Transportation sector leads carbon emission reduction

By GANESHWARAN KANA
ganeshwaran@thestar.com.my

- Westports embraces mangroves as a component of sustainable port management
- GDEX deploys electric forklifts for warehouse and auto-sorting hub operations
- MAG has conducted 20 SAF demonstration flights since 2021

THE transportation industry accounts for nearly one-quarter of the world's energy-related carbon emissions.

The quest to limit global warming to within 2°C above pre-industrial levels will not be possible without the transportation industry's commitment to reduce its carbon footprint.

Transportation and logistics-related players in Malaysia are actively transitioning towards sustainable operations, and more companies are following suit.

One of the country's major courier players, GDEX Bhd, is gradually moving away from fossil fuels by deploying electric forklifts for warehouse and auto-sorting hub operations.

The group, whose operations are partly powered by green energy, is also in the midst of a pilot project for the use of electric trucks for last-mile deliveries.

GDEX is also currently drafting a Green Procurement Policy to reduce its environmental footprint, improve efficiency and build a more sustainable and future-proof business.

"Apart from that, we have rolled out green plastic flyers – also known as mailer bags – in our operations," managing director and group chief executive officer Teong Teck Lean says.

With these green flyers, the amount of plastic waste directed to landfills is reduced and energy consumption is lowered.

Teong highlights that GDEX remains "prudent" as it invests in green solutions.

"We focus on balancing profit and environmental responsibility simultaneously.

"As such, we will focus on prioritised investments in proven, scalable solutions that will be implemented in phases to achieve clear cost savings and avoid heavy commitments to rapidly changing technologies."

Westports Holdings Bhd, the second busiest port in South-East Asia, says it is only investing in sustainability measures that have a reasonable return on investment.

"As such, it will not be a drag on finances and, in some cases, might actually improve them instead," says Westports executive chairman Datuk Ruben Emir Gnanalingam.

Westports aims to achieve net-zero carbon emissions by 2050 and requires its vendors to demonstrate a commitment to sustainability by 2030.

Recently, it substantially improved carbon emissions reporting and energy and water monitoring processes and made significant inroads into calculating its Scope 3 emissions.

"Westports includes environmental elements in contractual clauses – approximately 30% – and supplier training," the group mentions in its 2023 sustainability report.

"Initiatives such as the Land and Biodiversity Policy, mangrove planting and the introduction of autonomous Q-Truck electric Terminal Tractors (TTs) demonstrate our commitment to environmental sustainability."

Westports embraces mangroves as a vital component of sustainable port management.

Mangroves in port areas reduce emissions by sequestering carbon, filtering pollutants, stabilising shorelines, supporting biodiversity and absorbing nutrient runoff.

Up to 2023, Westports planted 9,636 mangroves, bringing the total to a range of six different mangrove species since the company's initial project in 2015.

The port operator is also gradually transitioning to electrifying its electric terminal trucks and rubber-tired gantry (RTG) cranes while incorporating more renewable energy to power its operations.

Amid its transition to electricity-powered vehicles and equipment, Westports also has a biodiesel programme in place.

All TTs, the newer RTG models, and all container yard equipment use B7 biodiesel, comprising 7% methyl ester and 93% petroleum diesel.

B7 lowers the carbon footprint, curbs greenhouse gases, decreases particulate matter and improves engine performance.

Like Westports, Malaysia Aviation Group Bhd (MAG) also deploys biodiesel in its operations, or to be exact, sustainable aviation fuel (SAF).

MAG is the parent company of Malaysia Airlines.

In response to an enquiry, MAG says it signed a landmark SAF Offtake Agreement with PETRONAS Dagangan Bhd in 2023.

"MAG has also conducted 20 SAF demonstration flights since 2021. We are currently using SAF for our flights from London and Paris, which started in January 2025."

The aviation group has also signed a memorandum of understanding with FatHopes Energy to explore the potential of converting used cooking oil into SAF.

The adoption of SAF is one of the four levers in MAG's decarbonisation strategy.

The other levers are operational efficiency, fleet modernisation and market-based measures or carbon offsetting.

Under operational efficiency, MAG has implemented fuel-saving measures such as using idle reverse thrust during landings and single-engine taxiing to reduce fuel consumption.

In 2023, the emissions reduction was equivalent to approximately 76 million kg of carbon dioxide.

Beyond these efforts, MAG also focuses on reducing single-use plastics and food waste in-flight, alongside achieving sustainable procurement practices.

It prioritises vendors who offer recyclable, compostable or biodegradable materials.

"At MAG, we are currently evaluating the overall financial impact of our sustainability measures.

"Concurrently, we are developing an environmental, social and governance mid-term strategy roadmap, with the key objective to provide clarity on MAG's key strategic approach on sustainability focus areas," MAG says.