

Country Name	The Project for Safe School Reconstruction in Devastated Areas of Earthquake in Offshore of Padang in West Sumatra Region
Republic of Indonesia	

I. Project Outline

Background	The earthquake (magnitude 7.6) on September 30, 2009 caused the enormous damage over the West Sumatra Province, in particular Padang City and Padang-Pariaman District. There were about 1,119 people died or missed, 1,214 people seriously injured and 1,688 people harmed. Total damage and losses were estimated as 21.6 trillion Rupiah, and those in education sector in West Sumatra were estimated as 618.8 billion Rupiah ¹ . Among 1,003 damaged schools in West Sumatra, collapsed or seriously damaged rooms were 259 in Padang City and 1,140 in Padang-Pariaman District in primary schools and 158 in Padang City and 222 in Padang-Pariaman District in junior high schools (all figures are as of 2009). Consequently, there was an increased need for securing safe schools for children and temporary shelters for residents as disaster risks management.				
Objectives of the Project	To provide a safe school environment for children and temporary shelter for nearby residents by reconstructing and enhancing seismic capacity of primary and junior high schools damaged by the Padang earthquake, thereby contributing to reduction of disaster risks.				
Contents of the Project	<ol style="list-style-type: none"> 1. Project site: Padang City and Padang-Pariaman District in West Sumatra Province 2. Implementations of the Japanese side: Provision of grant necessary for reconstruction of seven primary schools and three junior high schools (Original plan: six primary schools and three junior high schools) 3. Implementations of Indonesian side: Installation of fence, gates, sports court and furniture, and final disposal of debris etc. 				
Ex-Ante Evaluation	2010	E/N Date	March 18, 2010	Completion Date	August 13, 2012
		G/A Date	June 7, 2010		
Project Cost	E/N Grant Limit / G/A Grant Limit: 549 million yen, Actual Grant Amount: 549 million yen				
Implementing Agency	Government of West Sumatra Province, Education Office of Padang City Municipality and Padang-Pariaman District				
Contracted Agencies	Japan International Cooperation System (JICS/ procurement agent) Yachiyo Engineering Co., Ltd., PT. ADHI KARYA (Persero) Tbk, PT. SURYA ABADI INDOTAMA				

II. Result of the Evaluation

<Special perspectives considered in the ex-post evaluation>

- The project was implemented by using procurement agent services and, the number of schools to be reconstructed was increased from nine in total to ten in total by utilizing the unused balance of project cost.

1 Relevance

<Consistency with the Development Policy of Indonesia at the time of ex-ante and ex-post evaluation>

This project has been highly consistent with Indonesia's development policy, as strengthening disaster control capabilities and reconstruction of schools are set in policy documents such as "National Medium Term Development Plan (RPJMN)(2010-2014)", "Action Plan for Rehabilitation and Reconstruction of Post-Earthquake Areas in West Sumatera Province 2009-2011", "Disaster Management Plan of West Sumatra Province 2008-2012" and "RPJMN(2015-2019)" at the time of both ex-ante and ex-post evaluations.

<Consistency with the Development Needs of Indonesia at the time of ex-ante and ex-post evaluation>

At the time of ex-ante evaluation, existing school buildings were structurally fragile, and earthquake-resistant construction was required to protect students' lives from future earthquakes. At the time of ex-post evaluation, the schools reconstructed under the project are still needed as a place for education and temporary shelter in case of disaster for students and nearby residents. Besides earthquakes, the schools which are located relatively close to coast line (less than 3,000 meters) are needed as temporary shelter in case of tsunami. Therefore, the project has been consistent with Indonesia's development needs.

<Consistency with Japan's ODA Policy at the time of ex-ante evaluation>

The project was also consistent with Japan's ODA policy as stated in the Country Assistance Program for Indonesia (2004), in which 'assistance for peace and stability' including reconstruction was prioritized.

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Effectiveness>

The project has mostly achieved its objectives, "to provide a safe school environment for children and temporary shelter for nearby residents". The actual number of students who have education in ten schools reconstructed under the project has been more than the target figure since project completion (Indicator 1). Regarding the number of people who can use these ten schools as shelter in case of disaster, the theoretical value calculated based on the actual capacity of the reconstructed schools exceeded the target due to the additional construction of a school (Indicator 2). On the other hand, the field survey and interview result showed that the number of people who actually utilize the schools as evacuation shelter may depend on the location and type of disaster, i.e., if it is too close to the coastline such as some schools in Padang City, people may evacuate to other safer places that may not be affected by tsunami. Nonetheless, according to interviews conducted for ex-post evaluation with teachers of reconstructed schools², 88% (21/24) of respondents think that safety of students against earthquakes has been improved at schools after project completion, and 100% (24/24) of respondents feel that students are currently studying in a safe environment, due to strengthened building structures and higher safety standard, which was realized by the

¹ 1 yen = Approximately 102.11 rupiah in 2009.

