INCREASING DEMAND FROM POLICYMAKERS FOR ASSISTANCE ON “TERRITORIAL DEVELOPMENT”

**National governments** focusing on development of lagging areas
- Home to the poorest/marginalized

**Sub-National governments** (provinces, states)
- Development along corridors, zones, and formation of new clusters of jobs

**Development of places** straddling “administrative” boundaries -- Common shocks across “borders”
- Muted demand for lack of “champions” but major public goods value
- Watersheds, basins, drylands, places in conflict
EFFECTIVE TERRITORIAL DEVELOPMENT POLICIES
COORDINATE ACROSS SECTORAL INTERVENTIONS

Policy Instruments

- Budget Support for General reforms
  - Civil service reforms
  - Regulatory reforms
- Directed public Expenditures
  - Physical Infrastructure
  - Roads
  - Telecommunications
  - Power
  - Energy
- Human capital
  - Education
  - Health
- EPZs
- Compensation for Regional unattractiveness
- Stimulate mobility of land, labor & capital
  - Subsidies/Tax credits
    - Labor subsidies
    - Capital subsidies
    - Others

Develop linkages

Develop local comparative advantage

Help long term Mobility and productivity

Compensate for regional unattractiveness
A TERRITORIAL LENS ALLOWS POLICIES & INVESTMENTS TO BE BETTER TAILORED TO LOCAL ENDOWMENTS AND CONSTRAINTS

Moving from individual operations that may or may not address all binding constraints in a place.

- Infrastructure
- Agriculture
- Social Protection
- Support to priority industries

To area based strategies and operations that address binding constraints to development in a coordinated manner:

- Better prioritized infrastructure
- Alleviating constraints faced by local firms
- Alleviating constraints faced by local people

Rigorous Diagnostic of Endowments & Constraints
Don’t fight density: economic growth will be unbalanced, but development can still be inclusive.

Economic integration helps get the benefits of concentration and the long-term benefits of convergence in living standards.

Rules of thumb for policy.
Integration gets harder.... as urbanization advances, and more policy instruments are needed

- Institutions to encourage density in Popayan, Colombia
- Institutions and infrastructure to encourage density and reduce distance in Bucaramanga, Colombia
- Institutions, infrastructure and interventions to encourage density, reduce distance, and lower divisions in Bogota
AT THE NATIONAL SCALE

Integration gets harder.... as regional disparities become more severe, and more policy instruments are needed

Institutions to reduce distance in China

Institutions and infrastructure to reduce distance and encourage density in Brazil

Institutions, infrastructure and interventions to reduce distance, encourage density, and lower divisions in India
## Prioritizing and Sequencing Territorial Development Policies

<table>
<thead>
<tr>
<th>Geographic Policy Challenge</th>
<th>Policy Priorities for Economic Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Institutions</td>
</tr>
<tr>
<td></td>
<td>Spatially blind</td>
</tr>
<tr>
<td>L. Incipient urbanization</td>
<td>L. Intermediate urbanization</td>
</tr>
<tr>
<td>N. Sparse lagging areas</td>
<td>N. Dense lagging areas and divisions</td>
</tr>
<tr>
<td>I. Close to world markets</td>
<td>I. Distant from world markets</td>
</tr>
<tr>
<td>1-D</td>
<td>2-D</td>
</tr>
<tr>
<td>N. Sparse lagging areas</td>
<td>N. Dense lagging areas and divisions</td>
</tr>
<tr>
<td>I. Close to world markets</td>
<td>I. Distant from world markets</td>
</tr>
<tr>
<td>3-D</td>
<td></td>
</tr>
</tbody>
</table>

**Spatially Blind**: Focus on policies that support local development without significant investment in external infrastructure.

**Spatially Connective**: Emphasis on integrating local economies with national and international markets.

**Spatially Targeted**: Interventions designed to address specific needs of densely populated areas or divisions far from markets and small economies.
INSTITUTIONS

Land tenure security and property rights

England 16th century:
enclosure movement in 1500; Enclosure Act 1604

Denmark 18th century:
Abolition of “villenage” in 1760; communal to private land holdings

USA 19th century: 1862
Homestead Act – the foundation of property rights

Frihedsstøtten (the pillar of freedom) in Copenhagen, commemorating the abolition of villenage
INSTITUTIONS

Ease of land use conversion, basic services

**England: 18th-19th century:** Land Enquiry Commission; 1832 Reform Acts; Land valuation decrees

**Sweden, 1960s-70s:** Royal Housing Commission in 1945; Million Homes Programme

**Hong Kong, 1930s-70s:** 1935 Housing Commission and Town Planning Ordinances; first land-use strategy “Zoning Plan” in 1963

