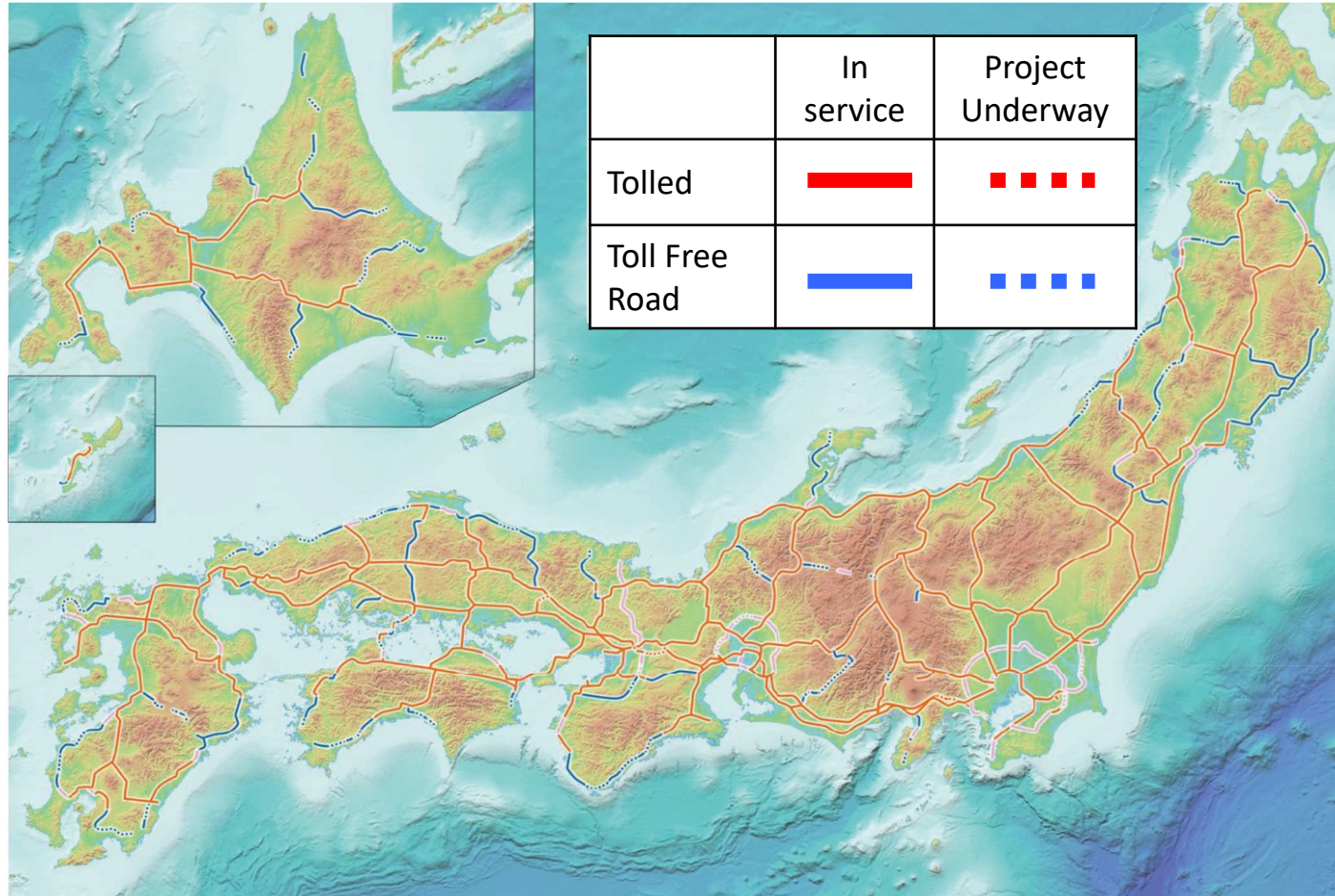


Overview of Japan's Land and Road



Land area

378,000 km²

Total Road :

1,230,000 km

Arterial high-standard
Expressway :

12,400 km

Mountain area

70%

Bridges : **730,000**

Tunnels : **12,000**

Types of Road

Various types of roads in Japan (1)

In the Road Act, a "road" is defined as a thoroughfare that is open to public use and is classified into the following types

1) National Expressways 2) National Highways 3) Prefectural Roads 4) Municipal Roads

