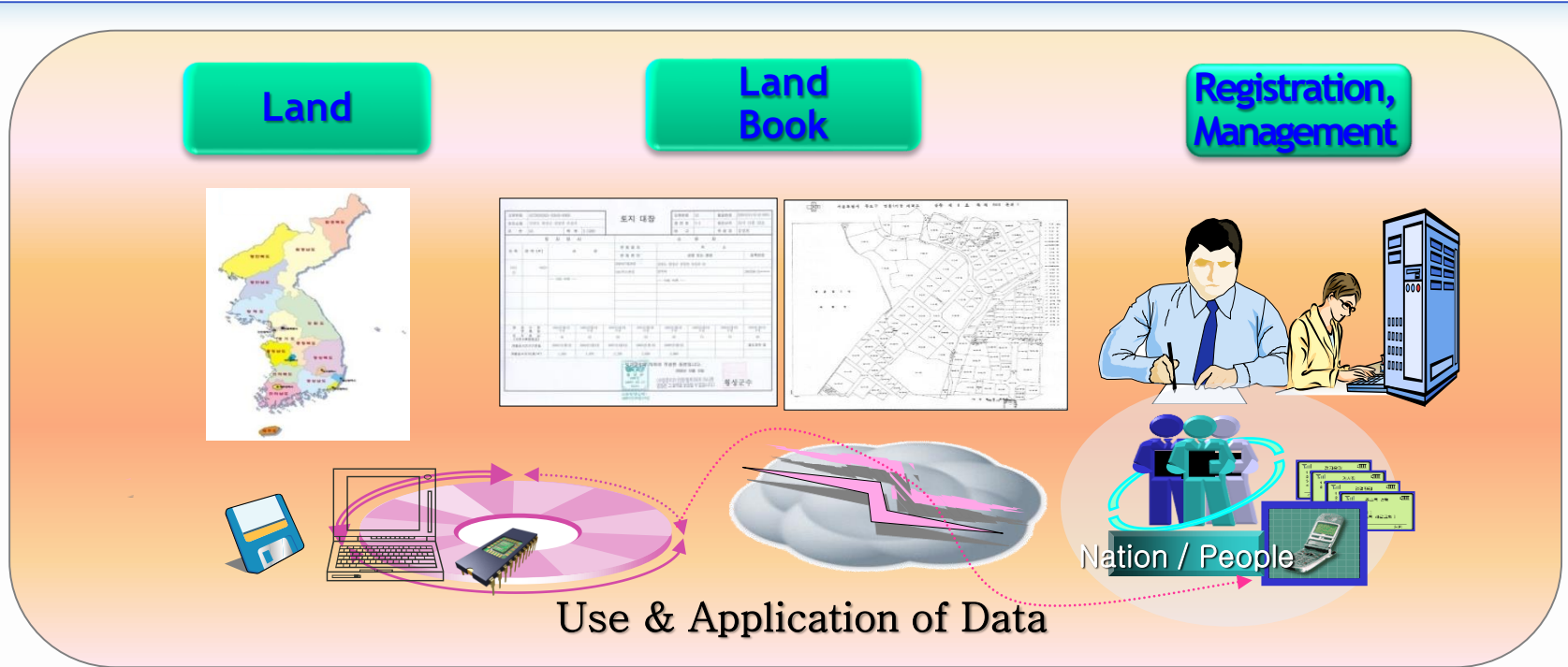
- ✓ 지적(地籍) : Log of lands (book)
- ✓ Cadastre(-ter) : n. land book



In Korea, Cadastre refers to the public record of land. By definition, it is the record of certain aspects of the national land that a country registers and keeps or does so through its commissioned agency..

書籍, 戶籍(民籍, 本籍), 國籍, 學籍, 兵籍(軍籍), 車籍, 墓籍, 僧籍

Cadastral System



An administrative action of registering and managing land into the public record

A government's land-administration to maintain and manage all immovables that carry financial value including ground level, spaces, underground

3) Components of Cadastral System



Subject of Cadastre

- All land (and fixed objects on it) within the boundary of governing of one nation.
- [noun] Land used for the living and activities of **people** as in farming land or residential land
- [legal] Land subject to possession or use by **people**



Main Content of Cadastre (Major Actions)

- The action of logging the (physical) status of land into public record



Result of Cadastral Action (Registering)

- A public record (land record) of the (physical) status of land

2. The Beginning of Cadastral System



- 1910~1924 : Land survey of farm lands, forests and fields led the establishment of a cadaster system

3. Milestones of the Cadastral Administrative Organization



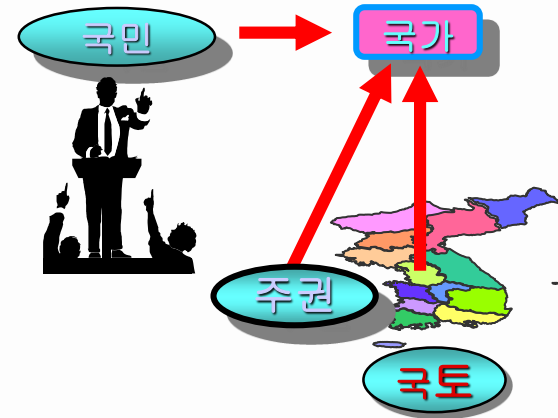
4. Change of Purpose of the Cadastral System

3 Elements of a Nation

✓ National Land, People, Sovereignty

3 Elements of Production

✓ Land, Labor, Capital



Concept of Cadastral System (1950 ~ 2009)

✓ Entire national land in public record by parcel

➡ efficient land management and ownership protection

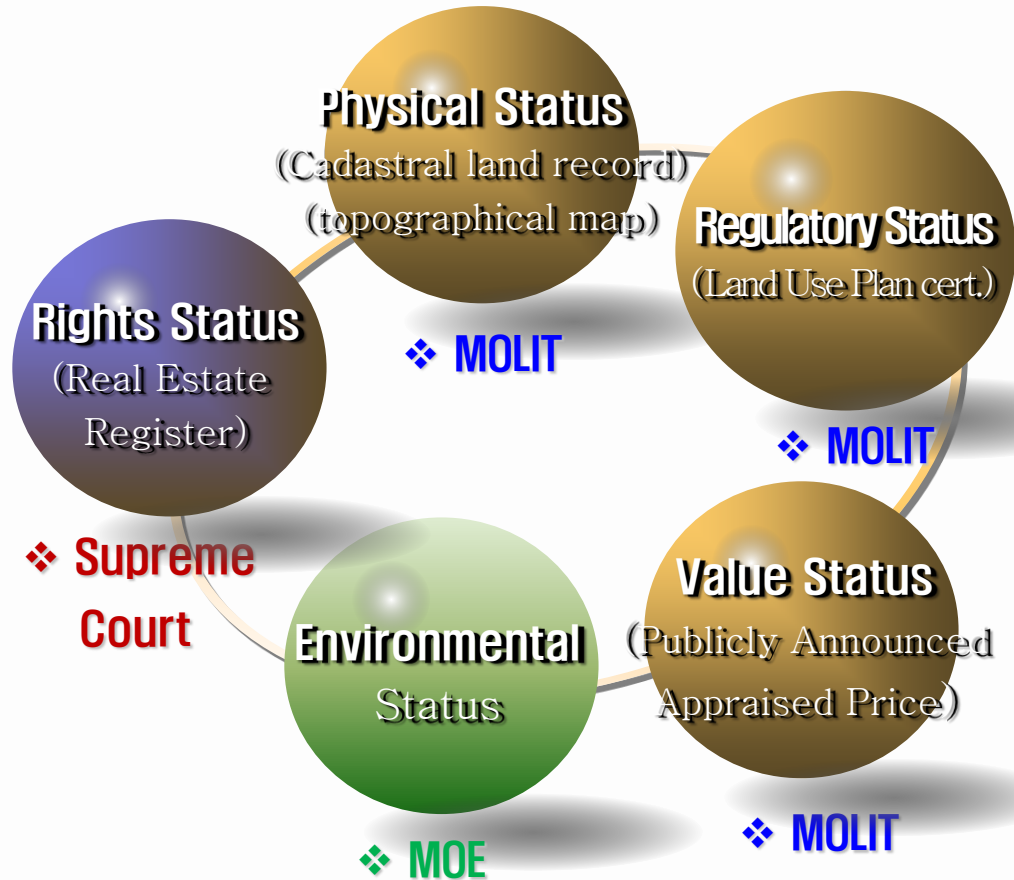
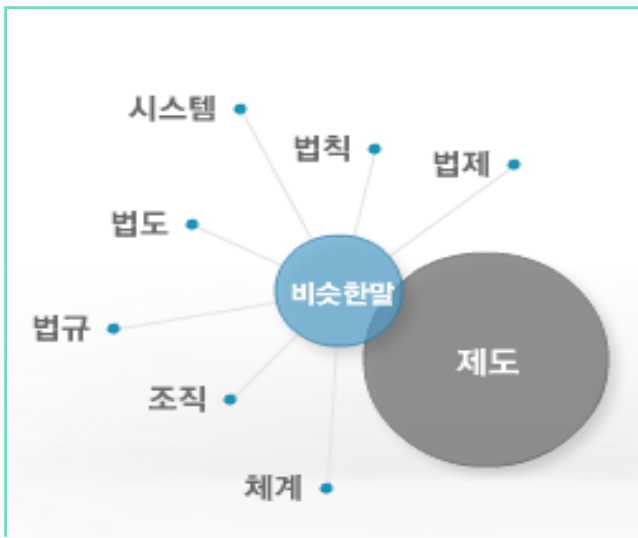
Concept of Cadastral System (December 10, 2009 ~)

