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India's Cropin and AWS collaborate to address global hunger and food insecurity

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India's Bengaluru based Cropin Technology, a global Agtech leader enabling intelligent agriculture, and Amazon Web Services (AWS) India Private Limited have signed a Memorandum of Understanding (MoU) focused on enabling Cropin to build a solution to address the pressing issue of global hunger and food insecurity.

This initiative aims to help Cropin develop core data architecture, analytics, modelling, and simulation components that can aggregate global farmland data and broader climate intelligence within a single solution. The solution will provide decision intelligence to governments, development agencies, and agri-businesses, and help them ensure food security for vulnerable populations.

The collaboration reinforces Cropinâ??s commitment to enabling predictable, traceable, and sustainable global food systems, while supporting food security efforts undertaken by AWS Impact Computing, an initiative which aims to identify potential solutions that can improve the lives of humans, other species, and natural habitats.

As part of this initiative, Cropin will develop workloads that could eventually constitute a Food Security Decision Intelligence solution powered by AWS. The solution would leverage AWSâ??s advanced computing capabilities, including High Performance Computing (HPC), modeling/simulation, internet of things (IoT), robotics, visual/spatial computing, and generative artificial intelligence (AI). It will combine Cropinâ??s deep domain expertise in agriculture, earth observation sciences, data science, AI/ML, and deep learning models to provide accurate and granular crop yield intelligence for the most important food crops worldwide, initially focusing on rice, wheat, potato and maize, as they collectively account for more than half of the worldâ??s food requirements.

The AI powered solution will integrate satellite imagery with in-situ field images and remote data to improve agricultural analytics through scalable models. These models will provide both micro (plot) and macro (regional/ global) insights and will be further analysed by identifying patterns and anomalies in the production and quality of major crops across global regions. Cropinâ??s AI, model building, data processing, and reporting will leverage AWS services such as Amazon Bedrock, a fully managed service that offers a choice of high-performing foundation models from leading AI companies; Amazon Q, a generative AI-powered assistant; Amazon QuickSight, which offers unified business intelligence at hyperscale; and AWSâ??s HPC infrastructure.

Image Caption: Krishna Kumar, co-founder & CEO, Cropin, and Shalini Kapoor, Director and Chief Technologist, AWS India Private Limited, at the MoU signing. (Cropin)