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.

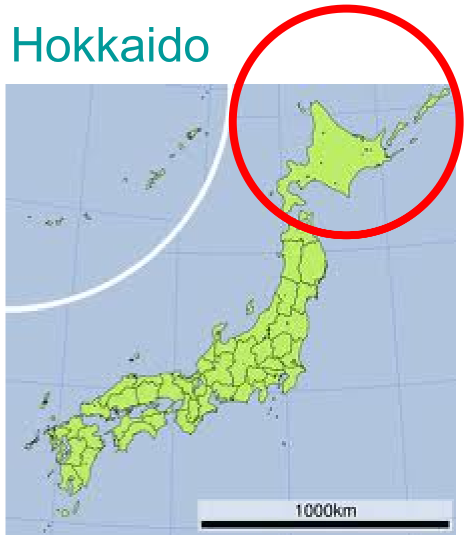
Outline

- 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

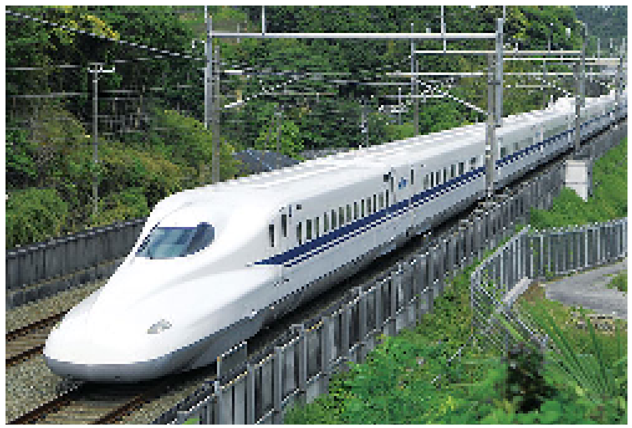
Introduction of MLIT

- 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

Hokkaido



Shinkansen Bullet Train



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”

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- “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.

A very simple comparative Study

- Who should provide infrastructure **depends on** cultural backgrounds, political structure and fiscal policy of the country.

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

Case Study: Japan

- Japanese public infrastructure policy is based on the the following principles **in my personal view**:
  - **He-Who-Benefits-Ought-to-Pay** Principle
  - **Equitable-Burden-Sharing-among-Generations** 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)

Central Government VS Local Government

- **QUESTION**: Which one should provide infrastructure **in terms of economic efficiency?**
- Gaku Inoue(2007) "An analysis on public infrastructure investment under local governments' competition in Japan" (Master Thesis in Cornell) addressed this question.

- **ASSUMPTIONS:**
  - Three-tired 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 govenments maximizes sum of social welfare of **the region**.
  - **Labor mobility** and **No unemployment**

Central Government VS Local Government (cont'd)

- 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.

Central Government VS Local Government (cont'd)

- **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.

Central Government VS Local Government (cont'd)

- **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.

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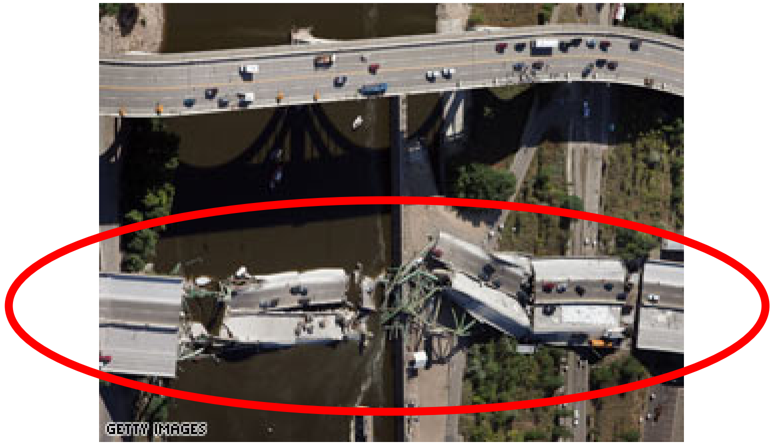
- **Critical Issues to be addressed**
  - Needs more budget for renewing infrastructure
  - Addresses the severe financial-deficit



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

- **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