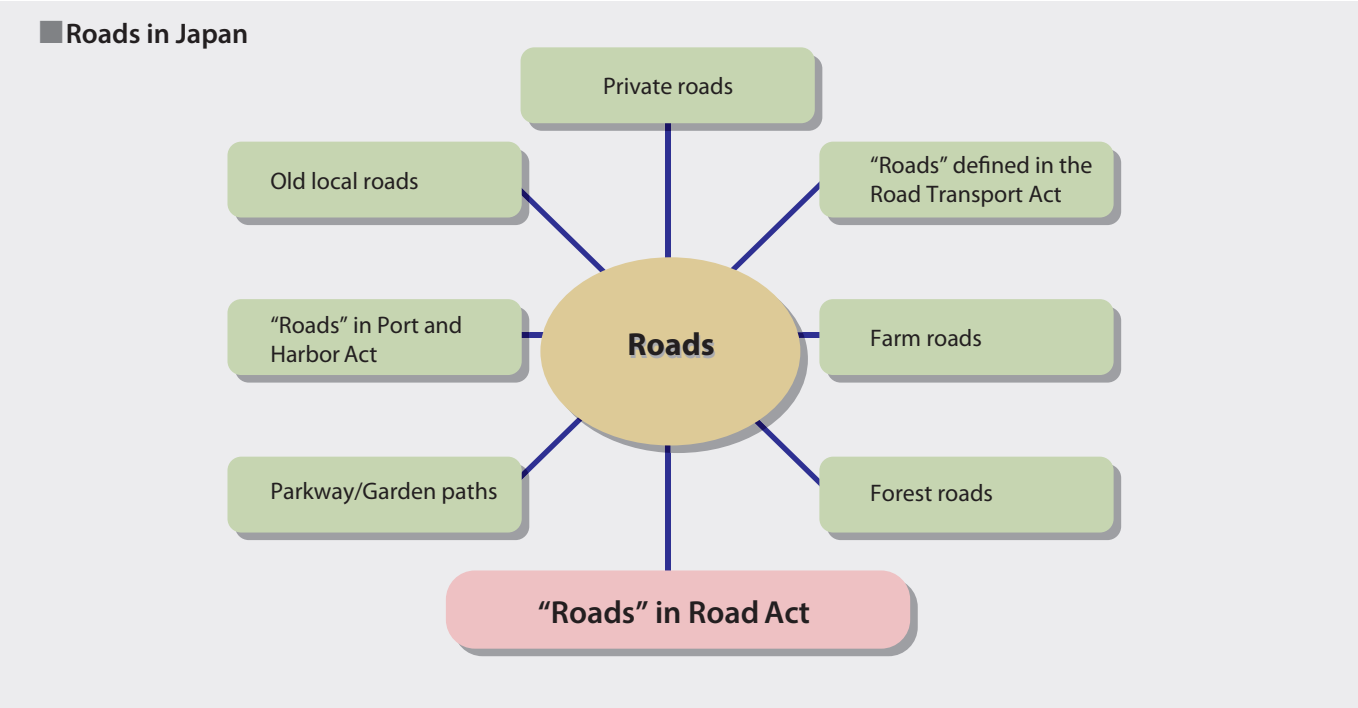


Types of Road

This chapter describes road types which are administrated differently by the national government, prefectural governments, municipal governments and expressway companies. It also explains how their development/improvement and maintenance/repair costs are secured along with the correlated governing acts.

Various types of roads in Japan

The Road Act of Japan classifies “Roads” into several categories; National Highways, National Expressways, Prefectural Roads and Municipal Roads. In addition to the roads defined by the Road Act, there are various roads such as private roads, farm roads and forest roads.



What is a “Road” from a legal perspective?

A “road” is defined in the Road Act. In this Act, a “road” is defined as a thoroughfare that is open to public use and is classified into the following types, under Article 3 Road Types:

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

■ National Highway



National highway Route 20

■ National Expressway



Ichinomiya Interchange On Meishin Expressway

Definition:
 *1: National Expressways form the strategic traffic network for automobiles across the country and connect areas of political/economical/cultural importance or areas that are critical to national interest. (Article 4 of the National Expressway Act)
 *2: Together with National Expressways, National Highways form the strategic road network for the nation and meet the legal requirements. (Article 5 of the Road Act)
 *3: Prefectural Roads form the regional arterial road network and meet legal requirements (Article 7 of the Road Act)
 *4: Municipal Roads serve as a road network within a municipal jurisdiction. (Article 8 of the Road Act)

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.