✓ Land Registration System

➡ Infrastructure (foundation) to nurture GIS-based industries

1) Content of Land Registration

A national administrative system of registering into public record and publicly disclosing certain aspects of land (including buildings)





A. Register & Disclosure of Physical Status



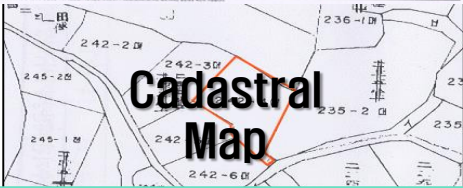
Land (Fields & Forests)

Constructs

Topography

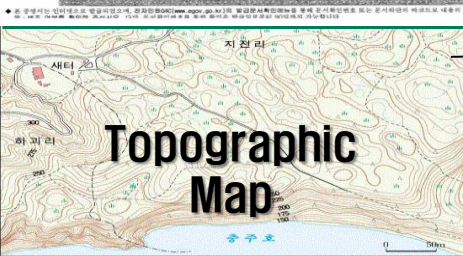
Land Record

군면번호	11401200-2000-0040	토지 대장	도면번호	5	발급번호	20040000-0474-0000
원주소	서울특별시 서대문구 대평동	지번	23-1	주소지	23기 0000 0330	
지번	23-1-001	면적	11,600	소재지	서울특별시 서대문구 대평동 대평1동	



Building Record

군면번호	1000-0010-7400-0171	건물대장	도면번호	5	발급번호	20000120-4000447
원주소	서울특별시 서대문구 대평동	지번	23-1	주소지	23기 0000 0330	
건물번호	1,272,547	면적	4,400.48㎡	소재지	서울특별시 서대문구 대평동 대평1동	



국토교통부

Ministry of Land, Infrastructure and Transport

MOLIT



B. Register & Disclosure of Rights-related Status



Land
(Fields &
Forests)

Land Register

등기부 등본 (현재 유효사항) - 토지					
[표 제 부] (표제의 표시)					
표지번호	필수	소재지명	지목	면적	등기원인 및 기타사항
1	1984년등11명	서울특별시 강남구 삼성동 125-4	대	289.64㎡	

[갈 구] (소유권에 관한 사항)					
순위번호	등기 목적	필수	등기 원인	권리 및 기타사항	
1	소유권양도	1984년등11명	1984년등11명	합면적 289.64㎡에 관하여 등기원인 상기와 동일기타사항 없음	
2				합면적 289.64㎡에 관하여 등기원인 상기와 동일기타사항 없음	

Constructs

Building Register

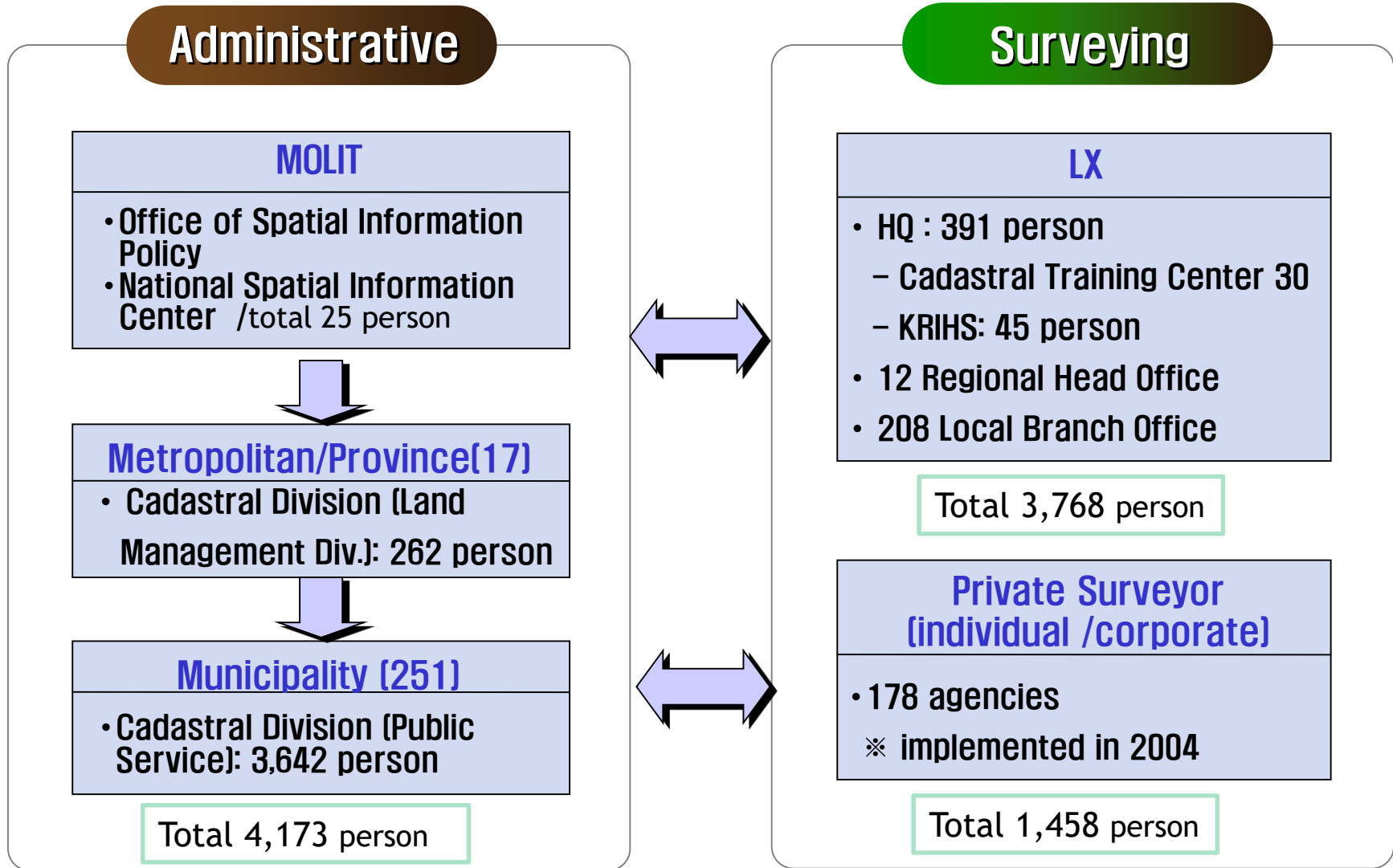
등기부 등본 (현재 유효사항) - 건물					
[표 제 부] (건물의 표시)					
표지번호	필수	소재지명 및 건물번호	건물내역	면적	등기원인 및 기타사항
1	2010년등10명	서울특별시 관악구 봉천동 882-3 동원빌딩301호	철근콘크리트구조 (동)21층외벽지붕 9층 벽2고층외벽지붕지붕 및 방화구획 지1층 302.00㎡ 지2층 18.00㎡ 지3층 18.00㎡ 지4층 18.00㎡ 지5층 18.00㎡ 지6층 18.00㎡ 지7층 18.00㎡ 지8층 18.00㎡ 지9층 18.00㎡ 지10층 18.00㎡ 지11층 18.00㎡ 지12층 18.00㎡ 지13층 18.00㎡ 지14층 18.00㎡ 지15층 18.00㎡ 지16층 18.00㎡ 지17층 18.00㎡ 지18층 18.00㎡ 지19층 18.00㎡ 지20층 18.00㎡ 지21층 18.00㎡ 지22층 18.00㎡ 지23층 18.00㎡ 지24층 18.00㎡ 지25층 18.00㎡ 지26층 18.00㎡ 지27층 18.00㎡ 지28층 18.00㎡ 지29층 18.00㎡ 지30층 18.00㎡ 지31층 18.00㎡ 지32층 18.00㎡ 지33층 18.00㎡ 지34층 18.00㎡ 지35층 18.00㎡ 지36층 18.00㎡ 지37층 18.00㎡ 지38층 18.00㎡ 지39층 18.00㎡ 지40층 18.00㎡ 지41층 18.00㎡ 지42층 18.00㎡ 지43층 18.00㎡ 지44층 18.00㎡ 지45층 18.00㎡ 지46층 18.00㎡ 지47층 18.00㎡ 지48층 18.00㎡ 지49층 18.00㎡ 지50층 18.00㎡ 지51층 18.00㎡ 지52층 18.00㎡ 지53층 18.00㎡ 지54층 18.00㎡ 지55층 18.00㎡ 지56층 18.00㎡ 지57층 18.00㎡ 지58층 18.00㎡ 지59층 18.00㎡ 지60층 18.00㎡ 지61층 18.00㎡ 지62층 18.00㎡ 지63층 18.00㎡ 지64층 18.00㎡ 지65층 18.00㎡ 지66층 18.00㎡ 지67층 18.00㎡ 지68층 18.00㎡ 지69층 18.00㎡ 지70층 18.00㎡ 지71층 18.00㎡ 지72층 18.00㎡ 지73층 18.00㎡ 지74층 18.00㎡ 지75층 18.00㎡ 지76층 18.00㎡ 지77층 18.00㎡ 지78층 18.00㎡ 지79층 18.00㎡ 지80층 18.00㎡ 지81층 18.00㎡ 지82층 18.00㎡ 지83층 18.00㎡ 지84층 18.00㎡ 지85층 18.00㎡ 지86층 18.00㎡ 지87층 18.00㎡ 지88층 18.00㎡ 지89층 18.00㎡ 지90층 18.00㎡ 지91층 18.00㎡ 지92층 18.00㎡ 지93층 18.00㎡ 지94층 18.00㎡ 지95층 18.00㎡ 지96층 18.00㎡ 지97층 18.00㎡ 지98층 18.00㎡ 지99층 18.00㎡ 지100층 18.00㎡		

