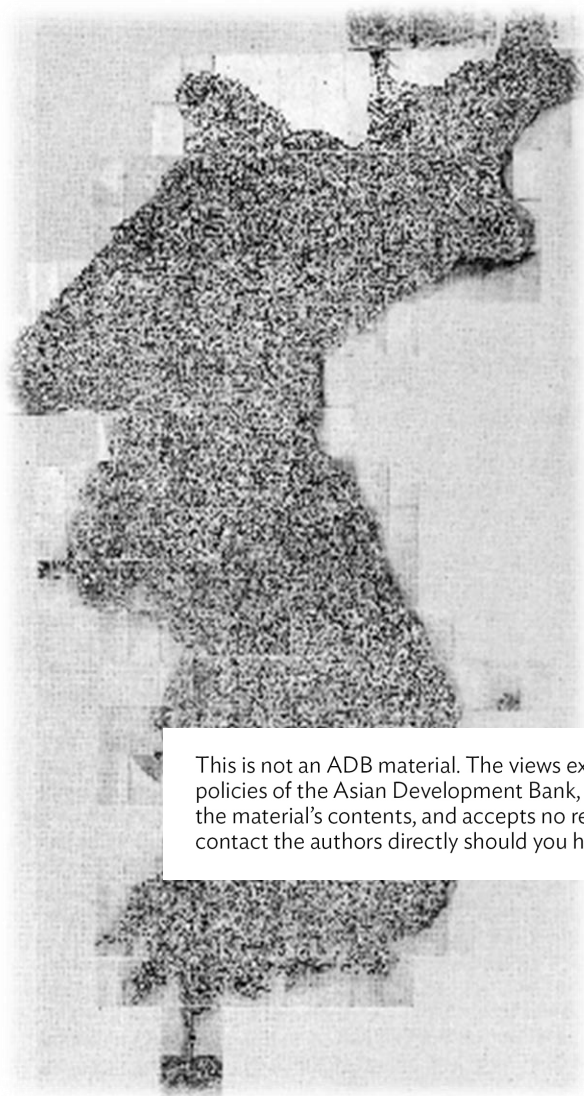


National Land Use Planning System in South Korea



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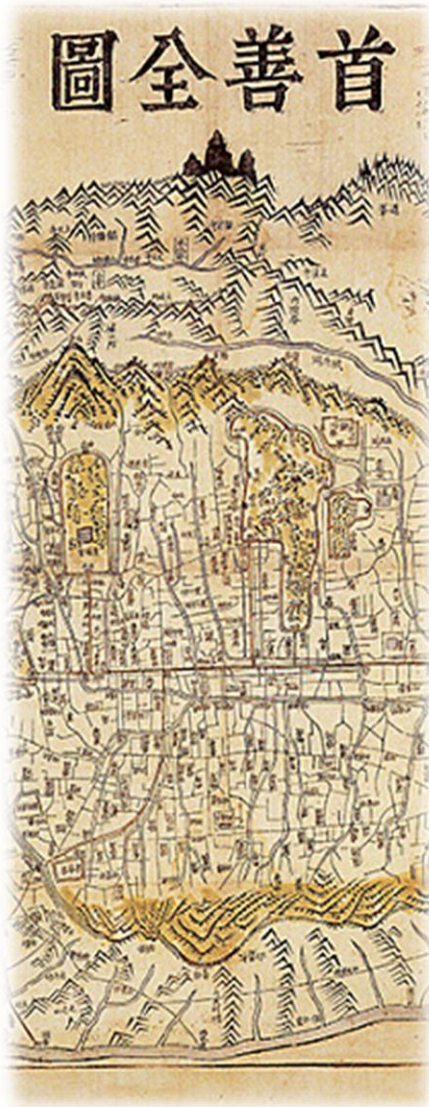
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IV. Survey and Information System

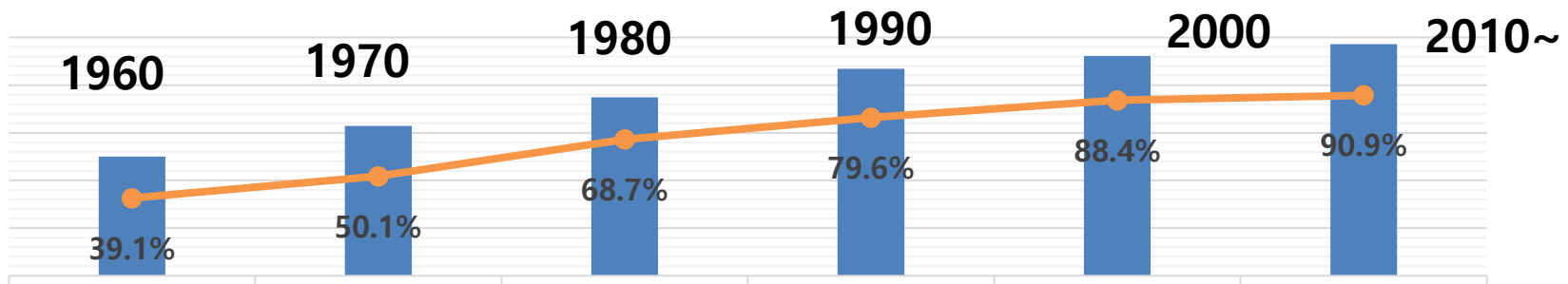
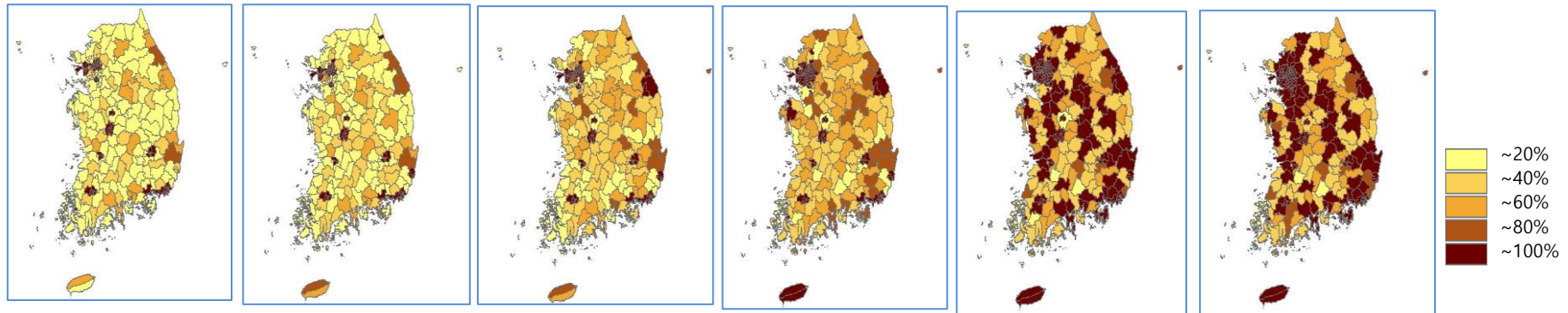
V. Further Questions

Chapter 1



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1.1 Urbanization and Expansion of Urban Areas



