

HARVIST Press Release – September 2026

WHAT IF MORE OF WHAT FARMERS GROW ACTUALLY REACHED THE MARKET?

HARVIST brings clean energy, smart irrigation, cooling and AI together to help smallholder farmers protect produce, use resources more efficiently and build climate resilience.



Birmingham, UK / Nigeria – September 2026 – Around 13% of food produced globally is lost after harvest and before it reaches retail. For smallholder farmers, the challenge is wider still: unreliable energy, water constraints, inadequate cooling and fragmented infrastructure can undermine productivity, income and resilience.

A UK–Nigeria partnership is setting out to tackle those pressures together rather than one at a time.

HARVIST – Hub for Agricultural Resilience through Value-chain, Irrigation, Storage and Technology – will integrate renewable energy, battery storage, smart irrigation, cooling and cold storage, IoT monitoring, artificial intelligence and data analytics within one agricultural infrastructure model.

The central question is simple: *what happens when energy, water, cooling, data and agricultural production are designed to work together around the farmer?*

Three climate-smart agricultural hubs will initially be developed in Nigeria to demonstrate the approach in real farming environments.

Solar energy will provide clean power, supported by battery storage and intelligent energy management. Smart irrigation will help water reach crops when and where it is needed. Cooling and cold storage will help protect harvested produce, while sensors, IoT technologies, AI and data analytics will connect information across the system and support better operational decisions.

The intended impact is deliberately broader than reducing post-harvest losses. HARVIST will test how an integrated hub can strengthen farmer livelihoods while reducing dependence on diesel generation and carbon-intensive grid electricity, improving renewable-energy use, reducing avoidable water wastage through smarter irrigation, and using cooling and storage to preserve the value of agricultural production.

In other words, the innovation is not simply in the individual technologies. It is in how they are integrated, managed and used as one system. Dr Mohammad Nazir OBE, Managing Director, Nazir Associates Ltd; HARVIST Consortium Lead; Vice Chair, Sustainability West Midlands, said, “A farmer can spend months successfully growing a crop and still lose much of its value after harvest. But post-harvest loss is only one part of the challenge. Farmers also need reliable energy, smarter use of water and infrastructure that can operate efficiently in a changing climate.

HARVIST brings energy, water, cooling and digital intelligence together around the farmer. The exciting part is not any single technology – it is what becomes possible when they communicate and work together. We are starting with three hubs in Nigeria, with the ambition of demonstrating a practical and scalable model that delivers environmental, social and economic value.”

HARVIST is led by Nazir Associates Ltd through a ten-partner UK–Nigeria consortium bringing together expertise in clean energy, engineering, agriculture, artificial intelligence, research, stakeholder engagement and commercialisation.

Technical partners include the University of Hertfordshire, KAMIM Technologies Ltd and FarmSpeak Technology Ltd. The University of Hertfordshire leads HARVIST’s artificial intelligence, machine-learning and intelligent energy-management work; KAMIM Technologies leads key aspects of renewable-energy engineering and hub infrastructure deployment; and FarmSpeak Technology Ltd contributes IoT-enabled monitoring and smart-irrigation technologies. The University of Greater Manchester contributes systems design, validation, research and stakeholder engagement expertise, alongside other consortium partners supporting agriculture, community engagement, digital innovation, commercialisation and implementation.

Professor Hafiz Alaka, Associate Dean (Research and Enterprise), HBS Director of Big Data Tech & Innovation Lab, University of Hertfordshire, HARVIST lead partner for AI and Big Data energy-management systems, said:

“The intelligence behind HARVIST is about making the different parts of the system work as one. By combining AI, machine learning and intelligent energy management, we continuously balance renewable-energy generation, storage and demand across cooling, irrigation and other agricultural needs. But the technology is only the means — the goal is impact. Every efficiency we unlock helps smallholder farmers keep more of what they grow, waste less, and earn more, putting affordable cooling and year-round irrigation within reach of those who need it most. In doing so, HARVIST shows how AI can move beyond analysis to actively manage clean-energy infrastructure — cutting the food loss that drives hunger and malnutrition, protecting the nutritious foods that perish first, and building more resilient livelihoods for the farmers at the heart of Nigeria’s food system”

Farmers, cooperatives and local stakeholders will be involved in shaping how the hubs are developed and used, helping ensure that the system responds to practical needs on the ground. Santiago, an Epe farm owner, said:

“For us, the challenge is not only growing the crop. We need water when the crop needs it, and after harvest we need somewhere to keep our produce fresh while we find the right market. If HARVIST can bring irrigation, cooling and better access to markets together in one place, it can help us lose less and get more value from what we grow.”

HARVIST is one of 14 projects supported under Phase II of the Digital Demand-Driven Electricity Networks Initiative (3DEN), conceived and funded by the Government of Italy through the Ministry of Environment and Energy Security (MASE), and implemented in partnership with the United Nations Environment Programme (UNEP) and the International Energy Agency (IEA). The Initiative works by funding pilot projects that test digital solutions in real operating conditions, generating the performance evidence needed to attract investment and inform policy. Phase II of 3DEN supports 14 innovative projects across Africa and Brazil in two sectors, urban energy systems and agri-food systems, exploring how digitalisation can make smarter, more resilient systems. 3DEN stated:

“Digitalisation is opening new possibilities for connecting renewable energy with more efficient and resilient agri-food systems. Projects such as HARVIST can provide valuable real-world evidence of how these technologies can support farmers while improving the way energy and resources are used.”

During September and October 2026, HARVIST will begin a programme of farmer and stakeholder workshops and engagement activities in Nigeria. Farmers, cooperatives, communities, government representatives, researchers, businesses and technology specialists will be invited to contribute as the project moves from design towards deployment.

The timing coincides with growing international attention on food loss and waste, including the International Day of Awareness of Food Loss and Waste on 29 September.

Growing more food matters. Protecting what we grow – while using energy and water more intelligently – matters too.

Dr Mohammad Nazir added: “Technology alone will not transform agriculture. People will. Our job is to put useful technology into their hands, listen to what farmers tell us and build something that works in the real world.”

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