**Republic of Korea, 1980s-90s:** basic amenities and property rights

*Frihedsstøtten today*
PROGRESSIVE PUBLIC FINANCE INSTITUTIONS HELPED FRANCE BENEFIT FROM CONCENTRATED PRODUCTION AND DECLINING SPATIAL DISPARITIES

France (NUTS2 Regions):
Increasing spatial concentration and decreasing spatial disparities

Scissor effect between the geography of production and income in France

Why: progressive tax and transfer policies

Source: Martin 2005
COORDINATING INSTITUTIONS AND INFRASTRUCTURE

Land markets, transportation

Greater London, 18th-19th century: Land valuation decrees; underground; The Housing of the Working Classes Act 1890 and Cheap Trains for London Workers Bill 1890


Hong Kong, 1930s-80s: 1935 Housing Commission and Town Planning Ordinance (amended overtime); 1963 first land-use strategy “Zoning Plan”.

Bangkok Metro Area, 2000s: zoning and parking spaces; traffic demand controls.
INFRASTRUCTURE INVESTMENTS CAN INTEGRATE LAGGING AREAS WITH NATIONAL MARKETS

Bangladesh: Bridge over the Jamuna River opened market access for producers in the lagging Northwest around the Rajshahi division.

At a cost of $960 million, it provides the first road and rail link between less developed Northwest and with the more developed East.

Better market access helped farmers diversify into high value crops and reduced input prices (Bayes 2007)
Land development (public and private funding)

Modernization of the roads and railways (public then private funding)

- Trunk roads (Second, Third and Fourth Malaysia five years plan – 1970-1985)
- Rural roads program (Third Malaysia five years plan)

Increase in the value added of manufacturing output:

- 12 % average annual growth between 1971 and 1980

Source Third Malaysia five years plan
AN AFRICAN EXAMPLE: MAPUTO CORRIDOR LINKS MARKETS ACROSS SOUTHERN AFRICA

Links province of Gauteng SA, Maputo, Swaziland.

Helped realize market integration

Restored the level of transborder trade to pre-independence level

Maputo-Pretoria corridor.
Source: Sequeria et al. (2015)
SPATIALLY TARGETED INTERVENTIONS
..WORKS WHEN HANDLED WITH CARE...

- Developing and Integrating new cities
- Development of Secondary Cities
- Special economic zones
- Growth Poles
CURITIBA: COORDINATING INSTITUTIONS, INFRASTRUCTURE AND INTERVENTIONS

• Curitiba started its sustainable development trajectory at a population of 300,000 – it is now 1.7 million.

• How they did it?
  • Institutions - Innovative Land Management
  • Connectivity - Affordable and Integrated Bus System
  • Interventions – Social considerations, inclusive neighborhoods
Curitiba: Articulated densities with integrated Transport and Land Use
Thriving Metropolis: Coordinated Urban Expansion of Tokyo

Highly concentrated Taito Ward exceeding 320/ha
Rural areas at the periphery
Less extensive Tokyo Harbor

Largest urban area by 1970
“Fingers” of development along rail
Tokyo proper losing population to suburbs

Redensification of the Tokyo proper
Greater Tokyo population reaching 30 million excluding rural areas

Source: https://perihele.wordpress.com/2014/04/18/mapping-japanese-city-spaces-greater-tokyo/
Key Areas addressed in the Capital Regional Plan (TMG + 7 Prefectures)

1. Land development based on data analytics and use of ICT
2. Increasing resilience for expected mega earthquake
3. Creation of “super-mega region” and increasing competitiveness
4. Enhancing flow and connectivity of urban and rural areas
5. Long-term planning with vision for post Olympics/ Paralympics development
China’s Special Economic Zones strategically opened up the country to external markets
ZOOMING INTO SHENZEN..