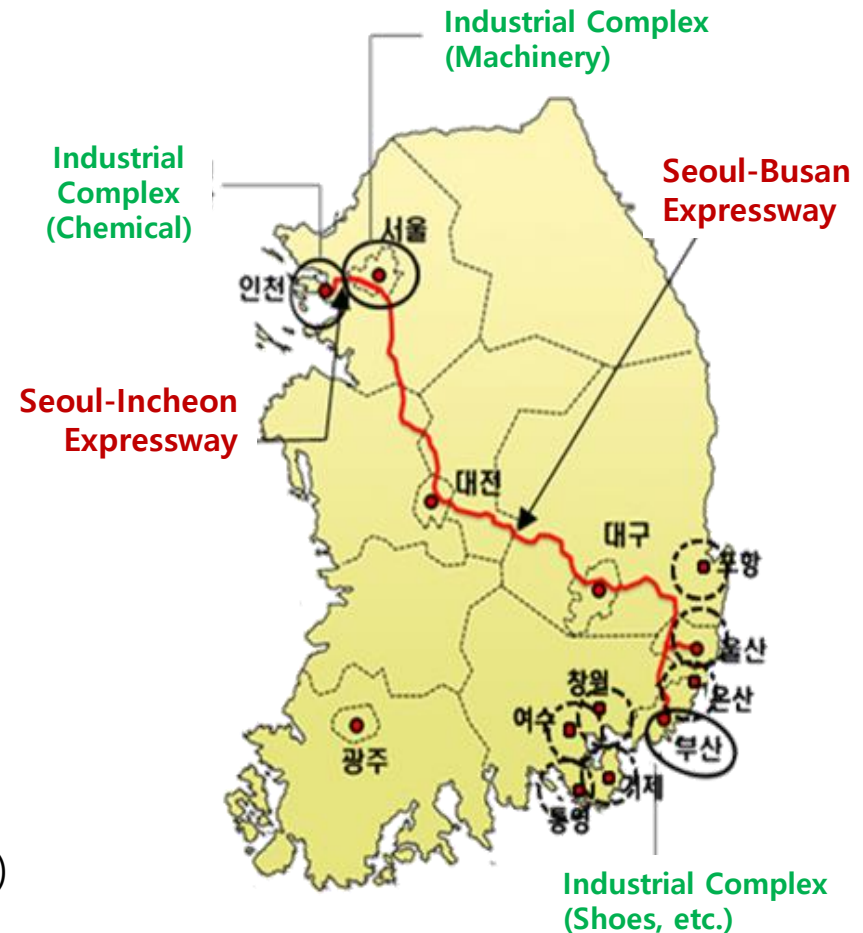
1.2 Territorial Policies in the 1960s and 1970s

■ New Industrial Cities in the 1960s~1970s

- Light manufacturing industries were concentrated in Seoul, Incheon and Pusan
- New cities : Pohang(steel), Ulsan(auto mobile), Changwon(machinery), etc.
- South-eastern areas were designated as the next phase industrial base
- Export-led economic growth required logistics infrastructure

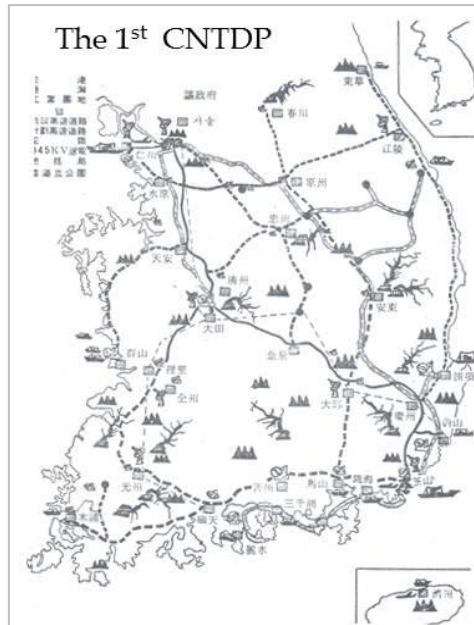
■ Kyungbu(Seoul-Busan) Expressway

- Construction period: 1968-1970
- Link Seoul (the capital) to Busan (the 2nd largest port city)
- Objection of IBRD (Negative feasibility)
- Propelled by the state leadership
- Became the symbol of Korean success



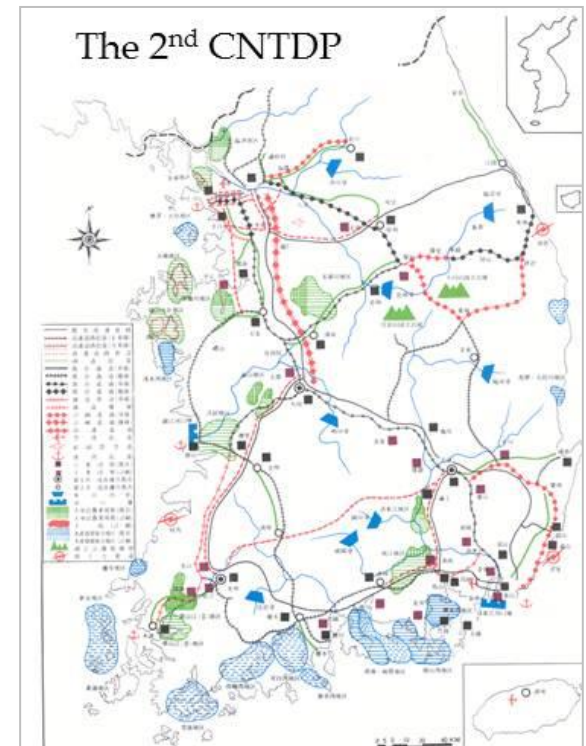
Source: Son, Eui-Young(2013)

1.3 CNTP in the 1970s and 1980s



■ The 1st CNTP (1970s) : Maximization of growth potential with limited resources

- Developing large industrial estates and metropolitan regions (Southeastern coastal industrial belts, Seoul Metropolitan Area)
- Investment in high priority Infrastructure (expressways, ports) and link to major industrial estates



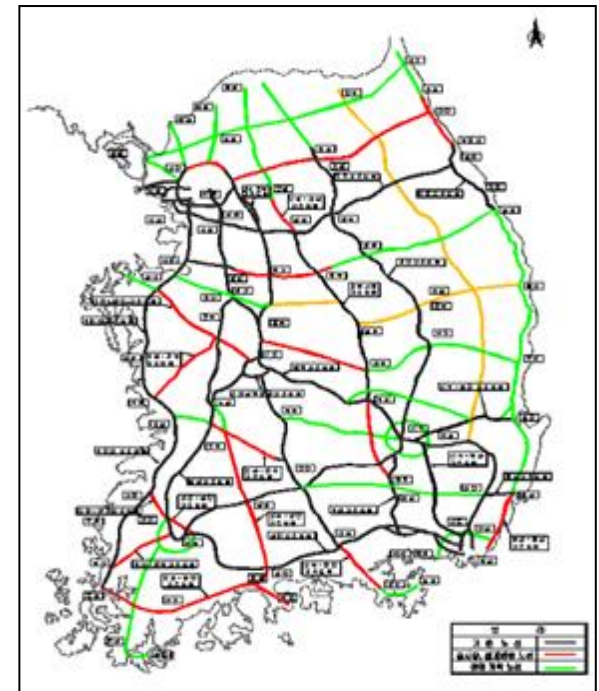
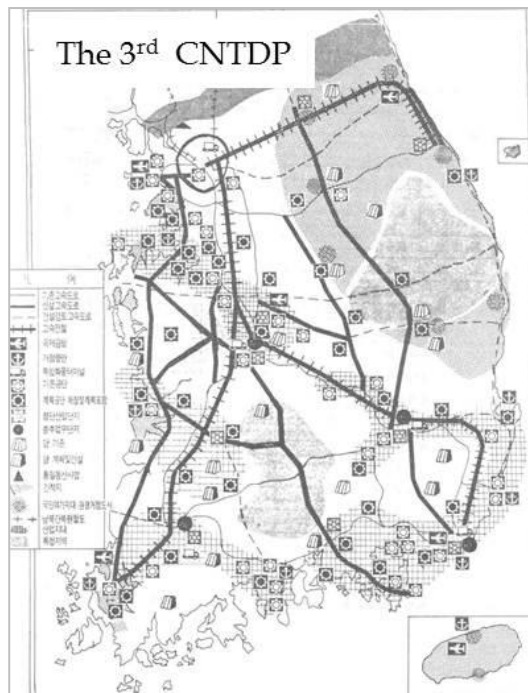
■ The 2nd CNTP: Spreading the growth effect across the nation

