

# The Financial Environment and School Safety in Japan

## Overview

**Country:** Japan

**Stakeholders:** Ministry of Education, Culture, Sports, Science and Technology (MEXT), prefecture governments, local/municipal governments, schools, local communities, World Bank

**Hazards:** Earthquakes and tsunamis



Japan is a world leader in addressing safer school infrastructure and is included in three case studies: Module 2.1: Mapping the regulatory environment; Step 3: Financial environment; and Module 5.1: Investing in continual enhancement of safer school buildings

**Summary:** Japan has a long history of seismic events that have caused significant loss of life and damage. The potential impacts of earthquakes and tsunamis on school buildings built before the 1981 Building Code put school children and teachers at an unacceptable risk.

This situation gave shape to the Program for Earthquake-Resistant School Buildings in Japan which aims to make all pre-1981 public elementary and junior high school structures compliant with the 1981 Building Code, through retrofitting and reconstruction activities.

The Program was financed through a national subsidy scheme complemented with local government financial measures. The Program built on previous school infrastructure investment mechanisms between local and national level governments, ascertaining existing local government revenue raising measures for school safety activities which could be scaled up and supplemented during the Program.

### CONTEXT

#### The 'Pacific Ring of Fire' provides significant seismic risk to local public schools

Japan is an industrialised, developed nation of 127 million people, located in the world's most seismically-active zone, the Circum-Pacific belt (known as the Pacific Ring of Fire). Annually, Japan experiences an average of 2,000 earthquakes of intensities that people can detect, which has resulted in a good understanding of the risks posed to school infrastructure.

With a large, advanced economy, Japan has dedicated significant public finances to support interventions to make schools safer. Local governments have managerial and financial responsibility for the operation of public elementary and junior high schools, but share the burden of major expenditure on school building construction and retrofitting with the MEXT.

### OBJECTIVES

#### Financing that secures sustainable action on safer school construction and retrofitting in Japan

The 'Program for Earthquake-Resistant School Buildings in Japan' (the 'Program') launched in 2003, aimed to make all public elementary and junior high school structures compliant with the 1981 Building Code. The Program includes retrofitting and reconstruction interventions financed by a national subsidy scheme and local government financial measures.

The objective of diagnosing the financial environment was to understand the financial context within which school

### METHODOLOGY

infrastructure is planned, designed, constructed, operated, maintained, repaired, and retrofitted. By identifying historical investments, current and planned investments and the how funding system works, including who the decision makers are, the Program was developed to leverage existing financial arrangements and create new financial mechanisms to be delivered effectively and in a sustainable way.

#### Leveraging existing arrangements

The Program replicated existing burden sharing arrangements at the national and local government levels for school infrastructure funding, continuing a collaborative, strength-based partnership.

At the national level, the Program's subsidy scheme supported local governments in conducting vulnerability assessments, seismic risk analysis and retrofitting design, construction management, and construction activities. At the outset in 2003 the subsidies to local government areas stood at one third of the cost of retrofitting and reconstruction. In 2008 the Act on Special Measures for Earthquake Disaster Prevention was revised in order to expedite progress, and the subsidy increased to two thirds of the cost of retrofitting and half for reconstruction, resulting in a significant rise in local level activity.

At the local level, municipal government's utilised fiscal measures including allocating local taxes and issuing local bonds. Local tax allocation was originally limited to disadvantaged regions, but in 2007 this was extended to all municipalities. National government developed a Private

Financial Initiative (PFI) which enabled private investment to assist in funding the Program for municipalities which were struggling to source financing. Finally, the MEXT advised local governments of alternative financial mechanisms that were available from other national government ministries for retrofitting and improving the functionality of schools in the context of disasters.



Source:  
Wikimedia Commons: jim, Lausanne

Gym class in Japan: Typical Japanese school buildings are low to medium rise moment resisting reinforced concrete frames with shear walls.

on some local governments outstripped their ability to raise funds locally, the national government expanded measures for local governments to raise revenue (2007) and increased national subsidies (2008) significantly.

Through the development of flexible financing arrangements, the national government in partnership with local government partners were able to deliver a successful program that upgraded school buildings through:

1. Establishing a financing framework that built on an existing burden sharing arrangement between municipal and national governments for the financing of safer school infrastructure.
2. Being responsive to local government financial disadvantage, enabling assistance to be delivered through multiple and supportive funding mechanisms.
3. Successfully interacting with other programs and initiatives, such as those described in case studies for Module 2.1 and 5.1, as part of an integrated approach to safer schools.

### Learning

- Financial burden sharing arrangements between national and local governments can work well, provided local governments have adequate and diverse local revenue raising measures and national level contributions remain responsive to local government needs.
- Understanding historical financial constraints can result in a program that is designed to be sensitive to financial disparities between areas.

### Find out more

**Read:** Making Schools Resilient at Scale, World Bank, 2016, [www.goo.gl/CqTyyS](http://www.goo.gl/CqTyyS)

**Contact:** Vica Rosario Bogaerts, World Bank, [vbogaerts@worldbank.org](mailto:vbogaerts@worldbank.org)  
Keiko Sakoda Kaneda World Bank, [kkaneda@worldbank.org](mailto:kkaneda@worldbank.org)

### CHALLENGES & OPPORTUNITIES

#### Implementation at a national scale

Some of the less prosperous, rural municipalities experienced difficulties co-financing school infrastructure improvements under the Program, as they had less ability to raise revenue locally to cover their share. An analysis of the each municipality highlighted the capacity for contribution to the Program, and the financing strategy was reviewed, national subsidy amounts were raised, and alternative local revenue raising approaches were introduced. One such local measure was PFIs which were introduced quite late in the Program. Unfortunately it did not have the desired effect as the PFI manual did not adequately inform local governments on what it was and how to make it work.

### OUTCOMES

#### Sustainable program financing

The Program built on an established burden sharing arrangement between national and local governments in supporting school infrastructure. Flexible and diverse financing arrangements were also developed to assist resource-limited local governments to meet their obligations under the Program. As the financial demands