

## Tzu Chi Use of Bamboo in Cement Flooring Wins International Award

Written by Tzu Chi Foundation  
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The Tzu Chi Foundation received a gold medal at the 39th International Invention Award INOVA in Osijek, Croatia on November 8 for its use of bamboo in the making of cement tiles for a housing project in the Philippines.

It won the environmental category of the competition for its cost-effective and environment-friendly concept. The foundation decided to build pre-fabricated housing in the province of Leyte in the central Philippines which was badly hit by Typhoon Yolanda (Haiyan) in November 2013. During the construction of the housing, Tzu Chi founder Dharma Master Cheng Yen advised volunteers to uphold environmental protection, which is one of the foundation's key principles.

The prefabricated units are currently being installed in Ormoc City and Palo Municipality; they are a temporary solution to the lack of bunk-houses and decent shelters for families affected by the typhoon. One unit can last up to ten years.

The units will be provisional. At the behest of Master Cheng Yen, the Tzu Chi volunteers used bamboo sticks instead of the steel that is commonly mixed with cement. This new combination forms the bricks that serve as removable tiles inside the temporary housing units.

“When the prefabricated units will have to be replaced with permanent housing, we can uninstall them and remove the cement tiles as well. This way, we don't destroy the land. This is also a form of respect to our environment,” said Alfredo Li, CEO of Tzu Chi Philippines.

Bamboo fiber is elastic and can hold the cement firmly. It is also convenient for the local residents who produce the cement tiles themselves.

In Ormoc City, three million bamboo sticks have been produced as the framework for 520,000 cement tiles. These tiles will be used for all 2,000 provisional houses to be installed in a 50-hectare lot in Brgy. Liloan. At least 260 cement tiles will be placed in each unit.

This innovation was first used in Bohol island when Tzu Chi Foundation donated 150 prefabricated classrooms for 16 schools in towns affected by the 7.2-magnitude earthquake.

Article by Lineth Brondial