



Sustainable Regional Development – Integrated Regional Development Planning and Management –

United Nations Centre for Regional Development 1

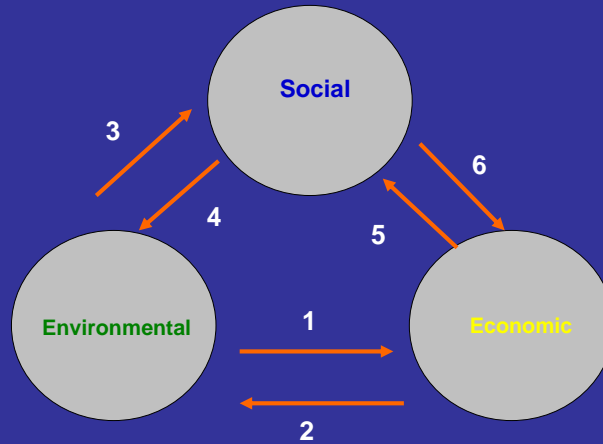
Sustainable Regional Development

- **Sustainable Environmental Development**
Securing stable environmental resources for the future
- **Sustainable Economic Development**
Securing stable and efficient regional economic development for the future
- **Sustainable Social Development**
Securing social equality, welfare, culture and historicity for the future

• Sustainable Development:
Development that meets the needs of the present generation without compromising the ability of future generation to meet their own needs (inter-generation equity)

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Understanding of Interactions between social, economic and environmental factors

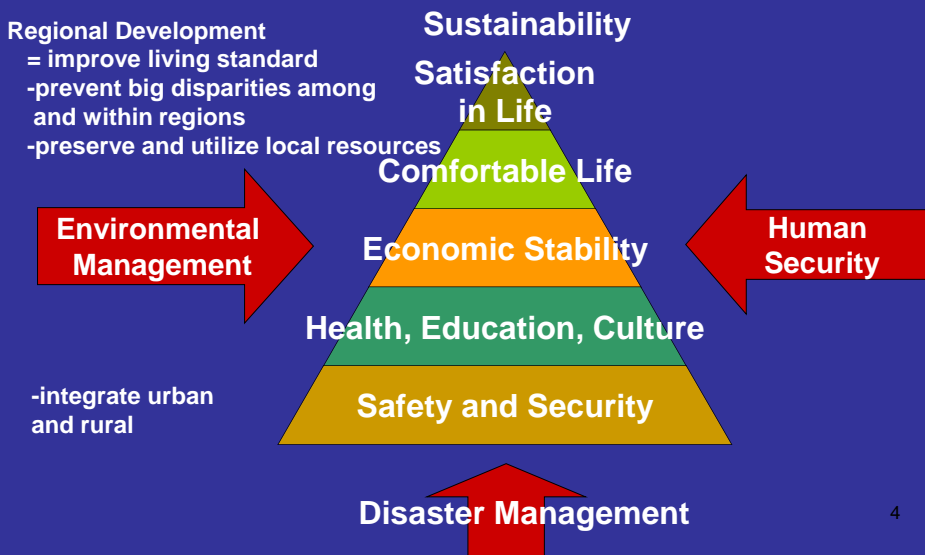


Source: OECD (2001)

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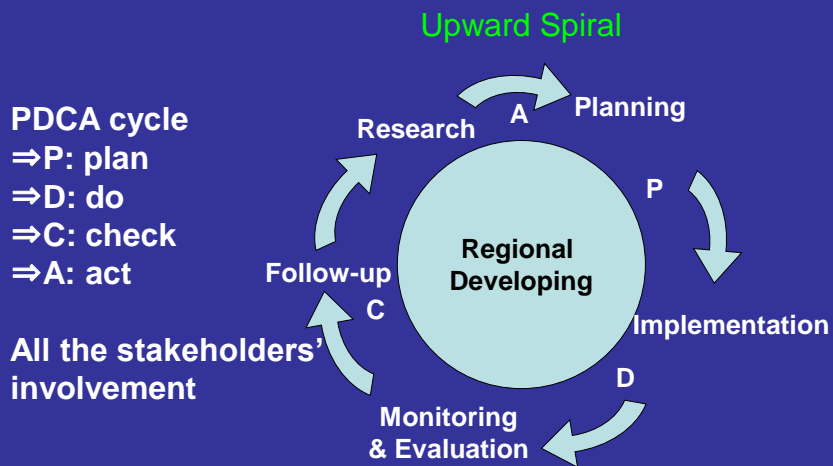
Sustainable Regional Development

Improvement of Living Standard



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Planning and Managing



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Structure of the integrated regional plan

Comprehensive/basic regional plan : 10year

- 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



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
- Etc.

