# Chapter 3. Reform of MLIT Policy in the 21st Century

In order to solve the negative inheritance of the 20th century stated in the previous chapter and to solve newly actualized problems effectively, the administration of Ministry of Land, Infrastructure and Transport(MLIT) is to be reformed as follows.

### Section 1. Reform of Public Works

There is a need for the MLIT to pay attention modestly and calmly to the latest critical opinions of public works, to inspect them objectively and to make decisions to make necessary changes without any hesitation, based on principles stated in the "Outline of Basic Policies for Macroeconomic Management and Structural Reform of the Japanese Economy" (cabinet decision on June 22, 2001) and "Structural Reform and Medium-Term Economic and Fiscal Perspectives" (cabinet decision on January 25, 2002). MLIT is trying to totally review its traditional policy from a zero base, including decision and procedure of public works, and to reform itself voluntarily without "sanctuary".

# [Various points of discussion in connection with public works]

#### ○ Scale of public investment

Recently, real public gross fixed-capital formation in Japan by GDP ratio is higher than in othe OECD countries. In Japan, where the history of infrastructure improvement is short, infrastructure improvement was developed in a short period, and because Japan has to bear severe conditions of land usage, increased improvement expenses and necessity for infrastructure improvement are unavoidable. Moreover, recently the fiscal deficit has increased cumulatively because not only public investments expenditures, but also social security payments have been increased and tax revenue has been reduced. In this severe fiscal situation there is a need to change and review public investment expenditures.



## 39. Changes in social security expenses and public investment expenditures (after revision)

Note1: Researched by the MLIT. Note2: Fiscal 2001 original budget.





Although it has been pointed out that the economic enhancement effects of public investments are declining, throughout the 90's they played a role in supporting the bases of the economy, and the construction industry also functioned as an employment absorbing sector.

> 41. Changes in comparison to previous year in public building investment and number of employees in construction industry



"Forcast on constructions investments" by MLIT Date)

Labor force survey" by Statistics Bureau of the Ministry of Public Management, Home Affairs, Posts and Telecommunications Note 1 : Compiled from the Construction Economy Report of July, 2001 by Reserch Institute of Construction and Economy Note 2 : Poblic building investment in construction (reference value 1995) the is the average between values from the previous two years.

When public investments decrease, it is important, significantly so in local areas, to provide support to construction companies in their advancement into new fields of businesses for securing and creating employment, while promoting smooth transfer of the labor force from the construction industry to other industries.



## 42. Number of employments created per 100 million yen public building investment in construction

Note : Inter-regional Input-Output Table of Construction Sector of 1996

## ○ Distribution and rigidity of public investments

Some of the ideas that have been pointed out concerning distribution of public investment among different fields and regions are that it is very inflexible and does not meet needs, and that the long-term plans have made it rigid. As seen earlier, there have been considerably large long-term changes in share of public investment by purpose. Also, some public investments, even though within the same field of work, are being used to meet new objectives of the time, such as preparation for information technology; therefore the contents of the work are changing. Attempts have been made to provide well-modulated inter-regional distribution to meet specific needs of the different regions, which henceforth will require dealing with local needs more accurately.

#### 43. Share of works conducted in the three major metropolitan areas



Note 1: Initial budget base of Fiscal 2000 (subsidizing works)

Note 2: Three major metropolitan areas include Tokyo Metropolis and six prefectures, Kanagawa, Chiba, Saitama, Aichi, Mie, Osaka, Kyoto, and Hyogo. Note 3: Airport improvement includes directly administered projects.

Note 4: Research by MLIT

## ○ How long-term plans should be formulated

Many projects to improve social infrastructure involve long-term development and require well-planned and steady progress. Long-term plans are of the same importance as before. On the other hand, long-term plans have made rapid reflection of changes in the economy on projects rather difficult, which calls for fundamental reviewing of such aspects.

## O Efficiency and effects of public works and their promotion methods

There have been many opinions concerning transparency of demand forecasting, effects, costs, and procedure of individual public works. It cannot be denied that there has not been enough effort to explain the necessity and effects of certain projects until now. Therefore, it is necessary to pursuit efficiency with a new frame of mind by, for instance, by striving to clearly explain the necessity and effects of projects and attempting to prioritize them.

A method of conducting an improvement on loans and repayment by charging users (tariffs) is effective for meeting an urgent requirement of improvement under a constrained budget. However, as it has been pointed out that it will become the citizens' burden when actual demand diverges from the forecast, efforts must be made to improve the accuracy of forecasting, to verify profitability, and to further promote disclosure of information.

