ARE WE READY FOR THE TRANSITION INTO CARBON-ALIGNED TRADES?

Opinion

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Doubtlessly, 2026 is a living example of a world in transition. The war between the U.S.-Israeli forces and Iran, sparked by airstrikes on February 28, have raged for nearly two months. The impact has spread globally, with the most observable consequence being an oil price spike from around $72/barrel (pre-war baseline) to a peak of about $114/barrel. Numerous countries are in the midst of facing resurgent inflation.

Malaysia, a net oil exporter, imports lower-grade crude for processing, thus feeling the pinch. Consequently, unsubsidized diesel prices in Peninsular Malaysia have surged to RM4.72/liter (Euro 5 B20) for the week of March 19-25, creating ripple effects throughout the economy. Transport costs rise, production costs increase, and the price of goods inevitably follows. This illustrates a clear example of sustainability risk. Without proper planning and mitigation, sustainability risks can translate into economic shocks that affect both national stability and corporate resilience.

CBAM and Why It Matters

Beyond geopolitical risks, another major transformation is taking place in global trade. The European Union has introduced the Carbon Border Adjustment Mechanism (CBAM), a landmark policy designed to address carbon leakage. The CBAM transition phase ran from October 2023 to December 2025, and the definitive regime officially came into force on 1 January 2026. CBAM initially covers several carbon-intensive sectors, including cement, aluminium, iron and steel, fertilisers, hydrogen, and electricity. In simple terms, exporters of these products to the European Union are required to report the embedded emissions associated with their production. European importers must then purchase and surrender CBAM certificates corresponding to those emissions.

The price of these certificates is linked to the carbon price under the EU Emissions Trading System, which has fluctuated around €70 to €90 per tonne of carbon dioxide in recent years. For instance, if a company exports aluminium to the European Union with an embedded emission of 1,000 tonnes of carbon dioxide, the importer may need to purchase CBAM certificates worth roughly €80,000, depending on the prevailing carbon price. This represents a significant additional cost and may affect the price competitiveness of exporters from countries without comparable carbon pricing

systems.

Unfortunately, this is becoming the new norm of global trade - where climate performance is increasingly measured and priced across borders. Carbon-aligned trade policies are likely to expand further, with The United Kingdom has also announced plans to introduce a similar carbon border mechanism around 2027, for Malaysia, this presents a clear strategic choice. The country can treat these regulations as another compliance burden to be managed at the customs desk, or recognise that a deeper structural transition is underway. According to the Malaysian Industrial Development Finance (MIDF), Malaysia's exports to the European Union reached RM126.31 billion in 2022. As an export-oriented economy deeply integrated into global value chains, Malaysia cannot afford to treat climate-aligned trade as a peripheral issue. The transition is already happening. The real question is whether Malaysia will adapt early or be forced to catch up later.

Local Reporting Gaps

Domestically, progress has begun but remains incomplete. Bursa Malaysia has introduced enhanced sustainability disclosure requirements, with Main Market listed companies required to disclose Scope 1 and Scope 2 greenhouse gas emissions starting from the financial year of 2025. Scope 3 emissions will be introduced in phases. For small and medium enterprises, the Securities Commission Malaysia has introduced the Simplified ESG Disclosure Guide (SEDG) to encourage voluntary sustainability reporting. However, most of these frameworks focus on measuring emissions at the organisational level. This is commonly referred to as a corporate carbon footprint. CBAM, on the other hand, requires emissions to be calculated at the installation level and allocated to specific products in accordance with methodologies aligned with the EU Emissions Trading System monitoring rules. In other words, regulators are no longer interested only in the emissions of an entire company. They increasingly want to know the emissions embedded in each unit of product being traded across borders.

This difference in methodology represents a major operational challenge for many companies. While the technical gap can be addressed with proper understanding of greenhouse gas accounting methods, many organisations still rely heavily on external consultants to prepare their emissions inventories.

As a result, internal technical capability in carbon accounting remains limited within many firms. When new regulations such as CBAM emerge, companies often struggle to interpret the requirements independently.

Infrastructure Challenges

Another significant challenge lies in data and measurement infrastructure. Many factories still rely on spreadsheets to manually compile operational data such as plant-level electricity consumption, fuel use, and raw material inputs. While such approaches may be sufficient for basic corporate carbon footprint calculations, CBAM requires emissions data to be traceable to specific production processes and product outputs.

This means companies must be able to allocate energy use and process emissions down to specific product lines or export batches. Achieving this level of granularity requires improvements in both hardware and software systems. On the hardware side, factories may need to install sub-metering systems to measure energy consumption by production line. On the software side, digital platforms capable of integrating plant monitoring systems with enterprise resource planning systems are needed to allocate emissions accurately to individual products. At present, there are still very limited local digital solutions designed specifically for CBAM-style product-level emissions accounting. Therefore, the government should support the development of local digital solutions through ecosystem collaboration and targeted grant programmes.

Emission Factors Issue

Another structural gap lies in the availability of country-specific emission factors. Malaysia currently provides certain emission factors, such as the national grid emission factor used for electricity calculations. However, a comprehensive national repository of verified emission factors across different industrial processes is still lacking. In the absence of such datasets, many Malaysian companies rely on international emission factor databases that may not accurately represent local production conditions.

Under CBAM rules, if companies cannot provide verified emissions data, default values may be used.

These default values are intentionally conservative and often higher than actual emissions in order to discourage reliance on generic assumptions. To worsen things, an additional 10% markup of published default value will be applied in 2026, 20% in 2027 and 30% in 2028. As a result, exporters that fail to develop robust and verified emissions accounting capabilities may cause higher effective carbon costs to their importer and subsequently lose their competitiveness. As such, the plan announced by Bank Negara Malaysia in 2022 to develop and consolidate country-specific emission factors should be accelerated.

Carbon Tax Outlook

Carbon pricing policy also plays a role in this equation. Malaysia has been exploring carbon pricing mechanisms, including the potential introduction of a carbon tax in the future. Under CBAM rules, any explicit carbon price already paid in the country of origin can be deducted from the importer's CBAM obligation. In principle, this means that if Malaysian exporters eventually pay a domestic carbon price, the equivalent amount could be recognised within the CBAM system rather than being paid entirely to the European Union.

From a policy perspective, this raises an important strategic question. If carbon costs are unavoidable in global trade, it may be more beneficial for those revenues to be collected domestically and reinvested in the national economy rather than flowing entirely overseas.

Curriculum Needs

The rise of sustainability-linked trade policies also highlights the need to rethink education and workforce development. Preparing a verifiable CBAM emissions report requires more than simply inserting numbers into equations. Practitioners must understand industrial processes, define system boundaries, construct mass balance models, and design data collection frameworks that accurately allocate emissions to products.

These skills require interdisciplinary training that combines engineering, environmental science, data management, and regulatory understanding. Universities and professional training programmes will need to evolve accordingly to equip future professionals with the competencies required in a carbon-constrained economy. Strong collaboration between industry and universities is essential for developing an education system that prepares graduates for the needs of the marketplace.

Malaysia has begun laying the groundwork for sustainability reporting and climate governance. However, the ecosystem remains incomplete. As CBAM enforcement begins and similar policies emerge globally, Malaysia will need to accelerate efforts to strengthen its sustainability infrastructure. This includes developing carbon pricing policies, expanding national emission factor databases, building digital measurement and reporting tools, updating academic curricula, and strengthening industry awareness. Only by doing so can Malaysia ensure that its companies remain competitive in an increasingly carbon-regulated global marketplace.

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