

LEVERAGING CLIMATE FINTECH: THE ROLE OF BLOCKCHAIN-BASED CARBON TOKENS IN TRANSFORMING GLOBAL CARBON MARKETS

Marko Novak¹

¹ CTBC Business School, No. 600, Sec. 3, Taijiang Blvd., Annan District, Tainan 709, Taiwan E-mail: marko.novak@ctbc.edu.tw

Climate fintech leverages blockchain platforms to streamline the trading of carbon tokens, enabling faster, more secure, and cost-effective transactions compared to traditional carbon market mechanisms. These platforms facilitate peer-to-peer trading, reducing reliance on intermediaries and lowering transaction costs. The scalability of blockchain technology supports high transaction volumes, making it feasible to handle the growing demand for carbon credits as global climate commitments intensify. This efficiency enhances market liquidity, enabling seamless exchanges across borders and supporting the rapid scaling of carbon markets.







Tokenization of carbon credits significantly lowers the barriers to entry in carbon markets, which have traditionally been dominated by large corporations and institutions due to high costs and complex processes. By digitizing carbon credits into tokens tradable on blockchain platforms, climate fintech enables smaller entities, such as community-based renewable energy projects or small-scale reforestation initiatives in developing nations, to participate. This inclusivity empowers individuals, small businesses, and grassroots organizations to access global carbon markets, fostering equitable opportunities for environmental impact and economic growth.

Climate fintech, through tokenized carbon credits, unlocks access to global funding for small-scale and community-driven environmental projects, particularly in developing nations. By connecting local initiatives, such as reforestation or renewable energy projects, to international investors via blockchain platforms, tokenization enables these projects to generate revenue through carbon credit sales. This financial support incentivizes sustainable practices, empowers local communities, and contributes to global climate goals. The broader participation facilitated by climate fintech amplifies the collective impact of carbon markets, fostering a more inclusive and impactful approach to climate change mitigation.