Integrated Regional Development Planning and Management

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Integrated Regional Development

Improvement of Living Standard

Regional Development = improve living standard
- prevent big disparities among and within regions
- preserve and utilize local resources
- integrate urban and rural
- integrate the rich and the poor

Sustainability
Satisfaction with Life
Comfortable Life
Economic Stability
Health, Education, Culture
Safety and Security
Disaster Management

Environmental Management
Human Security

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UNCRD, Nagoya, Japan
21 May 2012
Planning and Managing

Upward Spiral

PDCA cycle
⇒ P: plan
⇒ D: do
⇒ C: check
⇒ A: act

All stakeholders’ involvement

Structure of the Integrated Regional Plan

Comprehensive/basic regional plan: 10 years
- Background of the plan
- Trends of the times: issues and challenges
- Climate and characteristics of the region
- Regional vision
- Basic approach to the plan
- Basic indexes of the plan
- Regional design in the future
- Strategies for regional development
- Goal setting
- Time frame
- Indexes for monitoring and evaluation
- Administration system
- ↓↓
Implementation plan: over a 3-year period
- Management of the progress of the basic regional plan (PDCA cycle)
- ↓↓
Annual fiscal budget

Individual plans (sectoral plans)
- Health and welfare plan
- Housing plan
- Environment plan
- Infrastructure (road, water, drainage, sewage)
- Economy
- Disaster management
- Land-use plan
- Education and culture
Modernization of Japan

Meiji Restoration (1868)
- Abolition of feudalism → modernization
- Agriculture-based economy → industrialization

Slogans “Enrich the country and strengthen the military” and “Increase production and promote industry”
- Attempts to emulate the West by introducing modern industrial technologies

Government-initiated industrialization
- Development of private enterprises → establishment of 4 major industrial zones, heavy and chemical industrialization, development of the industrial base, infrastructure

The end of WWII (1945) → post-war devastation → reconstruction to pre-war level

- Priority production system (coal, iron and steel, electricity, and fertilizer) → trickle-down effect to other industries
- Comprehensive National Land Development Law in 1950
- Comprehensive development plan for special areas 1950~(22 major water systems) → increase in food production, development of electric power resources, management of forests and riparian areas, development of unused resources → dependency on foreign capital and technologies → absorption of technologies

Income Doubling Plan (1960)
(The Pacific Belt Zone Plan)
**Objectives:**

Comprehensive use of national land, development, conservation, appropriate industrial location, improvement of social welfare

Regionally balanced development + economic development

New industrial cities and special areas for industrial consolidation

Shinkansen network and expressway network (New Comprehensive National Development Plan)

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### Development Strategy

<table>
<thead>
<tr>
<th>Approved year</th>
<th>Target year</th>
<th>Basic objective</th>
<th>Development strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>1962</td>
<td>1970</td>
<td>Regionally balanced development</td>
</tr>
<tr>
<td>2nd</td>
<td>1969</td>
<td>1985</td>
<td>Improvement of environment</td>
</tr>
<tr>
<td>3rd</td>
<td>1977</td>
<td>1985</td>
<td>Comprehensive improvement of human living environment</td>
</tr>
<tr>
<td>5th</td>
<td>1998</td>
<td>2010 - 2015</td>
<td>Creation of multi-axial national land structure</td>
</tr>
</tbody>
</table>
**Development Planning Hierarchy**

- National Land Use Plan (National plan)
- Comprehensive Development Plan
  - Plan of metropolitan area
  - Plan of city, town, and village
  - Various plans based on individual regulations
  - City plan, agriculture promotion, district development plan, forest plan, plan of national park, etc.
- Prefectural Comprehensive Plan (Prefectural Government)
- Municipal Comprehensive Plan (Municipal Government)

**Economic Plan**
- Basic plan of public investment
- Long-term plan of public enterprise
- Housing, drainage, waste disposal facility, city park
- Specific traffic safety facility, harbor, airport
- Coast, mountain control, water control, road
- Fishing port, improvement of land, coastal fishery, steep land, forest

**Relationship among Development Plans**

- Balanced regional development with economic growth policy, strong coordination among different institutions and levels of government

- Comprehensive National Development Plan (National Government)
- Regional Development Plan (National Government)
- Prefectural Comprehensive Plan (Prefectural Government)
- Municipal Comprehensive Plan (Municipal Government)

- Economic Plan (National Government)
- Sectorial Plan (National Government)
- Plan for housing, health, environment, industry, regional vitalization, etc.
- Plans for welfare, health, environment, industry, city, rural vitalization, etc.
### Comprehensive Plan

