Experiences of Urbanization and Urban Policy Issues of Korea

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I. Economic Growth & Urbanization

II. Evolution of Urban Policies

III. Major Urban Development Projects

IV. New Directions of Urban Policy in Korea
Economic Growth & Urbanization
Geography of Korea
Economic Growth Trend of Korea (1945-2010)

Per Capita (US$) GNI

Liberation from Japanese Colonial Rule


G20 Member

OECD Member (1996)

Financial Crisis

7 Five-Year-Economic-Development Plans

1,000 (1977)

87 100 (1964)

11,432

16,291

7,355

20,759

4 Ten-Year-Comprehensive National Territorial Plans

Source: KDI 2005 Updated
Changes in Socio-economic Structure (1960-2010)

<table>
<thead>
<tr>
<th></th>
<th>1960 (A)</th>
<th>1980</th>
<th>2010 (B)</th>
<th>Ratio (B/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area (km²)</strong></td>
<td>98,431</td>
<td>98,992</td>
<td>100,214</td>
<td>1.02</td>
</tr>
<tr>
<td><strong>Population (thousand persons)</strong></td>
<td>24,989</td>
<td>37,436</td>
<td>48,875</td>
<td>1.9</td>
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<tr>
<td><strong>Per Capita Income ($)</strong></td>
<td>79</td>
<td>1,598</td>
<td>20,759</td>
<td>263</td>
</tr>
<tr>
<td><strong>Export (100 million $)</strong></td>
<td>0.3</td>
<td>175</td>
<td>4,664</td>
<td>4220</td>
</tr>
<tr>
<td><strong>Urbanization Ratio (%)</strong></td>
<td>35.9</td>
<td>66.3</td>
<td>90.9</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Industrial Estates (km²)</strong></td>
<td>0.0</td>
<td>205</td>
<td>1,336</td>
<td>1,336</td>
</tr>
<tr>
<td><strong>Housing Supply Ratio (%)</strong></td>
<td>79.5</td>
<td>71.2</td>
<td>101.9</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Road Length (thousand km)</strong></td>
<td>27.2</td>
<td>47.0</td>
<td>105.5</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Source: Korea National Statistical Office
Beginning of Urbanization (before 1960)

- Liberation, Korean War, and Modernization (Japanese colonial rule-1960)
  - Ports (Incheon, Busan, Mokpo) were forced to be opened and began to be urbanized
  - Cities (Seoul, Daejeon, Daegu, Busan, Pyongyang, and Sinuiju) located on the major railway routes had the pressure of urbanization
  - Reconstruction from destruction by the war
  - Urbanization rate of 1960 reached to 36.8%
Rapid Growth and Stabilization (after 1960)

- Rapid Urbanization (1960 - 1990)
  - Urbanization progressed sharply after 1960: the urbanization rate difference between 1960 and 1990 is about 40%
  - Population concentration in Seoul Metropolitan Area: 36.8% in 1960 to 42.8% in 1990

- Stabilization in Urbanization (1990 - present)
  - Rural population decrease and population growth decline
  - Urbanization rate converge in 90.9% at 2010
Spatial Planning System in Korea

- Comprehensive National Territorial Planning
  - Highest-level National Planning for National Land
  - Long-term Development Planning for Areas Under the Jurisdiction of Provinces
- Comprehensive Province Planning
  - Long-term Development Planning for Metropolitan Areas
- Metropolitan Planning
- Basic Urban (Provincial) Planning
  - Comprehensive Long-term Development Planning for Cities
- Urban (Provincial) Management Planning
  - Action Plan for Basic Urban Plan
Main Strategies of Spatial Planning

6 Five-Year Economic Development Plans (1962 to 1997)

Spatial Plans of Korea
- 4 Comprehensive National Territorial Plans (1972 to 2020)
- Urban Master Plans for Local Governments
- New Town and Industrial Development Plans
- Urban Redevelopment and Housing Improvement Plans

Main Strategies of Spatial Planning
- Support economic growth with basic infrastructure
- Co-plan economic growth and territorial and urban development
- Pursue synergy of economy, environment, and balance
Evolution of Urban Policies
Lead Economic Growth (1960s-1970s)