[갈 구] (소유권에 관한 사항)					
순위번호	등기 목적	필수	등기 원인	권리 및 기타사항	
1	소유권보존	2010년등10명	2010년등10명	소유자 명칭은 2010년등10명 서울특별시 관악구 봉천동 882-3 동원빌딩 301호	



Supreme Court

5. Korea's Cadastral System

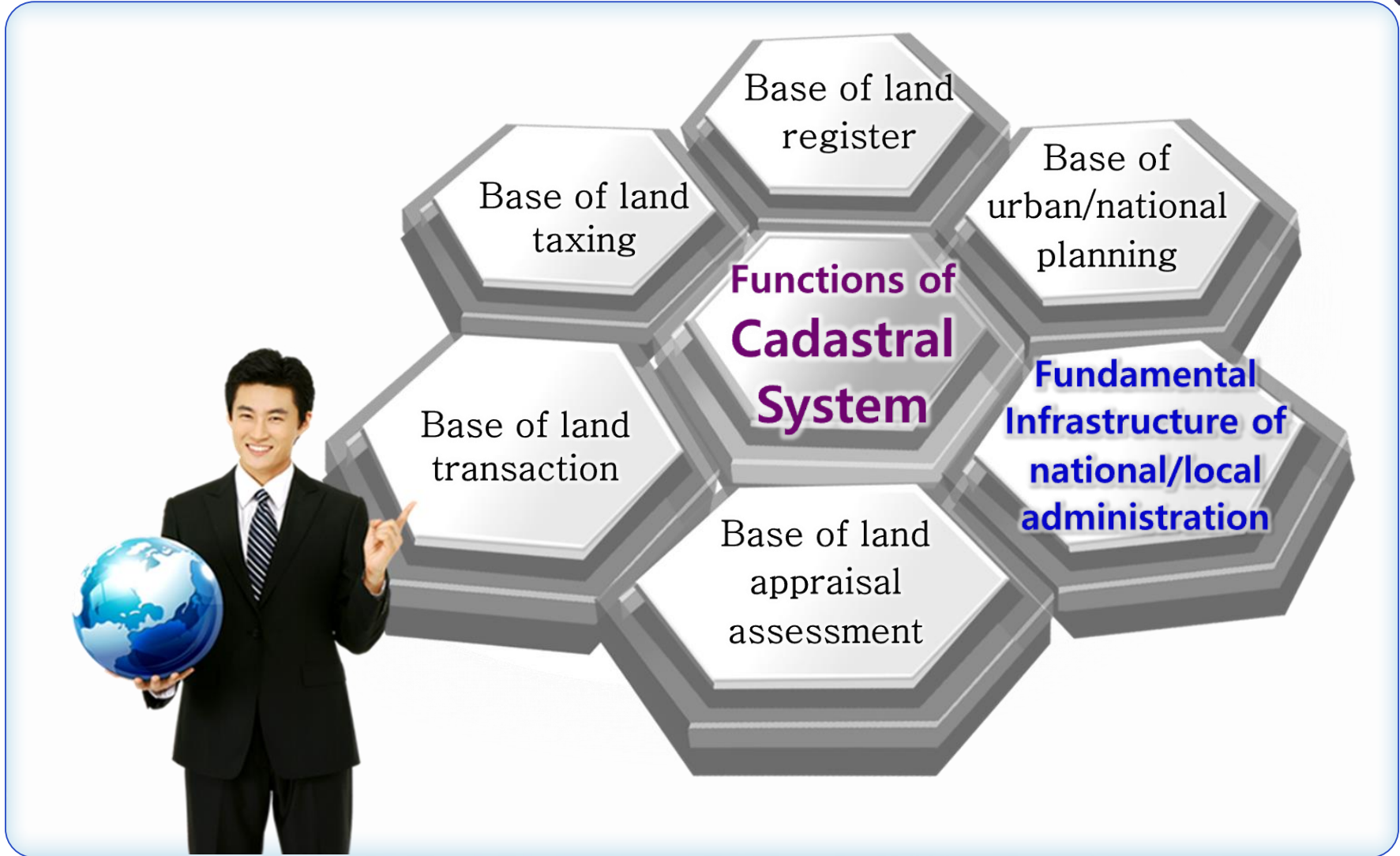


6. Changes in the Purpose of Cadastral System



Category	Content
Tax Cadastre	<ul style="list-style-type: none">• The oldest type of cadastral system• Purpose highlights taxing land• Made in agrarian age when national income relied on land taxes• Land fertility level or crop yield which serve as taxing base was important & area size and land grade was major items recorded
Legal Cadastre	<ul style="list-style-type: none">• Advanced from tax cadastre after land was accepted as private property• Purpose highlights property right protection of land• Boundaries are important for safe land transaction and protection of land ownership
Multipurposed Cadastre	<ul style="list-style-type: none">• Comprehensive recording and management of various types of information on land made available for multiple use purposes

7. Functions of Cadastral System





1. Current Status of Cadastral System

1) Short fallings of Cadastral Maps



Repeated copies and multiple scales (7 types)

Limit the accuracy of cadastral surveying

2) Problems of Surveyed Datum CRS

Japanese CRS (Tokyo Datum)

Shifts position of Korea's geodetic datum

(365m difference with WGS)

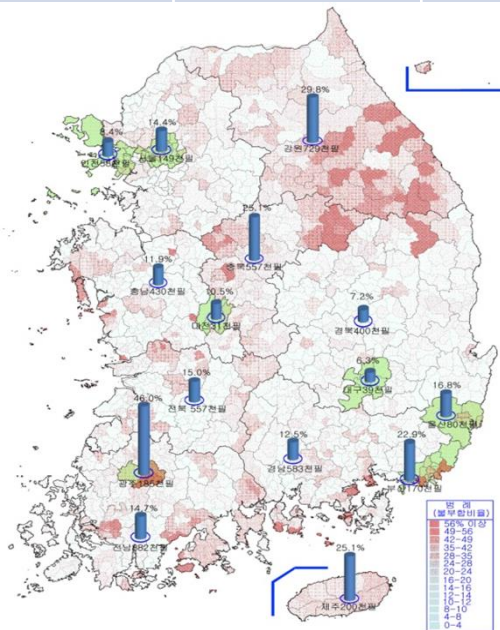


3) Discrepancies Accumulated

Boundary line disputes due to huge discrepancies of cadastral & real boundaries

Discrepancies Nationwide

Parcel no.	Discrepancy	Ratio
37.53 mil	5.54 mil	14.8%



Property right exercise limited

Development activities limited

Administrative litigations due to discrepancies

Faulty management of state-owned properties

Hurts national competitiveness



Boundary line disputes cause litigation cost 400 bil KRW



2. Resurveying Projects for Improved Cadastral System

☒ Resurveying Project

- ✓ Gradual and phase-based resurveying of the entire nation
- ✓ 30 years (2012~2030)
- ✓ Naming: Right Land, Slogan: Upright, Worthy, Happy