- Strategies for the 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

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Regional Development Planning and Management in Japan

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



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The end of WWII (1945) → post-war devastation → reconstruction to the 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 ← depending on foreign capitals and technologies → absorption of technologies

➔ Income Doubling Plan (1960)

(The Pacific Belt Zone Plan)



Special areas for comprehensive development(1955)

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Comprehensive National Development Plan

(1962~)

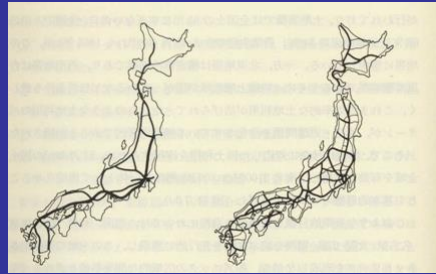
Objectives:

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



New industrial cities and special areas for industrial consolidation

Regionally balanced development + economic development

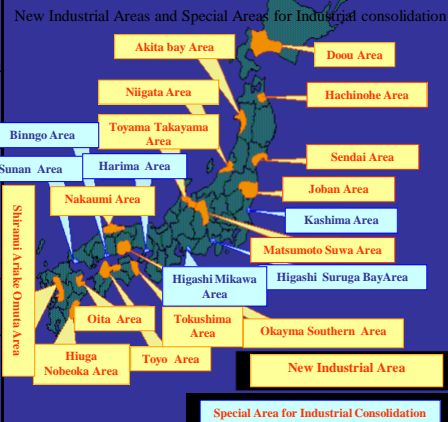


Shinkansen network and the expressway network (New Comprehensive National Development Plan)

| | Approved year | Target year | Basic objective | Development strategy |
|-----|---------------|-------------|---|-------------------------------------|
| 1st | 1962 | 1970 | Regionally balanced development | Development of selected key regions |
| 2nd | 1969 | 1985 | Improvement of environment | Promotion of large-scale projects |
| 3rd | 1977 | 1985 | Comprehensive improvement of human living environment | Integrated residence policy |
| 4th | 1987 | 2000 | Formation of multi-polar pattern of national land use | Integrated interaction policy |
| 5th | 1998 | 2010 - 2015 | Creation of multi-axial national land structure | Participation and cooperation |

Comprehensive National Development Plan

| | |
|-------------------------------|---|
| Date of Cabinet Decision | October 5, 1962 |
| Cabinet of the Prime Minister | The Ikeda Cabinet |
| Background | <ol style="list-style-type: none"> 1. Shifting over to high economic growth 2. Overpopulated city and income disparity problems 3. The Double Income Project (The Pacific Belt Zone Plan) |
| Basic Goal | Well-balanced progress among regions |
| Development Method | <p><Growth pole concept></p> <p>To accomplish the goal, it is necessary to disperse industries.</p> <p>Place various points around Tokyo and big cities, and relate them with the big cities.</p> <p>By traffic and communication facilities, connect them each other and effect them each other.</p> <p>Develop various points keeping each character in the way of chain reaction and promote balanced development among areas.</p> |



Source: MLIT

New Comprehensive National Development Plan

| | |
|-------------------------------|---|
| Date of Cabinet Decision | May 30, 1969 |
| Cabinet of the Prime Minister | The Sato Cabinet |
| Background | <ol style="list-style-type: none"> 1. High economic growth 2. Concentration of population and industries in the big cities 3. Progress of computerization, globalization, and technical innovation |
| Basic Goal | Creation of a rich environment |
| Development Method | <p><Big scale project concept></p> <p>Develop public transportation system like the Shinkansen and expressways, and promote big scale project.</p> <p>Rectify unbalanced land usage, and solve regional disparity between overpopulated and underpopulated areas.</p> |



Source: MLIT

3rd Comprehensive National Development Plan

| | |
|-------------------------------|--|
| Date of Cabinet Decision | November 4, 1977 |
| Cabinet of the Prime Minister | The Fukuda Cabinet |
| Background | <ol style="list-style-type: none"> 1. Stable economic growth 2. Signs of decentralization of population and industry 3. It became obvious that national resources and energies are limited |
| Basic Goal | Development of the general living environment |
| Development Method | <p><Stable human Settlement development concept> Restrict concentration of population and industries in big cities, and promote local area, coping with overpopulation and underpopulation problem. Promote well-balanced land usage and develop general living environment.</p> |