- Suppress over-concentration in Seoul Metropolitan Area (Capital Region)
- Development of multiple growth poles in the nation
- Expansion of development potential to reduce regional disparity
- Began to consider environmental aspects on territorial development

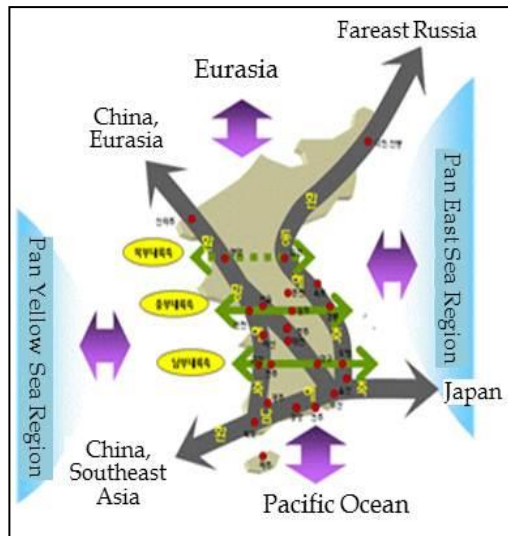
1.4 The 3rd CNTP (1992~1999)

■ The 3rd CNTP: establishment of “multi-centered” territorial structure

- Focusing on decentralized national development : development of the west coast industrial sites and local cities
- Development of a comprehensive transportation network (7x9 arterial road network)
- Expanding South-North Exchanges and began to prepare for the unified Korea



1.5 The 4th CNTP(2000~2020) and Its Revisions



■ The 4th (2000) : Balanced regional development and open & integrated national territory

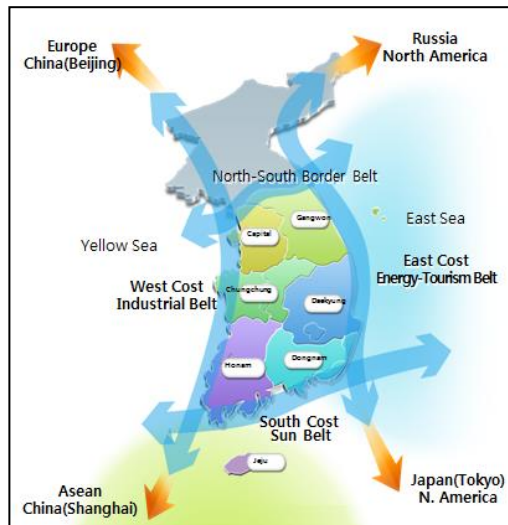
- Building π- shaped territorial axis to serve as "strategic gateway"
- Promoting regional competitiveness - industrial clusters, regional innovation system(RIS)
- Building high-speed transport network

■ Decentralization and de-concentration policies are reflected in territorial planning (2003~2007)

■ Enhancing regional competitiveness is more emphasized in 2008~2012 period

■ The Revision (2011) : Global-Green National Territory

- Integrated Territory with competitiveness
- Sustainable Territory with eco-friendly development
- Attractive Territory with high quality of living
- Open Territory to the global market



1.6 The 5th Comprehensive National Territorial Plan (1)

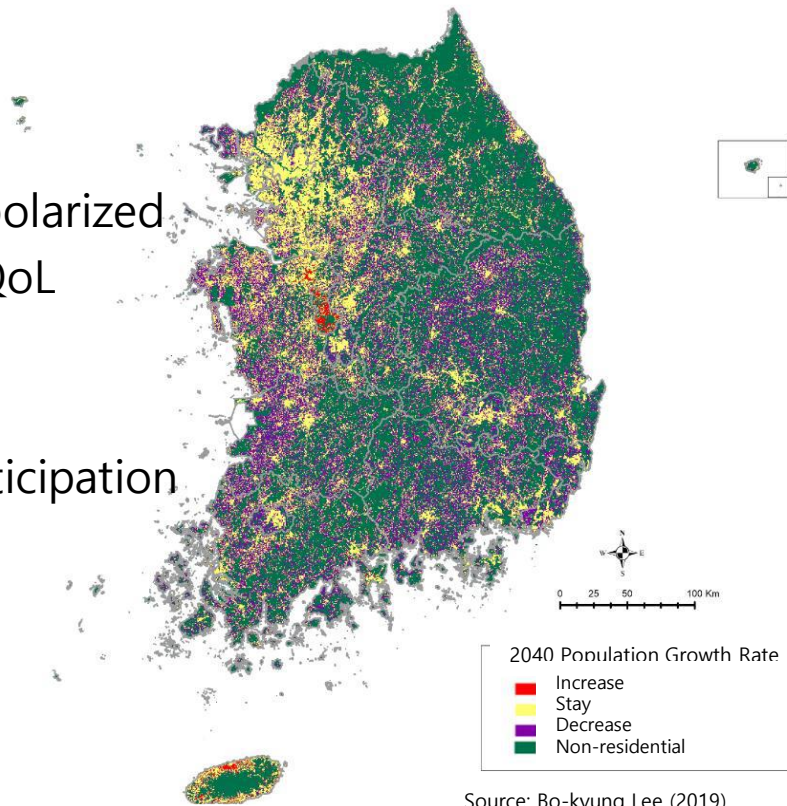
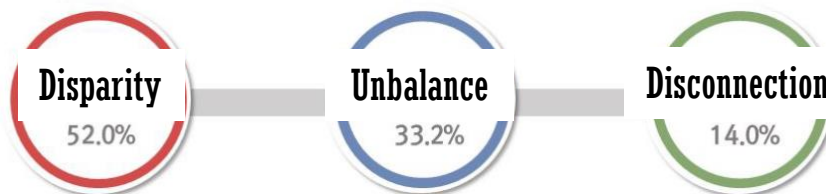
■ The 5th CNTP (2020~2040): **Indicative Strategic Plan**

- A principal guideline for long-term territorial (spatial) policy and planning
- Enhanced public participation and communicative process (170 ordinary citizens)
- Major spatial plans should be reviewed and coordinated

■ **Forecasts and Prospects**

- 8 out of 10 regions will lose their population
- Economic potential will be weakened and bi-polarized
- Climate change and increasing demands for QoL
- The 4th industrial revolution and changes
- Uncertain South-North Korea relationship
- Decentralization and intensified desire for participation

■ **Critical Problems (Survey results)**



Source: Bo-kyung Lee (2019)