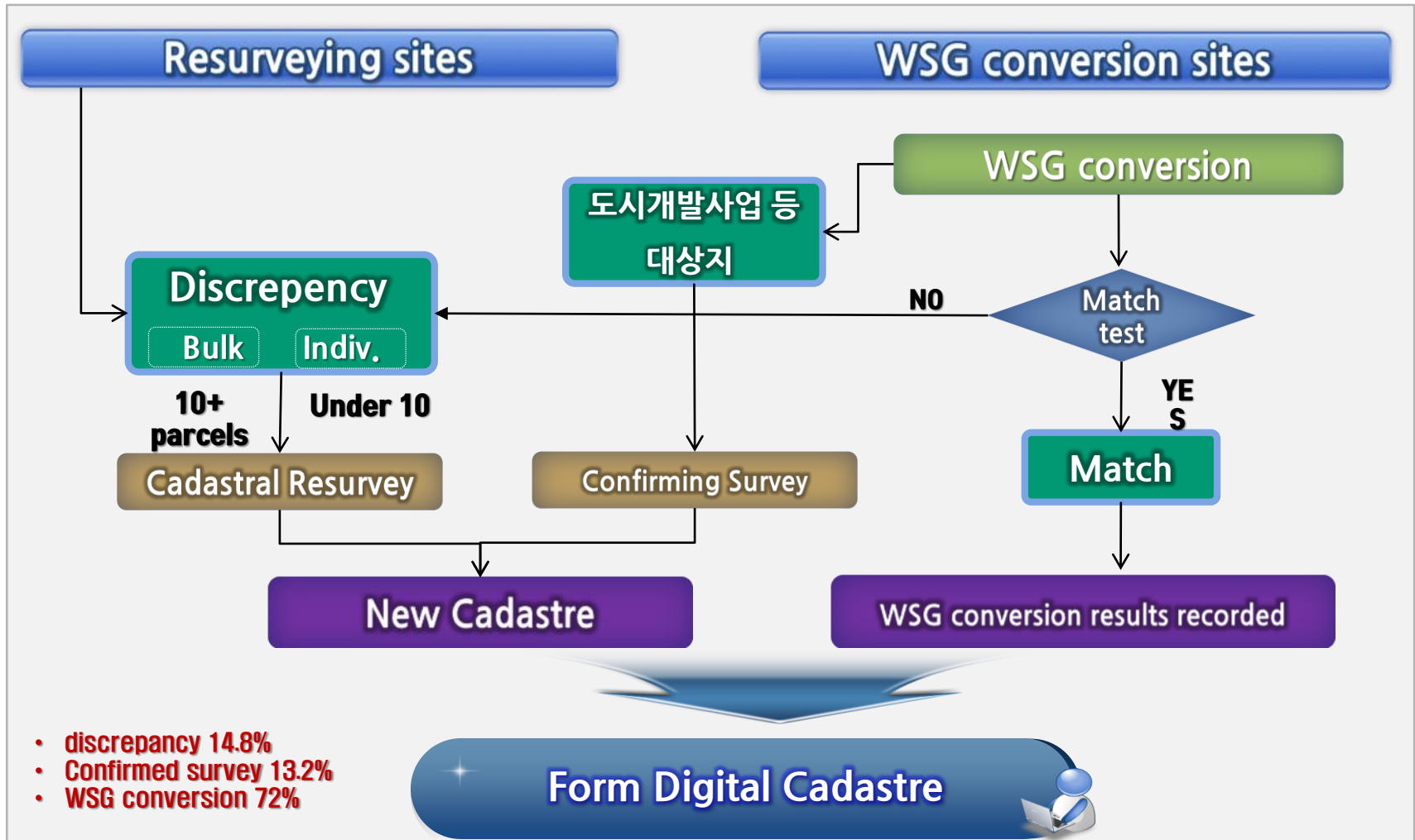
바른땅



반듯하게, 가치있게, 행복하게

 바른땅
반듯하게, 가치있게, 행복하게

3. Resurveying Project Outline



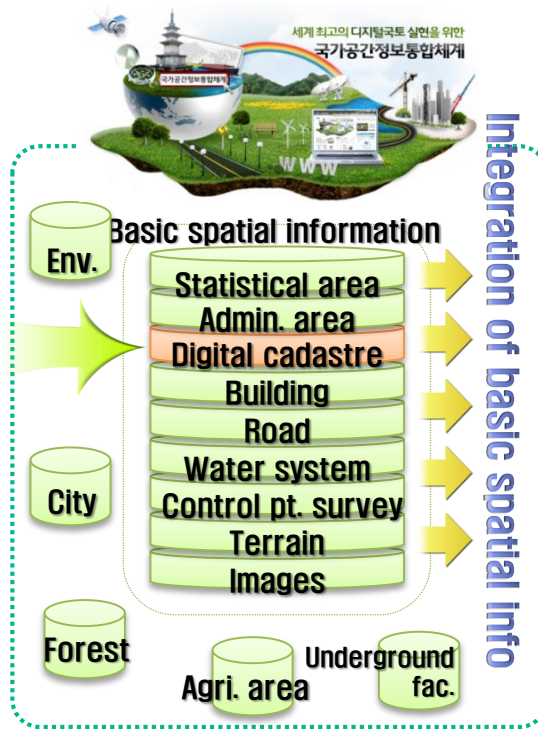
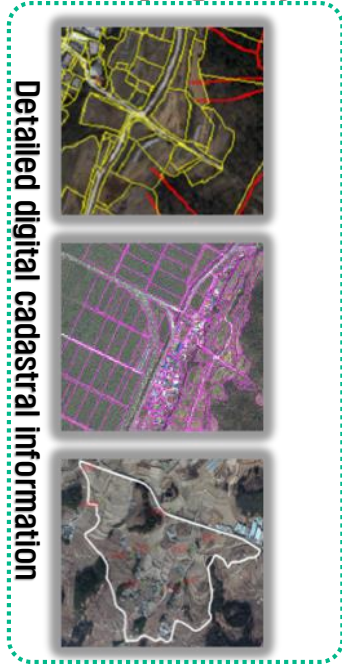
- discrepancy 14.8%
- Confirmed survey 13.2%
- WSG conversion 72%

Form Digital Cadastre

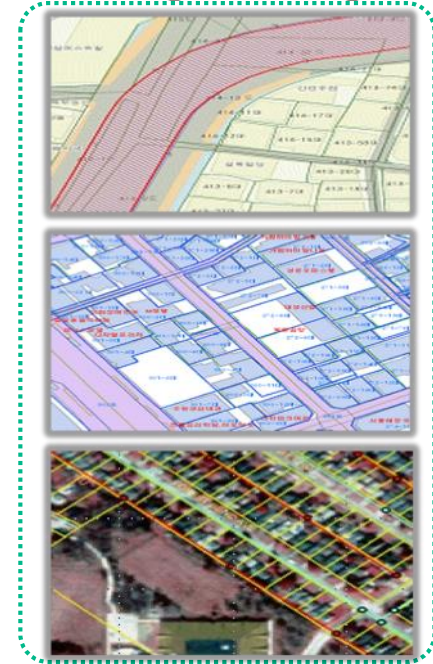
4. Effects of a Project Resurveying Cadastre

- Effective land management and ownership protection by resolving land disputes
- Utilize NSDI (National Spatial Data Infrastructure)
- Jump start the spatial information industry

Resurveying Project



Utilize sharing and integration



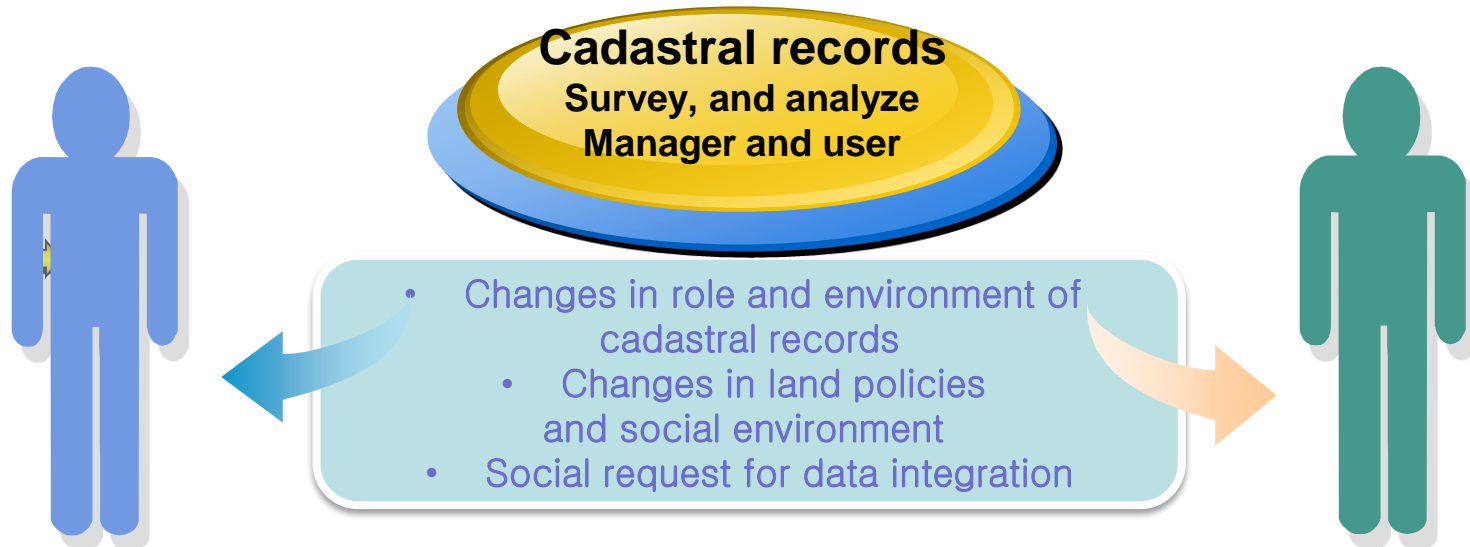
III Topic of Interest for the Future Cadastral System

1. Diversification in registration of cadastral records

▣ Redefine land descriptions and **expand and revise items regarding registration of cadastral records**

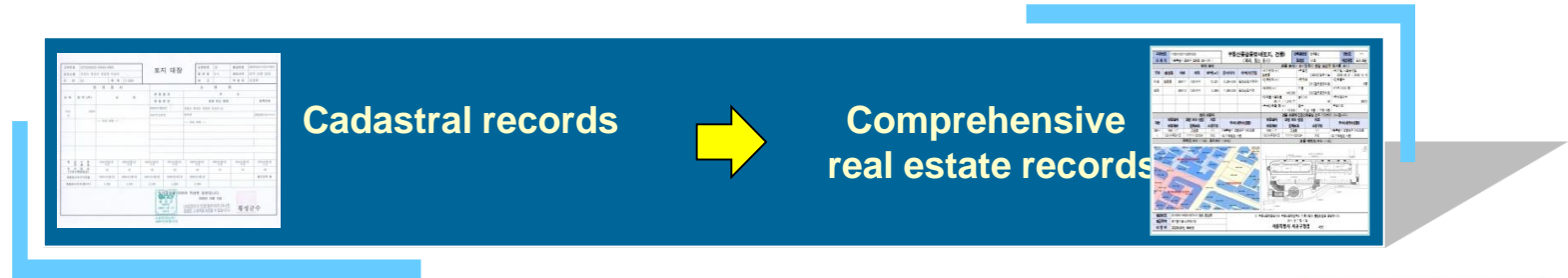
✓ Expansion of registered information (Comprehensive real estate records)

➡ Integration of land related records (Comprehensive real estate records)

