CASE STUDY

A decentralised approach to school construction

Country: Indonesia

Organisation: Ministry of Education, Ministry of Public Works, Ministry of Finance, World Bank

Hazards: Earthquakes, floods, landslides, high winds, volcanic eruptions, tsunamis

Summary: From 1999 Indonesia began decentralising almost all sectors of its government. By giving power to local authorities, it began to address the complex geography, cultural diversity and multiple hazards to which it is exposed. The Ministry of Education and Culture gave funding and decision-making power directly to school management and committees, even tasking them with managing school construction. Although the government is still struggling to provide an appropriate funding mechanism and enough technical support, many school communities have already constructed new school buildings or rehabilitated existing buildings in this decentralised political environment.

Country and hazard overview

In Indonesia, earthquakes, volcanic eruptions, tsunamis, floods, droughts and landslides are prevalent. Since 2000, the country has experienced three earthquakes with a magnitude greater than 8.0. Tectonic movements also make 76 of Indonesia's 150 volcanoes highly active and Indonesia's history includes a series of disastrous eruptions that have killed hundreds of thousands of people and affected global weather patterns. Flooding is also a perennial issue. These diverse and prevalent hazards place about 75 percent of Indonesian schools at risk to natural hazards.

School construction: From centralised to a community-based approach

Around 60 percent of Indonesian schools were constructed in the 1970s and 1980s in a massive Presidential Instruction (Inpres) Program funded in full by the government. Understanding of the building codes and hazards was low and corruption was rampant, leading to poor site selection and construction quality. Nevertheless, access to basic education significantly improved and enrolment was boosted.

Recognising the monumental challenge of building, operating, maintaining, repairing and retrofitting schools in various states of disrepair across thousands of islands, the government decentralised education management down to the community level in 1999. One year later, the central government established a block grant called the School Operational Fund with support from the World Bank, allowing school management and committees to directly receive and manage funding provided by the national government.

To actually give power to the school management committee, the Ministry of Education and Culture (MoEC) and the Ministry of Finance gave each community the responsibility to manage the School Operational Fund. As a block grant, the funding was flexible. It allowed the committee to spend money as they saw fit. It was also allocated based on the number of students – if enrolment increased, the funds to that school would increase.

The school management committee was flexible and consisted of a principal, treasurer and small group of democratically elected community members. These community members typically came from the immediate area but could be drawn from surrounding neighbourhoods or elected for special purposes. This system, in conjunction with the block grant, was intended to allow the school committee to operate as the school implementing unit.

Addressing school vulnerability to hazards

After learning that 75 percent of 258,000 schools in Indonesia are in disaster risk areas, the government launched programs specifically to increase technical assistance for disaster risk-reduction education. They also adopted regulations to increase the hazard-resistance of school infrastructure.

Even though the government knew about some of the problems with school buildings, they did not know specifics. To address this, the MoEC contracted a private company to determine the extent of damage and disrepair of Indonesian school buildings. Considering geographic and logistical challenges, the government allowed school committees to perform basic damage assessments that were then vetted at the district level. After years of surveys, the government learned that one-third of the total schools – more than 89,000 – fell into the heavily damaged and medium damaged category.

Without the capacity to address the diverse damages as a central agency, in 2011 the Ministry of Finance changed the existing Special Allocation Fund (DAK) – previously used for purchasing computers or textbooks – to help maintain education buildings. They drastically increased the portion of the budget allotted to physical expenditures and allocated funds according to damage level and student enrolment. School management committees could use these funds to build new schools or repair existing ones as they saw fit.

Challenges to this approach

Construction was a new responsibility for the school management committees. They had to hire their own contractors and sub-contractors to help them build new schools or retrofit existing ones. While committees did receive some assistance from a MoEC engineer to oversee a project, they did not always have the capacity to implement construction projects nor the appropriate knowledge to prioritise school safety. As a result, DAK funds have been spent returning buildings to their original condition, rather than improving structural components to make them safer.

