Feasibility Studies under the System for Evaluating Government Policies in Japan

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Background (1)

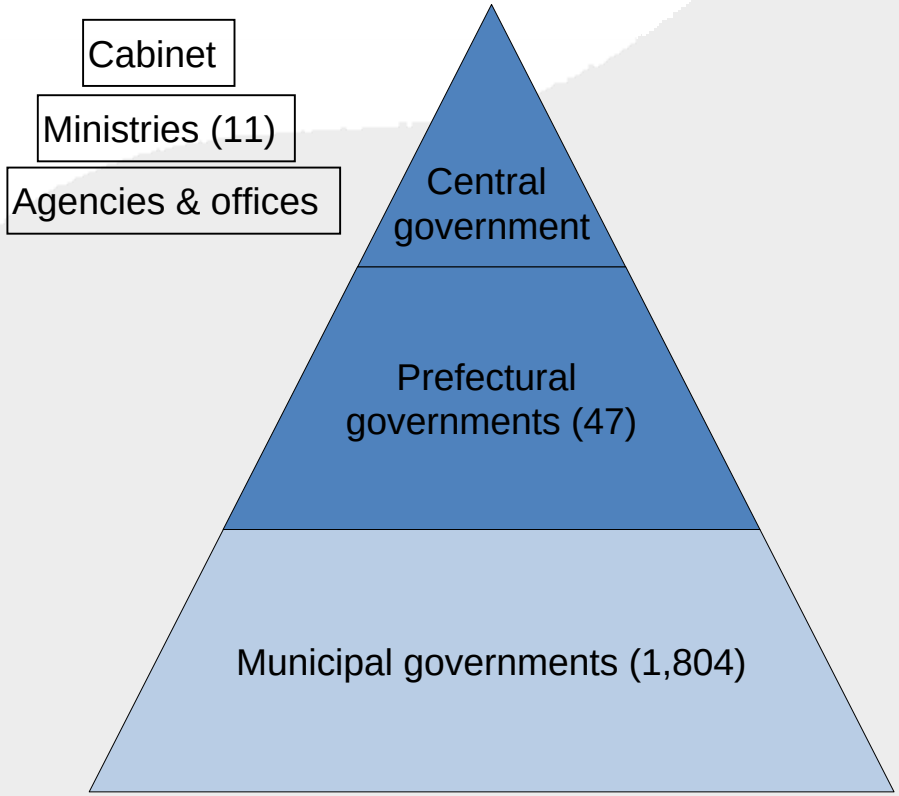
- Definition of “feasibility study”

The comprehensive evaluation of government projects, including

- engineering surveys
- cost-benefit analysis
- analysis of customer needs

Background (2)

- Japanese government system



•Project categories by source of funds

Central government projects

Prefectural government projects:
- exclusively financed by the prefecture
- subsidized by the central government

Municipal government projects:
- exclusively financed by the municipality
- subsidized by the prefecture and/or central government

History (1):
System for Evaluating Government Policies

- Begun at the prefectural government level

  E.g., Hokkaido 1999, Mie 1998

  – Local governments understand the needs of their customers better than the central government does.

  – Local bodies are smaller in scale than national bodies, and governors have more latitude in exerting leadership.

- The first evaluations were interim evaluations

  – Financial constrains were expected by local governments from planned financial reforms of the central government in 2004

History (2):
Suspension of large-scale project

- Trans-Hidaka Prefectural Road (Hokkaido)
  - new 101-km road
  - construction started in 1984
  - 54 billion yen spent in 18 years, but only 40% completed
  - needed additional 98 billion yen and 35-40 years
  - prefectural project subsidized by central government
- Suspended in 2004, first termination of an ongoing large-scale project in Japan