- **Industrialization strongly led by government** (annual economic growth rate of 9%)

- **Urban policy supports the economic development**
  - Construction of large-scale heavy industry districts: Ulsan, Kumi, Pohang, Barnewall, Changwon
  - Construction of new towns: Hwagok and Yeoido in Seoul
  - Open Seoul-Busan highway (1971)

- **Need urban planning system to manage the excessive urban development demand**
  - Greenbelts to prevent urban sprawl (1971)

- **Lack of infrastructure, housing, and transportation and unplanned urban sprawl**
Massive Housing Supply Era (1980s)

- **Keep high annual growth rate of 8%**
  - Rate of increase in population in the city was slowed down, but, still kept high growth rate

- **Demand the proactive policy for balanced national development**
  - Establishment of Renewal Development Act responding to excessive concentration in the Seoul Metropolitan Area (SMA)

- **Real estate price soar due to housing shortage and the concerns about urban environment increase** -> 5 new towns in near Seoul
  - **Pros** for the new town plan: stabilization on housing price by huge housing provision
  - **Cons** for the new town plan: accelerate population concentration in the SMA and promote speculation in real estate
Forward Balanced Development (1990s)

- **Slowdown of growth rate in urban population**
  - Decline rural population, slow down urban population growth, and become aging society

- **Shortage of land accepting urban development demand in the SMA and some big cities**
  - Introduce *deregulation policy* in semi-agricultural land of non-urban area to supply houses and industrial plants

- **New large-scale new town development became nationwide trend**
  - Adopt *massive development methods* and techniques in the outskirts of cities

- **After Asian financial crisis, the advent of Neo-Liberalism in the society**
  - Respect market-oriented economy, deregulation, competition, liberalization, and decentralization
  - Local governments struggle to be a competitive city
  - Begin the Autonomous Local Government System in Korea (1996)
Sustainable Development Era (after 2000)

- **No-development-without-plan policy for avoiding unplanned developments**
  - Unification of Urban Planning Act and Act on the Utilization and Management of the National Territory -> National Land Planning and Utilization Act

- **Emerge low carbon, green, and ubiquitous city concept**
  - 2nd phase new towns projects further away from 1st phase 5 new towns: Pangyo, Dongtan, Paju, Gimpo

- **Spatial policy of balance, dispersion, and decentralization**
  - Relocating central government: Multifunctional Administrative City
  - Relocating public agencies, industry, research, administration cluster: Innovative Cities
  - Private company initiated development: Company Cities
Major Urban Development Projects
# New Town Projects

## Chronological Review

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<td>Supporting Industrial Base</td>
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<tr>
<td>Solving Metropolitan Area Problems</td>
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<tr>
<td>- Relocating Administrative function of Seoul</td>
<td></td>
<td>Pohang(1968)</td>
<td>Changwon(1977)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- Relocating CBD function of Seoul and Housing Supply</td>
<td></td>
<td></td>
<td>Yeochon(1977)</td>
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<tr>
<td>- Massive Housing Supply and Redistributing Population</td>
<td></td>
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<tr>
<td>Achieving Special Purposes</td>
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<tr>
<td>- Science Park / Technopolis</td>
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<tr>
<td>- Multifunctional Administrative City</td>
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<tr>
<td>- Innovative City</td>
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<tr>
<td>- Company City</td>
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</tbody>
</table>

- Ulsan(1962)  
Pohang(1968)  
Gumi(1973)  
Changwon(1977)  
Yeochon(1977)  
Gwangyang(1982)  
Banwol/Ansan(1977)  
Gwacheon(1979)  
Yongdong(1967)  
Yoido(1967)  
Jamsil(1971)  
Mokdong(1983)  
Sanggye(1986)  
5 New Towns in SMA  
2nd New Towns in SMA  
Daeduk(1974)  
Sejong city  
Jeonbuk etc(10)  
Haenam etc(6)
## Comparison of 1st and 2nd Phase New Towns

