

# Trends in Structural Soundness of Bridges and FAQ

## Tendances de l'intégrité des ponts et FAQ



### Present state of assessment and corrective actions

- ✓ III and IV require repairs or reinforcement.
- ✓ IV involves traffic restriction.
- ✓ Nationwide, III and IV is declining, but the rate of change is gradual.

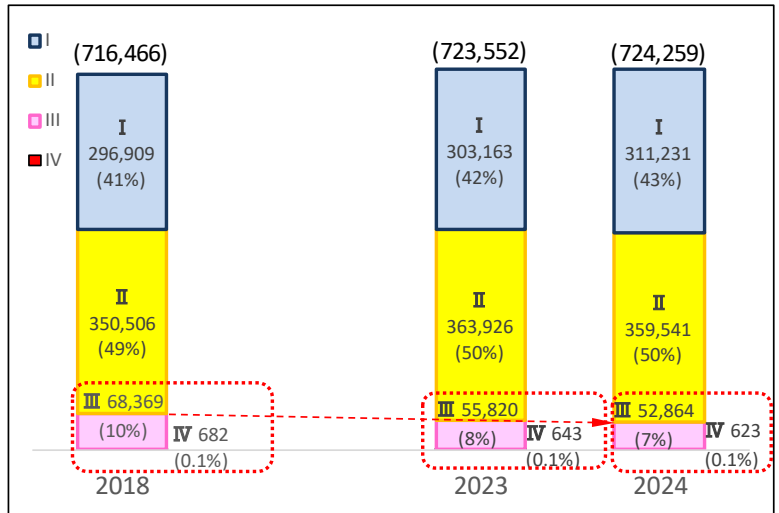


Fig. 1 Numbers of bridges inspected in the past (FY2014 to FY2024) and the proportion of soundness categories (Road Maintenance Yearbook, MLIT Road Bureau, August 2025)

### FAQ:

#### Q1. Why are there many bridges in Japan?

A. Japan is a notably mountainous country that requires many bridges.

Photo 1 Examples of damage due to geographical and climatic conditions



ARCH (Corrosion)



SLAB  
(Two-Way Cracks and Efflorescence)



BEARING  
(Corrosion)



PIER  
(Cracks and Efflorescence)

#### Q2. What measures are being taken to cope with labor shortages?

A. Use of inspection support technology.

#### Q3. Who determines the bridge soundness categories I to IV?

A. Road administrators, as mandated by law.

#### Q4. How is the reliability of inspection results ensured?

A. Inspections are conducted by qualified inspectors who have specialized knowledge and skills. Bridge conditions are evaluated by close visual inspection or equivalent means to minimize misjudgment as well as by use of legally- standardized evaluation forms. This ensures objectivity and reliability of inspection results.

#### Q5. Is close visual inspection alone sufficient to obtain complete information?

A. AI image analysis and use of UAVs are used as needed.

#### Q6. Are numerical evaluation and diagnosis software used?

A. Some road administrators use methods such as field use of tablet data recording and AI-assisted damage detection. Periodic inspections do not involve detailed evaluation such as using structural analysis.

