Alternative non-timber materials way to sustain furniture industry

KUALA LUMPUR: Alternative materials for furniture and other timber-based industries being researched and tested to substitute the ever-diminishing raw materials for local industries would augur well for the sustainability and growth of the furniture industry.

Forest Research Institute Malaysia (FRIM) head of the Wood Quality and Non-Wood Products programme Dr Hamdan Husain stated, “The National Timber Industry Policy (NATIP) is aspiring to make transformation of wood-based industries from primary products to more value-added secondary or tertiary products.

“Furniture is an example of tertiary products which have successfully contributed about RM7 billion to RM8 billion revenue per year from exporting to global markets.

“Furniture contributed about 40 per cent of Malaysian total wood-based revenues annually. It is time we have to look for new raw materials since rubberwood supply has been depleted over the years,” he asserted.

The research head said that some of the non-wood alternative materials currently being researched were bamboo, coconut veneer/wood, rattan, oil palm trunk (OPT) and nibong.

In addition, there were timber sources from lesser known species as well as oil palm empty fruit bunches (EFB) and ‘kenaf’ for bio-composites products.

The material characteristics in demand for domestic and international markets included the availability of raw material and consistent supply, physical appearance as well as basic and mechanical properties such as low formaldehyde content and less toxic wood preservatives.

For example, ‘tiger print’ from OPT and unique features from nibong and coconut had attracted manufacturers and consumers.

“In terms of cost of manufacturing, some of the raw material may be cheaper but some processing cost and protocol may result in the products being similar in price.

“In view of emerging technical and environmental requirements, slight increase in cost is expected and this could be offset by improved quality and positive features attached.

“The cost of production mainly depends on the availability of raw materials, technology available, production capacity, manpower, energy requirements and so on which need further investigation by industries,” he underlined.

While he contended that furniture made of local hardwood was more valuable and durable, the prices might be too high and not all consumers would able to purchase these products.

When asked if these substitutes were as durable as some of local hard woods, he noted that depending on its end usage (such as indoor) and proper treatment provided, these materials were quite comparable with timber.

With regards to the manufacturers’ and consumers’ acceptance of materials, the research head said, “Traditional materials like bamboo can be readily accepted due to its long historical value but new materials like OPT products may need more assistance from related agencies to promote its potential and acceptance by the public.

“As usual, new products normally receive slow acceptance by consumers especially when there are other better choices.

“However, the time will eventually come when there would be no other choices for raw materials.

As such, consumers would be willing to take up new products as long as it complies with standard requirements.”

“Nonetheless, non-wood/lesser known species are getting popular as alternative materials. More people are aware and looking at these materials positively.

“Government encouragement and support, continuous promotion and seminars conducted by FRIM participation in exhibitions towards promoting this material as well as incorporating non-wood materials in NATIP are some key drivers that would help to increase public awareness and acceptance towards these materials/products,” he highlighted.