Source : MLIT

4th Comprehensive National Development Plan

| | |
|-------------------------------|--|
| Date of Cabinet Decision | June 30, 1987 |
| Cabinet of the Prime Minister | The Nakasone Cabinet |
| Background | <ol style="list-style-type: none"> 1. Concentration of population and various functions in Tokyo 2. Serious employment problems in local cities by rapid change of industrial structure 3. Progress of real globalization |
| Basic Goal | Construction of the national land with scattered poles |
| Development Method | <p><Interactive network concept> <ol style="list-style-type: none"> 1. For construction of the national land with scattered poles: promote regional development with an inventive idea, making the most of regional character. 2. Develop base traffic network, information and communication system by the state or basic state policies in all over the country. 3. Make various exchange opportunities, cooperating the state, local and private groups. </p> |



Source : MLIT

Grand Design for the 21st Century

| | |
|-------------------------------|---|
| Date of Cabinet Decision | March 31, 1998 |
| Cabinet of the Prime Minister | The Hashimoto Cabinet |
| Background | 1. "Global Era" (Global environment problem, big competition, interchange with the Asian countries) 2. Population decrease and aging society period 3. Information-oriented society |
| Basic Goal | Construction of basic of national land with many axes |
| Development Method | <Participation and Cooperation> Construction by various subjects and regional cooperation (4 strategies) 1. Creation of living area with a lot of nature (small city, farm, mountain and fishing villages, medium mountain area, etc.) 2. Renovation of big cities (repair, renew and effective use of big city space) 3. Development of the axis of regional cooperation (Regions form a line along an axis and cooperate one another) 4. Formation of wide international exchange area (It has an international exchange function) |



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Source: MLIT

Relationship among Development Plans

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

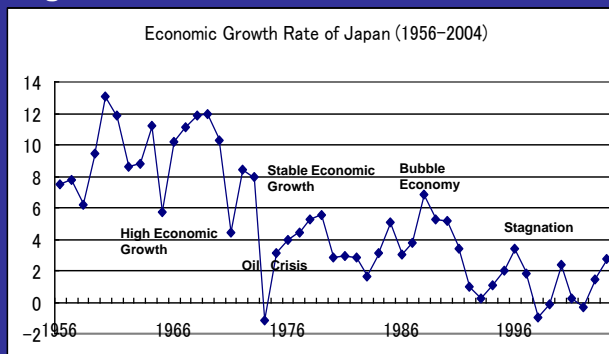


| Comprehensive Plan | Name of Plan | Term |
|--------------------|---|--|
| National Level | Comprehensive National Development Plan (ZENSO) (Comprehensive National Development Law) New national land formation plan 2006- | 1. 1962-1970 2. 1969-1985 3. 1977-1987 4. 1987-2000 5. 1998-2010 |
| Regional Level | Chubu Region Development and Improvement Plan (Chubu Region Development and Improvement Law) | 1. 1968-1985 2. 1978-1988 3. 1988-2003 4. 2000-2015 |
| Prefectural Level | Aichi Prefectural Plan 9. 2010-2015 (Policy Guide) | 1. 1958-1965 2. 1961-1970 3. 1970-1985 4. 1976-1985 5. 1982-1990 6. 1989-1998 7. 1998-2010 8. 2006-2015 |
| Municipal Level | Nagoya City Plan ▶ Nagoya City Basic Concept Plan (Local Autonomy Law) ▶ Nagoya City Basic Plan | 1977~ 1. 1980~1990 2. 1988~2000 3. 2000~2010 |

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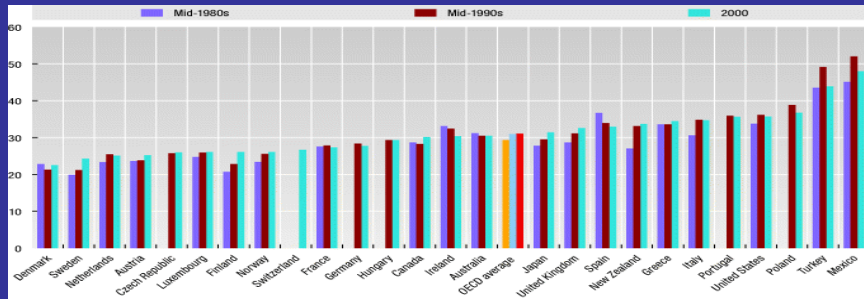
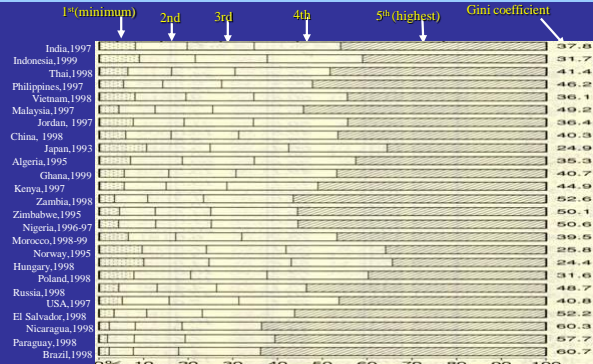
Results

