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Numerous challenges in carbon market system

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FEW would dispute that the carbon market, a system where entities can buy and sell credits or permits representing the right to emit a certain amount of greenhouse gases, is a key strategy in achieving net zero.

By putting a price on carbon, businesses and industries are encouraged to reduce emissions through efficiency improvements, cleaner production processes, and adoption of renewable energy.

The carbon market also encourages technological innovation, stimulating investments in low-carbon technologies such as carbon capture and storage (CCS), renewable energy, and sustainable agriculture.

Furthermore, programmes like the Clean Development Mechanism (CDM) and voluntary carbon markets enable developing countries to benefit financially from climate-friendly projects.

Many companies use carbon credits to meet their environmental, social and governance (ESG) goals, enhancing their reputation and attracting sustainability-conscious investors.

A well-regulated carbon market can generate revenue for governments through carbon taxes and auctions, which can be reinvested in green infrastructure and social programmes.

Article 6 of the Paris Agreement allows for international carbon trading, enabling countries to collaborate in emission reduction while meeting their climate goals in a cost-effective manner.

But there are challenges in the carbon market, as highlighted during a recent meeting hosted by Friends of Sustainable Malaysia in partnership with the Academy of Sciences Malaysia.

One of the challenges raised concerns the lack of standardisation and transparency in the carbon market. Different regions have varying carbon pricing mechanisms (e.g. cap-and-trade vs carbon tax), making global coordination difficult.

Then there are real concerns over double counting (where multiple entities claim the same emission reduction), which can undermine market credibility.

The risk of greenwashing was also highlighted.

This happens when companies buy carbon credits without making actual reductions in their own emissions, leading to superficial climate action.

Price volatility and uncertainty is another concern. Carbon prices fluctuate due to market conditions, policy changes, and economic factors, affecting long-term investment confidence.

There is also the issue of limited coverage. Many carbon markets cover only large industries, leaving sectors like agriculture, transport, and small businesses outside the regulatory frameworks.

While the carbon market presents a valuable tool for achieving the net zero target, its effectiveness depends on strong governance, transparency, and integration with broader climate policies.

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