² Interviews were conducted for ex-post evaluation with (1) seven teachers of Enam Lingkung primary school in Padang Pariaman, (2) seven teachers of V Koto Kampung Dalam primary school in Padang Pariaman, and (3) ten teachers of Padang junior high school (the total number interviewed: 24).

project.

<Impact>

As for the expected impact, “contributing to reduction of disaster risks”, local authority and residents are aware that school buildings reconstructed under the project are quake-resistant and can be used as shelter when earthquake occurs, as information sharing was conducted for local authority, some local communities and other local stakeholders at the handing over ceremony of school buildings, and the local authority and teachers who participated have shared the information with the local residents. Moreover, information dissemination for local residents has also been conducted by local authority through the Local Disaster Management and Fire Fighting Agency (BPBD-PK) in Padang City, since three reconstructed schools in the city are located in tsunami affected area. While there have been only a few minor earthquakes in project-targeted areas since project completion, reconstructed school buildings of two junior high schools in Padang City have actually been used as shelter during earthquake, and enrollment rate at these schools has increased, although the data was not available, due to their reputation of strengthened building structure (more quake-resistant) and improved educational environment. Therefore, it can be said that this project has contributed to reduction of disaster risks, as it was confirmed that the schools reconstructed by this project are regarded by local authorities and residents as shelters in case of disaster.

Regarding other impacts, no negative impact on natural environment has been observed and no land acquisition and resettlement has occurred under the project.

<Evaluation Result>

In light of the above, the effect of the project has been observed mostly as planned. Therefore, the effectiveness/impact of the project is high.

Quantitative Effects

Indicators	Before the project (2010)	Target 2015 ⁽¹⁾ 3 years After Completion	Actual 2013 1 Year After Completion	Actual 2014 2 Years After Completion	Actual 2015 3 Years After Completion
Indicator 1: The number of students who have education in schools reconstructed by the project (person)	0	Approximately 3,000 ⁽²⁾	3,000 ⁽³⁾	3,088 ⁽³⁾	3,118 ⁽³⁾
Indicator 2: The number of people who can use schools reconstructed by the project as shelter in case of disaster (person)	0	Approximately 75,700 ⁽⁴⁾	79,191 ⁽⁵⁾	79,191 ⁽⁵⁾	79,191 ⁽⁵⁾

Source: JICA internal documents, Ex-Ante Evaluation Sheet, and interviews with National Disaster Management Agency (BNPB), Government of West Sumatra Province, Education Office of Padang City and Padang-Pariaman District

Note: (1) In ex-ante evaluation sheet, it is stated that the target year for evaluation is 2014, which is three years after project completion (The project was planned to be completed in October 2011). However, the project was completed in August 2012. Thus, in ex-post evaluation, the target year should be changed to 2015 (three years after project completion). (2) The target figure of Indicator 1 is based on the number of students of the originally-targeted nine schools. (3) Actual figures of Indicator 1 are the total number of students in ten schools reconstructed under the project. Out of the 3,118 students in 2015, the additionally-constructed primary school enrolls 124 students. (4) The target figure of Indicator 2 is based on the capacity of the originally-targeted nine schools. (5) The actual figures for Indicator 2, i.e., capacity of the reconstructed schools is calculated as (a) x (b), where (a) is the ratio of planned capacity to planned total floor area = 75,700 persons / 13,942.4m² = 5.4 persons/m² and (b) is the total floor area of the actually-constructed schools = 13,864.8m² (original 9 schools) + 800.8m² (additional 1 school) = 14,665.6m².

3 Efficiency

Although the project cost was as planned (ratio against the plan: 100%), project period exceeded the plan (ratio against the plan: 138%). Regarding the project period, while the original output (reconstruction of nine schools) was completed within the original project period, one additional school was reconstructed using the remaining balance of the budget, which took seven months more against the planned four months due to a rebidding after the first bidding was failed. Therefore, the efficiency of the project is fair.

4 Sustainability

<Institutional Aspect>

Daily maintenance that includes cleaning, inspections and minor repairs is the responsibility of each target school. When major repairs are required, the applications from each school shall first be reviewed by the Education Office of city or district to propose budget allocation to the Ministry of Finance (MOF) through Ministry of Education (MOE) and Regional Development Planning Agency (BAPPEDA). After budget proposal has been approved by BAPPEDA, MOE and MOF, major repairs will then be implemented by the Public Works Office of city or district through the Ministry of Public Works and Housing (MOPWH).

At the time of ex-post evaluation, the number of staff in seven project-targeted primary schools is 61 in total and that in three project-targeted junior high schools is 161 in total. Among them, one maintenance staff is assigned for the Security and Cleaning Service in each primary school and one maintenance staff is assigned for the Infrastructure and Facilities in each junior high school, and daily maintenance is usually conducted by them. Major repairs are taken care of by a head of each school, by submitting applications to the Education Office of city or district. The number of staff in these project-targeted schools is sufficient to sustain the benefits of the project, as the schools are operated normally.