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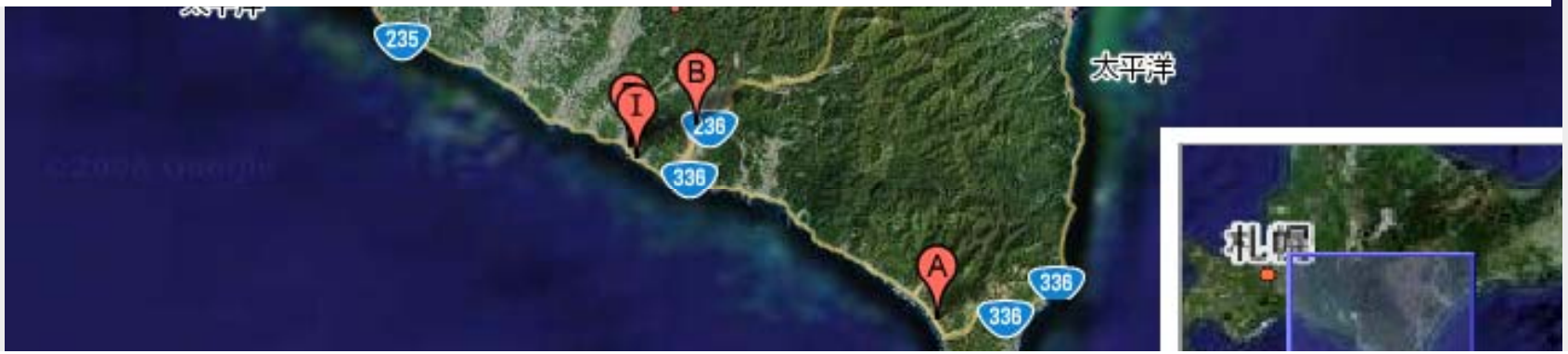


History (3): Suspension of large-scale project

- Background: Decentralisation Promotion Plan (1998):
  - This Cabinet plan allows local governments to terminate subsidized projects w/o subsidy repayment.
  - Termination requires that there be a system for reevaluating such projects and that the system include a steering committee.
- Socioeconomic changes caused project priorities to change
  - Expressway construction caused redundancy.
  - Financial reforms brought financial constrains.

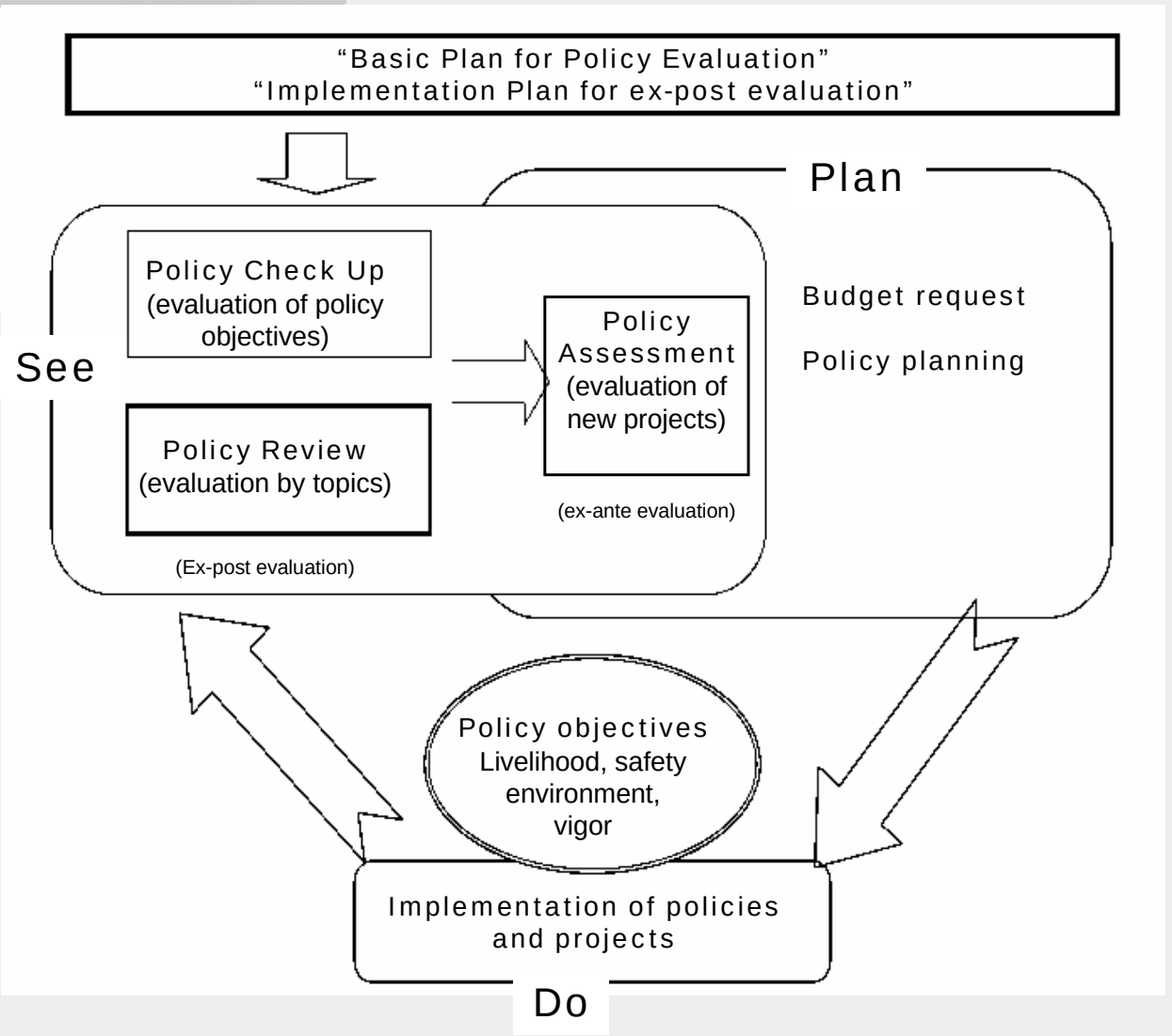
System (1):
System for Evaluating Government Policies