According to an Indonesian report prepared for the World Bank, decentralisation of school construction increased ownership and decreased costs. In situations where school communities were already oriented to disaster risk reduction principles and where school principals took the lead in construction, school quality increased. However, the government is still working through some challenges related to safer school construction.

- **Technical oversight.** The government has not created an appropriate technical advisory system and school communities often lack the funds to perform rehabilitation and hire a technical consultant. Even if consultants are hired, they often lack the appropriate information to build hazard-resistant design according to local building code bylaws.
- **Public sector coordination.** In Indonesia, the MoPW is responsible for writing and enforcing the building codes, including the design review and construction inspection of schools. Unfortunately, local public works offices are given the same amount of funds regardless of the number of schools in a district. With so many diverse infrastructure tasks to supervise they rarely perform thorough checks – especially if the school is single story. In addition, public works officials rotate between departments to reduce corruption, but with the fast turnover rate officials rarely develop sufficient experience for thoroughly overseeing school projects.

  Under the current DAK fund, the responsibility to finance the supervision of school projects rests on local governments. Because local governments finance the supervision, each unique local political economy can influence the construction costs, potentially compromising quality assurance and safety.

  Noticing these funding and capacity issues, the MoEC provided a special portion of money for quality supervision for each school. Currently, this fund is only applicable for school construction directly financed by the MoEC and not for construction using the DAK fund.
- **Construction speed.** To compound these challenges, the speed at which school management committees must spend DAK funds has pressured school communities to implement projects faster than they are capable. Special allocation funds must be completed in three months to receive another allocation of money across all sectors. Other departments relying on DAK funds for education materials may pressure schools to finish their work within the three-month funding window so the funds for their sectors will not be delayed.

Community-based school construction policy at the national level is possible, but creating incentives that produce safer schools is a complex and lengthy process. In Indonesia, the decentralised approach may be the only opportunity to reach all communities. At the same time, decentralised construction and repair may be, in some cases, of substandard quality. And in Indonesia, where natural hazards are frequent, new vulnerabilities are especially dangerous.

Key takeaways

- Decentralised methods in regions with diverse contexts allow localities the freedom to address their unique needs.
- Even though school management committees can address their own needs well, they may not be immediately capable of managing a construction project.
- Oversight must remain a top priority even if schools management committees are given greater autonomy in construction.

Democratically elected school management committees may use funds to construct new schools or retrofit unsafe ones. The country is working to developing effective systems for providing technical support to local school management committees.
Photo: GFDRR.

The evolution of a community-based approach

The need for community involvment in all stages of safer school construction may lessen as societies develop safer construction practices. When governments have the capacity to build schools safely, their role in providing education and safer schools to their constituents is paramount. However, even when safety is ensured through strong codes and robust construction oversightmanagement, community involvement in school construction remains valuable.

- When local school management committees and broader stakeholders are part of school project planning and design, the schools better reflect cultural norms and community aspirations. Communities also better understand how their schools perform during natural hazards.
- When communities are invited to participate in safer school construction, the process can prompt discussion about disaster risk reduction and be a venue for alerting communities to the changing state of knowledge about hazard exposure. Local communities may find out about newly discovered seismic faults, sea level rise, increased severity or frequency of cyclones brought on by climate change, or how land-use patterns have altered flood plains. Safe school construction provides a local and immediately tangible focus for these conversations.
- Safer school construction also supports a diffused knowledge about the hazard-resistant infrastructure. While few local households may apply safer school construction techniques to their own homes in communities with mature construction industries, community involvement helps maintain the existing culture of safety.
- Broad awareness of and involvement in safer school construction projects also helps maintain the political will needed for funding school maintenance and retrofits, and the safe construction of new school buildings – even if these projects come with costs.

As a strong culture of safety emerges, community involvement in safe school construction becomes part of the wider process of a transparent, democratic and participatory community development process. It becomes one aspect of a resilient community.

A training session for local construction workers. Photo: Save the Children.