<Technical Aspect>

The technical skills of maintenance staff are considered to be generally sufficient, as only minor maintenance, which does not require highly specialized techniques, is conducted in project-targeted schools. However, there is no training system in project-targeted schools to improve and maintain technical skills of maintenance staff. Also, it would have been better if the blueprints of the buildings were shared with the schools, so that they could check electrical/plumbing map for any future repair or retrofitting purposes.

<Financial Aspect>

All schools are annually provided with budget assistance for school operation (Bantuan Operasional Sekolah: BOS) from Education Office of each city or district, and the amount of BOS provided is determined by the unit amount per student (800,000 Rupiah in case of primary schools and 1,000,000 Rupiah in case of junior high schools) and the number of students in the particular year in the school. The

BOS budget can be used for salary of non-permanent staff and minor repair activities, though the amount is very limited. On the other hand, budget for major repairs needs to be allocated from MOF to each school through MOE and BAPPEDA, as explained above. However, based on a rule imposed to international cooperation projects in Indonesia after completion of this project, an official procedure for handing over the school buildings reconstructed under the project from the central government to local governments has not been completed³, and consequently, project-targeted schools cannot submit a request for budget allocation for major repairs. JICA/JICS and BNPB has started discussion to determine appropriate format of documentation for handing over the school buildings to ensure that administrative procedure for asset hand-over can be accepted by both parties. Financial data on actual operation and maintenance (O&M) cost in ten schools reconstructed by the project was not available, since how much of BOS is spent for daily maintenance is not specified, and the cost for major repairs is not yet budgeted.

<Current Status of Operation and Maintenance>

As the amount of BOS budget is very limited, daily maintenance activities have not been conducted properly in project-targeted schools, and consequently, broken parts have been gradually appearing. Minor defects can be repaired through the BOS budget, though the amount that can be utilized is very limited. For major defects, a request for budget allocation for that purpose can only be submitted after all the administrative procedures for asset hand-over is accomplished.

<Evaluation Result>

In light of the above, slight problems have been observed in technical and financial aspects of project-targeted schools and the current status of operation and maintenance. Therefore, the sustainability of the project effect is fair.

5 Summary of the Evaluation

Through the project, the project objectives have been mostly achieved. More than the targeted number of students study at the reconstructed schools that are safer than before the project and that can be used as shelter in case of disaster, while there is a concern about the degree of actual use as shelter in case of tsunami. The expected impact was observed, as it was confirmed that the schools reconstructed by this project are regarded by local authorities and residents as shelters in case of disaster. As for sustainability, there are some problems in technical and financial aspects of project-targeted schools and the current status of operation and maintenance, particularly because an appropriate procedure for handing over the school buildings has not been completed. As for efficiency, the project period exceeded the plan.

Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations to implementing agency:

The Government of Indonesia (central government authority) is advised to accelerate budget allocation for a number of major repairs of the broken parts found during the site visit for ex-post evaluation, so that the reconstructed school buildings can become safe and convenient places to conduct education activities.

Lessons learned for JICA:

1. In case where an official certificate of completion of asset handover from the Japanese side to the recipient country side is a prerequisite for budget allocation to local government for operation and maintenance of the concerned asset, the appropriate administrative procedures of handover should be carefully and promptly implemented to ensure minor/major maintenances/repairs in the long run.
2. When supporting school reconstruction projects in earthquake damaged areas, project sites to rebuild school buildings should be carefully examined: if the project is in tsunami prone areas, locations for school building reconstruction can be selected at certain distance from the coastline (e.g., 500 meters/Expected tsunami height is 6m/Hearing from the local authorities concerned) to ensure optimum number of people will actually use the school buildings as safe evacuation places both from earthquake and tsunami.
3. To ensure more sustainable operation and maintenance of the safe school buildings, blueprint of design results as well as electrical/plumbing maps shall be provided to the implementing agency after completion of reconstruction works.
4. To be legally more appropriate and acceptable for public domain, statement on how strong the building can sustain the earthquake/tsunami shall be provided by JICS/Consultant.



Before the project (December 2009)



Upon completion (January 2012)



At ex-post evaluation (May 2016)

Padang Junior High School No.7 in Padang City

³ This project followed the normal procedure of grant aid projects involving procurement agent (i.e., the Japanese government provides funds for construction/procurement, and the procurement agent provides services including management and supervision on overall processes of selection and procurement of goods and services as well as fund management.). However, under the new rule, the granted assets should be officially handed over from the Government of Japan to the Government of Indonesia, and then to the local government in order to allocate the operation and maintenance budget for local government.