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2nd Edition

VEATS 2026

Viksit East AgFoodTech Summit

Technology for Agriculture, Fostering Innovation, Investment & Collaboration in East and North-East India















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PROGRAMME REPORT

Kolkata

4th & 5th August 2026

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DAY 1

1. EXECUTIVE SUMMARY

On 4th August 2026, the **2nd Edition of the Viksit East AgFoodTech Summit (VEATS 2026)** hosted its dedicated startup pitching session at the **Williamson Magor Hall**, The Bengal Chamber of Commerce and Industry (BCC&I) premises in Kolkata. Jointly convened by **The Bengal Chamber of Commerce and Industry (BCC&I)** and **ThinkAg**, with **State Bank of India (SBI)** as Title Partner and supported by the **Ministry of Food Processing Industries (MOFPI)**, Government of India, the session established a targeted commercial bridge between regional agro-enterprises and national venture capital, private debt, and institutional banking leaders.

In accordance with strict summit screening criteria, participation was exclusively restricted to **AgriTech and FoodTech startups**. The pitching cohort comprised **11 vetted enterprises** across three primary technical categories:

- **Deep-Tech Agricultural Inputs & Plant Biotechnology:** Liquid microbial consortia, marine seaweed bio-stimulants, and patent-protected ornamental crop genomics.
- **Autonomous Hardware, Geospatial Analytics & Digital Operating Systems:** Low-cost agricultural drones with indigenous flight controllers, digital farm twins, and integrated agri-export compliance engines.
- **B2B Procurement Corridors, Specialty Crops & Clean-Label Foods:** Asset-light interstate perishable supply chains, digital ingredient procurement for street food vendors, and value-added indigenous superfoods.

A distinguished panel of early-stage venture capitalists, impact investors, and angel leaders reviewed each venture. The panel recognized Eastern India's rapid evolution into a source of defensible intellectual property (IP), patentable biological formulations, and field robotics. In their critical evaluations, investors urged founders to replace macro-market assumptions with bottom-up validation, establish operational density within specific geographic corridors, and anchor business valuations to measurable increases in farmer net profitability rather than vanity growth metrics.

2. CONTEXT, OBJECTIVES & MANDATED COHORT SCOPE

Eastern and North-Eastern India boast fertile alluvial soils, abundant water, and leading national output in paddy, potatoes, tea, horticulture, and fisheries. Yet, the region faces acute structural bottlenecks. In West Bengal alone, 96% of the 7.1 million farming families are small and marginal landholders with an average plot size of just 0.77 hectares. This fragmentation depresses farmgate prices, escalates post-harvest losses, limits technology access, and leaves farmers vulnerable to input cost shocks.
To focus the session on actionable, high-impact outcomes, general IT and consumer tech ventures were excluded. Participation was strictly restricted to startups driving core innovations in **AgriTech** (farm inputs, mechanization, and digital systems) and **FoodTech** (processing, supply chains, and value addition).

3. INAUGURAL & INTRODUCTORY ADDRESSES

MR. JAYANTA CHAKRABORTY
MENTOR, AGRI-HORTI-FOOD PROCESSING & RURAL DEVELOPMENT NATIONAL COMMITTEE, BCC&I

Mr. Jayanta Chakraborty opened the evening session by welcoming the distinguished gathering of venture investors, researchers, corporate partners, and startup founders. He emphasized that the national vision of *Viksit Bharat* remains unattainable unless accompanied by genuine, sustained rural prosperity. He observed that while technology-driven agricultural revolutions have taken deep root across western, southern, and central India, Eastern India possesses the requisite agro-climatic diversity, water security, and primary output to emerge as the nation's definitive growth engine.

