

BAAC & Terranexx Launch Low-Carbon Rice Eco-Project

BAAC and Terranexx (Thailand) sign a landmark MoU to convert 1M rai into high-yield, low-carbon rice farming using advanced Digital MRV technology.

The Bank for Agriculture and Agricultural Cooperatives (BAAC) and Terranexx (Thailand) Co., Ltd. have forged a historic strategic partnership aimed at revolutionizing Thailand's low-carbon rice ecosystem.



The Memorandum of Understanding (MoU) was signed by BAAC Deputy Manager Ms. Kaimook Joongjaijarumas and Terranexx (Thailand) Director Major General Thanapol Bhakdibhumi.

Centered around Environmental, Social, and Governance (ESG) goals, the initiative supports the transition toward sustainable agricultural practices in alignment with Thailand's Voluntary Emission Reduction Program (T-VER). The joint effort actively steers the domestic agricultural sector toward Thailand's national goals of achieving Carbon Neutrality by 2050 and Net Zero emissions by 2065.

Digital Innovation and Soil Technology

To mitigate the environmental impacts of traditional farming, the partnership introduces an advanced "Digital MRV" (Monitoring, Reporting, and Verification) framework. The program combines:

Alternate Wetting and Drying (AWD): A water-management technique optimized to significantly reduce methane emissions.

Precision Fertilizer Management: Optimized input applications to reduce dependency on chemical fertilizers.

GreenCalSi Soil Conditioning: A proprietary soil technology designed to overcome cultivation limits in non-irrigated areas, which make up over 75% of Thailand's rice-growing land.

"Through this collaboration, we are providing farmers with the tools to reduce emissions while simultaneously optimizing input costs. By transitioning to high-quality, low-carbon production, we are enhancing the market competitiveness of Thai rice products, exemplified by our value-added 'Oon-Im' rice brand."

Scaling Toward a 2030 Climate Goal

The collaboration sets an ambitious target to cover more than 1,000,000 rai of rice fields across pilot projects in Northern, Northeastern, and Central Thailand. The baseline goal is to achieve a total greenhouse gas emission reduction of 1,000,000 tCO₂eq by 2030.

Under the agreement, BAAC will utilize a 25% share of the generated carbon credits to financially support agricultural cooperatives in the aggregation, storage, and processing of paddy rice.

A World-First High-Yield Solution

Terranexx (Thailand), an affiliate of the Australian Terranexx Group, localized this innovation following a thorough four-year validation program conducted alongside the Thailand Greenhouse Gas Management Organisation (TGO), the Rice Department, and Kasetsart University.

Major General Thanapol Bhakdibhumi emphasized that the partnership focuses on empowering farmers by increasing their income through verified low-carbon yields and reducing reliance on imported inputs.

Andrew Murray, Managing Director of the Terranexx Group, concluded:

"To our knowledge, this is the world's first high-yield, low-carbon rice program of its kind, and its significance goes well beyond carbon. Our novel approach lifts productivity and grain quality through to the mill, and strengthens natural crop resilience."

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