- 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



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Income distribution



Gini Coefficient

| | |
|-------|--|
| ~10% | Existence of artificial background for achieving equalized distribution |
| 10~20 | Fairly equal distribution with a concern to discourage people's motivation for improvement |
| 20~30 | Common and usual distribution |
| 30~40 | Some disparity but with positive aspects for the improvement through competition |
| 40~50 | Serious disparity |
| 50~ | Corrective actions required if no particular justification exists |

Income Disparities among Prefectures

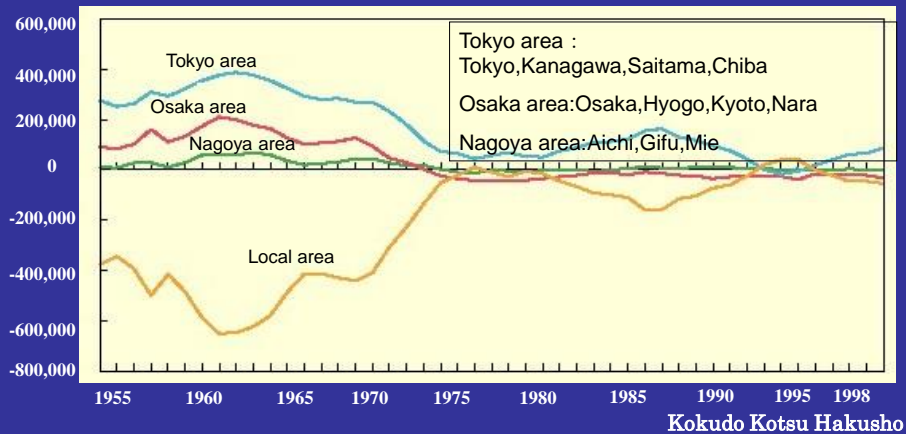
| Selected prefectures | | Region to which the prefecture belongs | Per capita prefectural income (current price) | | | | | |
|--------------------------------|-----------|--|---|-------|-----------|-------|-----------|-------|
| | | | 1970 | | 1990 | | 2010 | |
| | | | Million ¥ | (A) | Million ¥ | (A) | Million ¥ | (A) |
| Hokkaido | | Hokkaido | 0.473 | 54.2 | 2.409 | 58.2 | 2.440 | 56.7 |
| Yamagata | | Tohoku | 0.416 | 47.7 | 2.321 | 56.1 | 2.464 | 57.2 |
| Ishikawa | | Hokuriku | 0.518 | 59.4 | 2.686 | 64.9 | 2.652 | 61.6 |
| Tochigi | | NCR (1) | 0.489 | 56.1 | 2.841 | 68.6 | 2.938 | 68.2 |
| Pacific Metropolitan Belt Zone | Tokyo (2) | NCR | 0.872 | 100.0 | 4.139 | 100.0 | 4.306 | 100.0 |
| | Aichi | Chubu | 0.685 | 78.6 | 3.318 | 80.2 | 3.036 | 70.5 |
| | Osaka | Kinki | 0.757 | 86.8 | 3.596 | 86.9 | 2.821 | 65.5 |
| Okayama | | Chugoku | 0.558 | 64.0 | 2.759 | 66.7 | 2.580 | 59.9 |
| Tottori | | Chugoku | 0.370 | 42.4 | 2.473 | 59.7 | 2.310 | 53.6 |
| Kochi | | Shikoku | 0.472 | 54.1 | 2.116 | 51.1 | 2.178 | 50.6 |
| Oita | | Kyushu | 0.309 | 35.4 | 2.375 | 57.4 | 2.475 | 57.5 |
| Okinawa (3) | | Okinawa | - | - | 1.892 | 45.7 | 2.025 | 47.0 |

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

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Population concentration

Tokyo area: 26.7%, Osaka area: 14.4%, Nagoya area: 8.7%

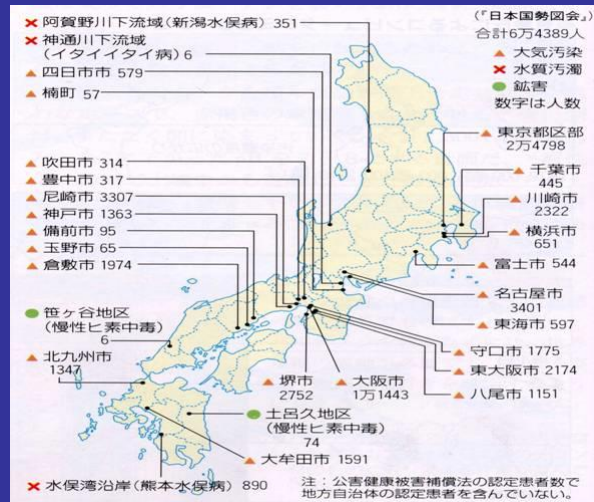


* Overpopulated region and depopulated region → urban and rural issues → introducing industry into rural area while restricting industry in metropolis

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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

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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, P.P.P.