■ National Expressway



Ichinomiya Interchange On Meishin Expressway

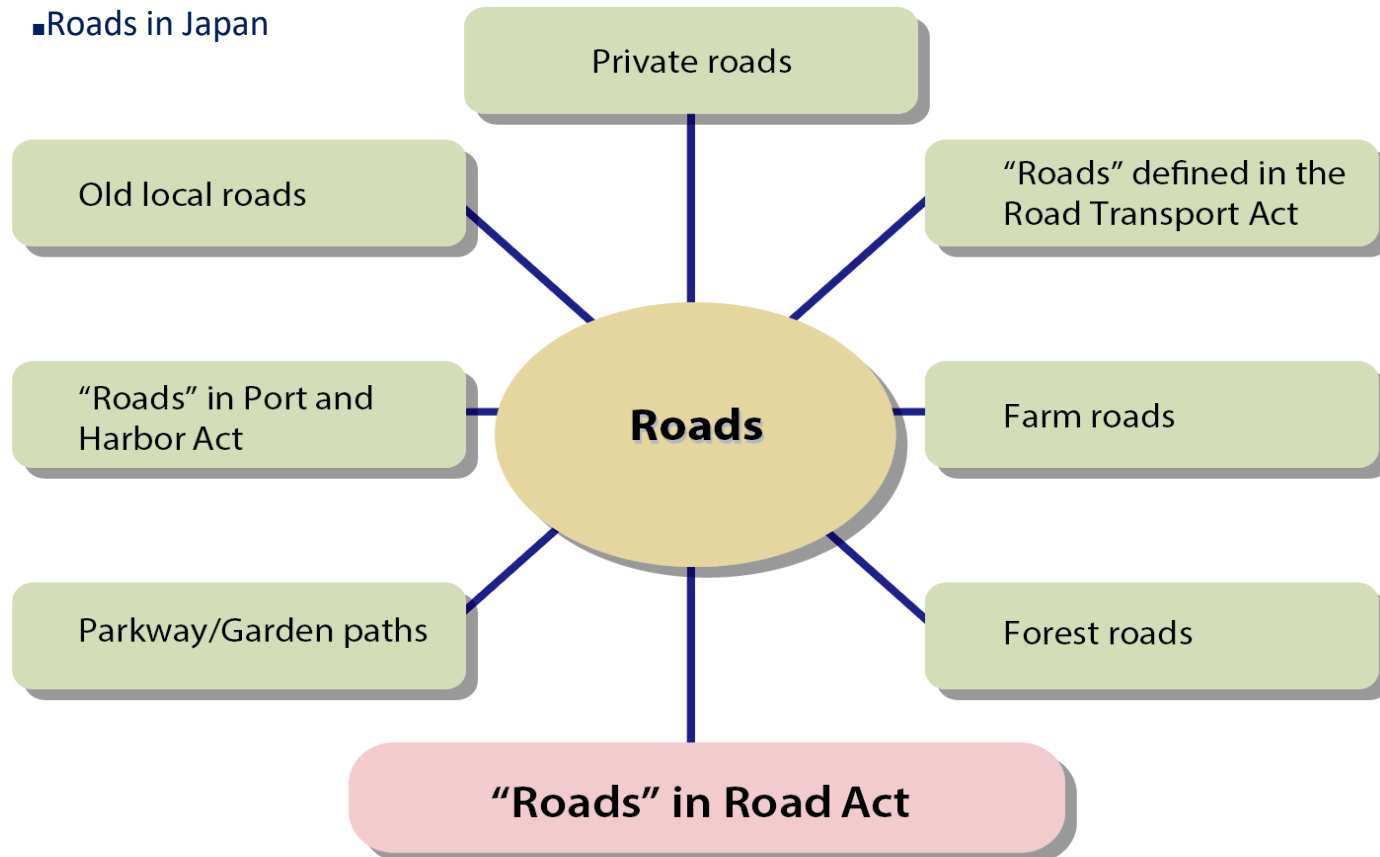
■ National Highway



National highway Route 20

Various types of roads in Japan (2)

■ Roads in Japan



In addition to the roads defined by the Road Act, there are various roads such as private roads, farm roads and forest roads.

Cost sharing of roads

Roads in Japan are classified into National Highways, National Expressways, Prefectural Roads and Municipal Roads depending on their road administrators. The burden sharing for development/improvement and maintenance/repair activities is different based on this classification.