<table>
<thead>
<tr>
<th></th>
<th>1st Phase 5 New Towns</th>
<th>2nd Phase 10 New Towns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period</strong></td>
<td>1989~1995</td>
<td>2001~2012</td>
</tr>
<tr>
<td><strong>New Towns</strong></td>
<td>Bundang / Ilsan / Pyonchon/Sanbon / Jungdong</td>
<td>Pangyo / Dongtan / Paju / Gimpo</td>
</tr>
<tr>
<td><strong>Area (ha)</strong></td>
<td>4,925</td>
<td>12,593</td>
</tr>
<tr>
<td><strong>Pop.</strong></td>
<td>1,170,000</td>
<td>1,530,000</td>
</tr>
<tr>
<td><strong>Average density</strong></td>
<td>240</td>
<td>121</td>
</tr>
<tr>
<td><strong>Housing supply</strong></td>
<td>Housing supply, Stabilizing housing price</td>
<td>Various themes for each new town</td>
</tr>
<tr>
<td></td>
<td></td>
<td>venture / ecological / mass-transit orient</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ed / environmentally friend</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>Vehicle oriented, Roads, Railways Connection to Seoul</td>
<td>Mass-transit oriented New system connected with vicinity area</td>
</tr>
<tr>
<td><strong>Open space ratio</strong></td>
<td>12.5~25%</td>
<td>25~35%</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>Bed-town</td>
<td>Self-sufficiency</td>
</tr>
</tbody>
</table>

### Characteristics of New Towns

- **1st Phase**: Provided with sufficient housing to stabilize housing prices.
- **2nd Phase**: Focuses on sustainable themes including ecological and mass-transit oriented development.

### Transportation

- **1st Phase**: Features a road network centered around vehicle-oriented transport.
- **2nd Phase**: Emphasizes mass-transit connectivity to Seoul and other areas.

### Area and Population

- **1st Phase**: Average density (persons/ha) 240.
- **2nd Phase**: Average density (persons/ha) 121.

### Comparison of Key New Town Projects

<table>
<thead>
<tr>
<th>New Town</th>
<th>Area (ha)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bundang</td>
<td>903</td>
<td>41,000</td>
</tr>
<tr>
<td>Dongtan</td>
<td>903.6</td>
<td>41,000</td>
</tr>
<tr>
<td>Dongtan</td>
<td>1,746</td>
<td>63,000</td>
</tr>
<tr>
<td>Dongtan</td>
<td>2,180</td>
<td>105,000</td>
</tr>
</tbody>
</table>
New Town Projects

**Bundang (1st Phase)**

<Before>  <After>
New Town Projects

Pangyo (2nd phase)

Regional Transportation System

– New expressway
  (Seoul-Yongin)
– Sinrim-Dongbaek road (plan)
– New Bundang metro express
  (Gangnam-Yongin)
New Town Projects

Transportation Network Based on TOD

- Transit convenient network
- Bike & pedestrian connecting public transportation
Ecological network including green-belt, water system and biota

- Green-belt network focused on conservation
- Connecting multi-regions green network and parks and green-belt within district
Multifunctional Administrative City (Sejong city)

- Relocating central government under the concept of balance, dispersion, and decentralization

- Move 9 ministries (of 15), 2 major government agencies, 2 administrations (Prime Minister’s Office began to move to this Sejong city on the last Friday)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Central administration</th>
<th>International cultural exchange</th>
<th>Municipal administration</th>
<th>University and research center</th>
<th>Health and welfare</th>
<th>Hi-tech and information zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional accessibility</td>
<td>Regional accessibility</td>
<td>Connection with central</td>
<td>Accessibility to citizens</td>
<td>Link to Dae-deok research</td>
<td>Link to O-song</td>
<td>Use of existing industrial</td>
</tr>
<tr>
<td>Symbolic significance</td>
<td>Symbolic significance</td>
<td>administrative uses and</td>
<td>Balanced development</td>
<td>park</td>
<td>Bio-technology</td>
<td>complex</td>
</tr>
<tr>
<td></td>
<td></td>
<td>waterfront</td>
<td></td>
<td></td>
<td>park</td>
<td></td>
</tr>
</tbody>
</table>

Accessibility to citizens/
Balanced development

Connection with central administrative uses and waterfront

Use of existing industrial complex
10 Innovative Cities

- Relocate 116 public agencies
- Industry, research, administration cluster: new growth engines
- Private company initiated development