- Government Policy Evaluations Act (GPEA), 2001
- Ex-ante and ex-post evaluation, and interim evaluation when necessary
- Aims:
  - accountability
  - efficient, high-quality government projects
  - outcome-oriented projects that meet needs of nation

System (2):
System for Evaluating Government Policies

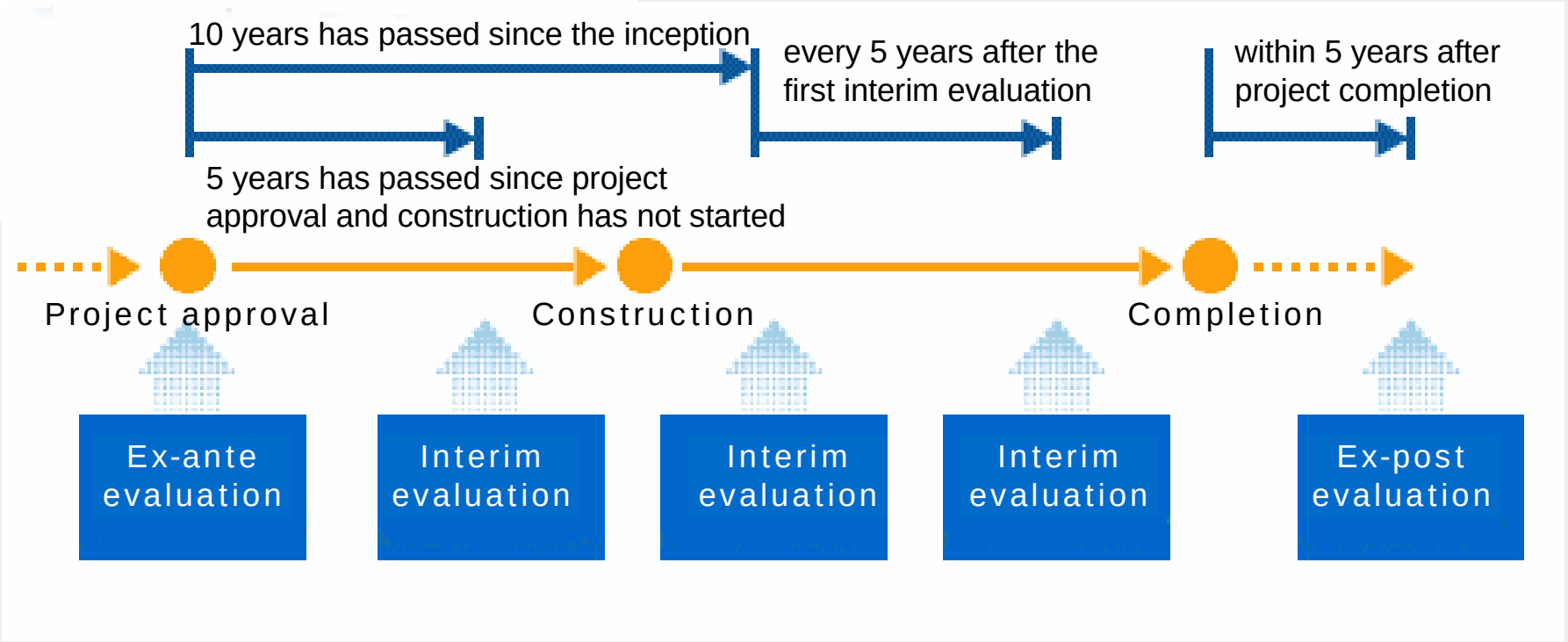
- Japanese system characterized by
  - Mandatory evaluation
  - Comprehensiveness
    - All aspect of government activities are subject to evaluation
    - Three types of evaluation: project evaluation, performance measurement and comprehensive evaluation of multi-ministerial policy
  - Combination of existing evaluation systems
  - Flexibility