<table>
<thead>
<tr>
<th>Level</th>
<th>Name of Plan</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Level</td>
<td>Comprehensive National Development Plan (ZENSO)</td>
<td>1. 1962-1970</td>
</tr>
<tr>
<td></td>
<td>(Comprehensive National Development Law)</td>
<td>2. 1969-1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. 1977-1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. 1987-2000</td>
</tr>
<tr>
<td>Regional Level</td>
<td>Chubu Region Development and Improvement Plan</td>
<td>1. 1968-1985</td>
</tr>
<tr>
<td></td>
<td>(Chubu Region Development and Improvement Law)</td>
<td>2. 1978-1988</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. 2000-2015</td>
</tr>
<tr>
<td>Municipal Level</td>
<td>Nagoya City Plan</td>
<td>1. 1958-1965</td>
</tr>
<tr>
<td></td>
<td>Nagoya City Basic Concept Plan</td>
<td>2. 1961-1970</td>
</tr>
<tr>
<td></td>
<td>(Local Autonomy Law)</td>
<td>3. 1970-1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. 1976-1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. 1982-1990</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. 1998-2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8. 2006-2015</td>
</tr>
</tbody>
</table>

### Results

- High economic growth / stable growth, increase in GDP
- Accompanied by many problems
- Rural-to-urban migration → occurrence of overpopulation and depopulation problems
- Disintegration of communities

### Economic Growth Rate of Japan (1956-2004)

- High Economic Growth
- Stable Economic Growth
- Bubble Economy
- Oil Crisis
- Stagnation
Income distribution

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Gini Coefficient

<table>
<thead>
<tr>
<th>Bracket</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>~10%</td>
<td>Existence of artificial background for achieving equal distribution</td>
</tr>
<tr>
<td>10~20</td>
<td>Fairly equal distribution with a concern to discourage people’s motivation for improvement</td>
</tr>
<tr>
<td>20~30</td>
<td>Common and usual distribution</td>
</tr>
<tr>
<td>30~40</td>
<td>Some disparity, but with positive aspects for improvement through competition</td>
</tr>
<tr>
<td>40~50</td>
<td>Serious disparity</td>
</tr>
<tr>
<td>50~</td>
<td>Corrective actions required if no particular justification exists</td>
</tr>
</tbody>
</table>
### Income Disparities among Prefectures

<table>
<thead>
<tr>
<th>Selected prefectures</th>
<th>Region to which the prefecture belongs</th>
<th>1970</th>
<th>1990</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hokkaido</td>
<td>Hokkaido</td>
<td>¥0.473</td>
<td>¥2.409</td>
<td>¥2.545</td>
</tr>
<tr>
<td>Yamagata</td>
<td>Tohoku</td>
<td>¥0.416</td>
<td>¥2.321</td>
<td>¥2.377</td>
</tr>
<tr>
<td>Ishikawa</td>
<td>Hokuriku</td>
<td>¥0.518</td>
<td>¥2.686</td>
<td>¥2.853</td>
</tr>
<tr>
<td>Tochigi</td>
<td>NCR (1)</td>
<td>¥0.489</td>
<td>¥2.841</td>
<td>¥3.054</td>
</tr>
<tr>
<td>Pacific Metropolitan</td>
<td>Tokyo (2)</td>
<td>¥0.872</td>
<td>¥4.139</td>
<td>¥4.267</td>
</tr>
<tr>
<td>Metropolitan Belt Zone</td>
<td>Aichi</td>
<td>¥0.685</td>
<td>¥3.318</td>
<td>¥3.403</td>
</tr>
<tr>
<td></td>
<td>Chubu</td>
<td>¥0.757</td>
<td>¥3.596</td>
<td>¥3.042</td>
</tr>
<tr>
<td></td>
<td>Kinki</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Okayama</td>
<td>Chugoku</td>
<td>¥0.558</td>
<td>¥2.759</td>
<td>¥2.629</td>
</tr>
<tr>
<td>Tottori</td>
<td>Chugoku</td>
<td>¥0.370</td>
<td>¥2.473</td>
<td>¥2.438</td>
</tr>
<tr>
<td>Kochi</td>
<td>Shikoku</td>
<td>¥0.472</td>
<td>¥2.116</td>
<td>¥2.238</td>
</tr>
<tr>
<td>Oita</td>
<td>Kyushu</td>
<td>¥0.309</td>
<td>¥2.375</td>
<td>¥2.647</td>
</tr>
<tr>
<td>Okinawa (3)</td>
<td>Okinawa</td>
<td>–</td>
<td>–</td>
<td>¥1.892</td>
</tr>
</tbody>
</table>