As for costs, even though there are still factors that may cause cost increases because of the structural characteristics of our national land, the cost difference with U.S.A. has almost disappeared when compared after equalizing the conditions. It is necessary to continue comprehensive efforts to reduce public works costs.

# 44. (Japan-U.S. comparison of construction costs)

## [Efforts in public enterprise reform $\sim$ converting to social infrastructure improvement of the 21st century style $\sim$ ]

#### O Basic philosophy and determination to tackle reform

As mentioned above, there is a mountain of challenges that MLIT must deal with in the 21st century and it is essential for social infrastructure to be part of the solution. On the other hand, reduction of investment surplus, further constrained finance, and increase of maintenance and renewal demand are forecast. Under these conditions, for the MLIT, which is largely responsible for the social infrastructure to fulfill its mission, it is essential to reform the way it hadles preparation, maintenance, and improvement of the social infrastructure through dialogue with the citizenry in general so that the best possible results can be brought out with limited resources. Furthermore, as the entire government is working on "structrual reform without sanctuary," we at MILT are determined to further promote and develop our efforts on reform by thoroughly and completely reviewing public works.

To that end, "Measures on Public works Reform by the MLIT" was prepared in June 2001. By following this guideline, we are developing public works that are appropriate to the 21st century and truly beneficial to the people of Japan: without loss or waste, speedily, and striving to reduce costs;

meeting regional needs and respecting the initiative, originality, and ingenuity of the local areas; and winning the confidence of the nation by further improving transparency.

O Prioritization in public investment projects to "21st century style areas"

In order to promote infrastructure provision effectively to address 21st century issues, public investments shall be reallocated to the following priority areas: 1) Urban Renaissance and formation of areas with individual character and beautiful land, 2) realization of a society harmonized with global and regional environment, 3) Responding to a declining birth rate and the aging of society, 4) realization of transportation and logistics systems adjusted to the growth of globalization, and 5) Promoting national safety, disaster prevention.

Especially the following areas, investment projects have been strictly reviewed:

(Reviewed areas and projects)

\* In new urban development projects, to prioritize on projects in established city areas,

\* Regarding small-scale sewerage projects, the expanded use of joint sewage treatment tanks shall be considered from the perspective of cost, efficiency and so on.

\* A freeze shall be put on all new feasibility studies for large-scale dams. Dam projects in progress shall be selected based on a rigorous review of urgent demand for water and the possibility of more effective utilization of existing dams.

\* To review how to implement non-started projects of national expressways by examining their profitability, etc.

\* Provision of public housing shall make the maximum use of the existing housing stock through such means as remodeling and the governmental rental contracts with private landlords.

\* Adoption of new local port projects shall be restricted.

\* Adoption of new local airport projects shall be restricted, apart from airports serving remote islands.

## 45. "Examples of prioritization of project implementation points (results up to fiscal 2001)"

Areas	Fiscal 1996- fiscal 2001 (number of project implementation points)
River improvement	About 58% decrease
Dam construction	About 30% decrease
Erosion and sediment control	About 49% decrease
Prevention of landslides	About 26% decrease
Coastal protection works	About 20% decrease
Prevention of collapse of steep slopes	About 56% decrease
Street improvement	About 36% decrease
Regional road improvement	About 25% decrease
Port and harbor development	About 30% decrease
Airport development	About 24% decrease
Improvement of public facilities related to housing and housing lots	About 34% decrease
Sewerage improvement	About 47% decrease
City parks development	About 63% decrease

Note: Sewerage improvement : number of areas where sewer is not in service

Improvement of public facilities related to housing and building land: number of housing complexes Airport development: number of establishments of new runways and extensions of runways

## ○ User-transparent public investment projects opened to citizens

In order to promote participation of citizens from earlier stages, efforts are being made to develop various ideas about citizen participation, such as examination towards the preparation of guidelines for preliminary explanation meetings, and for public Involvement(PI) and as implementation of "social experiments", etc.

Additionally, procedures are being drawn up for implementation of business evaluation common to public enterprises of the jurisdiction of the Ministry of Land, Infrastructure and Transport and improvements in the objectivity and transparency of public enterprises are being planned. Combined efforts are being made such as to ensure the nation's trust in public works, etc. by promoting fair bidding and contracting.

