Using DNA tests to track wood to its roots
Grace Chua  Straits Times  4 Sep 12;  

A HOME-GROWN genetics firm is making news worldwide for being able to test the DNA of wood.

Using a sample the size of a 50-cent coin, Double Helix Tracking Technologies can not only tell you what kind of wood it is, where it comes from, but also whether it is from an illegally logged endangered species.

The four-year-old company’s technology was developed by founder Kevin Hill, a Singapore permanent resident, together with geneticists and experts from here, Australia and Germany.

Since its establishment in 2008, Double Helix has captured the attention of the timber industry and others who have an interest in forest conservation.

It took the Silver Award last year at the London-based International Green Awards and it has been invited to present its technology in several countries.

The firm’s clients range from timber importers and plantations trying to protect their patents for specially bred fast-growing trees, to governments who are interested in how the technology can reduce the illegal logging trade, estimated to be worth some US$30 billion (S$37 billion) a year.

The global timber trade is worth about US$327 billion.

While there are other forest product certification schemes, Mr Hill, 44, said none uses DNA tracking, and added he hoped they would. “Think of us as the ‘Intel Inside’ sticker,” he said, referring to the widespread processor technology in computers.

Interpol’s forest crime team leader Davyth Stewart said, however, that DNA testing does not provide instant verification, whereas current methods, such as nailing a barcode to a log, do.

He said: “If it can be done on the spot by an officer in the field, that’s where we should be heading.” Mr Hill’s DNA testing service takes about 14 days.

His idea to use DNA testing for wood grew in part out of his other business - Venturer, a timber production and building company, which has built structures like the iconic Henderson Waves bridge.
In 2001, Venturer was tasked to build the timber entrance plaza to the Singapore Zoo, and was asked to use wood that was certified as locally sourced.

Mr Hill said the firm found an area designated to harvest wood for commercial use in Sabah, but then he realised that was not good enough. "We had the whole idea of certification in place; what we needed was a scientific method."

In 2004, he began working with geneticist Chew Fook Tim to develop a "DNA fingerprint" test that could test a wood sample's species and place of origin. Three years later, Venturer began testing merbau wood from Indonesia for Australian retailer Simmonds Lumber.

Working with experts from Australia and Germany, Double Helix's executive director Jonathan Geach said the firm can now also test wood products - though getting DNA from a table or chair is "like getting DNA out of a woolly mammoth".

This is because the wood is dead, processed and kiln-dried, which breaks genetic material up into tiny fragments, he added.

Mr Geach said the cost of timber verification by doing spot checks is less than 1 per cent of the product's cost. Mr Hill said demand for the firm's DNA testing service is taking off. The company, worth $5 million to $10 million today according to Mr Hill, could quadruple in value in the next year, he added.
Hi Irene,

A very good point noted by you and I to...

- July 16, 2012
- James Wong

In the end, we conserve only what we love. We will love only what we understand. We will understand only what we are taught - Baba Dioum