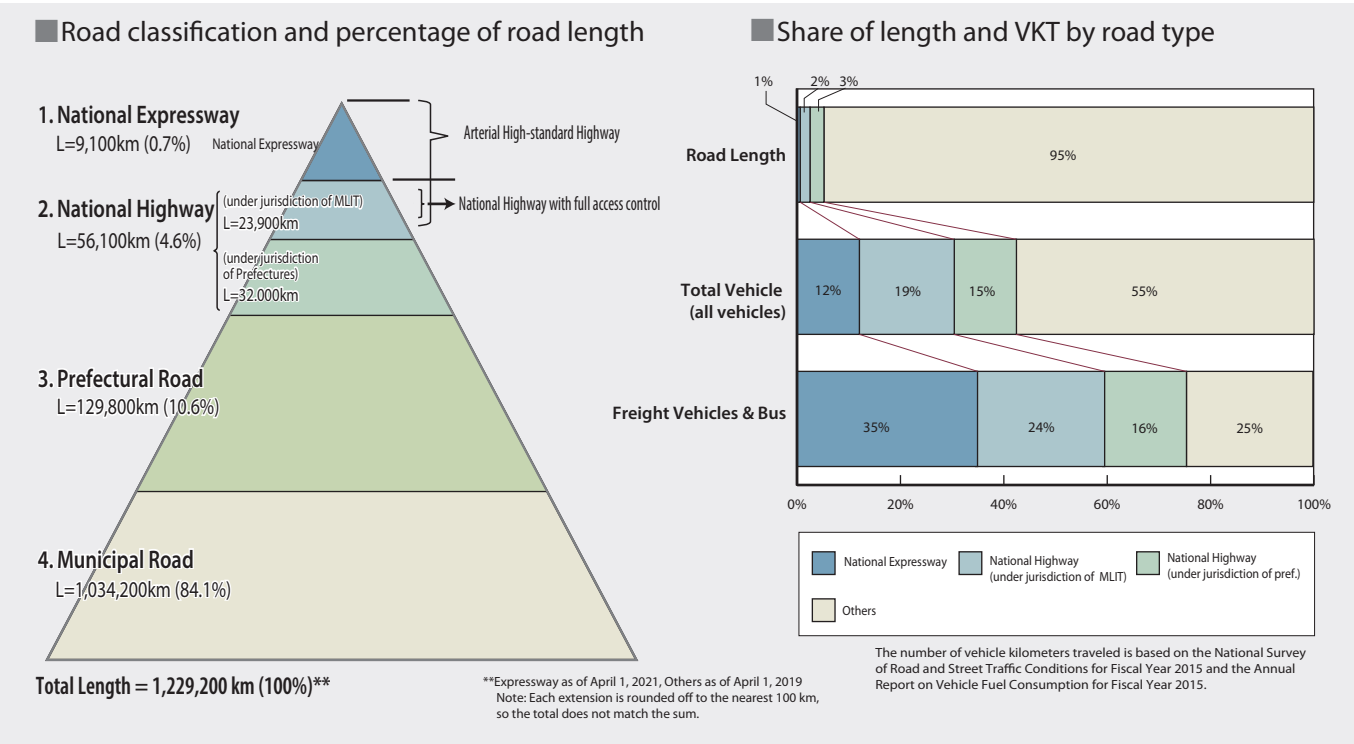
■ Cost sharing in road development projects

Road Type	Road Administrator	Cost is carried by	Cost Sharing	
			Development/improvement	Maintenance/repair
National Expressway	Toll	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	Minister* ¹ (Article 6 of the National Expressway Act)	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 : 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 : 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)

*1 “Minister” refers to Minister of Land, Infrastructure, Transport and Tourism. *2 “Prefecture” includes ordinance-designated cities. *3 “Maintenance” includes repairs.
 Note: Some national highways, prefectural roads, and municipal roads are maintained by Expressway Companies or Road Public Corporations.

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.



Classification of arterial high-standard highway system

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

Classification of arterial high-standard highway system

[System]

Arterial High-standard Highway* (Total length : 14,000km)

National Expressway

(Total length : 11,520km)

National Highway with full access control

(Total length : 2,480km)

[Procedure]

Proposed route

Legally determined in the National Development Arterial Express Construction Act [11,520 km]

Basic Plan

Decided by the Minister of Land, Infrastructure, Transport and Tourism after a discussion in the National Development of Arterial Automobile Roads Panel

Development Plan

Decided by the Minister of Land, Infrastructure, Transport and Tourism after a discussion in the National Development of Arterial Automobile Roads Panel

Section that is under direct jurisdiction of national government

Difficult to make profitable
Financed by national and local governments
Toll-free

Toll section

Distant-base toll system
Throughout the nation
Use a pool system, which integrates more than one road in the redemption calculation.