1.6 The 5th Comprehensive National Territorial Plan (2)

Vision

The Territory for all, enjoying space together

Goals

Balanced
Territory

Smart
Territory

Innovative
Territory

**Spatial
Structure**

Form a flexible smart territory through solidarity and cooperation

**Development
Strategies**

St 1: Unique regional development and enhancing solidarity/cooperation

St 2: Innovation of regional industries and vitalizing culture-tourism

St 3: Safe living space for every generations and social groups

St 4: Creation of environment-friendly and decent territory

St. 5: Enhancing territorial intelligence and efficiency of infrastructure

St. 6: Connecting continent and ocean to form a nation of peace

1.6 The 5th Comprehensive National Territorial Plan (3)

Flexible spatial units and formation of smart territory

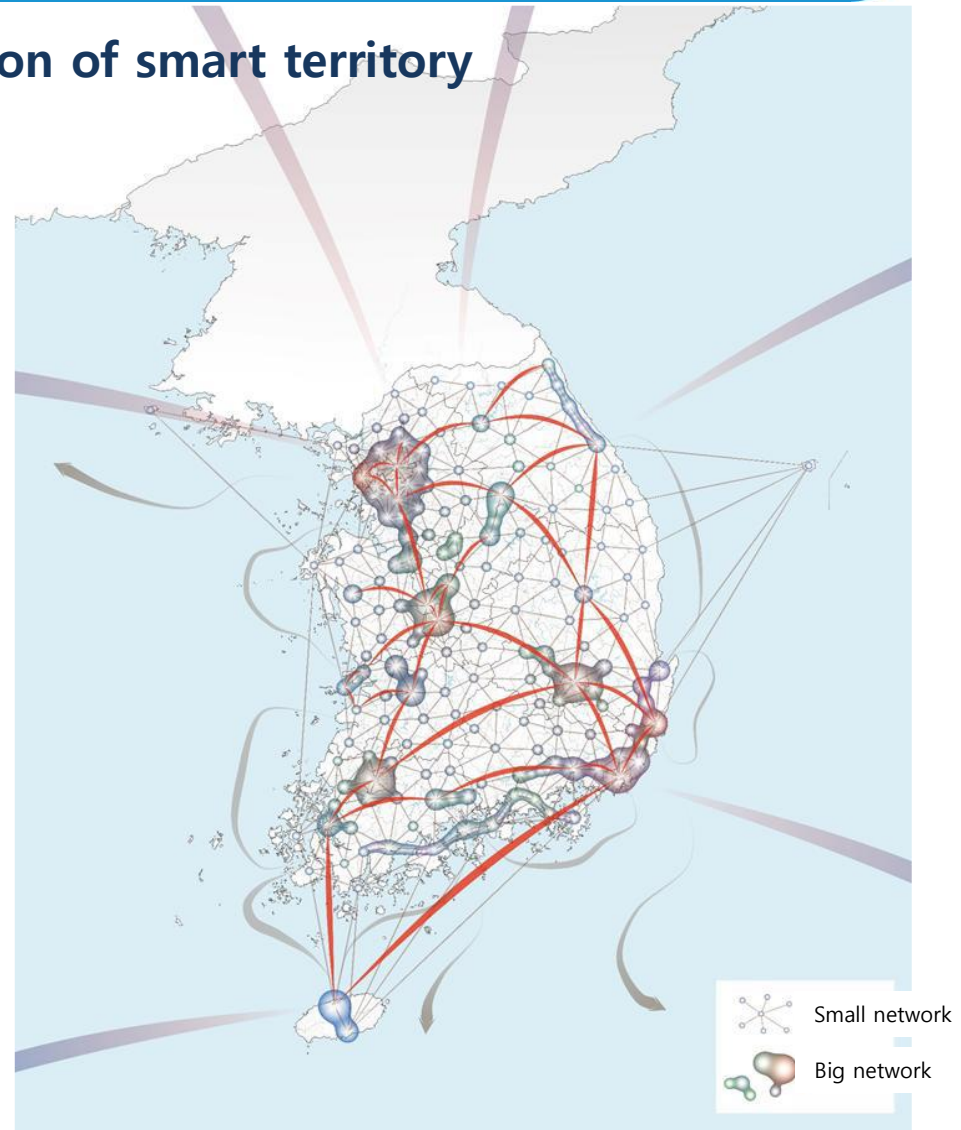
Infra/Transport

Culture-tourism

Industrial Link

Green Ecology

Cross-border/Int'l



Chapter 2



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2.1 Entering the 2000s

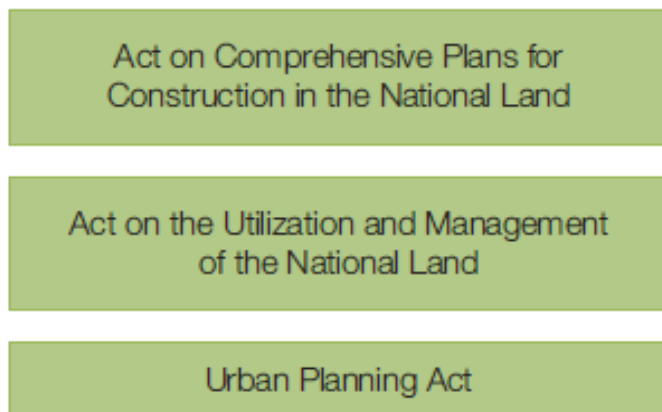
■ Entering the 21stC

- Matured economy (joined OECD)
- End of "compressed growth"
- Retreat of the state
- Revival of municipal system
- Environmental considerations

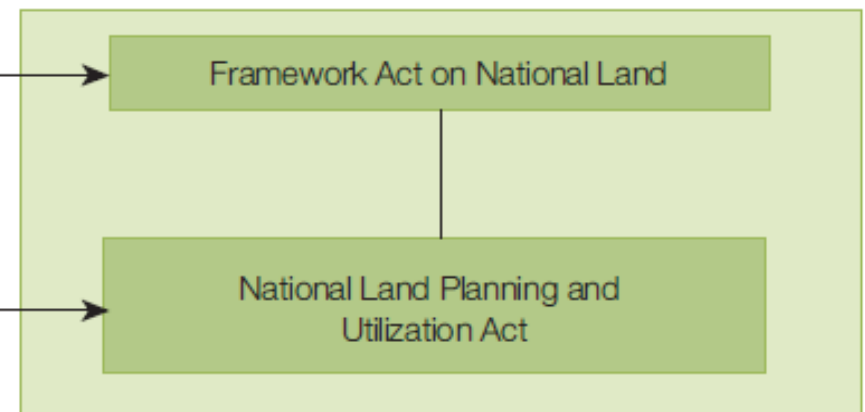
■ Institutional setting renewed

- Framework Act on National Territory
- CNPT targeted **longer time span** (20 yrs)
- Public participation enforced
- More democratized political arena