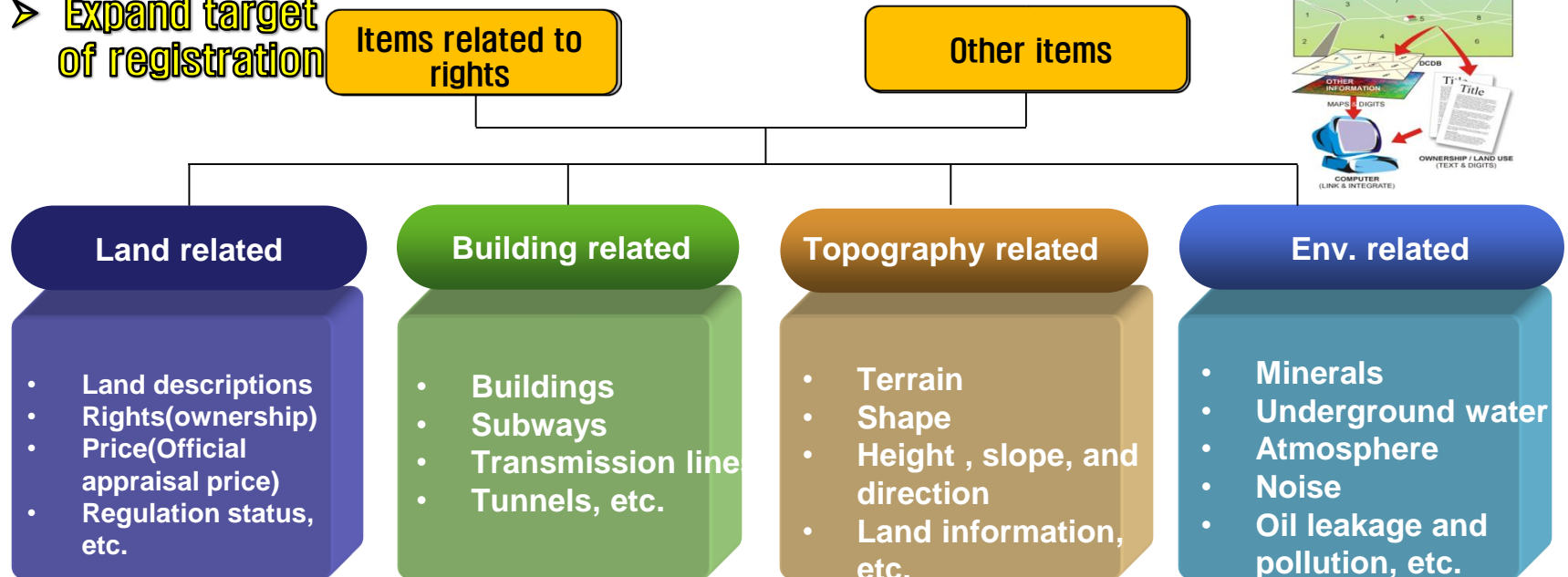




➤ Expand public records



➤ Expand target of registration



Official environmental status



ecosystem

water

soil quality/
earth



2. Changes in Registration of Cadastral Records



☒ Land Category [地目]

- ✓ Land categories are too small in number
 - Korea: 28, Japan 23, Taiwan 36, Germany 64
 - Insufficient functions to offer various land use policy-related information
- ✓ Lack of use of land category on cadastral records in parts such as imposing taxes, etc.
 - Tax imposing dept. surveys actual land use status
 - Cities and provinces survey land use separately when setting official appraisal prices; it is same for other appraisal and bank work
 - Impose fee for occupation and use for national/public land, and tax reduction for public land are not reflected
- ✓ Method of improvement
 - User-centered land classification system – Survey people of demand – Diversify land categories
 - Manage various statuses

3. 3D Cadastre Registration



3D cadastre registration

- ✓ Register 3D rights of lots → Registration of 3D status
- 1st step: Register divided surface rights
- 2nd step: Register partitioned ownership
- 3d step: Register real world (based on cadastre)
- ❖ **Resolve the mismatch between 3D cadastral map and 3D topographic map**