Smoke from factories
darkens the sky



Factory waste flows
into the sea



Children wearing dust masks
on their way to school

(Photo courtesy of Asahi Shimbun Publishing Co.)

Outline of Four Major Pollution Lawsuits

| Case | Case of the Minamata disease (Niigata) | Case of the Yokkaichi asthma | Case of the itai-itai disease | Case of the Minamata disease |
|---------------------------|---|--|--|--|
| Date of suit | Jun. 1967 (first) – Jan. 1971 (eighth) | Sept. 1967 | Mar. 1968 (first) | Jun. 1969 |
| No. of plaintiffs | 77 | 12 | 31 | 138 |
| Defendant | Showa Denko Co., Ltd. (Kanose Factory) | 6 companies including Showa Yokkaichi Sekiyu Co., Ltd. and Mitsubishi Yuka Kabushiki Kaisha | Mitsui Kinzoku Kogyo (Kamioka Mine) | Shin-nihon Chisso Co., Ltd. (Minamata Factory) |
| Compensation claimed | Approx. ¥530 million | Approx. ¥88 million | Approx. ¥706 million | Approx. ¥641.39 million |
| Date of sentence | Sept. 1971 | Jul. 1972 | Sept. 1971 (Appeal Tribunal's judgement, Aug. 1972) | Mar. 1973 |
| Outline of sentence | <ul style="list-style-type: none"> • Legal causation between the factory waste water and the disease • Breach of duty for safety by the defendant | <ul style="list-style-type: none"> • Causation between the dust and the disease • Concerted illegal action by the defendants • Failure in selection of location • Failure in performing duty | <ul style="list-style-type: none"> • Proximate causation between the mine waste water and the disease | <ul style="list-style-type: none"> • Breach of duty by the defendant (Causation between the waste water and the disease was admitted by the defendant, and so it was not judged.) |
| Certified Victims (death) | 690 (339) | 636 (-) | 183 (174) | 2,265 (1,373) |

Current Environmental Issues

- Pollution caused by citizens: traffic pollution, domestic drain, noise
- Waste problem caused by peoples' 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) ⇒ Green Economy 26

Damage caused by the great Hanshin-Awaji Earthquake

Early morning, January 17, 1995
A major quake registers
a magnitude of **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

(Phoenix Hyogo 2002)



Fires broke out in many places immediately after the quake



Collapsed houses



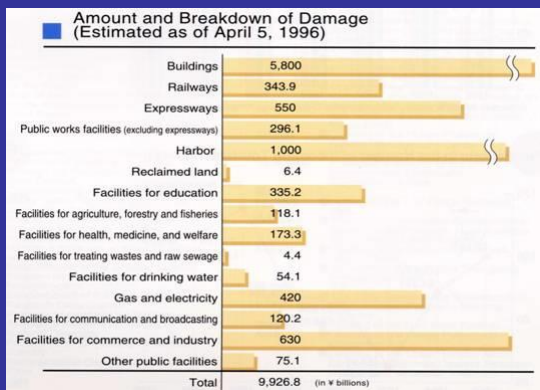
Collapsed building



Railway train tracks were mangled



Container berth with a large crack



(Phoenix Hyogo 2002)



Collapsed Hanshin Expressway Kobe Route

Damage caused by The Great Eastern Japan Earthquake and Tsunami 14:46, March 11, 2011

A major quake registers

a magnitude of **9.0**

Dead: 15,884

(Iwate Pref. 4,673, Miyagi Pref. 9,537, Fukushima Pref. 1,607,

Other Pref. 67)

Missing: 2,636

(As of February 10, 2014)

Evacuation life: More than 111,000 live shelters after losing homes in the disaster, or have to flee the effect of the nuclear accident (As of July 11, 2011)

Fukushima Daiichi nuclear power plant was damaged: crisis level 7 (International Nuclear and Radiological Event Scale; INES)