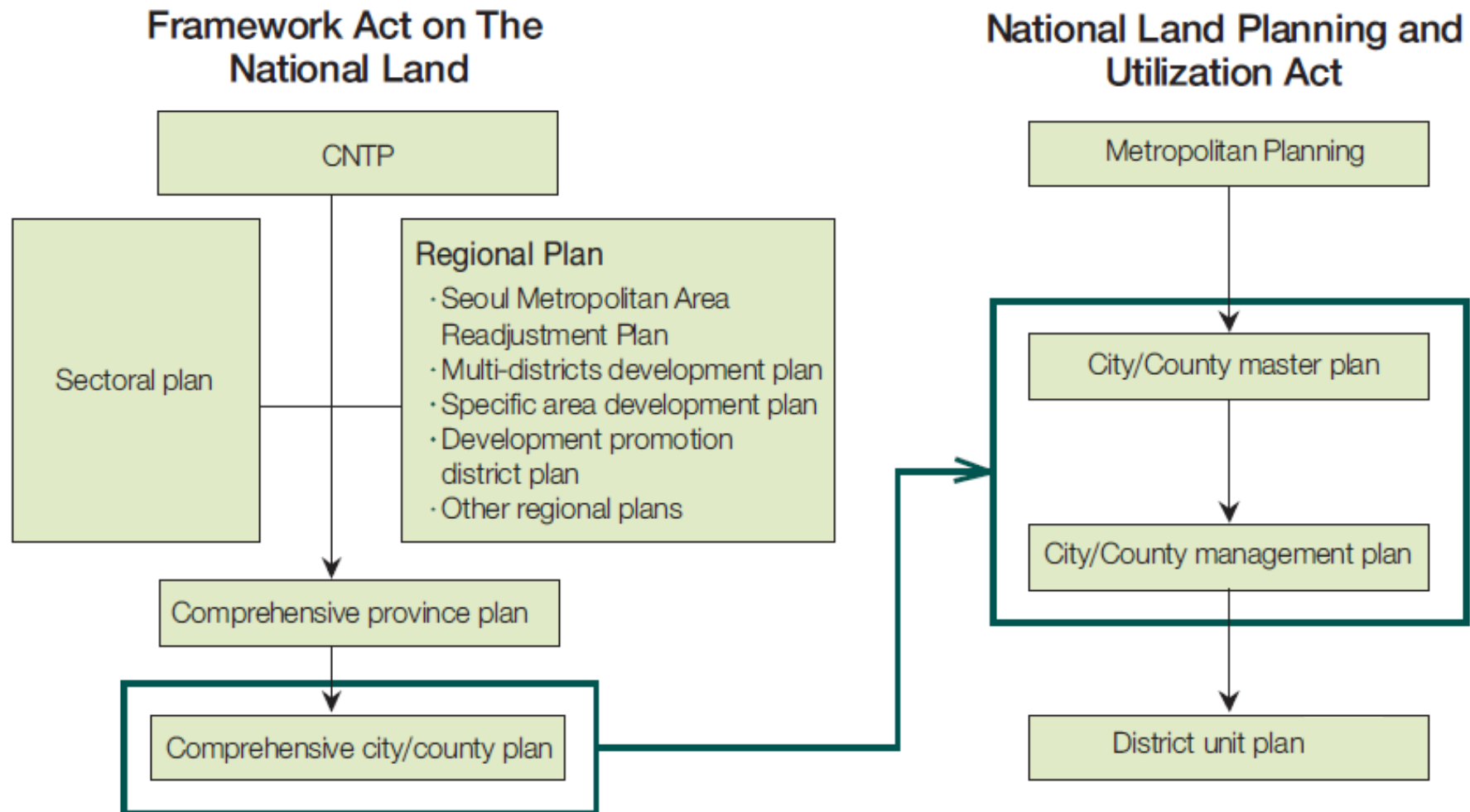
Until December 2002



From January 2003

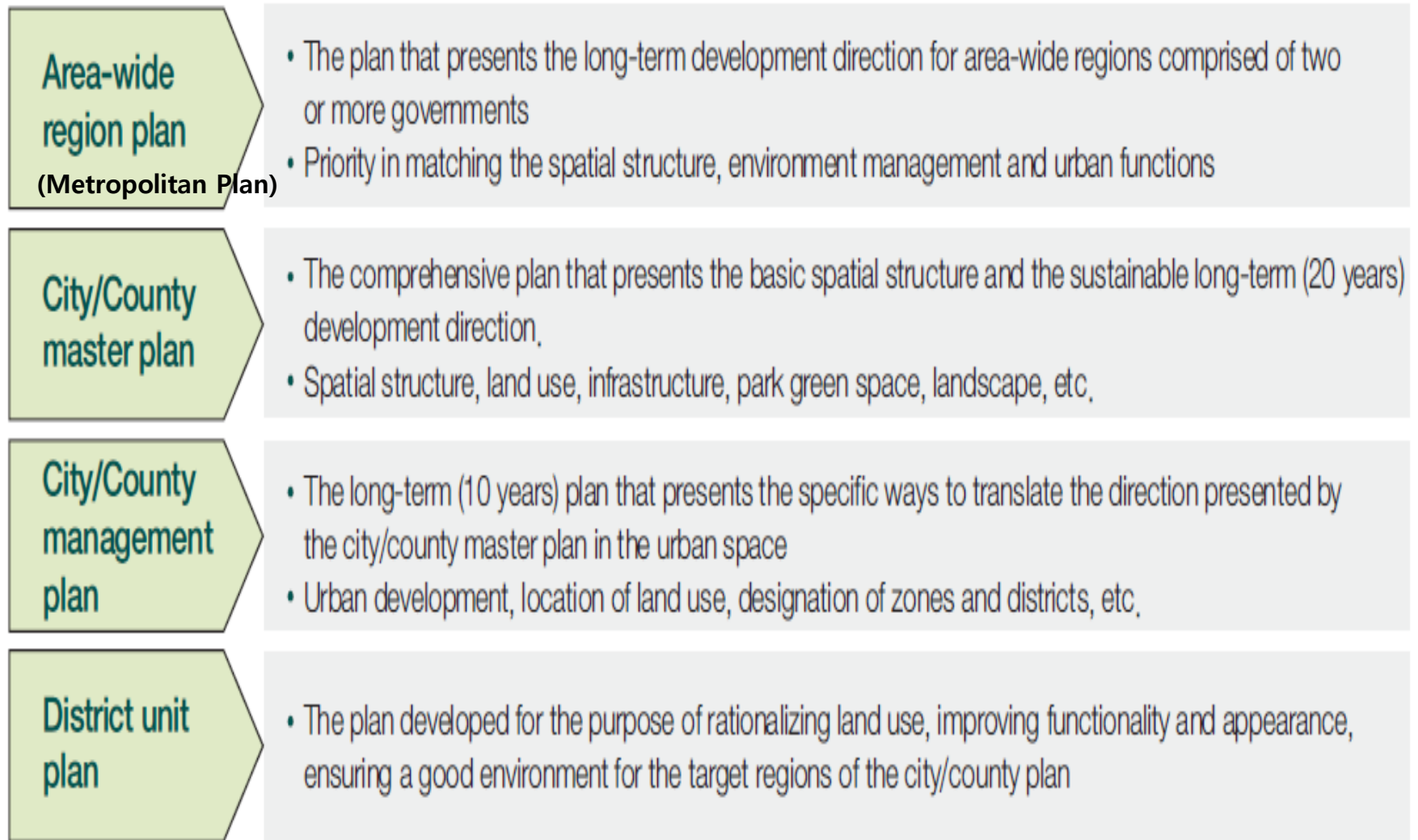


2.2 Legal Framework : Other than CNTP and City Planning



■ Legal framework of spatial planning was generally re-settled in the 2000s

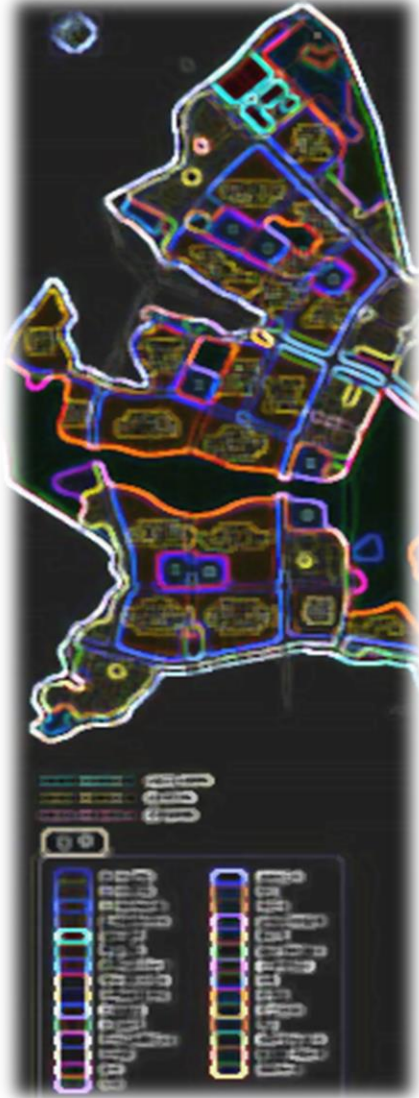
2.3 Summary of Sub-level Spatial Plans





- TL4 : non-municipal entities
 - “Eup”, “Myon” or “Dong”
(under Cities, Counties or Districts)

Chapter 3



- I. Territorial Planning Context
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3.1 Land Use Planning in Metropolitan and Si/Gun MP

■ Metropolitan Plan (MOLIT Instruction No. 1344)

- Land use planning is formulated in accordance with pattern of urban growth, development axis, transportation axis, preservation axis, population forecast, etc.
- Classification of land use: Urbanized Land / To be Urbanized Land / Preservation Land
- On the land use map, those areas are expressed only conceptually
