

'Driving Nature Positive Impact'



In the quest for a sustainable future, IOI Corporation (IOIC) has adopted the theme 'Driving Nature Positive Impact' in its 2023 Sustainability Report. The company has pledged to achieve net-zero carbon emissions by 2040. This commitment extends beyond mere decarbonisation of its current activities; IOIC is seeking technologies and innovations to design future-proof operations that can minimise their carbon footprint. To achieve this goal, the company has doubled down on its efforts to promote the 7R's sustainability framework: Rethink, Repurpose, Reduce, Reuse, Recycle, Repair, and Recover.

In particular, IOI Palm Wood (IOI Palm Wood), a subsidiary of IOIC, aims to apply three out of the 7R's principles: Repurpose, Rethink, Reduce.

REPURPOSING OPT INTO PREMIUM PALM-BASED ENGINEERED WOOD PRODUCTS

IOI Palm Wood was established to transform oil palm trunk (OPT) waste, which is sourced from local oil palm estates during their regular replanting schedules, into environmentally friendly palm wood panels. This approach not only locks the release of greenhouse gas (GHG) emissions into the panels

but also offers a sustainable alternative to traditional timber. By reducing pressure on natural forest harvesting, IOI Palm Wood contributes to the preservation of habitats and ecosystems.

The palm-based engineered wood products, commercially branded as OnCore encompass premium grade lumber core, blockboards, and palm wood panels. All OnCore products adhere to international quality and safety standards, ensuring their durability and longevity. This longevity extends their role for GHG storage as they continue to lock in carbon emissions even after their initial



LEGEND

- 1 OnCore Lumber Core
- 2 OnCore Cross Laminated Timber (CLT)
- 3 OnCore Glue Laminated Beam (Glulam)
- 4 OnCore Three-Layer Panel
- 5 OnCore Blockboard with Laminate

use. Moreover, at the end of their lifecycle, OnCore products can be upcycled or used as bioenergy sources. This circular approach not only enhances the product's sustainability but also boosts the commercial potential of the entire venture.

RETHINKING WASTE MANAGEMENT

Rethinking waste management in the context of transforming OPT into engineered wood products by using OPT offcuts as biofuel for energy plants is an environmentally responsible approach. This process aims to reduce the release of GHG emissions, ultimately contributing to the organisation's commitment to achieving net-zero carbon emissions by 2040 and promoting sustainability.

REDUCING GHG EMISSIONS FROM DECOMPOSITION

Traditionally, felled OPTs are left to decompose. In doing so this emits methane, a potent GHG that contributes to global warming. By transforming OPT into engineered wood products and using it as biofuel, the release of these GHGs is minimised. This action aligns with global efforts to reduce methane emissions.

In conclusion, meeting the climate change challenge is a global responsibility that has garnered widespread recognition

and acceptance, not only among governments but also within the corporate sector. As the world grapples with the pressing threat of climate change, the adoption of net-zero targets has emerged as a pivotal strategy for mitigating its adverse effects. [P](#)



Inspiring the next "material revolution" by creating sustainable and high-performance materials from oil palm waste, **Peter Fitch**, together with IOI, have set up IOI Palm Wood to commercialise this untapped potential.