- Multifunctionality
  - Industry, Residential, Educational, Cultural

- Self-sustainability
  - Appropriate size and scale, Job-House balancing

- Company-initiated
  - Private sector as main developer

- Company City

- Teaan (Tour & Leisure type)
- Muju (Tour & Leisure type)
- Muan (Industry & Trade type)
- Haenam & Youngam (Tour & Leisure type)
- Wonju [Knowledge based type]
- Chungju [Knowledge based type]
Livable City Project

- Large, Standard
- One-time Event
- One-sided

- Small, Customized
- Continuous
- Cooperative
Livable City Project

Historical and Cultural Belt: Daegu City

- A Livable City Project Test-bed financially supported by central government
- Citizen participation programs
- Improve street environment
- Design of public space
- Festival of traditional events
- Co-work of citizen, professionals, NGO, and officials
Cheonggye-cheon had been covered with concrete for roads for more than 40 years

- The project, initiated by current president Lee Myung-bak in 2003, then Seoul mayor, was completed in 2005 (5.84km)
- Elevated highway that passed over the stream was demolished

- Revive the downtown area with plenty of recreation space along the stream’s banks
- Contribute to the paradigm shift from functionalism to TOD and human urbanism nationwide
- Mayor’s leadership
Cheonggye-cheon(stream) Restoration, Seoul

1961

1969

June 2003

July 2010

Oct. 1, 2005
IV New Directions of Urban Policy in Korea
Major Urban Problems

- **Lack of land control tools in both old city and non-urban area**
  - Deterioration of old downtowns due to new large-scale towns’ forcing the population and major urban functions of old towns to outflow to new towns
  - Unplanned development in non-urban area became still intensified after the Unification of planning acts
  - Disharmony with the landscape and shortage of infrastructure due to unplanned positioning of industrial plants and warehouse etc.

- **Absence of uniqueness in urban landscape**
  - Monotonous residential environment due to high-density apartments
  - Destruction of natural landscape and disregard of historical characteristics

- **Lack of recreational, cultural and tourist resources**
  - Scarcity of recreational and cultural space for residents’ demand for entertainment
Limitations of the Past Urban Policies

- **Mass supply and uniform urban environment**
  - Mass supply policy is not useful to address rapid changes, aging population, and low birthrate any more
  - Need to switch to diverse and small-quantity urban environment for responding to a slow growth in population and economy

- **Supply system for the private sector**
  - In order to respond to low birthrate and aging population, the support for education, society, culture, business, and information are important
Limitations of the Past Urban Policies

- Absence of a management policy addressing urban sprawl
  - Urban development providing new housing to the outskirts failed to improve the existing city’s environment and function
  - Absence of policies focusing on small-scale urban development caused unplanned development such as small-scale co-housing, factories, and warehouses
  - Comprehensive plans, Extensive-Area Urban Plan and Urban Master Plan, focused on new large-scale development, neglecting demand for small-scale development
Major Changes of Circumstances

- Decline in population and become an aging society

  - According to a projected figure, after 49 million people in 2018 as a peak, population will gradually decrease.

  - The proportion of elderly people is expected to grow from 9.2% in 2005 to 15.6% in 2020, and Korea is rapidly transitioning into an sharply aging society.
Major Changes of Circumstances

- **Increase in income**
  - The national income per capita of Korea is $20,759 in 2010, and Korea’s GDP of $1,015 billion was ranked 14th in the world.
  - Due to increase of income level, there will be a lot of demand on high-quality living environment, a pleasant natural environment, and high quality of life.

- **Climate changes and increased international interest in energy conservation**
  - Green house gas emission will increase 70% from 2000 to 2020.
  - Increase interests in alternative energy and a resource-efficient urban system due to high oil price, the risk of nuclear energy, and global warming.

New Directions of Urban Policy

Past Urban Policies

- New large scale standardized development
- System responding to individual impromptu demand
- Massive physical development for the private sector
- One-sided system by the federal government

Directions for New Urban Policy

- Urban renewal development for small scale demand
- Growth management system considering right time and location
- Comprehensive improvement of living environment
- Customized spatial system mainly for local government and resident
Thank you very much