- "To be Urbanized Land" is calculated by development density, population dynamics, economic status, affecting national policy and project, etc.
- If necessary, metropolitan land use plan can suggest a maximum land area for each land use

■ Si/Gun Master Plan (MOLIT Instruction No. 1133)

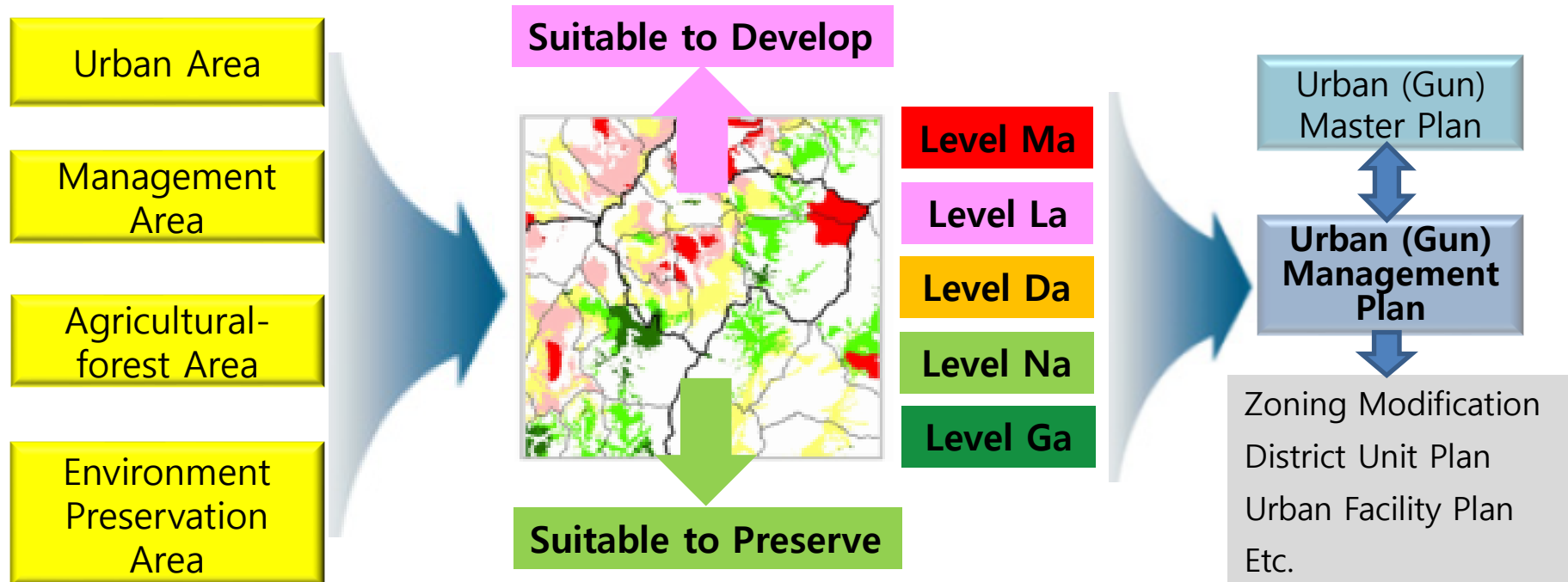
- Land use planning is formulated through analysis of land use status, and application of **land use suitability** results
- Classification of land use forecast: Urbanized Area / Possible Urbanized Area / Urbanization Control Area / Urbanization Prohibition Area
- Forecasting future land demand by land use (residential, commercial, industrial): based on future population, development density, characteristics of city, higher level industrial policy, etc.

3.2 Guidelines of Land Suitability Assessment

■ ENFORCEMENT DECREE OF THE NATIONAL LAND PLANNING AND UTILIZATION ACT, Article 16-2

- A Mayor/Do Governor or the head of a Si/Gun conducts an assessment of land suitability within five years from the date he/she has formulated an urban or Gun master plan.

