

Uganda urged to embrace tech in agriculture sector

TIMOTHY NSUBUGA

Ashard Rab, the CEO of the European Organisation for Sustainable Development and the chairman of the International Sustainability Council, has called on Uganda's government to embrace a technology-enabled market-driven agriculture sector that can attract more youths, who account for two thirds of the country's population.

Rab made these comments at the official second edition of the Uganda Development Bank (UDB) RISE 4 Uganda Summit 2026, a multi-stakeholder forum that aims to advance Uganda's economic growth strategy by expanding GDP to \$500 billion from \$50 billion by 2040. The strategy targets key sectors of the economy such as agro-industrialization, tourism, minerals, science and technology.

Rab noted that when the agriculture sector takes up advanced technologies such as the Sera AI, which is powered by Rise for Uganda, it will enable the agriculture sector of Uganda to become a symbol of prosperity, competitiveness, leading to climate-smart high-value production, efficient processing, reliable export pathways, and inclusive opportunities for youth and communities alike.

"Picture agriculture: a tired farmer under the scorching sun, cracked hands, worn-out tools, a small patch of land. In developing economies, agriculture is often seen through the lens of poverty, vulnerability, and struggle. Hard work is rarely rewarded, and young people often leave the sector in search of better opportunities," he said.

"Imagine young farmers returning to the fields equipped with tablets and drones, farms becoming command centers, harvests transformed into balance sheets, and data guiding every decision," Rab added.

Emphasizing the need to embrace



Farmers experiment with a hand-made tractor recently

Artificial Intelligence in the agricultural sector of Uganda, Rab highlighted that this technology will accelerate the evaluation of opportunities across the entire agricultural food chain, including farming inputs, production and processing, logistics, and export markets, aligning projects with verified demand, risk analysis, and scalable financial models as native AI systems like Sera make data the new fertilizer forecasting, stress-testing, and scaling projects so that capital flows efficiently and impact is measurable.

"Agriculture stops being a social obligation and becomes economic infrastructure, generating predictable incomes, expanding enterprises, and multiplying jobs across Uganda. Reframe agriculture as a powerful engine of economic growth. No longer the least productive, least financed, or least modernized sector, agriculture today stands at the frontier of technological innovation," Rab pointed out. He added, "With the right tools, knowledge, science, technology, and capital, we can turn fields

that once represented struggle into landscapes of opportunity. Through coordinated systems, value addition, and structured investment, agriculture can become a cornerstone of national growth, delivering high income for farmers, prosperity for communities, and competitive exports for the nation."

Speaking at the forum during a panel discussion, Aga Sekalala, the chief executive officer of Ugachick Poultry Breeders Limited, who also doubles as the Chairman of the Uganda Manufacturers Association, highlighted the need to balance the acquisition of advanced technologies that are needed to boost production in the agriculture sector and the huge manpower pool in Uganda that needs employment.

He advised farmers to strike a balance with technology, ensuring that the youth in Uganda are employed because, in the near term, they are the potential buyers of agricultural products.

Sekalala warned about the challenges that Uganda's agricultural sector faces, such as post-harvest handling that results in farmers making losses.

"Post-harvest losses remain a significant issue in Uganda, with food waste estimated between 30 - 45 per cent overall and up to 80 per cent for grains. Imagine producing a crop and losing half of it due to gaps in post-harvest technology and infrastructure; this represents both a challenge and a clear area for investment and innovation," Sekalala further added.

Sekalala advised that when dealing with the issue of post-harvest losses, systems like micro warehouses with affordable cold chain infrastructure will help reduce post-harvest losses and improve the income of farmers.

"In Nigeria, for example, 'cold pumps' are solar-powered walk-in storage rooms placed at markets and farm clusters, where farmers pay \$0.50 per crate. This system has saved 14 million metric tons of food, created over 100 jobs, and operates entirely without diesel. Similarly, in Kenya, Inspira Farms deploys modular solar units near farms to serve nearly 200 producers, allowing farmers to aggregate produce like tomatoes, cabbage, and vegetables, extend shelf life, and move products efficiently to markets while lowering costs. The model can be adapted in Uganda, leveraging small collection centers to aggregate products such as milk, supporting farmers with scalable, technology-enabled storage, and building a reliable, market-ready cold chain infrastructure."

Looking at the financial aspect of Uganda's agriculture sector in terms of funding, John Robert Okware, the Country Director ACELI Africa, noted that agriculture practice of farming is viewed as risky due to the financial instruments and regulatory frameworks around and warned that if banks cannot fully recognize these guarantees within the regulatory framework, they remain paper instruments unable to shift risk appetite or unlock meaningful capital into the agri-food sector, which he advised must change.

Okurut Charles, the executive director of GTS Solutions noted that small scale famers still lack access to technology and finance.

"By aggregating farmers and connecting them to input providers, financiers, and off-takers through a virtual investment platform, we are creating a model in which investment can be recovered within one season, sometimes in as little as three to four months. Technology alone is not enough. It must be structured within a system that makes it affordable, investable, and sustainable for small-scale producers. That is how we turn innovation into inclusion."