THAILAND PROMOTES LOW-CARBON RICE TO DRIVE BIO CIRCULAR GREEN ECONOMY AND ENVIRONMENTAL SUSTAINABILITY

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The Rice Department of Thailand is accelerating efforts to promote “low-carbon rice” production as part of the Bio Circular Green (BCG) Economy model, aiming to modernize rice farming while reducing environmental impacts and strengthening the global competitiveness of Thai rice. Mr. Sommai Lertna, Director, Division of Rice Research and Development, Rice Department, said the initiative reflects the department’s commitment to helping Thai farmers transition toward a new era of rice production that relies on technology and innovation to lower costs, increase productivity, and adapt to climate change. The program emphasizes environmentally friendly practices that reduce greenhouse gas emissions, particularly methane, while ensuring farmers can maintain stable incomes and access higher-value markets.

According to Mr. Sommai, the Rice Department has continuously developed and tested low-carbon rice production technologies before transferring this knowledge to farmers and agricultural officers through on-site demonstrations and integrated technology packages. These include selecting rice production systems suited to specific ecosystems, improving soil and water efficiency, laser land leveling, mechanized direct seeding to replace traditional wet broadcasting, and alternate wetting and drying water management supported by sensor systems. Such practices not only conserve water and reduce labor shortages but also significantly cut methane emissions caused by anaerobic decomposition in flooded paddy fields, which is a key factor in low-carbon rice production.

🤝To expand adoption nationwide, the Rice Department is working through community rice centers, large-scale farming plots, and model farmers, in line with the government's policy to promote one million rai of low-carbon rice cultivation. At the same time, the department is developing standards and certification for low-carbon rice in collaboration with the Thailand Greenhouse Gas Management Organization (TGO) and other partners. Farmers participating in the program are required to systematically record production data related to water management, fertilizer use, straw management, and other inputs, which will be verified through a formal certification process to ensure credibility and traceability.

🌍Mr. Sommai noted that the low-carbon rice initiative delivers multiple benefits, including reduced production costs through efficient mechanization, higher yields and improved grain quality, expanded access to premium export markets, and lower environmental and health impacts through reduced open burning and greenhouse gas emissions. He added that these efforts are expected to play a significant role in supporting Thailand's national greenhouse gas reduction targets while enhancing the image of Thai rice as a sustainable, environmentally friendly product that meets the expectations of global consumers.

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