

35) Recovery and reconstruction of railroads, ports, and airports

- [Issues] (1) Recovery and reconstruction of regional transportation systems, such as railways
(2) Recovery and reconstruction of ports
(3) Recovery and reconstruction of airports

[Initiatives in the aftermath of the Great East Japan Earthquake]

- **Recovery and reconstruction of railways** (Issue 1)
Railway and bus operators worked together to restore services by operating replacement bus services in areas with no service. The JR Kesenuma and Ofunato lines resumed operation in a short period of time at low cost with the application of the Bus Rapid Transit (BRT) system, achieving a high level of convenience with the new construction or relocation of stations and exercising flexibility in changing routes in line with reconstruction urban planning.
- **Recovery and reconstruction of ports and harbors** (Issue 2)
The Tohoku Regional Development Bureau and others issued a request to the Japan Dredging and Reclamation Engineering Association, with which agreements had been concluded in advance, to open sea routes. The Tohoku Regional Development Bureau and administrators at each port affected by the disaster established a council that included representation from local authorities and companies located at ports. Restoration and reconstruction work on levees and other infrastructure was carried out based on restoration and reconstruction policies and timetables developed by the council after examining how logistics functions could support industrial recovery.
- **Recovery and reconstruction of airports** (Issue 3)
The Ministry of Land, Infrastructure, Transport and Tourism's TEC-FORCE (emergency disaster response team) performed emergency drainage at Sendai Airport, which had been damaged by the tsunami, using drainage pump vehicles. The SDF and U.S. military removed debris, with some operations resuming on March 16. Commercial flights resumed on April 13. Restoration and reconstruction efforts at Sendai Airport included the restoration of damaged facilities and equipment, as well as improvements to earthquake resistance.

[Lessons learned and know-how gained]

- (1) Quickly implement emergency responses based on collaborative agreements developed with various organizations in advance.
 - Collaboration with private companies and local authorities is essential for prompt and accurate emergency aid for transportation and logistics networks and emergency restoration of port activities in the immediate days after a disaster. A collaborative system designed for this purpose should be created before a disaster occurs.
- (2) Promote the restoration and reconstruction of transportation networks with a view to the future of the region.
 - Reconstruction projects for transportation infrastructure must be implemented in accordance with local characteristics, while also taking sustainability into account. Restoring infrastructure back to its original form may not be the only option available, so it is necessary to consider innovative ideas, such as introducing BRT to restore railway operations, enhancing port functions, and applying the expertise of the private sector.