



Rural Development and Food Security Forum 2019

28-30 October 2019, ADB headquarters

Technology/Project Description Summary

Technology and Innovation Marketplace

<p>Expert (50 words for each bio)</p>	<ul style="list-style-type: none"> • We are an accomplished agri professional team with experience in leading teams in multiple geographies and industries. • At CropIn, we are creating an ingenious union of Agriculture, Technology and Data Science - bringing in fresh perspectives and making a difference to the otherwise conventional space. • Our mission is to digitize every farm on the planet and equip consumers, agripreneurs, farmers, agribusinesses and other stakeholders with the technological capabilities to enable data-driven decision making in the agri ecosystem. • And, I am super kicked about building an ecosystem of our solutions across the region and are driven by the vision and the passion to sketch out this wonderful union. • https://www.linkedin.com/in/arjundutta/ • https://www.linkedin.com/in/aakashparekh/ • https://www.linkedin.com/in/jitesh-shah-24a2342/
<p>Photo(s) of Expert(s)</p>	<p>Provide high-quality photos of the expert(s) in separate JPEG files.</p> <p>Attached</p>
<p>Contact Details of the Expert(s)</p>	<ul style="list-style-type: none"> • Arjun Dutta, Regional head - SEA, Cropin Technology arjun.dutta@cropin.com M: +91 95356 77441 (India) +65 9882 0419 (Singapore) • Aakash Parekh, VP - EU & SEA, Cropin Technology aakash@cropin.com M: +91 9920103222 • Jitesh Shah, CRO, Cropin Technology jitesh@cropin.com
<p>Title (15 words)</p>	<p><u>HOW TECHNOLOGIES LIKE AI ARE TRANSFORMING FARMS GLOBALLY</u></p>
<p>Keywords</p>	<p>Artificial Intelligence, Agri-intelligence, Deep learning Ag-platform</p>

<p>Short one-sentence blurb (Up to 150 characters, including spaces)</p>	<p>The most disruptive deep learning platform for the agri-ecosystem for climate-smart, advanced satellite imagery, extensive historical and real-time data about land composition, along with detailed weather and climate forecasts help food growers and businesses track, monitor and evaluate every aspect of cultivation. AI-driven insights for sustainable and productive food security.</p>
<p>Overview (150 words)</p>	<ul style="list-style-type: none"> ● Farmer/Plot Lending Risk Assessment Mitigate risks, make well-informed lending decisions, and expand your portfolio with confidence using leading-edge technologies & ground-truth data. ● Sourcing and Procurement Planning Detect crops, estimate acreage, monitor crop health, forecast the yield & do much more to strengthen your supply chain. ● Smart Sampling Points for Crop-Cutting Experiments Optimise crop cutting experiments using smart, scientific sampling points to make yield prediction more accurate, and process insurance disbursement with more efficiency using accurate ground-truth data. ● Agri-Market Intelligence Get deep, actionable insights on crops and farm plots at a regional level to optimise costs and business operations, and strengthen market linkages across the agri-ecosystem. ● Water Monitoring & Conservation Leverage our AI-powered platform to promote sustainable use of water by assessing parameters including regional weather, precipitation, and water stress.
<p>Summary—Main argument(s) and supporting argument(s) (800 words)</p>	<p>Organisations such as CropIn Technology are propelling agri-tech innovations to drive digitisation in the agribusinesses the world over. CropIn leverage alternative agri-data, such as those derived from satellite monitoring, artificial intelligence and big data analytics, to make business operations easier for financial institutions. CropIn’s SmartRisk™ is a unique agri-AI/ML solution that combines multiple sources of data including the platform’s global agri-ground intelligence, weather and satellite imagery. The platform establishes the performance of every pixel at regional level (farm/postcode/state/country) — both historical and present — to deliver regional and plot-level insights at a fraction of the traditional cost and effort. The platform allows users to identify crops, detect crop health, forecast yield and obtain farmer-level plot and crop performance reports, helping key stakeholders in the BFSI sector to hedge risks and take informed business decisions.</p> <p>Potential Benefits Of Using A Smart Agri-Tech Platform For BFSI sector</p> <ul style="list-style-type: none"> ● Increase loan portfolio by up to 25% ● Arrive at data-driven decisions that result in up to 30% reduction in NPA ● Improve yield by mitigating risks at the right time ● Cut down significantly on manual labour costs such as field scouting and obtain accurate results in 50x less time

	<p>Technology, with the above benefits, can ensure that more number of smallholder and marginalised farmers have access to financial aid, despite not being able to provide the institution with collaterals or other forms of assurance. The service providers are also able to mitigate risks very early on, by analysing historical performance of the farm plot in the last three years and assessing the possibility of a good harvest at the end of the current season. The credit could also go a long way in improving the harvest for the farmer, by providing him the resources to invest in better quality seeds or upgrade his farm machinery. This, in turn, brings home better returns for the farmer and ensures faster loan repayment. In the long term, this improves the farming community's livelihood and, as an extension, the productivity of the agri-sector.</p>
Key findings at a glance (only when appropriate)	NA
Photos (only when appropriate)	<p>Provide 1-3 high-quality photos in separate JPEG files. Provide captions for each photo here.</p> <p>attached</p>
Resources	<ul style="list-style-type: none"> • https://www.cropin.com/blogs/how-is-technology-an-enabler-of-financial-inclusion/ • https://www.youtube.com/watch?v=Ukh1Myc0Xgo • https://www.cropin.com/blogs/agriculture-4-0-how-technology-is-helping-build-digital-farms-of-the-future/

Link to ADB Agriculture and Natural Resources Subsectors

Which subsector does this article primarily focus on? Please select (✓) more than one but not more than three subsectors.			
	Agricultural drainage		Livestock
	Agricultural policy, institutional and capacity development		Rural flood protection
	Agricultural production		Rural market infrastructure
	Agriculture research and application		Rural sanitation
	Agro-industry, marketing and trade		Rural solid waste management
	Fishery		Rural water policy, institutional and capacity development
	Forestry		Rural water supply services
	Irrigation		Water-based natural resources management
	Land-based natural resources management		

Link to ADB Sectors and Themes

Which sector does this article primarily address? Please select (✓) more than one but not more than three sectors.			
	Agriculture and natural resources		Health
	Capacity development		Industry and trade
	Climate change		Information and communications technology
	Economics		Poverty
	Education		Private sector development
	Energy		Regional cooperation and integration
	Environment		Social development and protection
	Finance sector development		Transport
	Gender		Urban development
	Governance and public sector management		Water

Link to Sustainable Development Goals

Choose which Sustainable Development Goal (SDGs) is most relevant to this article. Please select (✓) up to 3 SDGs only.			
	Goal 1: No Poverty		Goal 10: Reduced Inequalities
	Goal 2: Zero Hunger		Goal 11: Sustainable Cities and Communities
	Goal 3: Good Health and Well-being		Goal 12: Responsible Consumption and Production
	Goal 4: Quality Education		Goal 13: Climate Action
	Goal 5: Gender Equality		Goal 14: Life Below Water
	Goal 6: Clean Water and Sanitation		Goal 15: Life on Land
	Goal 7: Affordable and Clean Energy		Goal 16: Peace, Justice and Strong Institutions
	Goal 8: Decent Work and Economic Growth		Goal 17: Partnerships for the Goals
	Goal 9: Industry, Innovation and Infrastructure		