Shenzen 30 years ago

Shenzen today
INFORMATION PRE-REQUISITES FOR TARGETED INTERVENTIONS : “KNOW THY ECONOMY”

Invest in information on area-specific comparative advantages

- natural, human and infrastructure endowments
- Perceptions of entrepreneurs on local bottlenecks

Identify how different industries value market access, localization, and urbanization economies

- Relocation of economic activity that value agglomeration and market access will need large scale investments and involve spatial equity-efficiency tradeoffs
## Prioritizing and Sequencing Territorial Development Policies

<table>
<thead>
<tr>
<th>Geographic policy challenge</th>
<th>Institutions</th>
<th>Infrastructure</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. Incipient urbanization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. Sparse lagging areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Close to world markets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. Intermediate urbanization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. Dense lagging areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Distant from world markets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. Advanced urbanization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. Dense lagging areas and divisions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Distant from markets and small economies</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
National Level Strategy for Infrastructure Development in Japan

Takeshi MUGISHIMA
Assistant Vice-Minister
Ministry of Land, Infrastructure, Transport and Tourism (MLIT)
Changes in GDP per Capita in Japan

1960 - Rapid economic growth
1970 ($2,010)
1980 ($9,377)
1990 ($25,388)
2000 ($37,634)
2010 ($43,150)

1980 - Steady growth

2000 - Maturation

First hurdle ($1,000)
Second hurdle ($5,000)
Third hurdle ($15,000)
Fourth hurdle ($25,000)

Representative years:
- 1960: (478)
- 1970: (2,010)
- 1980: (9,377)
- 1990: (25,388)
- 2000: (37,634)
- 2010: (43,150)
## Changes in Main Challenges and Policies

<table>
<thead>
<tr>
<th>1960 -</th>
<th>1980 -</th>
<th>2000 -</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rapid economic growth</strong></td>
<td><strong>Steady growth</strong></td>
<td><strong>Maturation</strong></td>
</tr>
<tr>
<td>・ Shortage of residences due to population concentration in urban areas.</td>
<td>・ Addressing needs for a high-quality housing environment, accompanied with improved living standard.</td>
<td>・ Addressing needs for urban development with less environmental load</td>
</tr>
<tr>
<td>・ Shortage of infrastructure (electricity, water, etc.) due to rapid urbanization.</td>
<td>・ Escalation of traffic jams due to progressive motorization</td>
<td>・ Decreased vitality in central urban areas, due to low birth rate, population aging, and population decline</td>
</tr>
<tr>
<td>・ Emergence of environmental problems, such as air/water pollution.</td>
<td>・ Rise of low-use/unused land due to changes in the industrial structure</td>
<td>・ Utilization of the aging housing stock</td>
</tr>
</tbody>
</table>

### ① Decentralization of urban function
### ② Provision of a large amount of residences
### ③ Legal system development for materializing the urban policies

### ④ Improvement of housing performance level
### ⑤ Enhancement of public transportation
### ⑥ Development of Brown Fields
### ⑦ Effort for resource circulation

### ⑧ Implementation of a Smart City
### ⑨ Town development for “compact city plus network”
### ⑩ Revitalization of the housing stock
<table>
<thead>
<tr>
<th>Features</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>1st</th>
<th>2nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonized development between the regions</td>
<td>Creation of a better environment</td>
<td>Comprehensive development of environment for human settlements</td>
<td>Development of a polycentric territorial structure</td>
<td>Building the foundation for a multi-axial structure of the territory</td>
<td>Development to encourage the self-sustainable efforts of individual</td>
<td>Stratified and resilient “Compact and networked structure”</td>
<td></td>
</tr>
<tr>
<td>Creation of regional industrial hubs</td>
<td>Designing megaproject</td>
<td>Creating interactive networks among Region</td>
<td>Exchanging participative and collaborative practices</td>
<td>Regional blocks toward the creation of comfortable living environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Event Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1964</td>
<td>Inauguration of <strong>Tokaido Shinkansen</strong> (between Tokyo and Osaka)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1965</td>
<td>Inauguration of the entire <strong>Meishin Expressway</strong> (between Hyogo and Aichi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>Inauguration of <strong>Kasima Port</strong> (in Ibaraki)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>Inauguration of the entire <strong>Tomei Expressway</strong> (between Tokyo and Aichi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>Inauguration of <strong>Sanyo Shinkansen</strong> (between Osaka and Okayama)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Inauguration of <strong>Sanyo Shinkansen</strong> (between Okayama and Fukuoka)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Inauguration of <strong>Oi Container Terminal</strong> (at Tokyo Port)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>Inauguration of <strong>Narita Airport</strong> (in Chiba)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Japan’s Postwar Infrastructure Development

<table>
<thead>
<tr>
<th></th>
<th>1965</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highway</strong></td>
<td>189.7 km</td>
<td>10491.6 km</td>
</tr>
<tr>
<td><strong>Shinkansen</strong></td>
<td>515.4 km</td>
<td>2623.5 km</td>
</tr>
<tr>
<td><strong>Airports</strong></td>
<td>5 areas</td>
<td>66 areas</td>
</tr>
</tbody>
</table>