Decision by Minister of Land, Infrastructure, Transport and Tourism

Master Plan [2,480 km]

Basic Plan

Decided by the Minister of Land, Infrastructure, Transport and Tourism after a discussion in the Panel on Infrastructure Development (March 2009)

Development Plan

Decided by the Minister of Land, Infrastructure, Transport and Tourism after a discussion in the Panel on Infrastructure Development (March 2009)

Toll rate based on the individual highway profitability Developed as both a public works project and a toll road project

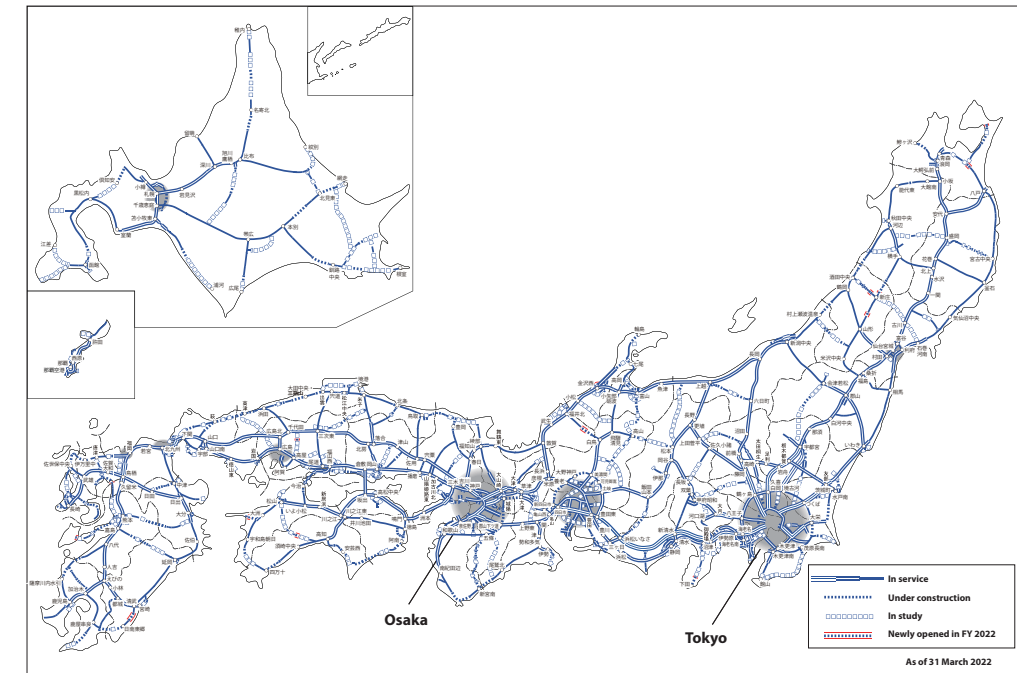
Projects mainly developed under the jurisdiction of the national government

* Planned as a strategic high-speed surface traffic network in "the Fifth Comprehensive National Development Plan" (decided by the Cabinet on June 30 1987 and "Grand Design of Japan for the 21st century" (decided by the Cabinet on Mar 31 1998).

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

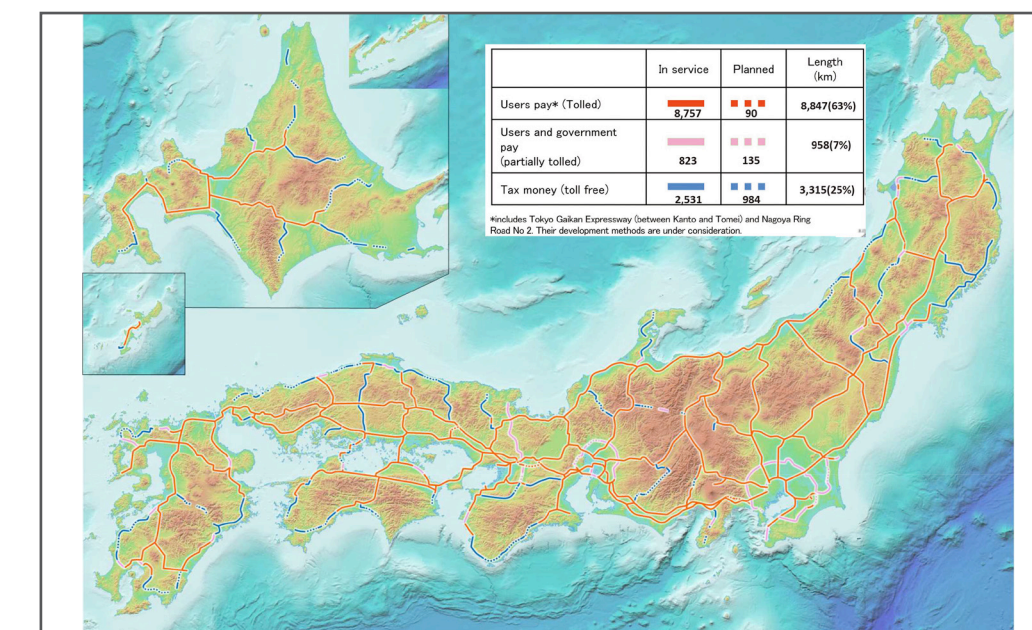


Cost sharing of arterial high-standard highways

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.