Furthermore, Law concerning Promotion of Fair Bidding and Contracting for Public Works Projects has been enforced since April 2001 and fair bids and contracts are being promoted through all public tendering entities including local governments.

### (Examples of citizen participation)

## "Park and ferry ride"

With the aim of examining the elimination of traffic congestion in the central area of Otsu city, Shiga prefecture, and utilizing transportation in Lake Biwa, a social experiment using a ferry was carried out for the first time in November 2001.

Participants in the experiment were recruited and the experiment was carried out for five days, in which parking lots were set up along the Seta river in Otsu city suburbs and along the shore of Lake Biwa in Kusatsu city suburbs, and two routes to Otsu harbor by ship were established, through the operation of a connecting bus from Otsu harbor to Otsu city center along with the use of free bicycle rental.

From now on, a comprehensive municipal transportation system, combining measures such as "park and ride", city circulation buses, etc. is due to be examined.





○Cost reform in public works

New Action Plan for addressing cost reduction of public works incorporating concrete measures to reduce costs have been planned in March 2001, and efforts are being made for comprehensive cost reduction. Additionally, in order to promote cost reduction even more, the "promotion of public investment cost reform" was incorporated in the September 4, 2001 "Policy package of anticipated measures for reform": (a) promotion of annual works equalization volume, (b) promotion of the use of new construction technologies, (c) early implementation of electronic bidding system, (d) others (improvement of competitiveness in bidding, etc).

Measures for comprehensive cost reduction in fiscal 2000

(a) Reduction in construction costs (reduction of approximately 11% from 1996 to 2000)

(Example)

\* Cost reduction securing the same function

Use of seawall-accumulated sand for seacoast preservation, adoption of channel gates and bridges of new structure, adoption of technical proposals from private sector.

\* Cost reduction for the same product (reduction of approximately 12% from 1996 to 2000)

Increase in construction efficiency (efficiency improvement), price reduction (by wholesale price reductions, excluding labor cost, etc.), reduction of labor cost, etc.

(b) Reduction of construction time

(Example)

\* Reduction of construction time by new construction technology (result: realization of earlier use)

Reduction of construction time from approximately 6 months to 4 months by means of diagonal-stay embankment (TRD construction technology)

(c) Reduction of life cycle cost (improvement of quality of facilities)

(Example)

\* Adoption of unpainted weather-proof structural steel (result: reduction in maintenance expenses)

\* Implementation of low noise pavement (result: reduction of environmental burden)

(d) Reduction of the social cost of construction

(Example)

\* Promotion of recycling (result: reduction of environmental burden)

Effective use of approximately 70% of biomass

\* Relief of traffic congestion (result: reduction of congestion time)

\* Reduction of one lane regulation from 460 days to 8 days for all lane closings.

(e) Reduction of long-term cost by improving construction efficiency

(Example)

\* Use of new technology (result: increase in industrial efficiency)

Approximately 1,800 cases of use of new technology by fiscal 2000

Additionally, the following are being addressed:

(1) Inducement/use of private investment by promotion of PFI, use of market functions in housing construction and maintenance, etc;

(2) Improvement of quality of public infrastructure by effective use and increase of durability of existing stock, etc.; and

(3) Respect for local proposals/original ideas by delegating to the Director-Generals of Regional Development Bureaus, and establishment/expansion of Integated Subsidies, etc.

## 46. (Example of effective use of existing dams)

Suppose there are two dams with different characteristics in the same river system.

Dam A, existing in the downstream, has lower inflows from a larger catchment area and is more effective for flood control. Dam B exists in the upstream and has high inflows from a small catchment area due to heavy rains or snow accumulation in winter.

If part of the water-supply capacity (for domestic, industrial, and irrigation use) of dam A is transferred to dam B, the higher inflow of dam B makes it possible to collect the equivalent water at a smaller capacity (irrigation effect). On the other hand, the increased storage of dam B reduces the tolerance for heavy rain (flood control capacity).

However, the increased amount of the flood control of dam A is larger than its decrease in dam B since the inflows of dam A is smaller. As a result, the need for construction of a new dam for water supply or flood control is reduced.



Also, concerning the land expropriation law, revision was conducted to pursue reduction in the time required for procedures by rationalizing the expropriation commission's rules as well as improving transparency/fairness of procedures by establishing mandatory preliminary briefing sessions/public hearings, etc.

Additionally, revisions such as sector-specific long-term planning, etc. are advancing as to how basic systems should be.