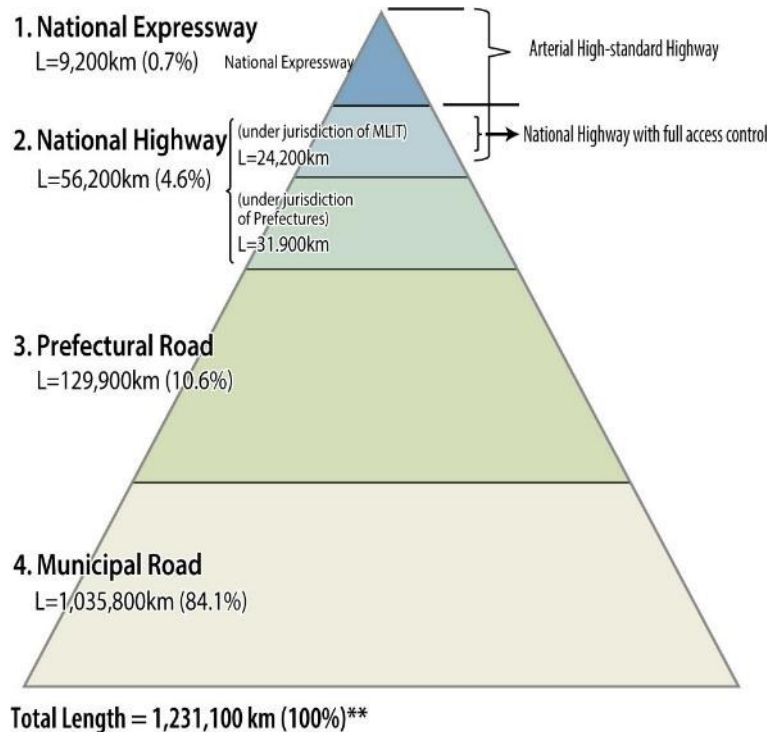
■Cost sharing in road development projects

Road Type		Road Administrator	Cost is carried by	Cost Sharing	
				Development/improvement	Maintenance/repair
National Expressway	Toll	Minister* ¹ [Article 6 of the National Expressway Act]	Expressway Companies (NEXCOs)	Development, improvement and repair activities are carried out using a loan. The debt and management expense are repaid with toll revenue [Article 3 & 4 of the Act on Special Measures concerning Road Construction and Improvement]	
	Under jurisdiction of MLIT		National Gov. Prefectures* ²	National Gov : 3/4 Prefectural Gov* ² : 1/4 [Article 20 of the National Expressway Act]	National Gov : 10/10 [Article 20 of the National Expressway Act]
National Highway	Under jurisdiction of MLIT	<Development/improvement> Minister* ¹ [Article 12 of the Road Act] <Maintenance, Repair and other management> Designated section : Minister* ¹	National Gov. Prefectures* ²	National Gov : 2/3 Prefectural Gov* ² : 1/3 [Article 50 of the Road Act]	National Gov : 10/10 [Article 49 of the Road Act]
	Under jurisdiction of Pref.* ²	Other : Prefecture* ² [Section 13 of the Road Act]	National Gov. Prefectures* ²	National Gov : 1/2 Prefectural Gov* ² : 1/2 [Article 50 of the Road Act]	Maintenance* ³ : Prefectural Gov* ² [Article 49 of the Road Act] Repair : Can be subsidized up to 1/2 by National Gov [Article 56 of the Road Act]
Prefectural Road		Prefecture* ² [Article 12 and 13 of the Road Act]	Prefectures* ²	Can be subsidized up to 1/2 by National Gov [Article 56 of the Road Act]	Maintenance* ³ : Prefectural Gov* ² [Article 49 of the Road Act] Repair : Can be subsidized 1/2 by National Gov [Article 1 of the Road Repair Act]
Municipal Road		Municipality [Article 16 of the Road Act]	Municipalities	Can be subsidized up to 1/2 by National Gov [Article 56 of the Road Act]	Maintenance* ³ : Municipalities [Article 49 of the Road Act] Repair : Can be subsidized 1/2 by National Gov [Article 1 of the Road Repair Act]