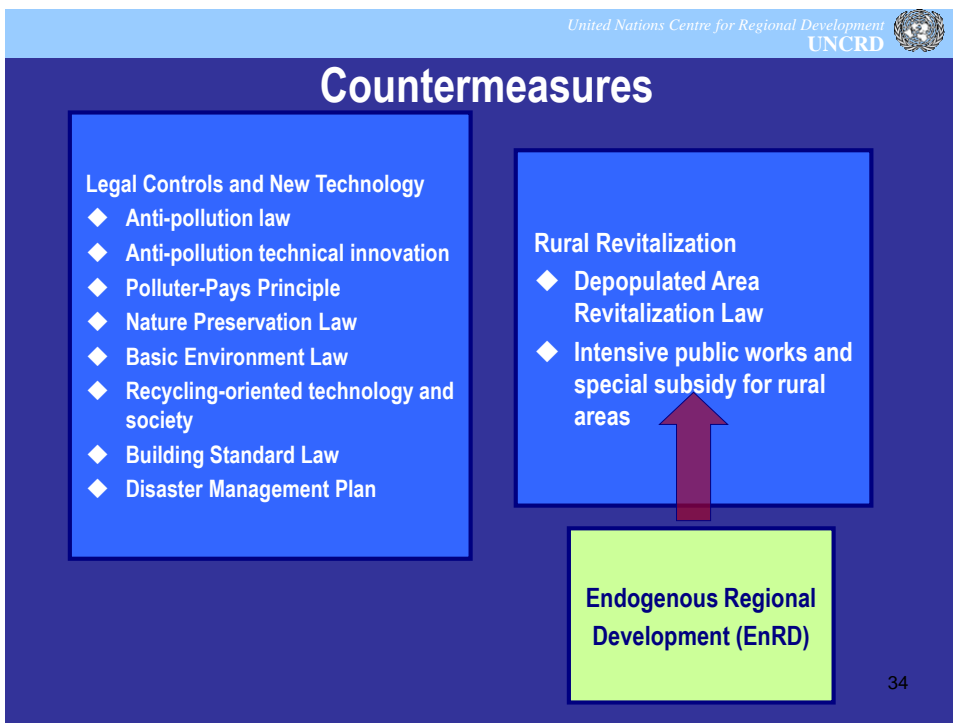
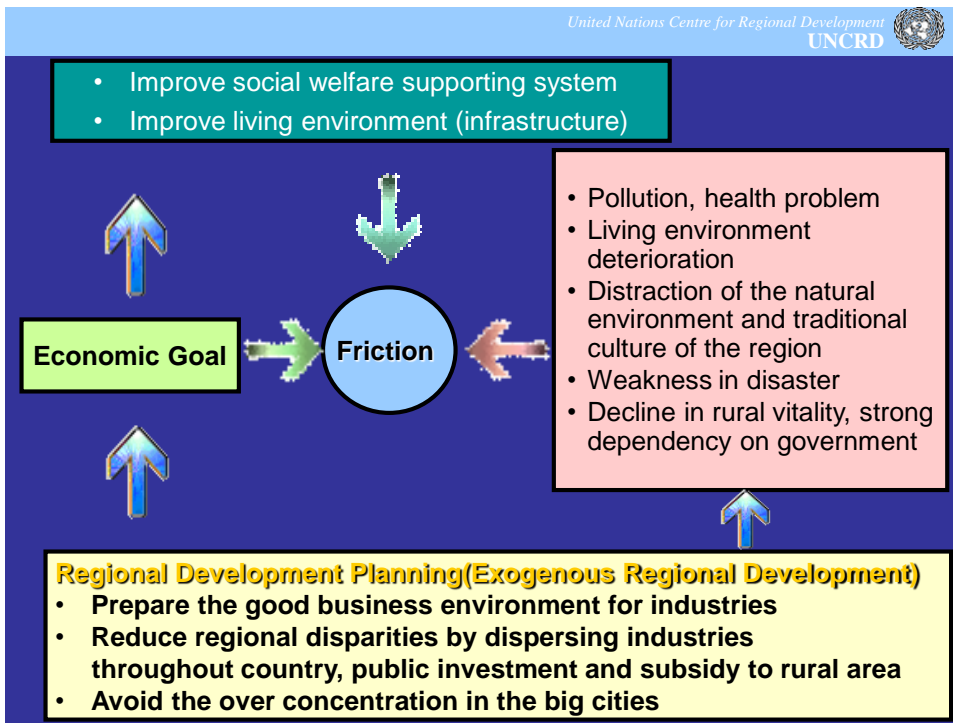
Damaged airport