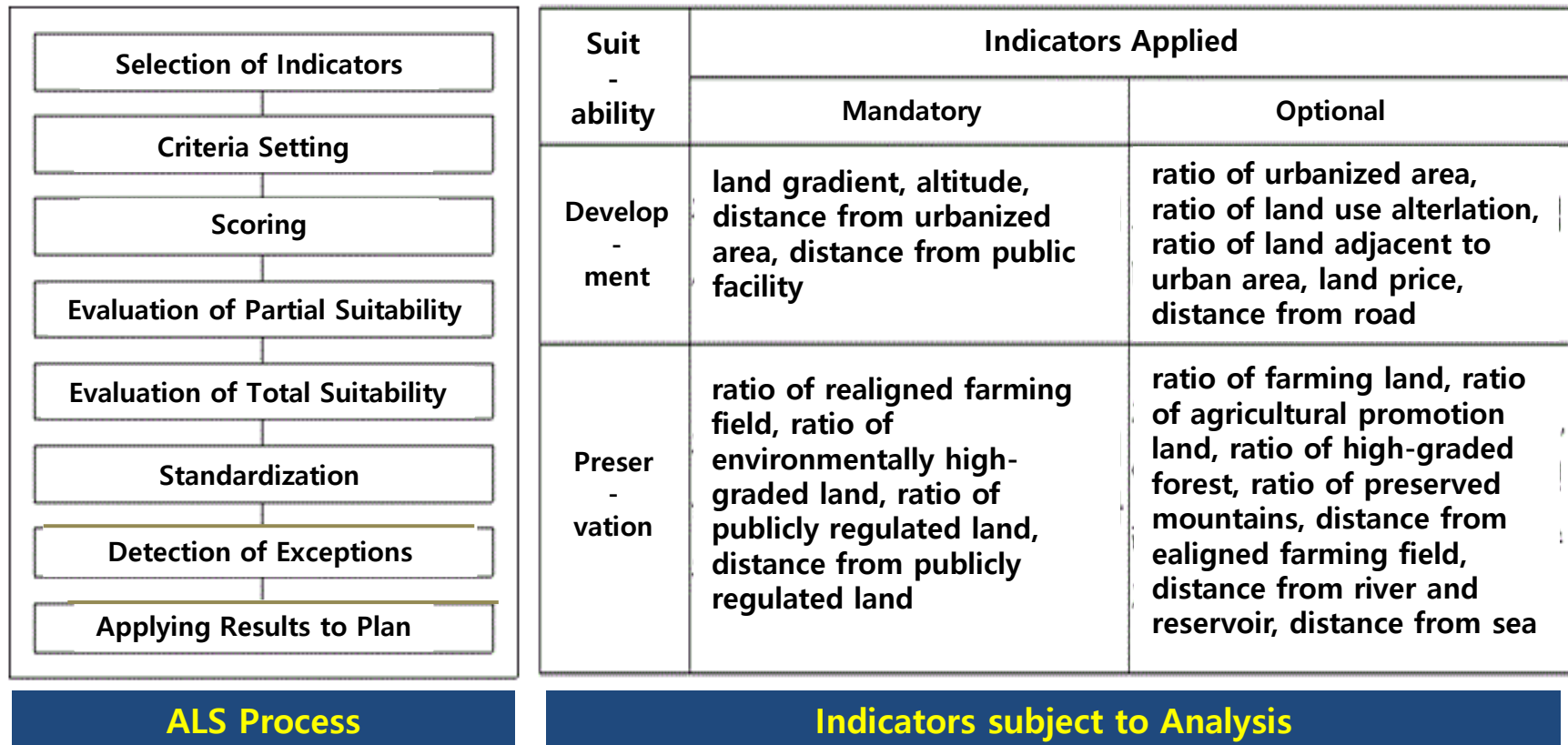
Assessment of Land Suitability



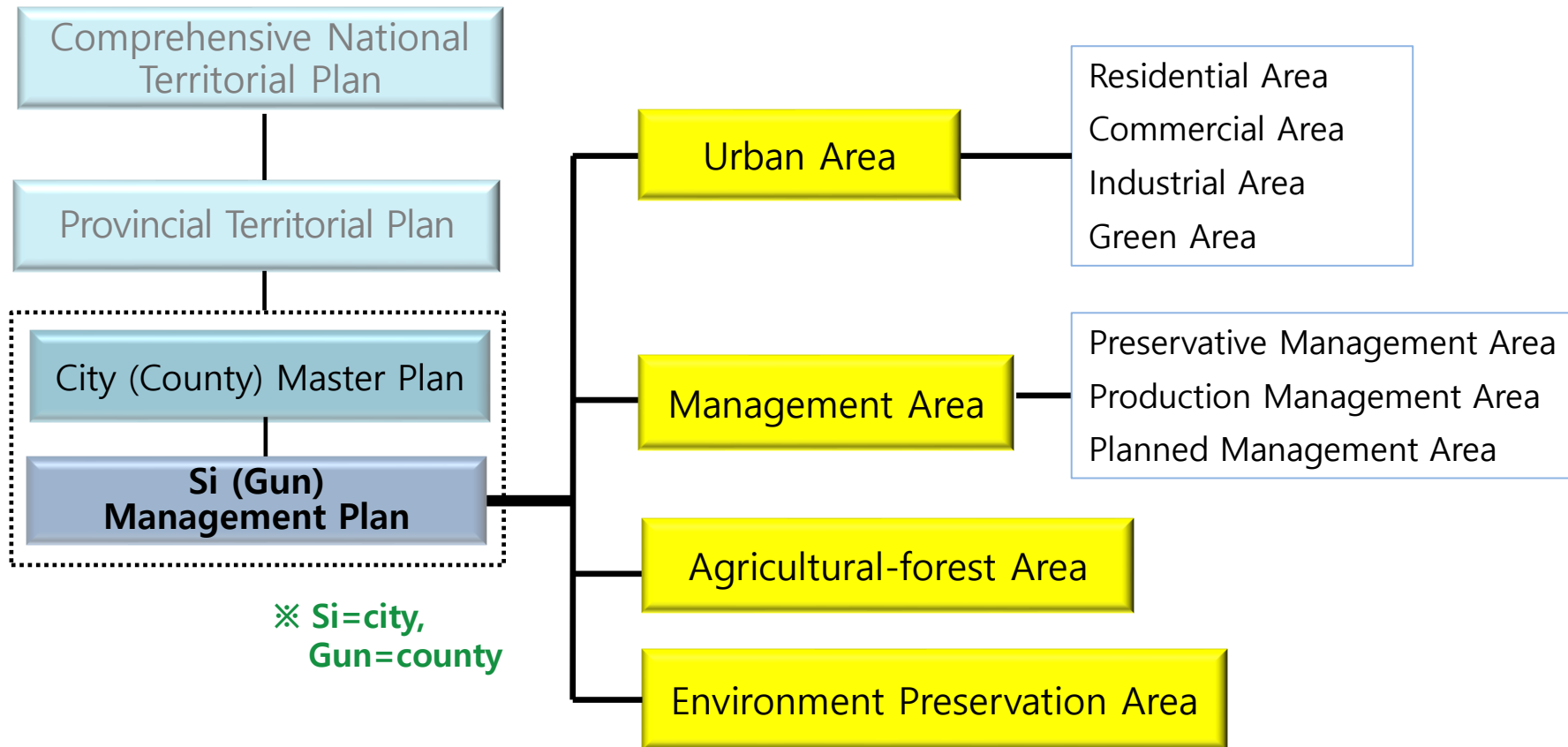
3.3 Assessment of Land Suitability (ALS)

■ MOLIT directs process and methods of land suitability assessment (MOLIT Instruction No. 1465)

- ALS shall be conducted at the level of land lot (if necessary, "100m x 100m) grid" unit can be applied)



3.4 Land Use Types in Master/Management Plan



※ Land is classified by 4 "Use Area" – ① Urban (4 sub-categories), ② Management (3 sub-categories), ③ Agricultural-forest, ④ Environment preservation

※ Areas are designated at the level of Si/Gun (City/County) Management Plan, according to the guidelines and/or directions of higher Plans

3.5 Regulation for Implementation : Zoning Ordinance

- In order to implement rational (utilization-fitting) land use plan, zoning ordinance is generally applied
 - The representative and most significant scheme is given by **NATIONAL LAND PLANNING AND UTILIZATION ACT**



※ Land is classified by 4 “Use Area” – ① Urban (4 sub-categories), ② Management (3 sub-categories), ③ Agricultural-forest, ④ Environment preservation

※ Areas are designated at the level of Urban (Gun) Management Plan, according to the guidelines and/or directions of higher Plans