Lengths and travels by road type

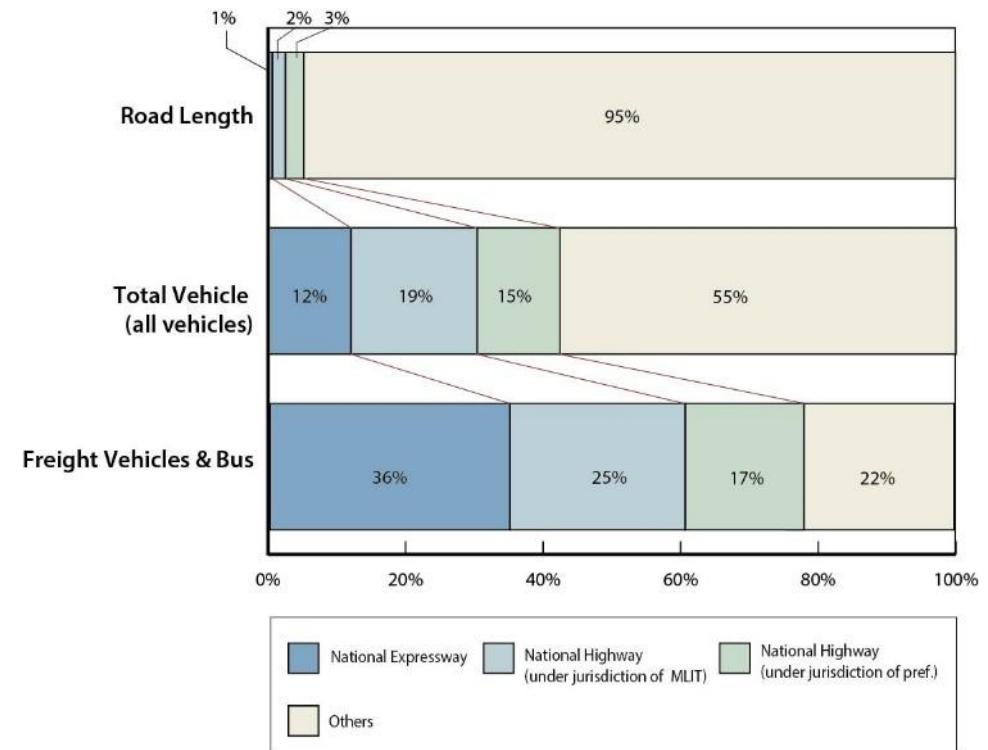
Expressways account for only 0.7% of the total road length, while they account for 12% of the total vehicle kilometers traveled (VKT) and play a significant role in road traffic.

■ Road classification and percentage of road length



(As of April 1, 2022)

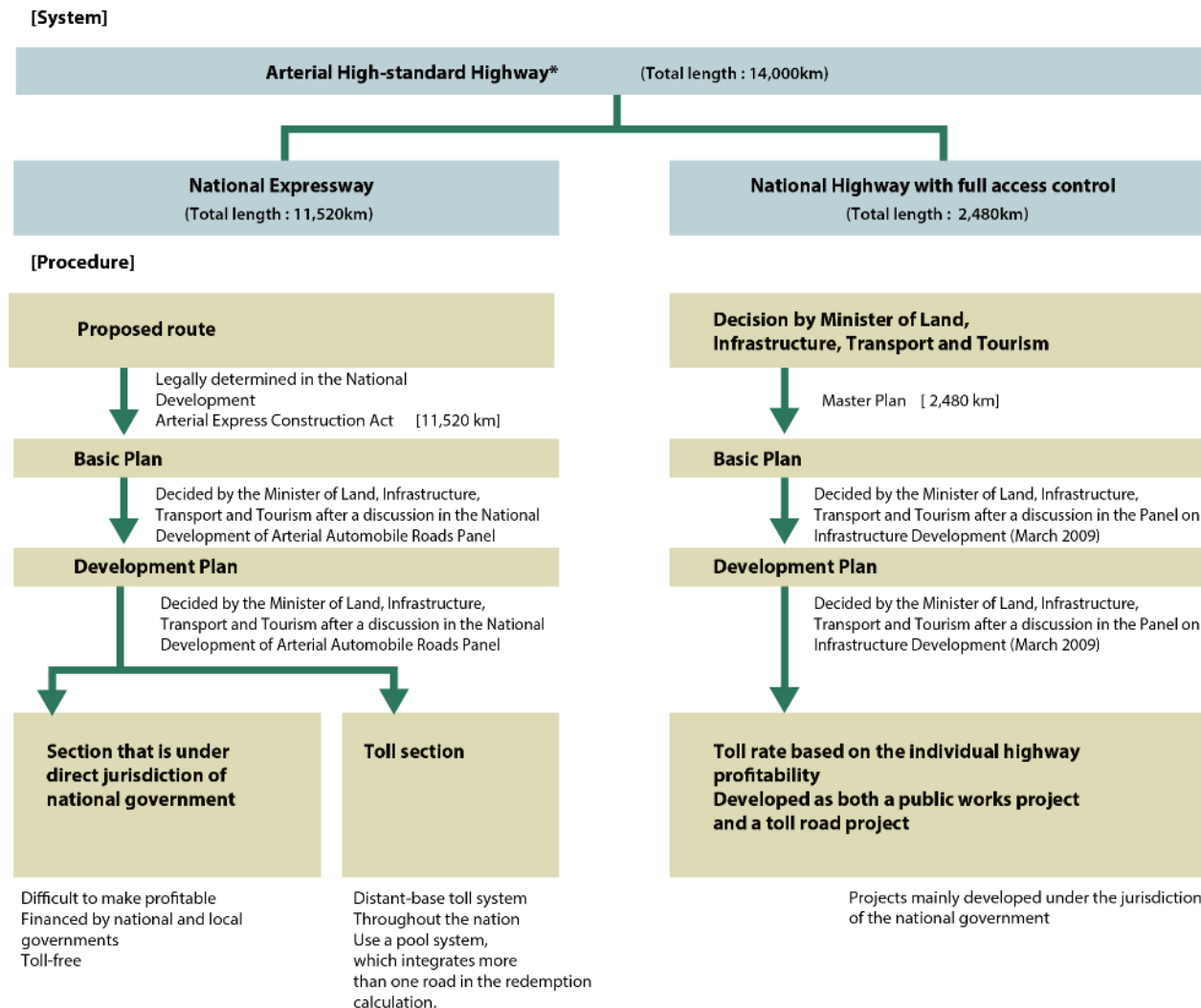
■ Share of length and VKT by road type



(As of FY2021)

