



**THE** inconsistent supply of timber logs may be the Achilles heel in re-establishing its use in the local construction industry, warn market players.

With many developers heaping praise on timber as construction material and finish, reservations about its use arise largely due to its limited supply, which causes a discontinuity of product lines and cost issues.

Sabah, previously dubbed the birthplace of timber tycoons, today faces dwindling supply of logs, with many downstream factories in Kimanis and the Kota Kinabalu Industrial Park (KKIP) abandoned due to a shortage in the supply of raw materials following the implementation in the 1990s of a sustainable forest management policy, to conserve and protect forest resources.

Chew Sang Hai, deputy president of the Sabah Housing and Real Estate Developers Association (Shareda), tells **FocusM** timber is good for construction as it represents the "proper way of doing it".

However, he says, it is seldom used even in Sabah as the downstream timber industry is not developed, preventing the supply of quality timber products.

"There must be an assurance of continuity. We developers must be assured the product line is available for a reasonable time. It would be a problem if we have to wait for a certain type of flooring or wall panelling," he explains.

Chew calls on the government to have a long-term policy for the consistent supply of quality timber, to ensure the industry thrives, as it has potential.

In the 1990s, the government implemented a sustainable forest-management policy to ensure continuity in the supply of logs and to avoid overlogging. However, it has capped the supply of the raw materials, causing prices to rise as the demand for good timber logs has not wavered.

Malaysia's timber and timber-based products were last year worth RM1.7 bil or 2.6% of total exports. Wood furniture contributed to 30% of this figure while plywood made up 27%. Sawn timber and logs accounted for 12% and 10%.

The Malaysian Timber Council (MTC), in a bid to promote the use of timber in local construction, held a Timber Talk Series entitled Why Not Timber in Building Construction?

The talk by associate professor Dr Mohd Ariff Jamaludin, senior lecturer heading the Bio-Composite Technology Programme at Universiti Teknologi Mara, focused on the benefits of timber in construction and the challenges of disproving the twin fallacies of high cost and low durability.

#### Poor returns from investments in timber

Lai Voon Hon, CEO of Ireka Development Management Sdn Bhd, tells **FocusM** developers have a passion for timber as finishing, owing to its indigenous feel. However, Lai stresses that despite its huge potential, it is no longer cheap to have timber as a building element.

"To do it well, there should be a sustainable forest, not simply chop down trees. But for a sustainable industry to work here, there must be a big demand for it. Unfortunately, the palm oil

# Sustainability key to using timber in construction

Developers lament that the inconsistent supply of good timber hinders its use in buildings

industry is more lucrative, so most people won't plant a tree for reforestation – they would rather invest in an oil palm plantation," Lai points out.

He explains it would be difficult to convince landowners to plant a tree as returns take longer to materialise than with an alternative such as oil palm. "I remember many years ago we [Ireka] tried to look at doing sustainable teak farming but when we looked at the prices of land we needed to buy to do this, it was simply too expensive. How do we justify the returns?" he asks.

Lai adds that limited supply has made timber very "high-end" and sought largely by developers of luxury property. Ireka, through its joint venture with Aseana Properties Ltd, is developing the The Ruma, a high-end luxury hotel and serviced residence in the KLCC area, which will use timber finishing as its central theme.

According to Lai, the warmth and character of timber make it sought-after and it provides a very "Malaysian" feel. He says when completed, the timber finish of hotel rooms at The Ruma will be reminiscent of Malaysian heritage architecture with a twist of chic and sophistication, a feat only timber can accomplish.

Lai says modern technology allows the use of veneers to obtain a timber look without paying timber prices. Similarly, printing technology has allowed the look and feel of timber in flooring, ceilings and wall panelling for a fraction of the cost of the real thing.

"I fully support the use of timber

but sustainable reforestation is very important – it is something that must be done for Malaysia and we have the land. Maybe not as an alternative to oil palm but the land that has been logged must be replanted," Lai stresses.

While developers love the indigenous feel of a timber finish, many do not have the same enthusiasm for its use as a building material. Timber formwork has been quickly replaced by its more durable and versatile aluminium counterpart. This has been caused largely by the waste incurred when timber formwork is re-used too often.

Lai says timber has great potential as a building element – in beams, for example. He says it adds charm and ensures durability; but it is no longer a cheap option, contrary to Dr Mohd Ariff's opinion. During his talk, the academician emphasised that high costs associated with the use of timber as building material are "a misconception".

He said cost is a function of design and that such calculations must also take into account the long-term cost of maintaining and servicing the building. Also, Dr Mohd Ariff said, the variety of timber species allows buyers to opt for choices within their budgets and when properly treated, even the lower-priced species were comparable in strength to the heavy hardwoods.

#### Using timber effectively

Ultimately, he believes the crux of using timber effectively in buildings lies in the knowledge of its characteristics. He warns against exposure to moisture and poor groundwork and stresses the importance of proper manufacture



While developers love the indigenous feel of a timber finish, many do not have the same enthusiasm for its use as a building material

and installation, and the repurposing of building spaces.

"Decay sets in when timber is exposed to moisture. Therefore it is important that timber is always protected against soil or water and designed in such a way that timber members get sufficient ventilation. Groundwork is also important. Building on uneven ground requires adjustments. Otherwise, it can cause timber structures to eventually split due to uneven pressure," Mohd Ariff adds.

An architect from Wong CS Architects says the old timber kampung house has stood the test of time because the timber of yesteryear is of superior quality to that available today.

He says timber then was approximately 100 years old, in contrast to the 40-odd-year-old trees felled today. Also, treatment in those days involved soaking logs in a river for months before they were thoroughly dried in the sun. The drying process entailed ensuring the logs were devoid of all moisture, including their natural moisture content.

"Today, nobody has the patience to deal with this lengthy procedure. Technology has discovered faster methods but unfortunately they are not fool-proof. Often the logs will still crack due to moisture or they are attacked by termites," he observes.

The architect, who declined to be named, says he has clients who specifically seek used wood from old kampung houses, especially in Kelantan and Terengganu, for the facade of their houses. This wood is not cheap but users are confident of their quality as opposed to the factory-produced wood available today.

In terms of designing a building using timber, he says it requires skill and knowledge. Dealing with wood is not easy as its curved shape requires cutting, which must also be planned according to the wood's grain.

"So far our clients have requested the use of timber only as a facade in their homes. Timber is usually reinforced by a steel or concrete structure. For example, a timber pillar may be placed on a concrete stump to prevent termites," he explains.

Generally, clients ask for timber-based designs only for the facade and most are for homes rather than for offices or commercial buildings, he adds. **FocusM**



by V Sanjughtha



Lai says modern technology allows the use of veneers to obtain the look of timber without paying its price

The timber steps of a Kuala Lumpur shopping mall

