PROJECT FACTSHEET

TRAINING OF GOOD CONSTRUCTION PRACTICES AND STRENGTHENING OF BRICK WALLS TO INCREASE EARTHQUAKE RESISTANCE, LASI POLYCLINIC, CANDUNG DISTRICT, WEST SUMATRA

Background

Following the Great Sumatra-Andaman Islands earthquake of December 26, 2004, and the Southern Sumatran Earthquake of September 12, 2007, many leading authorities have voiced their concern about the seismic risks that West Sumatra faces.

In areas which are prone to earthquakes, the sudden collapse of walls on evacuees during an earthquake could result in more loss of lives. There is thus an urgent need to promote safe construction practices which increase the earthquake resistance of the buildings.

Bringing earthquake resistance technology to Lasi

NTU's Lien Institute for the Environment (LIFE), partnering Temasek Foundation and Universitas Andalas Padang (UNAND) in West Sumatra, hopes to mitigate West Sumatra's seismic risks by training local masons in construction practices that would increase the buildings' earthquake resistance. LIFE has also developed a cost-effective strengthening technique using canvas strips which they hoped to impart to the local community.

To ensure sustainable development, LIFE has trained 20 UNAND members as 'Master Trainers', who will in turn impart the skills to teams of local masons. For a start, 45 local masons will be trained, and it is envisioned that about 450 masons will be trained eventually. Such a model of skills transfer ensures continuity of good construction practices and the passing-on of know-how in strengthening techniques, long after the training project has been completed.

Helping future generations

The region around Padang is an ideal location for training related to the promotion of seismic strengthening techniques and good construction practices that increase earthquake resistance. Lasi Polyclinic, a healthcare centre located in Candung District (about 80km from the West Sumatran capital of Padang) was identified as the training facility for the project. The polyclinic provides healthcare services to about 1,500 people a month.

The training facility will be used as a model building to showcase good construction practices for the local masons to emulate. More importantly, through this programme, technological know-how and safe construction skills for better earthquake resistance have been imparted to the local community and beyond.
When the project is completed in September 2008, the master trainers from Universitas Andalas Padang will be able to share their knowledge with masons from other areas of West Sumatra and beyond. Further transference can be facilitated through videos and pictures from the project.