Classification of arterial high-standard highway system

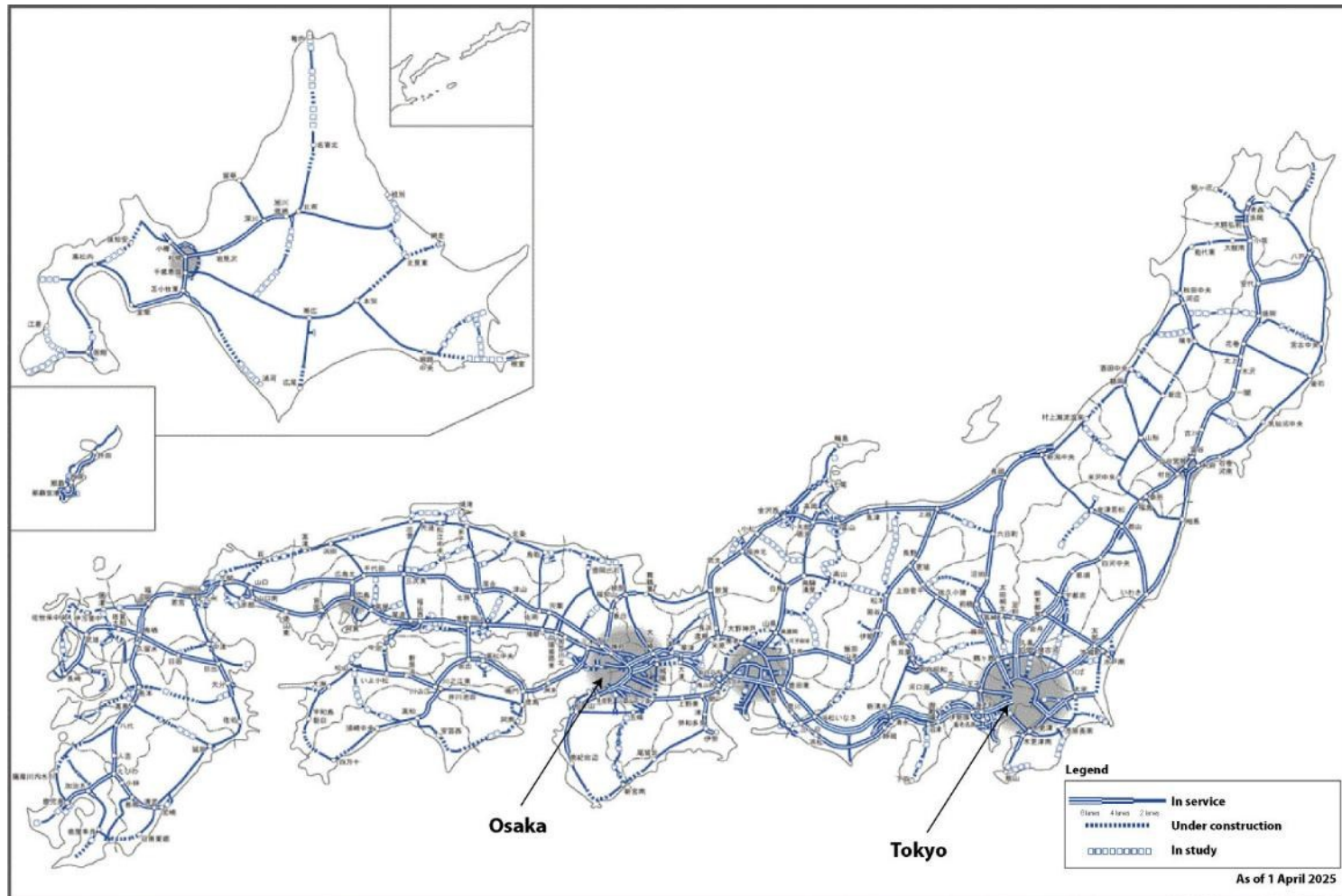
Arterial high-standard highways were created as a part of the rapid surface transportation network across the country. The total planned length is 14,000km



Arterial high-standard highway network

Arterial high-standard highways, which consist mainly of expressways, have been developed throughout the country.