Multi-story housing



Building on parcel boundary or oblique section



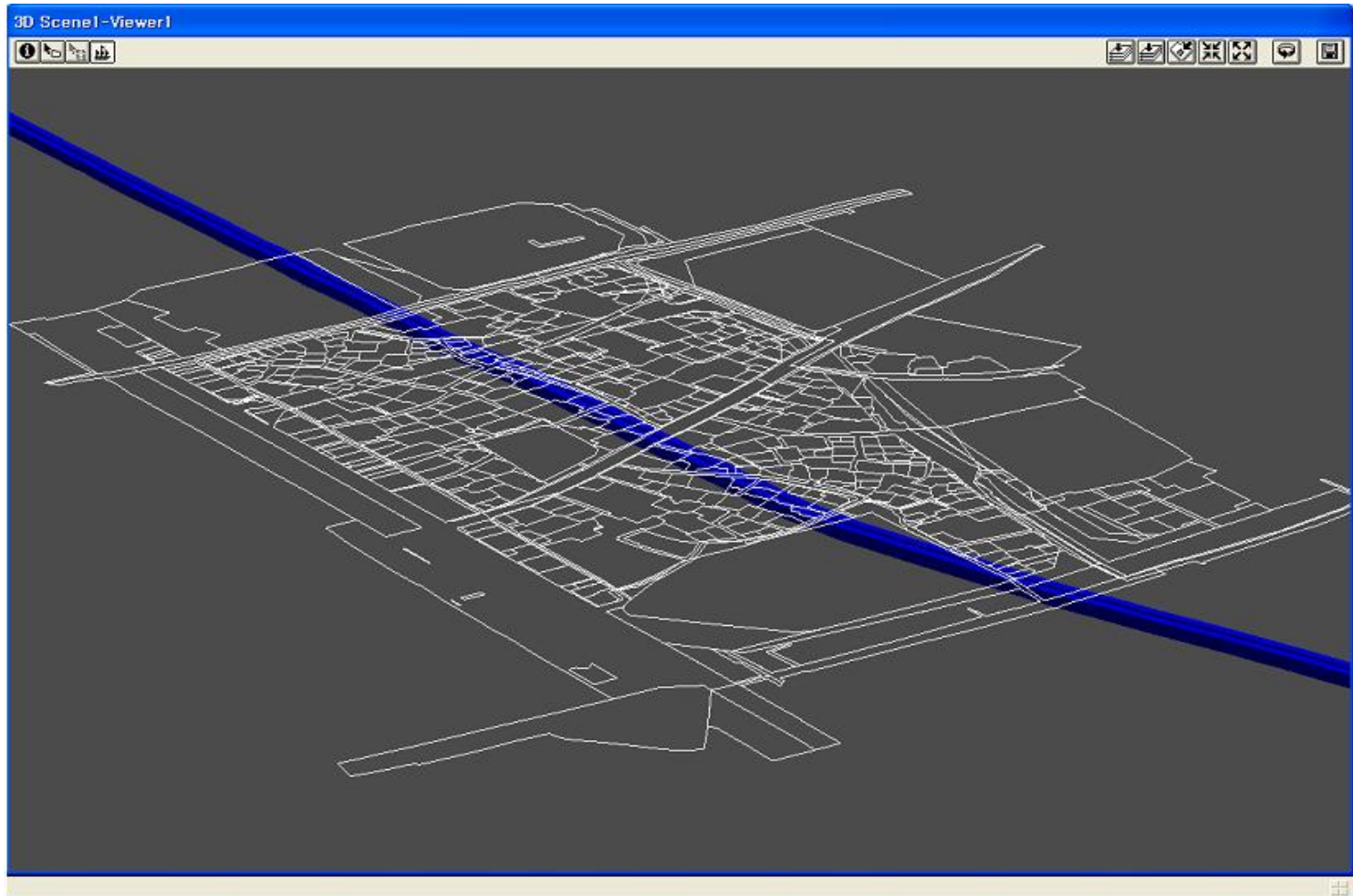
Building on & under road

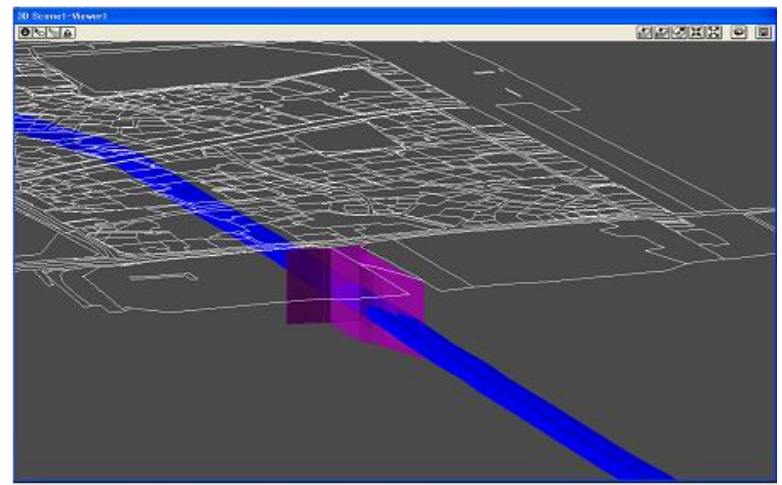
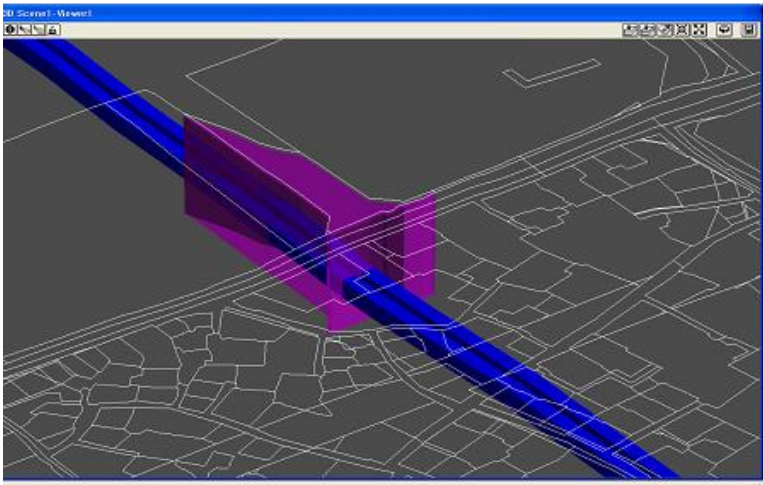
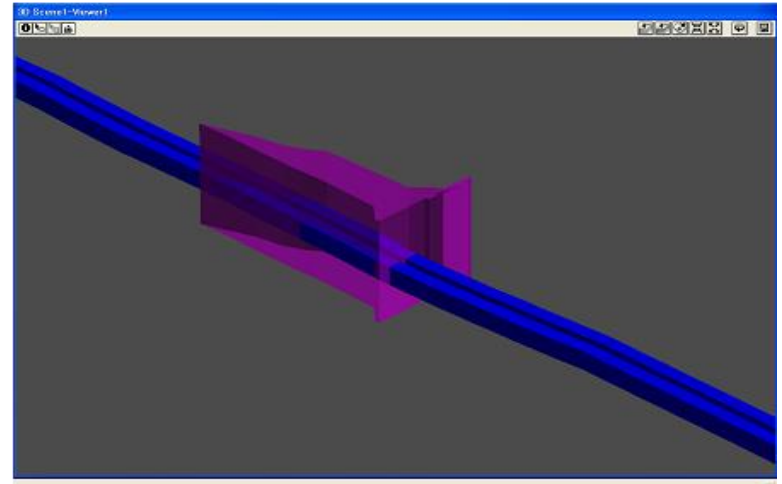
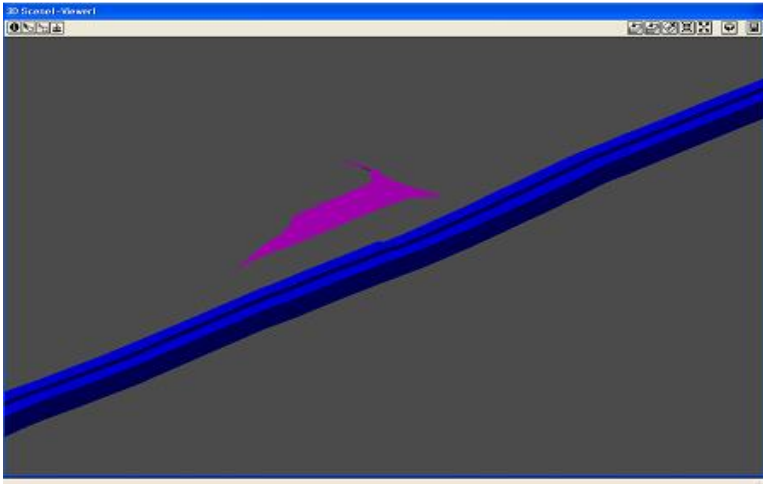