Policy Evaluation System (MLIT)



Project Evaluation System (MLIT) (1)

Project evaluation flow



Project evaluation in terms of necessity, efficiency and effectiveness

Project Evaluation System (MLIT) (2)

- Ex-ante evaluation:
  - year before budgeting the project
  - necessity, efficiency, effectiveness
- Interim evaluation conduced when
  - 5 years passed since project approval but construction not started
  - 10 years since inception but without completion
  - 5 years since project planning started w/o approval
  - every 5 years after first interim evaluation
  - socioeconomic changes or technical innovation calls for reassessment
- Ex-post evaluation:
  - examine need for further improvement
  - within 5 years after project completion

Feasibility study (MLIT)

- Mandatory, except for maintenance and management of existing infrastructure and disaster-restoration works
- Components:
  - Technical, engineering studies
  - Cost-benefit analysis (mandatory)
  - Demand estimation, revenue-expenditure balance estimation, environmental assessment, etc., as necessary

Cost-Benefit Analysis (MLIT) (1)

- Technical Guidelines of Cost-Benefit Analysis for Public Works Projects (2004)
- Conducted for ex-ante evaluation, and for interim evaluation when necessary
- Cost/benefit items differ in manuals for each field
- Economic feasibility indicator: B/C
  - Net Present Value (NPV), Internal Rate of Return (IRR) are less used
- Conducted in FY 2006 for
  - 353 new projects (out of 570) and 828 ongoing projects (out of 879)
  - 8 projects terminated

Cost-Benefit Analysis (MLIT) (2)

- Ex-ante evaluation:
  - Assess investment efficiency
  - Compare social benefits for implementation vs. no implementation
- Interim evaluation:
  - Assess the investment efficiency of the entire project
  - Assess the investment efficiency of the remaining portion: divide estimated benefit from interim to completion by additional costs of completion

Case study: project termination (1)

- Subway project in Kawasaki City (Kanagawa Prefecture), near Tokyo
  - 15.5 km (10 stations)
  - approved in 2001: investment of 522.6 billion yen
  - The city suspended construction in 2003
    - demographic changes
    - financial constraints
  - subject to interim evaluation in 2006
    - 5 years passed since approval w/o construction

Case study: project termination (2)

- Feasibility study for interim evaluation
  - 3 scenarios: original plan, modified plan (original route w./ spec. changes), and new route
  - Demand estimation, cost-benefit analysis, revenue-expenditure analysis

	Ex-ante	Interim evaluation (FY 2006)		
	Original plan	Original (a)	Modified (b)	New route (c)
Construction cost (bil. yen)	522.6	460.6	401.6	424,6
Estimated ridership (thou. person/day)	179	152	154	204
Revenue-expenditure balance breakeven cumulative loss breakeven cumulative cash need	 26th year 28th year	 never never	 80th year 68th year	 22nd year 31st year
B/C (30 years)	2.2	1.7	1.9	2.4

- Impossible to achieve revenue-expenditure balance in 40 years → termination

Issues (1)

- The implementer (the government) is the body that conducts the feasibility study.
  - Estimations of costs and benefits may include intentional or unintentional biases toward results that justify a project.
  - Some benefits excluded from the benefit estimation because of the difficulty of monetizing them are qualitatively described. Such descriptions may overstate or understate the benefit.
- Direct comparisons of B/C are not possible for different types of project because they are based on different ideas, cost/benefit items

Issues (2)

- In the case of a large-scale project, the project is divided into phases, and approval and budgeting are carried out successively for each phase.
  - Evaluations are carried out for each phase.
  - It’s very difficult to judge efficiency and effectiveness of a large project by looking at it in small phases.
- In the case of multi-government level project, evaluations are carried out by each government level
  - No comprehensive evaluation system for multi-government level project so far

Conclusion

- Systems for evaluating government policies in Japan started at the local level, from interim evaluation.
- Feasibility studies are mandate under the system for evaluating government projects.
- Feasibility studies for project evaluation serve as a basis for modifying or terminating inadequate projects.
- The system greatly contributes to improving the efficiency of public investment.