He highlighted that modern technology—whether artificial intelligence, drone robotics, biological crop protection, precision irrigation, or cold-chain logistics—must solve real, everyday problems faced by farmers. He proposed three foundational tests that every startup's business model must satisfy:

1. *Does it increase farmers' net income?*
2. *Can it be scaled affordably across millions of small and marginal farmers?*
3. *Is it environmentally and financially sustainable?*

Mr. Chakraborty stressed that no single entity can transform agriculture in isolation; long-term viability requires institutional alignment between farmers, startups, scientific laboratories, corporate supply chains, and banking channels. Concluding his remarks, he gave the founders a clear guiding principle: **"Innovation should create value for farmers before it creates valuation for the business."** When farmers receive verified,

measurable economic gains, durable commercial enterprises and valuations will naturally follow.



Mr. Jayanta Chakraborty delivering the Opening Address

MR. DINESH KUMAR BHARDWAJ
AGM, AGRI BUSINESS, STATE BANK OF INDIA

Representing the summit's Title Partner, Mr. Dinesh Kumar Bhardwaj outlined State Bank of India's extensive rural banking infrastructure and credit initiatives across West Bengal, Sikkim, and the Andaman & Nicobar Islands. He observed that given the structural prevalence of small and marginal operational holdings (rarely exceeding two hectares), traditional financing models must evolve toward integrated value-chain credit.

Key institutional initiatives highlighted in his address included:

- **Specialised Agri-Commercial Branches:** SBI operates 25 specialized agri-commercial branches across West Bengal dedicated to structuring high-value agricultural, infrastructure, and food-processing proposals.

- **Agri Innovation Center & Robotics:** To accelerate modern technology adoption, SBI operates a specialized innovation facility in Hyderabad designed to assess robotics, drone systems, and automation for structured bank lending.

- **Extensive Field Network:** SBI deploys a dedicated cadre of over 600 agricultural specialists (*Feet on Street*) engaged directly in rural outreach, enterprise financing, and credit monitoring across Eastern India.

- **Mobilising the FPO Ecosystem:** Mr. Bhardwaj highlighted that while West Bengal hosts more than 1,100 registered Farmer Producer Organisations (FPOs), formal bank credit penetration within these collectives remains disproportionately low. He urged presenting startups and entrepreneurs to enter into formal off-take, processing, and input partnerships with FPOs, assuring that SBI is equipped to finance the entire agricultural lifecycle—from crop cultivation credit to post-harvest cold storage, processing infrastructure, and transportation logistics.



Mr. Dinesh Kumar Bhardwaj addressing the delegates)

MR. ABHIJIT GOSWAMI
CO-FOUNDER & DIRECTOR, THINKAG

Mr. Abhijit Goswami welcomed the gathering, expressing appreciation to BCC&I and the regional startup community for establishing a vibrant forum for agricultural transformation. Reflecting on the evolution from the first edition to this second edition, he noted that although the Eastern and North-Eastern states produce a vast array of commodities and hold numerous Geographical Indication (GI) tags, the region has suffered from systemic value-chain underdevelopment, fragmented logistics, and weak export infrastructure.

He explained that VEATS was created to bridge Eastern India with national commercial ecosystems and investment capital. He called upon founders to take full advantage of central ministry subsidies and specialized northeastern industrial schemes, while adopting applied AI tools to optimize value chains. Mr. Goswami concluded by emphasizing that ThinkAg aims to expand this forum across multiple Eastern states, helping promising startups transition from local pilots to commercially investable enterprises.



Mr. Abhijit Goswami welcoming participants

4. STARTUP PITCH PRESENTATIONS (AGRITECH & FOODTECH COHORT)

Pitch 1: Earth Story Farm Pvt. Ltd. (FoodTech: Clean-Label & Value Addition)

- **Presenters:** Mr. Abhishek Choudhury (Founder & CEO) & Ms. Senjuti Mahato (Co-Founder & CMO)
- **Accreditation & Recognition:** Agri Startup of the Year (BCC&I Rural Connect Awards, Feb 2026)
- **Problem & Opportunity:** Mainstream ultra-processed food manufacturing prioritizes industrial shelf life and corporate margins over nutritional value, driving rising lifestyle and metabolic health concerns. Meanwhile, clean-label alternatives remain elitist, expensive, and alienated from traditional food heritage.