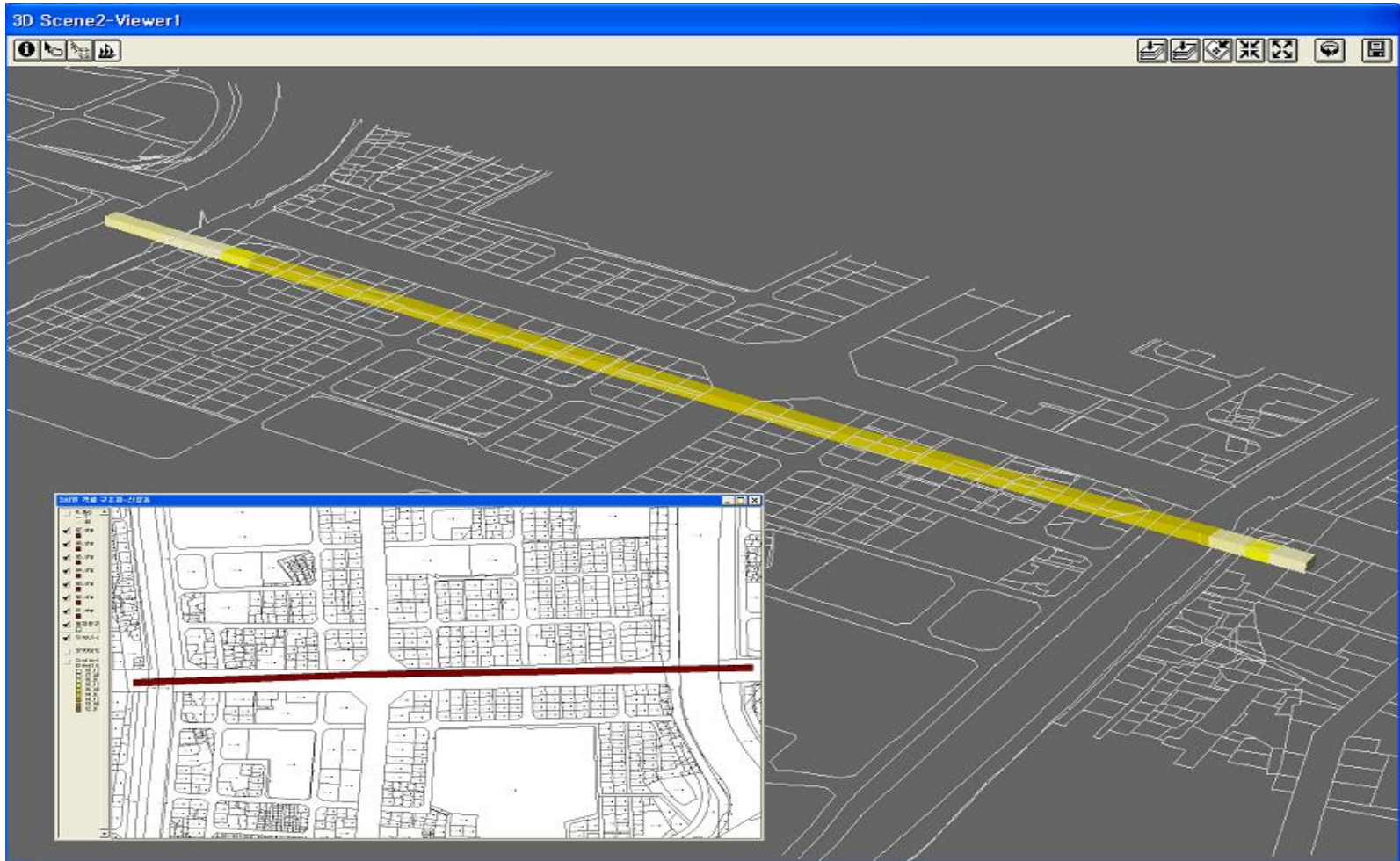
Overpass, tunnel, ground level railroad

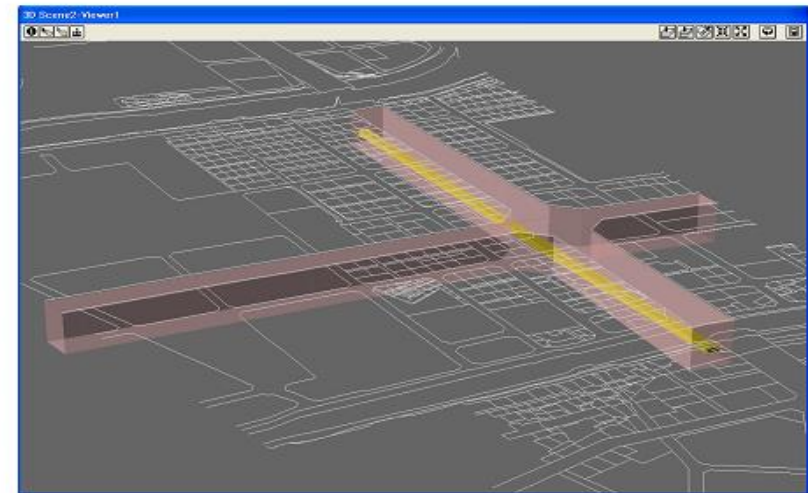
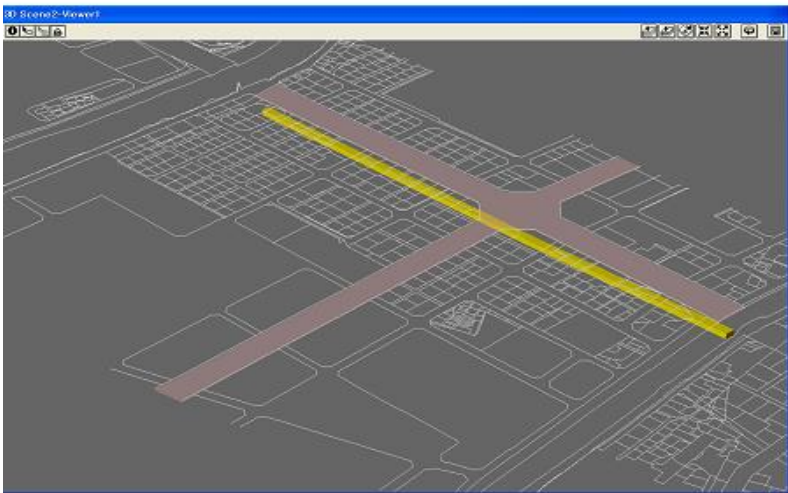
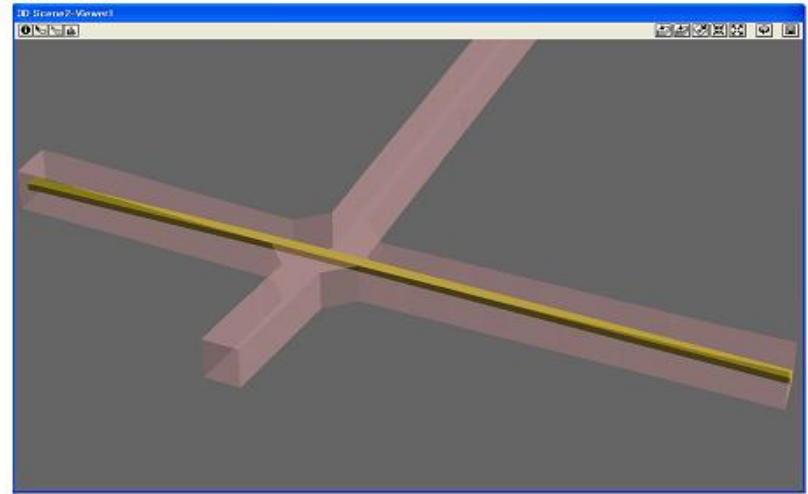
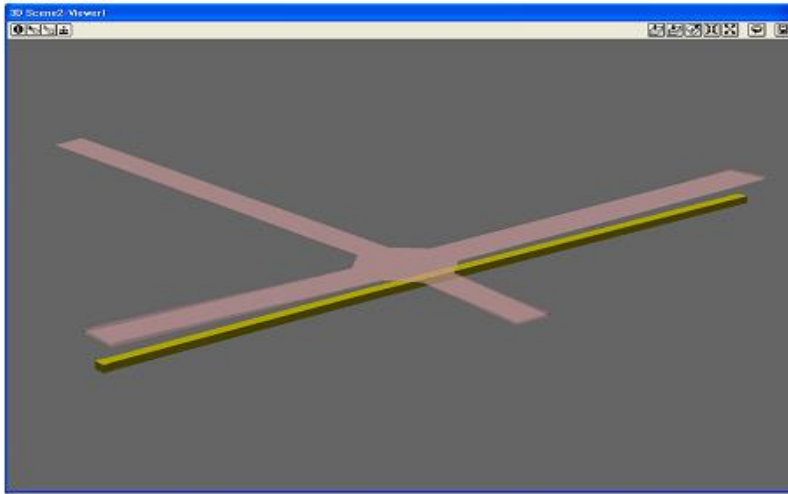


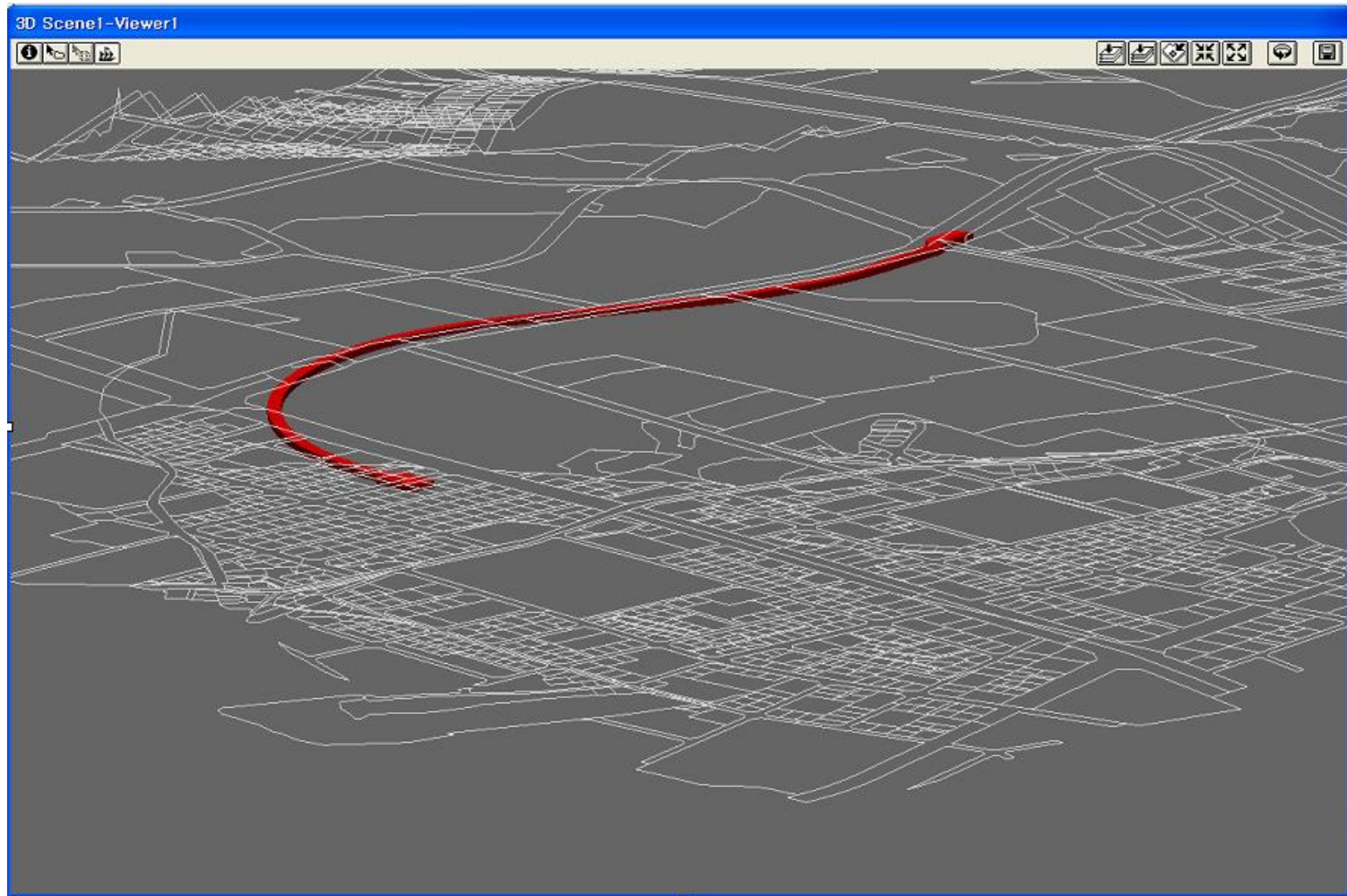


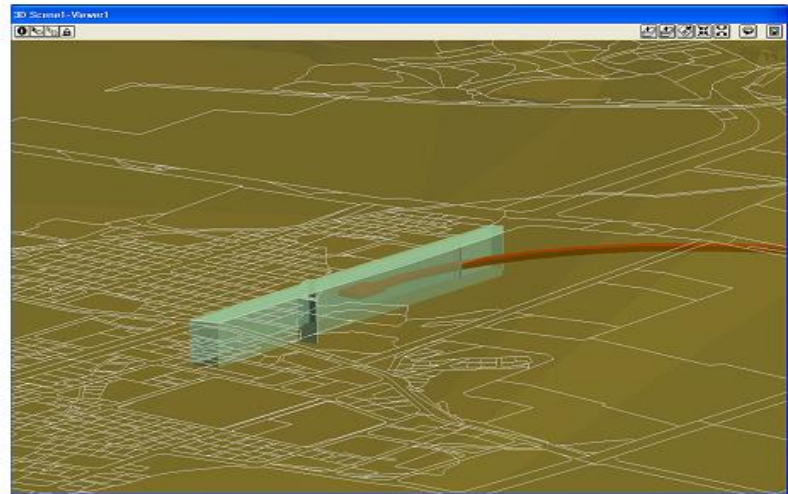
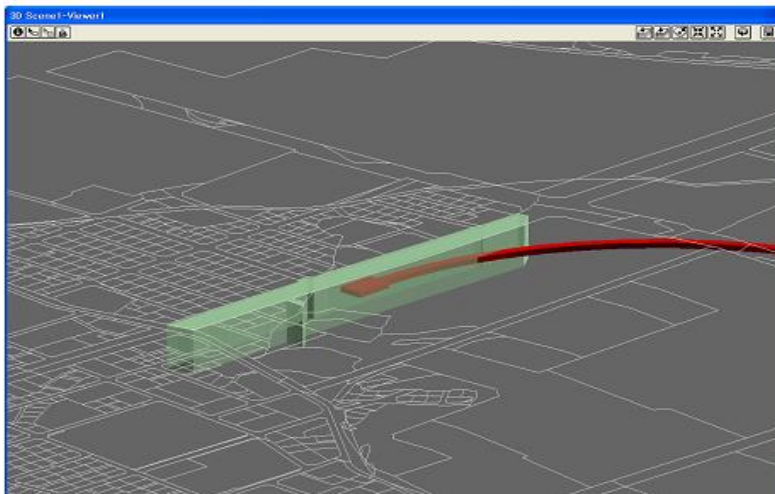
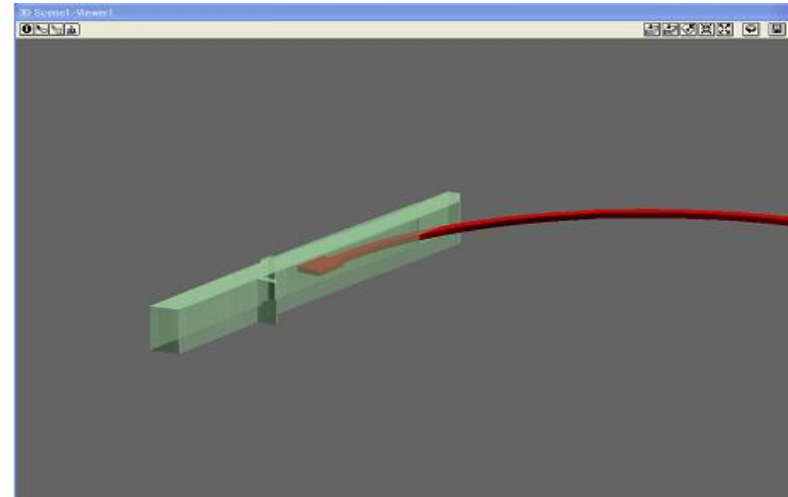
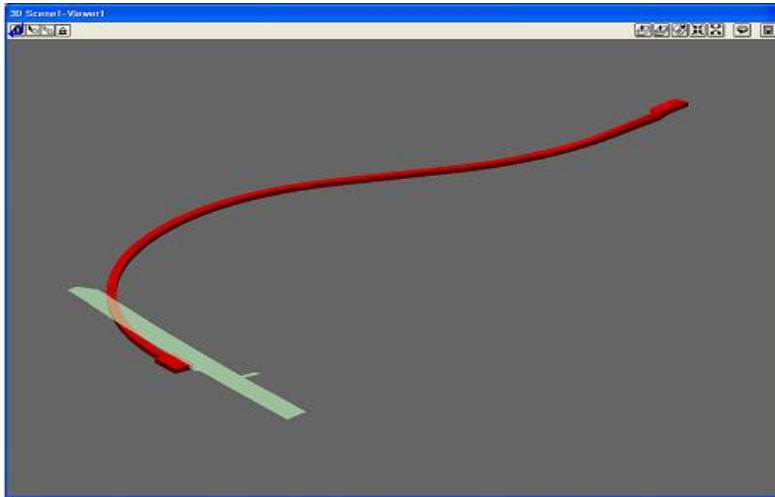












