AgroSpectrum ASIA
Envisaging Future | Updating Present

Singapore's Rize raises $14M (Series A) funding to boost tech platform for rice farming

10 May 2024 | News

This investment will enhance Rize's technology stack including its MRV technology and support further expansion into Indonesia, Vietnam, and across South and Southeast Asia



This investment will enhance Rize's technology stack including its MRV technology and support further expansion into Indonesia, Vietnam, and across South and Southeast Asia

Rize, a pioneering agritech platform dedicated to making sustainable rice cultivation viable through innovative and data-driven practices, today announces the closing of its $14 million Series A funding round. This investment will enhance Rize's technology stack including its Measuring, Reporting, and Verification (MRV) technology and support further expansion into Indonesia, Vietnam, and across South and Southeast Asia. The funding round is co-led by Breakthrough Energy Ventures, GenZero, Temasek and Wavemaker Impact.

Rizeâ??s technology stack captures vital agricultural data essential for implementing sustainable farming practices, making rice farmers more climate resilient, increasing their crop yields, lowering costs, and facilitating efficient access to finance. This step advances Rize's goal to eliminate 100 metric tonnes of carbon emissions whilst significantly improving farmer livelihoods.

â??We are confronted with the challenges of addressing the high levels of methane emissions and the water-intensive practices prevalent in rice farming, which accounts for 10% of global methane emissions, a figure that is set to rise if unchecked,â?• said Dhruv Sawhney, CEO of Rize. He adds, â??another hurdle is the lack of precise data, particularly among the numerous smallholder farms across South and Southeast Asia, as well as the increasingly high cost of farming due to increased input prices and a changing climate. Our technology stack seeks to tackle these challenges. By doing so, we are not just aiming to cut down 100 million tonnes of carbon emissions, we are also enhancing the economic stability of farmers, ensuring that improved farmer livelihoods and reduced emissions go hand-in-hand.â?•

Scaling data for Climate resilience and enhanced farmer finances

Traditional rice cultivation methods, often involving water-saturated paddies, are a significant source of methane emissions. This age-old practice of flooding the fields restricts oxygen flow, creating an ideal environment for methane-producing bacteria. To address this, Rize has assembled an expert team of agronomists who collaborate directly with farmers to implement more sustainable farming practices, such as Alternate Wetting and Drying (AWD) and Direct Seeding Rice (DSR). These techniques not only require less water but also significantly reduce methane emissions while maintaining crop yields. Leveraging a robust technology stack, Rize enhances the capabilities of its agronomists, enabling them to reach more farmers and collect precise data on farm performance and crop yields. Additionally, Rize is at the forefront of testing and scaling innovative technologies in areas like biological farming inputs, seed treatments, and climate-resilient rice varieties, driving the evolution of sustainable rice farming.

Furthermore, the technology stack will also improve farmer finances. The economic and operational hurdles at the start of the rice growing season often leave smallholder farmers vulnerable, incurring high borrowing costs for necessary inputs (seeds, fertiliser etc). The increasing costs of these inputs, coupled with the frequency of crop failures due to climate change, further exacerbate their struggles. The comprehensive data collection is ultimately designed to significantly improve the financial access of small farmers and reduce the risk for financial institutions. Lenders gain confidence as they understand that the farmers have improved their economic stability and are more fortified against climate variability, enabling them to offer loans at lower costs. As a result, this enhances their productivity ensuring they are better equipped to thrive in a changing climate.

Expanding market reach and empowering farmers for sustainable growth

In addition to technology stack development, the funds will enable Rize to expand its operations deeper into Indonesia and Vietnam and help strengthen its team of agronomists to over 100 by the end of 2024, potentially reaching over 20,000 farmers. Rize also has plans to expand into other rice producing South and Southeast Asian countries in 2025.

This coming season, Rize aims to improve over 7,000 hectares of rice farming, demonstrating a practical path to environmental sustainability and economic improvement. These initiatives are projected to not only lower emissions by 50% and reduce water usage by 20% but also increase farmer incomes by up to 30%, making sustainable rice farming a viable and attractive option.

â??Our platform, and the data it captures, is pivotal in modernising rice farming, leveraging technology to sustainably enhance yield and efficiency,â?• adds Sawhney. â??Given that producing a single bowl of rice requires over 200 litres of fresh water, and considering that the entire rice industry accounts for more than a third of the world's irrigation water, the urgency to adopt sustainable methods is clear."