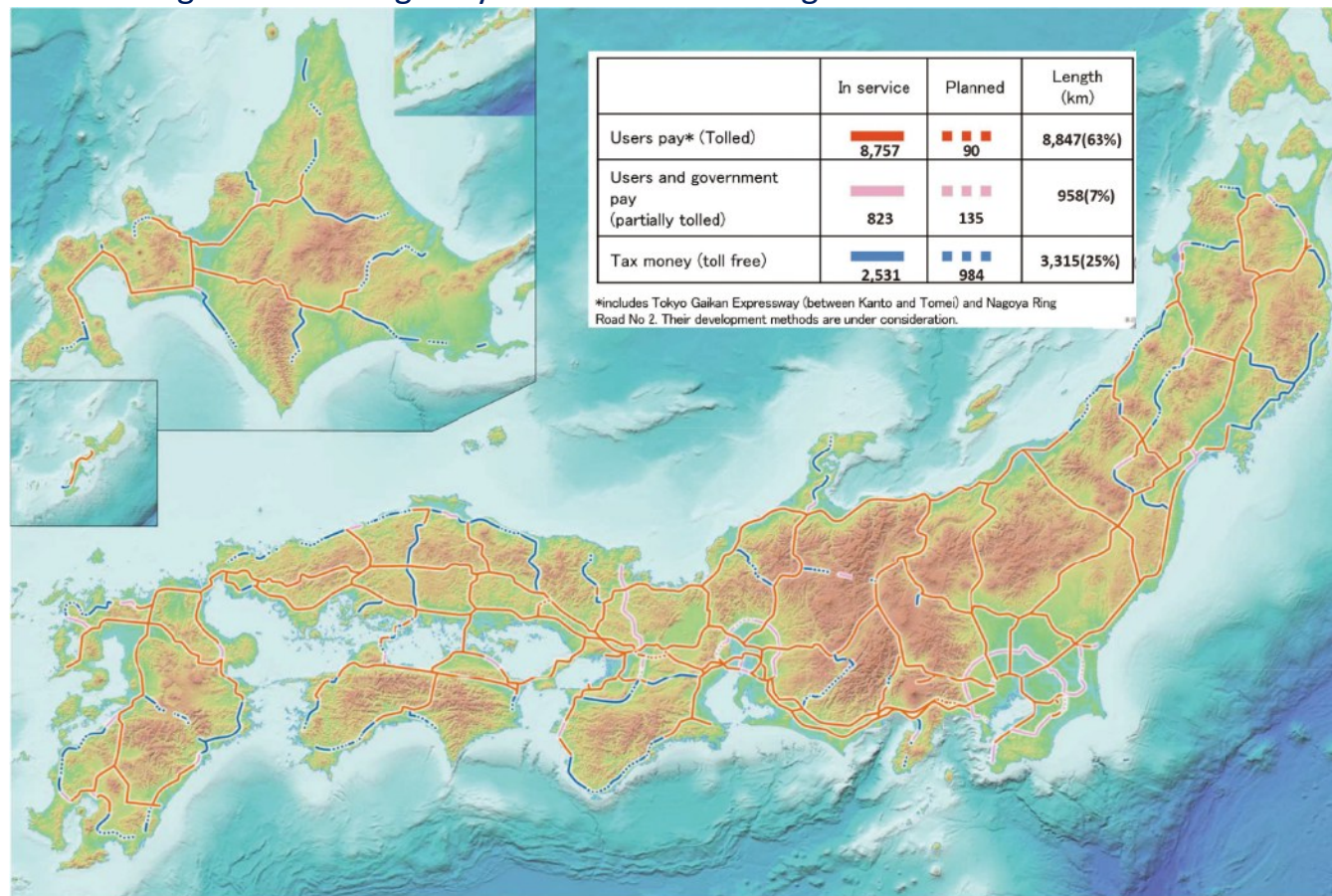
■ Arterial high-standard highway network



Cost sharing of arterial high-standard highways

As of May 2021, 12,000 km of arterial high-standard highways are in service. There are two types of highways in Japan: one is tolled highways and the other free highways. Red lines indicate tolled highways, while blue and pink ones indicate partly or fully financed by tax money because of insufficient profitability.

■ Arterial high-standard highway network cost-sharing



Toll road system in Japan

Rapid motorization accompanied by economic growth demanded networks of expressways and the government didn't have sufficient tax revenue to finance expressway development. That's why "Toll road system" was introduced. This system enables to repay the maintenance costs and construction debts of particular roads with the toll revenues that are collected from the road users.

■Introduction to the toll road system in Japan

In response to the rapidly increasing traffic demand after World War II, immediate road development was necessary. However, additional financial resources were required, so a toll road system was developed.