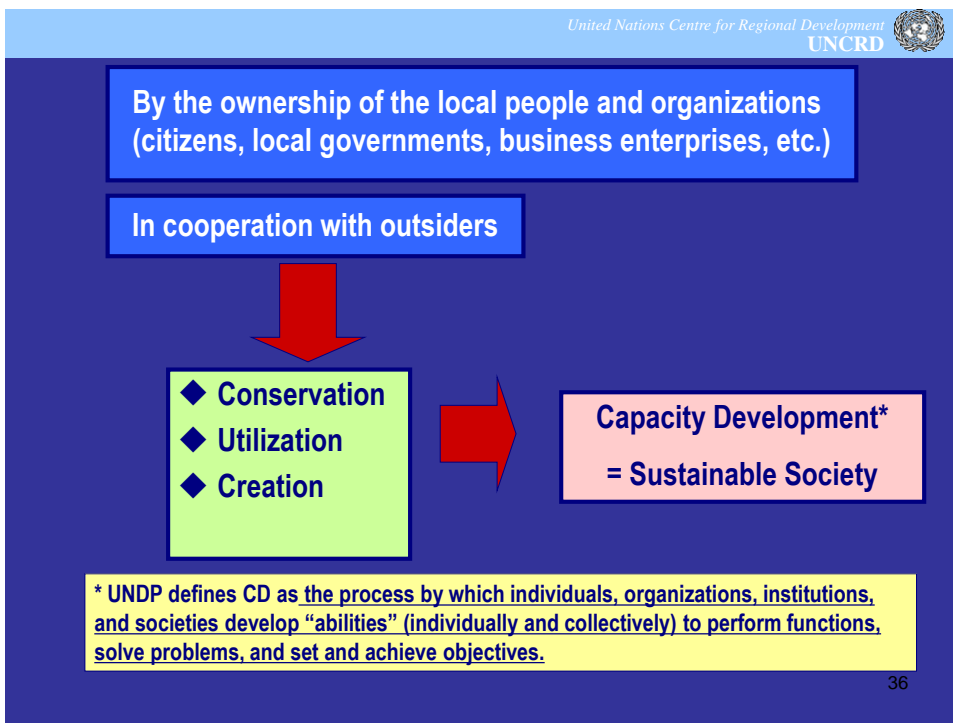
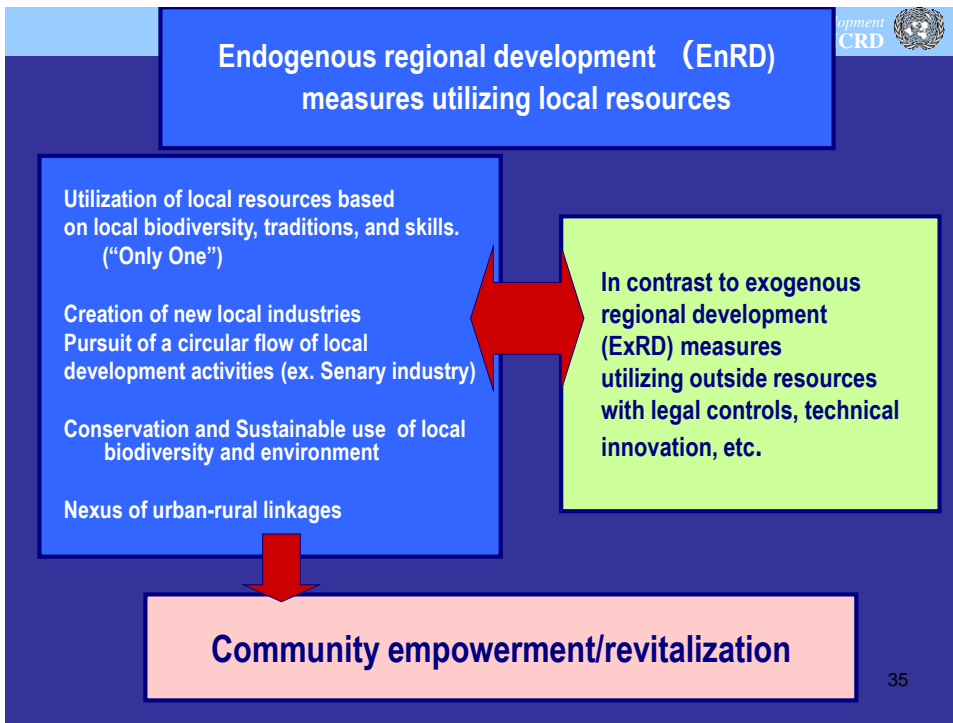


Damaged nuclear plant









Summary

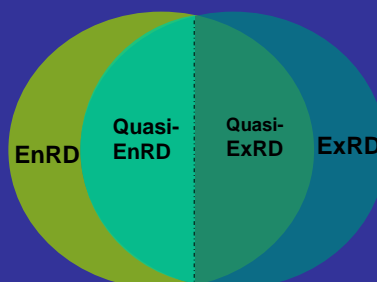


Senior Researcher: Katsuaki Takai

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Regional Development in Japan