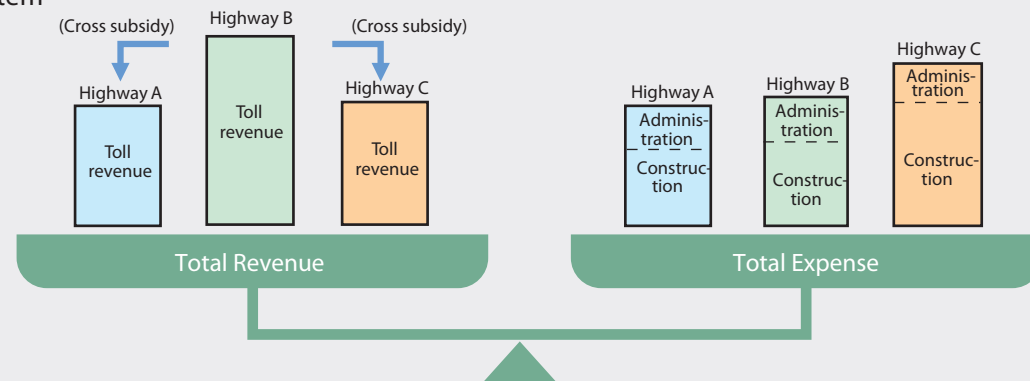
Pool system

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

- 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.
- 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.

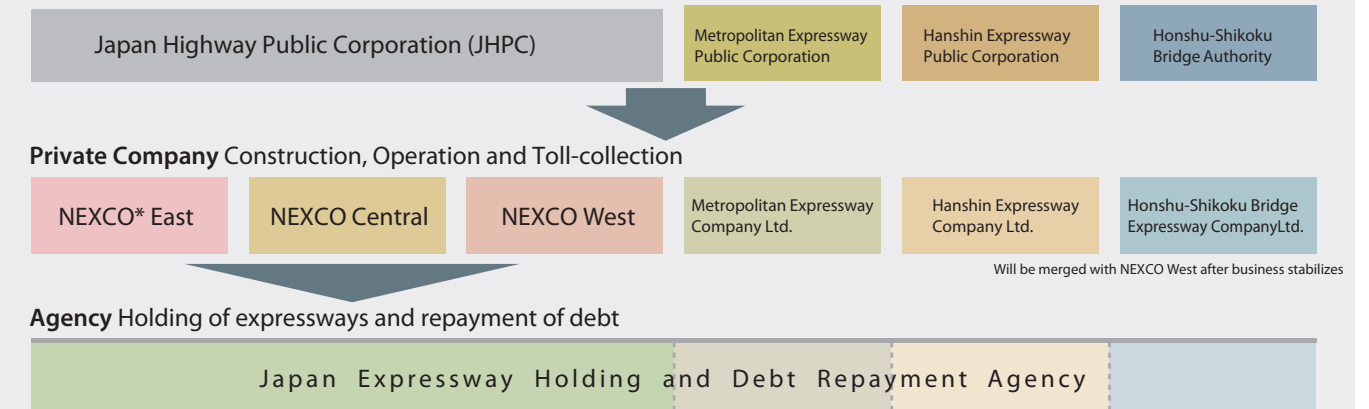
Pool system



Privatization of highway public corporation

- Secure the repayment of interest-bearing debts amounting to about 40 trillion JPY.
- Construct, without delay, genuinely needed expressways with minimum fiscal burden on the general public, while paying due respect to the autonomy of the Companies.
- Offer diverse and flexible prices and services for expressway users by utilizing the private sector's knowledge.

Organizational chart after privatization



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

- Expressway Companies are responsible for the construction of new roads which are funded through loans, before transferring the expressway assets and the corresponding debts to the responsible Agency.
- The Agency is then responsible for completing the repayment of debts within 45 years, using the revenue earned from the roads.
- In 2014, the law was amended to extend the toll period for motorways by 15 years, from 2050 to 2065, and the toll revenue from the extended 15 years will be used for major renewal and repair projects.
- In 2023, the law was amended to extend the toll period by 50 years, from 2065 to 2115, and the toll revenue from the extended 50 years will be used for expressway renewal and upgrading.

Business scheme