A Toll Road System

In 1952, **the Act on Special Measures concerning Road Construction and Improvement was enacted.**

→The toll road system was introduced on public roads across the country.

(Project proponent: National, prefectural or municipal governments act as a road administrator.)

In order to expand the current toll road system, as part of the measure to immediately develop roads across the country, an organization needs to be established so that private funds will be widely introduced and comprehensive, efficient operations will be carried out. As such, in 1955 the Road Council recommended the creation of the Japan Highway Public Corporation (JHPC, provisional name).

In 1956, **a full-fledged revision of the Act on Special Measures concerning Road Construction and Improvement Act on Japan Highway Public Corporation was enacted.**

In 1959, the Act on the Metropolitan Expressway Public Corporation was enacted.

In 1962, the Act on the Hanshin Expressway Public Corporation was enacted.

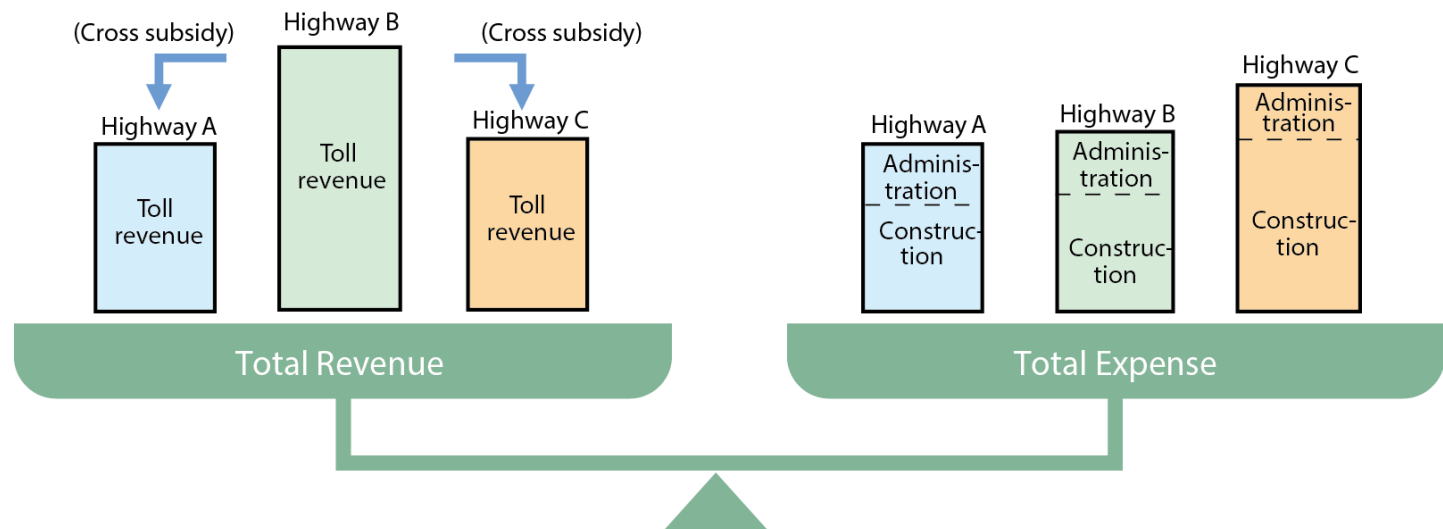
In 1970, the Act on the Honsyu-Shikoku Bridge Authority was enacted.

Pool system

After the partial opening of the Meishin Expressway in 1963, a 3,400km plan, based on individual profitability, was developed and formulated by March 1972. By that time, 8 expressways, about 710km had been developed, including the Tomei Expressway and Chuou Expressway.