- **Exogenous Regional Development (ExRD):**
Process of development promoted by the governments utilizing outside resources with legal controls, technical innovation, etc.
(Towards a rapid industrialization)
- **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 a sustainable livelihood)
- **Mixed of two approaches**



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- Since 1868 **Meiji Restoration**
(*Shogun System* → *Emperor system*)
 - Enrich the country & 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* → *Popular sovereignty*)
 - **Priority production system**
coal, iron and steel, electricity, and fertilizer
rural population 60%

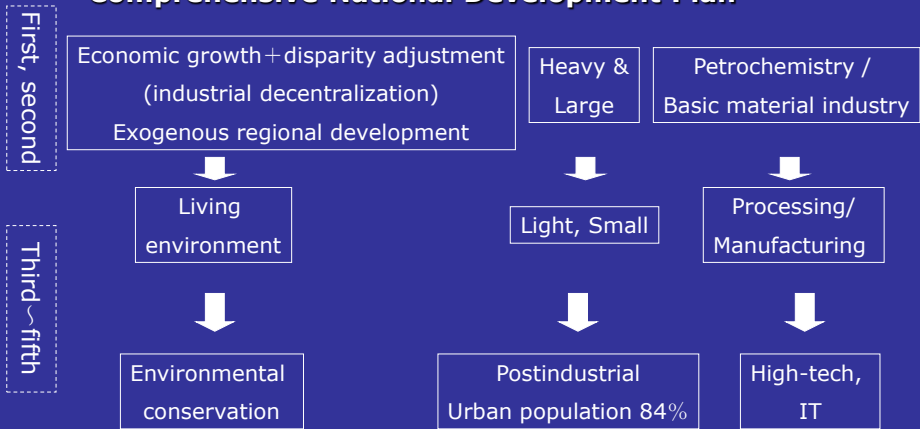
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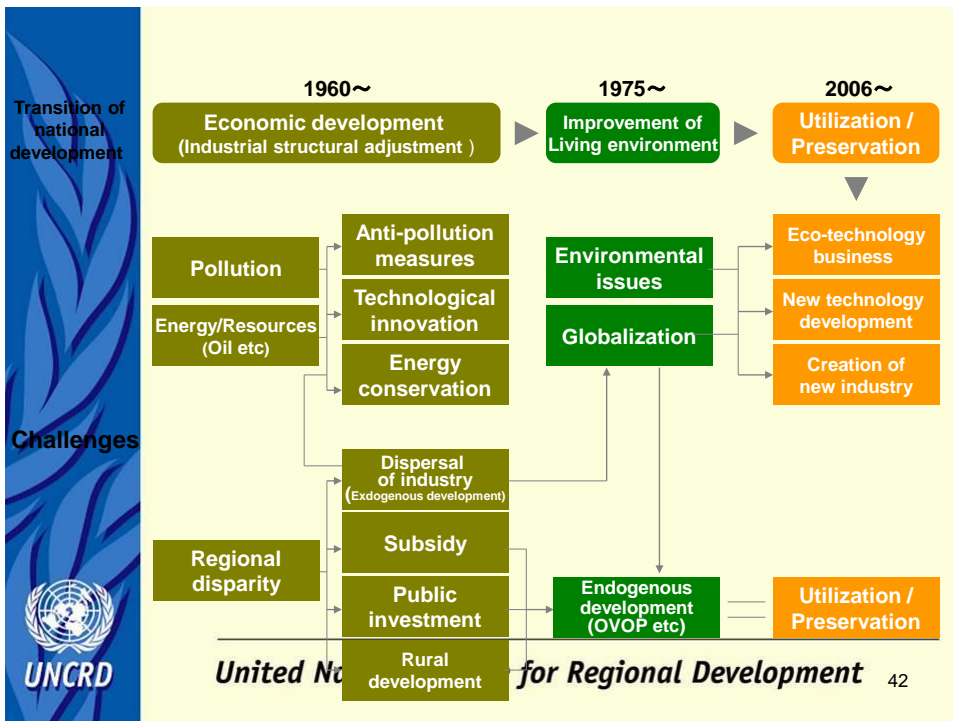
- **1951~1960**
Comprehensive development for river systems
 - 22 Major Water Systems
 - Dam development; electric power, soil & water conservation, water, cities, agriculture, industry, service
 - Industrialization (heavy chemical industry)
 - Technical assistance by the developed countries, time of loan
 - Rapid rural-to-urban migration (urbanization) → until beginning of 1970's

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• **1962~2005
Comprehensive National Development Plan**



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- 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 consist of industry, culture & tourism, traffic & information and communication, disaster prevention, land & resources, environmental conservation, welfare, new public

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Thank You