(under construction for runway more than 2,000 meters long)
Nine plans were formulated by project area: Setting the project amount by each plan

<table>
<thead>
<tr>
<th>Roads</th>
<th>Traffic Safety facilities</th>
<th>Airports</th>
<th>Ports/ Harbors</th>
<th>Urban parks</th>
<th>Sewage</th>
<th>Flood management</th>
<th>Steep slope</th>
<th>Coasts</th>
</tr>
</thead>
</table>

Unified into 1 infrastructure development plan

**Priority Plan for Infrastructure Development**

(Act on Priority Plan for Infrastructure Development Act No.20 of 2003)

- 1st Priority Plan (from FY2003 to FY2007),
- 2nd Priority Plan (from FY2008 to FY2012),
- 3rd Priority Plan (from FY2012 to FY2016),
- 4th Priority Plan (from FY2015 to FY2020)

✓ Major planning matters

- Priority objectives regarding the implementation of the infrastructure development projects during the period for the plan
- Overview of the infrastructure development projects that should be implemented in an intensive, effective and efficient manner during the period for the plan in order to accomplish the priority objectives.
- Measures for implementing the infrastructure development projects in an intensive, effective and efficient manner, etc.
1. Four structural issues faced by the infrastructure development

- Vulnerability of land (pressing issues for massive earthquakes and severe weather disasters)
- Rapid aging of infrastructure
- Impoverished local economies due to decreased population
- Intensified international economic competition

2. Basic policies toward the sustainable infrastructure development

(1) Strategic infrastructure management aiming at maximizing the Stock Effects of the infrastructure

1) Strategic Maintenance including integration and reorganization

2) Thorough and effective use of the existing facilities (smart use)

3) Select and focus on the projects with high Stock Effects

- Clarification of the time line
- Contribution to both economic revival and fiscal consolidation
- Proactive approach to PPP/PFI

(2) Securing and training skilled construction engineers and technicians to maintain the sites of the infrastructure development based on the priority plan

(3) Securing stable and sustainable public investment for appropriate implementation of the priority plan
The Stock Effects of infrastructure are divided into the following three effects:

A) **Safety and security effect**

B) **Effect of life quality improvement**

C) **Effect of improved productivity**

**Flow Effects**
- Creation of productive activities
- Stimulation of employment
- Expansion of consumption by income increases

**Stock Effects**
- Safety and security effect
  - Earthquake-proof performance improvement
  - Reduction of flood damage, etc.
- Effect of life quality improvement
  - Improvement of living conditions
  - Amenity enhancement, etc.
- Effect of improved productivity
  - Reduction of travel time
  - Reduction of transportation cost
  - Increase of freight handling volume, etc.

**Effects through infrastructure improvement**
Example of Stock Effect Ken-O (Metropolitan Inter-City) Expressway

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%

In the sections opened earlier in the Ken-O Expressway, the value of manufactured goods shipped has increased.

Growth rate of value of manufactured goods shipped

- Hamura City 166%
- Iruma City 137%
- Hidaka City 124%
- Hinodecho 120%
- Saitama Prefecture + Tokyo Metropolis 103%
National Spatial Strategy (2015-2025)

- Japan’s future picture as national spatial development target
  1. A country where people can feel safe and affluent
  2. A vigorous country sustaining economic growth
  3. A country exerting a strong presence in the international community

**Basic National Land Concept**

**Multi-layered, resilient “compact and networked structure” for developing national land promoting interaction-led regional revitalization**
- Correcting Excess Concentration in Tokyo and Positioning the Tokyo Metropolitan Region
- Symbiosis between Urban and Rural Communities through Mutual Contributions

**“Interaction”: Resources and cooperation**

- Rich agriculture, forestry and fisheries resources
- Knowledge accumulation
- <ICT diffusion in agriculture, forestry and fisheries>
- <Biotechnology>
- <Innovation through industry-academia cooperation>
- <Cooperation among primary, secondary and tertiary industries>
- <Agriculture-commerce-industry cooperation>
- Manufacturing technologies / commercial functions
International Urban Cities in Southwestern Metropolitan Area

