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Oil Palm Trunk (OPT) – An Untapped Resource

In Malaysia, the palm oil sector is the main producer of bioenergy, with a considerable volume of biomass waste created each year and only a tiny percentage turned into value-added goods.

The depleting global forest resources combined with the increasing environmental awareness has led to businesses and consumers looking for alternate sustainable sources of wood. With pressure on timber resources within Malaysia and increasing competition for wood fibre around the world, new sources of usable raw materials such as oil palm trunk (OPT) could prove to be very important in the future for not just furniture but for timber-based construction materials.

Malaysia has approximately 14.5 million acres of oil palm trees that needed to be replanted every 20 to 25 years. Felled trees provide an abundant source of OPT.

Transforming oil palm trunks into high-quality and sustainable materials

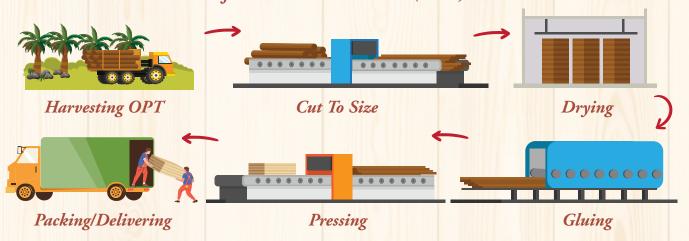
IOI Palm Wood Sdn. Bhd. (IOIPW) is Malaysia's first manufacturing plant to commercially and sustainably convert unused OPT into eco-friendly, sustainable and high-performance wood panels for the furniture and building industries.

Established on 11 June 2020, the IOI Palm Wood Sdn. Bhd. (IOIPW) is a joint venture between IOI Corporation Berhad (IOI) a leading global palm oil plantation conglomerate and Mr Hans Peter Fitch, a seasoned entrepreneur in the timber and composite panel industry in Malaysia. The vision of IOI Palm Wood is to create totally new materials using the biomass available from the mature and established cultivation of oil palm. The oil palm trunks (OPT), which are left to rot in the field after replanting, constitute approximately 20% of the total biomass.

Mr. Fitch, who is the Chief Executive Officer of IOI Palm Wood, emphasised that for many years the timber industry has been frustrated with the lack of raw materials, as the industry primarily used rubberwood.

"With less and less rubberwood being available, it has always been my ambition to find a sustainable and alternative material. And with OPT, I can see the immense potential of this material to be used not only in Malaysia but in Thailand, Indonesia, West Africa and South America as a substitute for tropical timbers and rubberwood.

Commencement of production of the first 21-acre palm wood manufacturing plant located at Mukim Pogoh, Segamat, Johor, is due by the end of 2022. The new plant equipped with kiln drying and panel production expertise and technology has a production capacity of approximately 80,000m3 per annum of premium grade palm products under the OnCore brand to supply to the local and overseas market.



How IOI Palm Wood Transforms Oil Palm Trunks (OPT) Into Sustainable Materials

IOI Palm Wood will be the first and only corporation in the world to commercially and sustainably produce engineered wood panels from unused OPT.

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The IOI Information Hub was unveiled on 20 December 2021 at the Ground Floor East Wing at IOI City Mall.

High-Performance Materials, Produced Sustainably

IOIPW's OnCore brand, which offers a range of high-performance products including Kiln Dried Palm Wood, Blockboards, Palm Wood Panels, and Palm Wood Core materials are designed to meet the rising demand for high-quality wood panel solutions.

The name OnCore refers to palm wood's core of inner fibres that are like 'reinforced concrete' that gives the wood its ultimate strength. Stronger than some conventional timber, palm wood is also lighter and more eco-friendly.

The production of palm wood is supported by their innovative manufacturing processes and customised leading-edge technologies from Europe.

As IOIPW aspires to offer a range of high-performing and environmentally sustainable wood that conform to international standards and certifications for quality and safety, the OnCore brand will be marketed to an expanding demand for office, household furniture, and building construction materials. Inspiring the next "material revolution" by creating sustainable and high-performance materials from oil palm waste, Mr. Fitch together with IOI have set up IOI Palm Wood to commercialise this untapped potential.



Making Profit With A Purpose

Mr. Fitch, emphasised the positive impact of OPT on the environment, "For every cubic meter of palm wood produced, we are in effect capturing approximately 250 kg of carbon, which would otherwise be released into the atmosphere as carbon dioxide or methane.

"We are also contributing to the circular economy by eliminating waste as we are using practically everything from a palm tree," he added.

"We will start with the development of engineered materials produced from the humble OPT, which is sustainably available from existing plantation replanting programmes. In the future, we may even consider engineering materials from the fronds, which constitute almost 60% of the available biomass!" he said.



"This palm wood is not such a beautiful wood with all its rough and heavy fibrous texture. But the core is beautiful because of its inner fibres that are like reinforced concrete that give the wood its ultimate strength." Mr Fitch describes the origin of the name, OnCore."