

# Pallets made of coconut waste



**Entrepreneur Michiel Vos plans to make transport pallets out of coconut husks. He expects them to be cheaper and more sustainable than traditional wooden pallets. Coconut farmers will share the benefits.**

TEXT HANS WOLKERS PHOTOS SHUTTERSTOCK AND COCOPALLET



Worldwide billions of coconuts are harvested every year for their flesh and milk. The husk of the nut is usually discarded. But it can be used as the raw material for hardboard, discovered Professor Jan van Dam and researcher Edwin Keijsers of Food & Biobased Research, part of Wageningen UR, together with partners from the Philippines. ‘The husks contain a lot of lignin as well as fibre,’ explains Keijsers. ‘If milled husks are pressed at a high temperature and the right humidity level, the lignin reacts with the fibre and everything sticks together.’ After it cools down you are left with strong board with has all the characteristics of MDF board, and yet is more sustainable and is made without glue. This brings the costs of the coconut board down by more than 30 percent compared with those of similar board made of wood or bamboo.

#### MAKING PALLETS

Entrepreneur Michiel Vos, cofounder of the company CocoPallet BV, used the Wageningen technique in his company to press the coconut husks, not to make board but to make transport pallets. This meets a real need, says Vos, because the pallet industry bears some of the responsibility for deforestation. ‘Every year worldwide more than four billion disposable pallets are assembled, often from illegally felled wood,’ he says. In November CocoPallet won the Heineken Award as well as the Accenture

**‘The use of coconut pallets helps reduce deforestation’**

Innovation Award for the sustainable pallet. Vos foresees a bright future for the coconut pallets. The first production facility in south-east Asia will be ready in 2016. That is good news for the local coconut farmers too, says Vos. They benefit from the new added value of the husks. Vos: ‘I estimate that farmers in Indonesia can increase their income from coconuts by 50 to 100 percent.’ But companies stand to benefit from using the new pallets too. Besides the lower purchasing price, there will also be big savings because the coconut pallets do not have to be inspected for destructive insects in the importing country. The user will also make space savings of about 70 percent on the return journey and in storage because empty coconut pallets are efficiently stackable.

#### REDUCING LOGGING

But it is the environment that stands to gain the most from the biobased pallets. According to Vos, the fact that the pallets are produced locally makes their CO<sub>2</sub> footprint much lower. The biggest benefit, however, lies in the reduction in logging. ‘If companies start using the coconut pallets on a large scale, that will mean a huge reduction in logging,’ claims Vos. ‘But we can only achieve that if we stimulate demand for our pallets with a low price: price is the best motivator for implementing change.’ ■

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