Notes:
1. NCR: National Capital Region
2. Prefecture with the highest per capita income
3. Prefecture with the lowest per capita income
4. Index: Tokyo=100.0

### Population Concentration

**Tokyo area:** Tokyo, Kanagawa, Saitama, Chiba  
**Osaka area:** Osaka, Hyogo, Kyoto, Nara  
**Nagoya area:** Aichi, Gifu, Mie

*Overpopulated regions and depopulated regions → urban and rural issues → introducing industries to rural areas while restricting industries in metropolises*
Results

- Pollution and environmental destruction
- Collapse of indigenous industries
- Bias of tax revenue
- Increase in local government expenditure
- Regional gap caused by structural recession
- Competitive race in globalization

Pollution incidents

Environmental Problem

- Industrial pollution (1955-1975)
  - Anti-pollution measures;
    - Law suit, citizens, movement, municipalities’ movement,
    - Anti-pollution Acts (bottom-up system)

   Environmental standard, anti-pollution technology, PPP
### Outline of Four Major Pollution Lawsuits

<table>
<thead>
<tr>
<th>Case</th>
<th>Case of the Minamata disease (Nigata)</th>
<th>Case of the Yokkaichi asthma</th>
<th>Case of the itai-itai disease</th>
<th>Case of the Minamata disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of plaintiffs</td>
<td>77</td>
<td>12</td>
<td>31</td>
<td>138</td>
</tr>
<tr>
<td>Defendant</td>
<td>Showa Denko Co., Ltd. (Kanose Factory)</td>
<td>6 companies, including Showa Yokkaichi Sekiyu Co., Ltd. and Mitsubishi Yuka Kabushiki Kaisha</td>
<td>Mitsui Kinzoku Kogyo (Kamioka Mine)</td>
<td>Shin-nihon Chisso Co., Ltd. (Minamata Factory)</td>
</tr>
<tr>
<td>Compensation claimed</td>
<td>Approx. ¥530 million</td>
<td>Approx. ¥88 million</td>
<td>Approx. ¥706 million</td>
<td>Approx. ¥641.39 million</td>
</tr>
<tr>
<td>Outline of sentence</td>
<td>- Legal causation between the factory waste water and the disease</td>
<td>- Caution between the dust and the disease</td>
<td>- Proximate causation between the mine waste water and the disease</td>
<td>- Breach of duty by the defendant</td>
</tr>
<tr>
<td>- Breach of duty for safety by the defendant</td>
<td>- Conducted illegal action by the defendants</td>
<td>- Failure in selection of location</td>
<td>- Failure in performing duty</td>
<td>- Breach of duty by the defendant</td>
</tr>
<tr>
<td>Certified victims (deaths)</td>
<td>690 (339)</td>
<td>636 ( - )</td>
<td>183 (174)</td>
<td>2,265 (1,373)</td>
</tr>
</tbody>
</table>

### Current Environmental Issues

- **Pollution caused by citizens:** traffic pollution, domestic drain, noise
- **Waste problem caused by people’s lifestyle**
- **Complex sources of pollution, global environmental issues, dioxin problem, medicine and food pollution**
- **From anti-pollution measures to environmental measures (environmental management)**
- **Sustainable Production and Consumption**
- **Recycling-Oriented Society (3Rs)**
Damage caused by the Great Hanshin-Awaji Earthquake

Early morning, 17 January 1995
Major quake registering

Magnitude 7.3

Damage Caused by the Earthquake in Hyogo Prefecture (as of December 27, 2001)

Dead: 6,400
Missing: 3
Injured: 40,092
(10,494 seriously injured and 29,598 slightly injured)

Total damage to houses:
(completely / partially destroyed, completely / partially burnt)
448,928 households
248,412 buildings

Amount and Breakdown of Damage (Estimated as of April 5, 1996)