Chapter 4



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II. Spatial Planning System

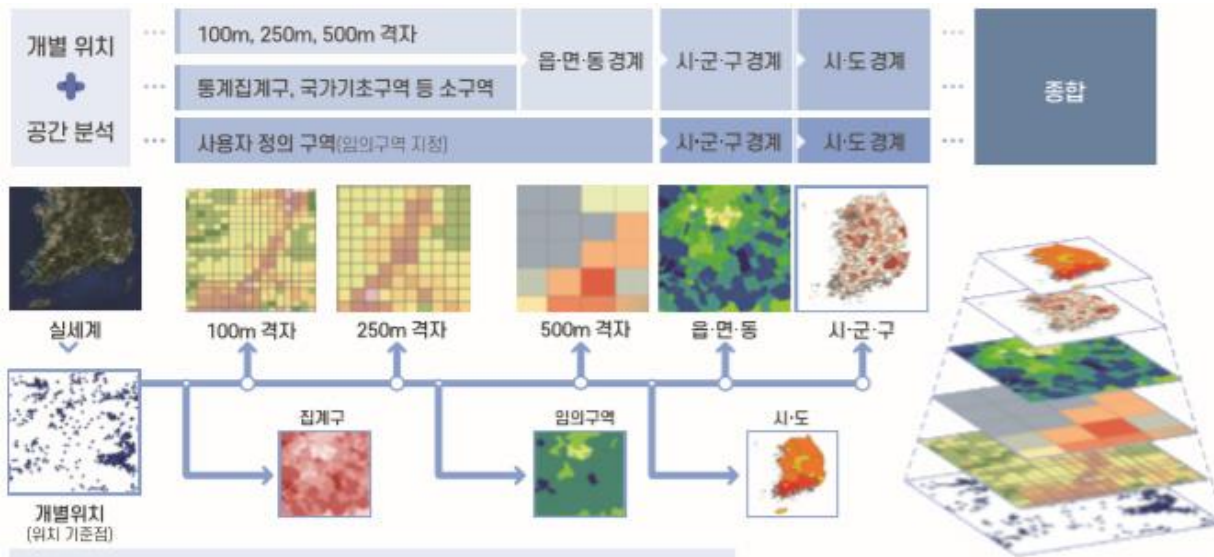
III. Land Use Planning Scheme

IV. Survey and Information System

V. Further Questions

4.1 Digitized Map and Land Image DB

- National Land Survey and reporting have been conducted by “Framework Act”
- Digitized map of national land has been completed in the early 2000s, and constantly being updated by National Geographic Information Institute (NGII)
- Land Image DB (including aerial photograph, ortho-image, and digitized altitude) was completed in 2010
 - Land Image DB is updated annually since 2021

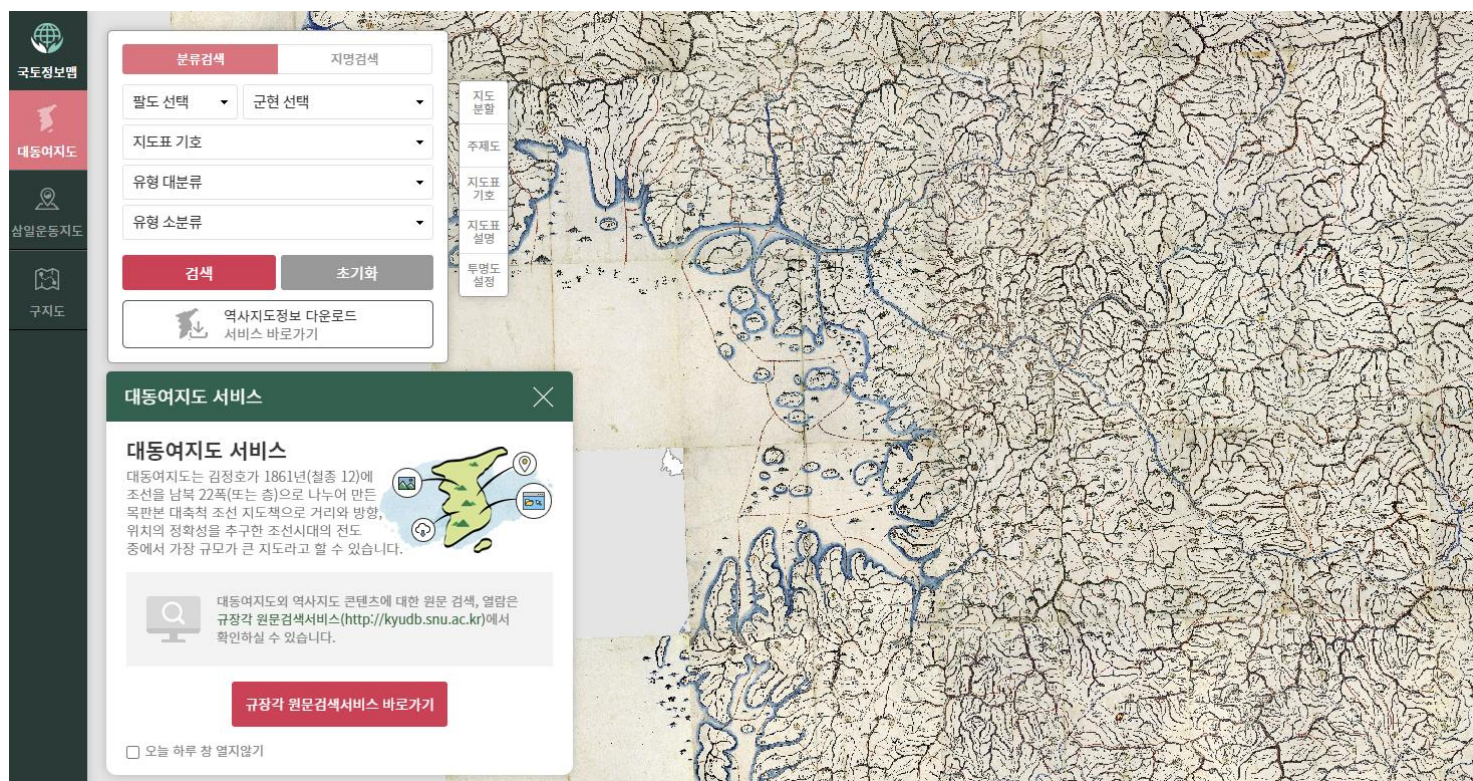


Grid based and administrative boundary based maps are being combined in recent years

4.2 Information Services Supporting Land Use Planning (1)

■ National Land Information Platform (MOLIT and NGII, <http://gnss.ngii.go.kr> or <http://map.ngii.go.kr>)

- Services include digitized map, aerial photograph, historical map, satellite image, emergency geographical information, open API, national land survey report and much more



4.2 Information Services Supporting Land Use Planning (2)

■ Environmental Assessment Map of National Land (Ministry of Environment, <https://ecvam.neins.go.kr>)

- Services include digitized map, land regulation information, environmental grade, land information in previous years, open API, and much more



- Too often, a land lot can be designated as multiple kinds of zones overlapped
- The service enabled ordinary citizens as well as public officials to find and use land use regulation information
- Mobile App service has come to be available since 2011, and the service has extended to urban planning information, public notice and GIS-based map service

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Chapter 5



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5.0 Further Questions

- Geographical data and information, related service platform, analytical tools and techniques are fairly OK. Yet, further challenges can be raised as follows.
 1. Coordination among land demand, allocation of land by usage and location decisions
 2. Land use plan is not just a fitting land to the present and future spatial demands, but a social guide for future betterment and sustainability. Thus, a social consensus on desirable land use should be founded.
 3. Too often, land use plan, regulation and administration could facilitate and deepen bi-polarization and socio-regional disparity. Can a good land use planning help?