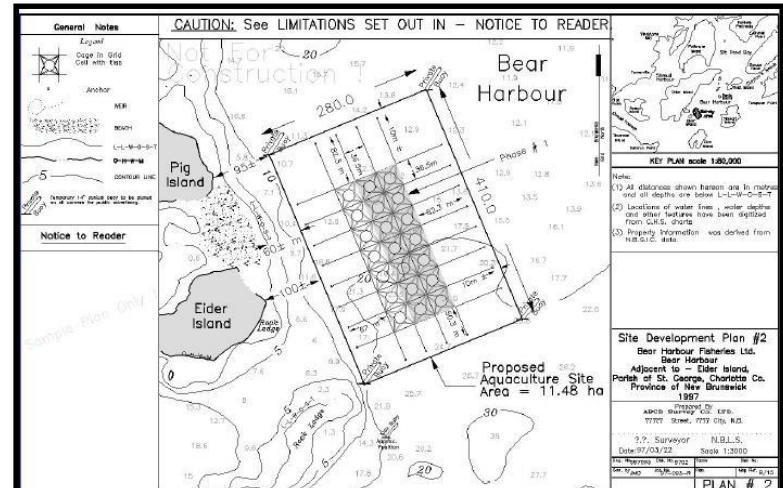
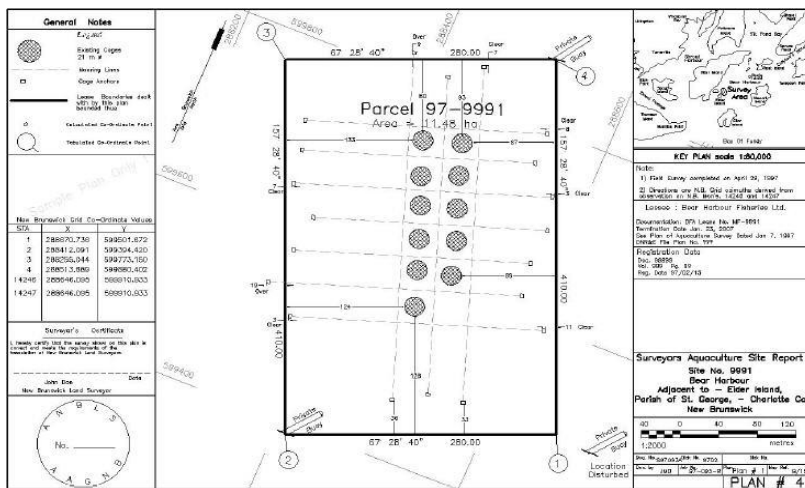
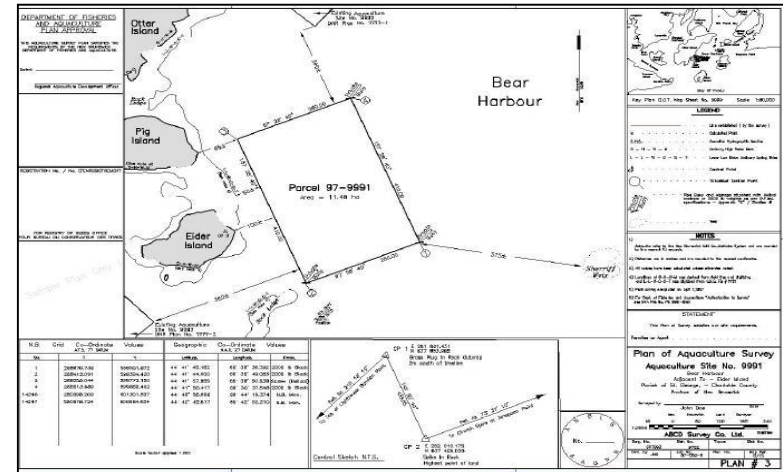
4. Adoption of Marine Cadastre

❏ Concept of marine cadastre

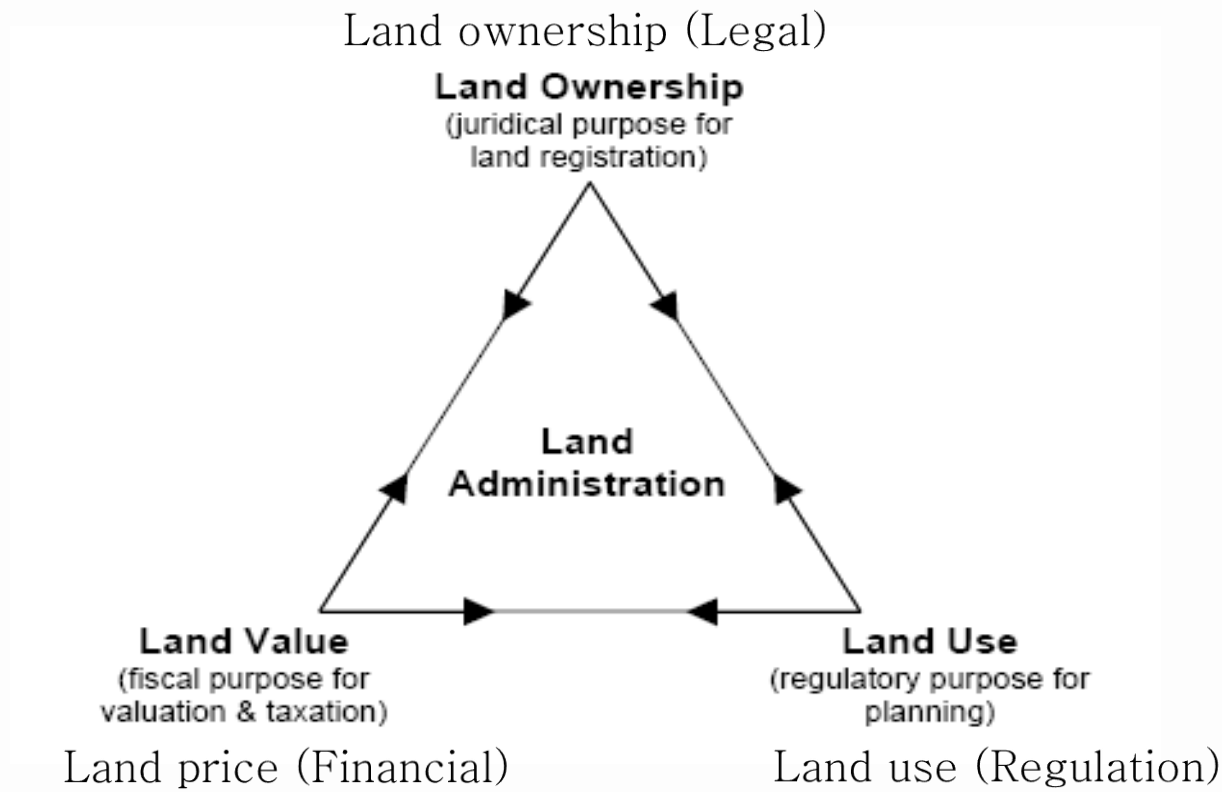
- ✓ Investigate and survey objects of rights regarding territorial waters to register and manage in cadastral records
- ✓ Division of roles between MOLIT and the Ministry of Oceans and Fisheries



Marine Cadastre views information from a property rights perspective



5. Establishing cadastral system as basic Infrastructure of land administration



Three key components of land (Dale and McLaughlin, 1999)



Thank You