<table>
<thead>
<tr>
<th>Category</th>
<th>Damage Amount</th>
<th>(in ¥ billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>5,800</td>
<td></td>
</tr>
<tr>
<td>Railways</td>
<td>343.9</td>
<td></td>
</tr>
<tr>
<td>Expressways</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>Public works facilities</td>
<td>296.1</td>
<td></td>
</tr>
<tr>
<td>Harbor</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Reclaimed land</td>
<td>6.4</td>
<td></td>
</tr>
<tr>
<td>Facilities for education</td>
<td>335.2</td>
<td></td>
</tr>
<tr>
<td>Facilities for agriculture, forestry and fishery</td>
<td>119.1</td>
<td></td>
</tr>
<tr>
<td>Facilities for health, medicine, and welfare</td>
<td>173.3</td>
<td></td>
</tr>
<tr>
<td>Facilities for treating wastes and raw sewage</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>Facilities for drinking water</td>
<td>54.1</td>
<td></td>
</tr>
<tr>
<td>Gas and electricity</td>
<td>420</td>
<td></td>
</tr>
<tr>
<td>Facilities for communication and broadcasting</td>
<td>120.2</td>
<td></td>
</tr>
<tr>
<td>Facilities for commerce and industry</td>
<td>630</td>
<td></td>
</tr>
<tr>
<td>Other public facilities</td>
<td>75.1</td>
<td></td>
</tr>
</tbody>
</table>

Total: 9,926.8

(Phoenix Hyogo 2002)
- Improve social welfare supporting system
- Improve living environment (infrastructure)

- Pollution, health problem
- Living environment deterioration
- Distraction of the natural environment and traditional culture of the region
- Weakness in disaster
- Decline in rural vitality, strong dependency on government

**Economic Goal**

**Regional Development Planning (Exogenous Regional Development)**
- Prepare a good business environment for industries
- Reduce regional disparities by dispersing industries throughout the country, public investment and subsidies to rural areas
- Avoid overconcentration in big cities

**Countermeasures**

- Anti-pollution law
- Anti-pollution technical innovation
- Polluter-Pays Principle
- Nature Preservation Law
- Basic Environment Law
- Recycling oriented technology & society
- Building Standard Law
- Disaster Management Plan
- Depopulated Area Revitalization Law
- Intensive public works & special subsidy for rural areas
- Others
Summary

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Regional Development in Japan

- Endogenous Regional Development (EnRD):
  Process of development promoted by the initiative of local people with the use of local resources based on local culture, traditions, and skills (Towards achieving sustainable livelihood)
- Exogenous Regional Development (ExRD):
  Process of development promoted by governments utilizing outside resources with legal controls, technical innovation, etc. (Towards achieving rapid industrialization)
- Mixture of two approaches
• Since 1868 **Meiji Restoration**
  *(Shogun System \(\rightarrow\) Emperor system)*
  - Enrich the country and strengthen the military
  - Increase production and promote industry
  Four major industrial zones
  Development of the industrial base
  Agriculture-based economy

• Since 1946 **Post-war reconstruction**
  *(Emperor system \(\rightarrow\) Popular sovereignty)*
  - **Priority production system**
    - coal, iron and steel, electricity, and fertilizer
    - rural population 60%

• **1951~1960**
  Comprehensive development for river systems
  - 22 Major water systems
  - Dam development; electric power, soil and water conservation, water, cities, agriculture, industry, service
  - Industrialization (heavy chemical industry)
  - Technical assistance by the developed countries, dependency on external finance
  - Rapid rural-to-urban migration (urbanization) → until beginning of 1970s
1962~2005
Comprehensive National Development Plan

Economic growth + disparity adjustment (industrial decentralization)
Exogenous regional development

Living environment

Heavy & Large
Petrochemistry / Basic material industry

Light, Small
Processing/Manufacturing

Environmental conservation

Postindustrial
Urban population 84%

High-tech, IT

Transition of national development

1960~
Economic development (industrial structural adjustment)

Pollution
Anti-pollution measures

1975~
Improvement of living environment

Energy/Resources (Oil, etc.)
Energy conservation

2006~
Utilization/preservation

Regional disparity
Dispersal of industry (endogenous development)

Subsidy
Public investment

Endogenous development (OVOP, etc.)
Utilization/preservation

Eco-technology business
New technology development
Creation of new industries

Globalization

New technology development

Energy conservation

Utilization/preservation

Technological innovation

Creation of new industries

Utilization/preservation

Regional disparity
Dispersal of industry (endogenous development)
• 2006～New National Land Sustainability Law
  - Development → Utilization, conservation
    Decentralization, engaged governance
    Self-help, mutual assistance, public assistance

  Sustainable regional development: regionally well-balanced
  development consisting of industry, culture and tourism, traffic,
  information and communication, disaster prevention, land and
  resources, environmental conservation, welfare, a new concept of
  “public”

Thank You