Provision of Transport and Logistics Infrastructure

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This Briefing represents my own personal views, and is not to be associated in any way with my official position in the government.
• Introduction of Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

• Provision of Infrastructure
  – Infrastructure is “Public Goods”
  – Who should provide infrastructure and how financed?
    ✓ Simple comparative Study
    ✓ Case Study: Japan
    ✓ Central Government VS Local Government in terms of economic efficiency

• Challenges facing the MLIT
Introduction of MLIT

• Reorganization of government ministries and agencies in 2001
  • 4 ministries and agencies merged into a single ministry.
    – Hokkaido Development Agency
    – National Land Agency
    – Ministry of Transport
    – Ministry of Construction
• Our missions
  – Hokkaido Development policy
  – Land use policy
  – Provision of Infrastructure expressways, highways, dams, seaports, airports, railways (including Shinkansen Bullet Train)
  – Transportation Policy
Introduction of MLIT (Cont’d)

• Organization of MLIT
  – Minister, Senior Vice-Minister(2), Parliamentary Secretary(3)
  – Vice-Minister(5)
    – Minister’s Secretariat
  – 12 Bureaus and 3 Director-General
    Policy, National and Regional Planning, Land and Water,
    City and Regional Development, River, Road, Housing,
    Railway, Road Transport, Maritime, Ports and Harbors,
    Civil Aviation, Hokkaido
  – Japan Coast Guard (JCG)
  – Tourism Agency
  – Local Branches
    Regional Development Bureau(8)
    District Transport Bureau(8)
    District Civil Aviation Bureau(2)
    Air Traffic Control(4)
    Hokkaido Development Bureau

TOMEI Expressway (1966)
Infrastructure is “Public Goods”

• “Public Goods” is a good that is non-rivalrous and non-excludable.

  – **Non-rivality**: Consumption of the good by one individual does not reduce availability of the good for consumption by others

  – **Non-excludability**: No one can be effectively excluded from using the good

• **Non-rivality** and **Non-excludability** may lead to **market failure**, where uncoordinated market are unable to provide public good in desired quantities.
Who should provide infrastructure depends on cultural backgrounds, political structure and fiscal policy of the country.

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<th>Ports and Harbors</th>
<th>Expressway</th>
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<td>Japan</td>
<td>The Central Government provides non-profit facilities in designated ports. The Local governments burden part of expenses.</td>
<td>A sub-governmental implementation agency provides. The central government supervises and coordinates.</td>
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<td>U.S</td>
<td>U.S Army Corp of Engineers provides main-channel.</td>
<td>State government provides with federal government’s subsidies.</td>
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<td>NYNJ port authority provides by using its own financial sources.</td>
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<td>Indonesia</td>
<td>Sub-governmental agencies provide using ODA, or private enterprises provide under concession scheme.</td>
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Case Study: Japan

• Japanese public infrastructure policy is based on the following principles in my personal view:
  – He-Who-Benefits-Ought-to-Pay Principle

• Examples of Japanese Public Infrastructure Provision
  – Provision of Expressways, Shinkansen Bullet Train, Airports (designated) is in line with He-Who-Benefits-Ought-to-Pay.
  – Provision of Highways, seaports (designated) and dams is in line with Equitable-Burden-Sharing-among-Generations

TOKYO Int’l Airport (HANEDA)
• **QUESTION**: Which one should provide infrastructure in terms of economic efficiency?


• **ASSUMPTIONS**:
  – Three-tiered transition economy comprises of:
    (i) a central government (ii) 2 local governments and (iii) private enterprises and households
  – The central government maximizes sum of social welfare of the **whole country**.
  – The Local governments maximizes sum of social welfare of the **region**.
  – Labor mobility and No unemployment
Consider the following four regimes:

- **Complete fiscal centralization**: all decisions are made by the central government which is presumably better be able to internalize externalities accompanied by development.

- **Complete fiscal decentralization**: all decisions are made by the local governments. The central government no longer intervenes.

- **Partial fiscal decentralization where the central and local governments decide independently**: first the central government decides, then the local governments make decisions in the light of the central government’s decision.

- **Partial fiscal decentralization with the central government’s subsidies**: the local governments decide first, then the central government gives subsidies to the local. Subsidy is proportionally redistributed among the local.
• Major Findings:

**Proposition 1**
Under complete decentralized public infrastructure provision regime, at least one region or both regions invest more in public infrastructure than under fiscal centralization regime.

**Proposition 2**
The partial fiscal decentralization where the central and the local governments decide each public investment independently is equivalent to the complete decentralization in terms of economic efficiency.

**Proposition 3**
Under decentralization with the central government’s subsidy, at least one region or both regions invest more in public infrastructure than under complete fiscal decentralization regime.
SUMMARY:

A simple model with labor mobility across regions suggests the opposite interpretation of the conventional understanding of decentralization: complete fiscal decentralization and partial fiscal decentralization are not necessarily the best in terms of economic efficiency.
Challenges facing the MLIT

- Critical Issues to be addressed
  - Needs more budget for renewing infrastructure
  - Addresses the severe financial-deficit

- Challenges facing the MLIT
  - Prioritizes public infrastructure projects to be implemented
    ✓arouse much controversy and be difficult to address politically
  - Looks for other source of finance
    ✓Public-Private-Partnership (PPP) should be applied.
  - Help the construction industries launch a business in foreign countries
    ✓Around 10% of GDP comes from construction industries
    ✓Investment in infrastructure will decrease in 25% in recent two years

The Interstate 35W bridge collapsed into the Mississippi River during rush hour in 2007.