

How much is that knock-down house?

SELF-ASSEMBLY: Self-built homes using unconventional methods are an option that should be considered in Malaysia especially for low-cost housing, says don

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Easy as ABC?

Self-help or self-build housing has been widely known as an alternative construction method in providing immediate shelter or housing to low-income household. According to Wan Srihani Wan Mohamed, Lecturer in Dept. of Architecture, Faculty of Design & Architecture, Universiti Putra Malaysia (UPM), there are many overseas examples that we can look up to. "It is primarily associated with a housing process where participants use their labour and skills in organising to produce their own dwellings," says Wan.



Wan cautions that prefab houses alone won't solve the affordable housing issues.

She cites Walter Segal, an architect from the UK who developed a famous system of self-build housing as one of the case studies that she refers to the most. "The first community self-build project using his technique started in Lewisham, South London back in 1978 and provided the builders with a low cost route into home ownership. The potential of this technique is in helping people on low incomes to acquire skills, confidence and a home," explains Wan.

The Segal houses represented an attempt to solve the problems of the housing crisis of the late 1970s. Local council tenants were given the chance to construct and own their homes. These houses were built on terrain unsuitable for conventional building and at a low cost. The 13 houses on Walter's Way built from 1977 onwards was one of the earliest low-cost housing self-build projects in the UK.

The method of building he devised (now called the Segal Method) was so designed that it would pose no problem to unskilled workers. It simply entailed screwing together a wooden frame and infilling with building board and insulation. The self-builders took evening classes to learn the necessary plumbing and electrical wiring skills.

Knock-down houses

Wan also cites other foreign examples such as architect Anna Heringer's use of conventional methods combined with improved modern knowledge of construction

using local materials such as mud and bamboo in the rural area of Rudropur, Bangladesh.

She goes on to list other international examples of affordable and sustainable housing such as Form and Forest (Canada), SmartShax (Australia), Metro Cabin, Maximo Cabin (US), Qube (UK), Spacebox (Netherlands), Cusato Cottages (US), Boklok (Sweden), Modern Cabana (US), Loftcube (German), Modabode E-bode (Australia) and knock-down houses (Indonesia).

Knock-down houses are a speciality at Woloan Village in Tomohon, Indonesia and is famous for its knock-down house production. You enter the village, shop around and select a knock-down house just as a tourist would purchase a handicraft! You may browse through examples of these houses and choose your house according to your desired size, design and budget.

These houses are made from local hardwood such as kayu besi (ironwood) and kayu cempaka using traditional methods which allow them to be knocked down and moved easily. The design is derived from Minahasa's "rumah panggung" or traditional houses. There are several basic designs to choose from and buyers can even customise their homes to their liking. Dozens of sample houses line the streets of Woloan village, each one with different designs and characteristics.

Generally it takes less than two months to complete a house, a day

or two to dismantle it for shipping and a week or two to build it on the owner's property. People come from all around Indonesia come to buy houses here and they've even been shipped to international buyers, some as far away as Norway. Understandably, these houses for export do not come fixed with plumbing or electricity which has to be installed at the homebuyer's final destination or location. These houses are even supposedly earthquake-resistant!

Despite the plethora of options and examples of innovative and affordable housing from overseas, the local property industry seems to be lagging in this aspect. Wan emphasises that it is equally important to educate the public about these innovations on affordable housing, and not only among professionals and construction industry players. "For example, during my research, I needed to explain on how prefab works and what it actually is among the low-income households in rural areas of Baling and Padang Terap, Kedah," she recalls.

Despite the hope that self-build or prefab homes offer, Wan cautions that they alone won't solve the affordable housing issues. "Tackling housing issues is not merely supplying the number of housing units required and identifying technology that is affordable. Social, policies, economics, political, and empowerment are some of the key factors that need to be addressed alongside the demand and supply factor."



A knock-down house in Indonesia



A house made of mud and bamboo in the rural area of Rudropur, Bangladesh.