<table>
<thead>
<tr>
<th>Cities</th>
<th>Populations (thousand people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ome</td>
<td>137</td>
</tr>
<tr>
<td>Mizuho</td>
<td>34</td>
</tr>
<tr>
<td>Tachikawa</td>
<td>179</td>
</tr>
<tr>
<td>Hachioji</td>
<td>563</td>
</tr>
<tr>
<td>Hino</td>
<td>183</td>
</tr>
<tr>
<td>Tama</td>
<td>148</td>
</tr>
<tr>
<td>Machida</td>
<td>427</td>
</tr>
<tr>
<td>Sagamihara</td>
<td>724</td>
</tr>
<tr>
<td>Atsugi</td>
<td>225</td>
</tr>
<tr>
<td>Ebina</td>
<td>129</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>about 2.8 million people</strong></td>
</tr>
</tbody>
</table>

- **Osaka**: 2.7 million
- **Nagoya**: 2.3 million

---

- **Linear Chuo Shinkansen (will open in 2027)**
- **Ken-ō Expressway between Tokyo Pref. and Kanagawa Pref. was opened in 2014**
- **Port of Yokohama**
- **Haneda Airport**
- **Tokaido Shinkansen**
- **Local railways**
- **Expressway**
- **colleges**
- **public research institutions**
- **Tokyo Metropolitan Prefecture**
- **Kanagawa Prefecture**
- **Shinjuku Sta.**
- **Shinagawa Sta.**
- **New Station of Linear Chuo Shinkansen**
- **Atsugi**
- **Machida**
- **Sagamihara**
- **Hachioji**
- **Tachikawa**
- **Hino**
- **Tama**
- **Mizuho**
- **Ome**
The G7 Ministers of Transport and European Commissioner for Transport adopted the following Declaration regarding Infrastructure.

**Basic Strategy for Developing New Transport Infrastructure and Renovating Aging and Deteriorated Transport Infrastructure**

*(Excerpt)*

- We, the G7 Ministers of Transport and European Commissioner for Transport, confirm that the *“G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment”* endorsed at G7 Ise-Shima Summit, provides sound guiding principles for investment in transport infrastructure.

- With regard to new projects, we recognize the importance of planned, continuous and sufficient future investment focusing on so-called “stock effects”, including improved safety, disaster risk reduction impacts, better environmental performance, more sustainable transport and mid- to long-term positive impacts on economic growth, while increasing private investment, tourism and employment. We also recognize the importance of properly understanding the diversified and mid- to long-term stock effects on the economy, the environment and the society to lead to further improvements in transport infrastructure.
Infrastructure Demand Around the World

Around the World (Present Demand)

2300 billion US dollar/ year

Source: OECD (2011)


Asian

80 billion US dollar/ year

Source: ADB (2009)


Around the World (Future Demand)

5.7 trillion US dollar/ year by 2030


Africa

68 billion US dollar/ year

Source: AfDB (2016)
Infrastructure Demand and Investment Around the World

1 Billion US Dollars (2011)

South Asia: 309, Infrastructure Demand: 68, Expected Investment: 41
Latin America: 141, Infrastructure Demand: 87, Expected Investment: 35
China: 321, Infrastructure Demand: 125
East Asia and Pacific Region (except China): 87, Infrastructure Demand: 35, Expected Investment: 62
Europe and Central Asia: 62, Infrastructure Demand: 35
Sub-Saharan Africa: 58, Infrastructure Demand: 28
Middle East and Northern Africa: 5352, Infrastructure Demand: 5352

Source: Fernanda Ruiz-Nunez and Zichao Wei (2015)
“Infrastructure Investment Demands in Emerging Markets and Developing Economies”
Territorial Development
as a new paradigm of quality infrastructure investment

2nd February, 2017
Hiroshi Kato
Senior Vice President, JICA
Why territorial development?

- **URBAN**
  - Engine of economic growth
  - Population increase
  - Limit to urban growth

- **RURAL**
  - Migration from rural to urban
  - Decline of rural cities
  - Aging society

Reducing disparity
Balanced development
How to promote territorial development in case of Thailand

1970’s - Development of Urban Infrastructure in Bangkok

1980’s - Industrial development of Eastern Seaboard

2010’s - Sustainable cities

Bangkhen water treatment plant, JICA/Shinich Kuno

Container terminal in Laem Chabang Port, MOFA, Japan

Rural city in Thailand, JICA/Akiko Sanada
How to promote territorial development in case of Thailand

The Project for Promoting Sustainability in Future Cities of Thailand

- **Policy research** to support local government-driven development
- **Cooperation among local governments** to provide necessary service and physical planning
- **Capacity development of local government** for visioning, planning and implementing the initiative

Source: DPT (2009) "Thailand National Spatial Development Plan 2057"
Challenges

Balanced Growth Strategy

Quality Development Plan

Connecting Central and Local Government

as a New Paradigm of Quality Infrastructure Investment