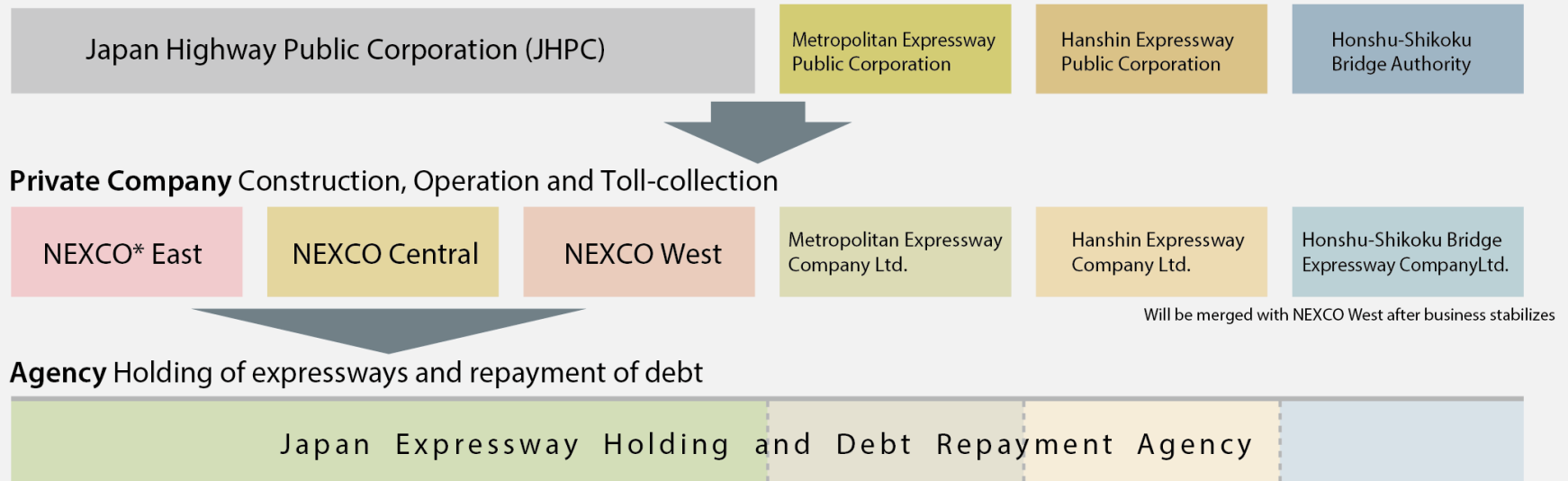
1972 Road Council Recommendation

- 1) Expressways should create an arterial network, wherein they connect to each other throughout the country. Each link is not necessarily considered independent and, therefore, the toll rates should remain consistent and integrated.
- 2) Under circumstances where development costs are affected largely by changing land costs and construction costs that depend on the length of time needed for construction, cost differentiation due to the start time of projects should be avoided. In addition, debt repayment should be smoothly carried out. Shifting from the individual profitability system to a pool system seems to be the most effective method to combat the aforementioned problems and ensure reliability.



Privatization of highway public corporation

■ Organizational chart after

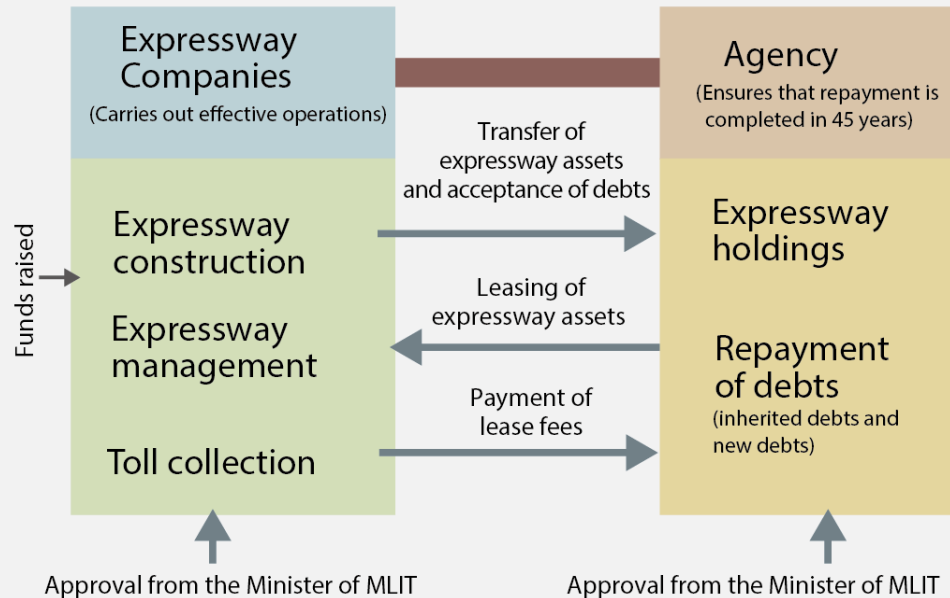


Privatization was based on the following acts

- Expressway Company Law
- Japan Expressway Holding and Debt Repayment Agency Law
- Law Regarding the Development of Highway-Related Laws in Connection with the Privatization of the Japan Highway Public Corporation
- Act for Enforcement of Acts Related to Privatization of the Japan Highway Public Corporation, etc.

*NEXCO: Nippon Expressway Company

Business scheme



Responsibilities of the Agency

- The holding and leasing of expressway assets (property tax is exempted based on the premise of free service in the future)
 - To ensure early repayment of the debts and thus reduce the public's burden
 - To support expressway companies in carrying out their business successfully
- *borrowed from both national and local governments for construction (and this money is loaned to the companies at no interest)