- **Product Innovation & Portfolio:** Earth Story Farm produces clean-label, culturally rooted foods using traditional recipes and GI-tagged ingredients:

    - *Jaggery Formats (55% revenue, 60% gross margin)*: Liquid Nolen Gur, Date and Palm Jaggery granules, solid cubes, spreads, and seasonal fruit pulps.
    - *Artisanal Pickles (20% revenue, 60% gross margin)*: Farm-to-table heirloom formulations reviving regional culinary traditions.
    - *Signatures & Ready-to-Eat (20% revenue, 60% gross margin)*: Spiced Mahua raisins, Gur Haldi immunity lattes, Joynagar Moa, and millet-based snacks.
    - *Pantry Staples (5% revenue, 50% gross margin)*: Heirloom GI-tagged rice varieties, single-origin spices, Bilona cow ghee, and Sundarbans mangrove honey.

- **Commercial Traction & Distribution:** Operates an omnichannel model through its proprietary D2C website (60% direct sales; 30,000+ customers; AOV ₹855–₹975; 24% customer repeat rate), digital marketplaces (Amazon, Blinkit, Instamart, JioMart, Nature's Basket), and premium B2B/HoReCa partnerships (Subko Coffee, Bombay Sweet Shop, Blue Tokai, Burma Burma, The Bombay Canteen).

- **Financials & Capital Ask:** Achieved ₹2.20 Crore revenue in FY 2025–26 (up from ₹1.10 Cr in FY25 and ₹32 Lakhs in FY24). The company is raising **₹1.00 Crore for a 12-month runway** (allocation: ₹35L team building, ₹20L in-house processing and R&D, ₹20L brand marketing, ₹15L farmer/FPO capacity building) targeting ₹6.00 Cr revenue in FY27 and scaling toward a ₹100 Cr milestone by FY30.



Earth Story Farm Pitch Presentation

Pitch 2: BomLife Pvt. Ltd. (AgriTech: Biological Inputs & Soil Regeneration)

- **Presenter:** Mr. Amlan Datta (Co-Founder & CEO)

- **Problem & Agronomic Context:** Long-term chemical fertilizer overuse has reduced India's fertilizer response ratio by roughly 70% since the Green Revolution, causing soil acidification, organic carbon depletion, and higher pest vulnerability. Conventional bio-fertilizers frequently fail to deliver consistent yields without synthetic NPK supplementation.

- **Biological Innovation:** Based on 30 years of microbial research and a decade of field trials, BomLife developed a stable, liquid consortium of living microorganisms. Acting as a "living nutrient engine," the formulation fixes atmospheric nitrogen, solubilizes locked phosphorus and potassium, and produces plant growth-promoting rhizobacteria (PGPR).

- **Institutional Field Validations:**

    - *Tea (TRA Jorhat - Borbhetta TE)*: Delivered a **6% yield increase** over conventional chemical practice (774 kg green leaf vs. 731 kg conventional per 3,000 bushes) with minimal pest incidence.

- *Cotton (SIMA CDRA, Tamil Nadu)*: Achieved a **21% higher yield** over conventional methods (10.6 quintals/acre vs. 8.76 quintals) with zero sucking pests, wilt, or boll reddening.
- *Sugarcane (ICAR Sugarcane Breeding Institute, Coimbatore)*: Recorded a **3.6% increase in Sugar Brix (24.3% vs. 20.7%)** and higher sucrose recovery with zero cane mortality.

- **Unit Economics & Replacement Ratio:** Replacing approximately 500 kg of chemical fertilizers (Urea + DAP + MOP) per hectare of tea requires only 6 litres of BomLife liquid bio-fertilizer annually (four applications of 1.5 litres), reducing input costs by 20–30%.

- **Commercialization & Capital Ask:** Generates crop-specific revenues of ₹10,000–₹20,000/ha across tea, sugarcane, and cotton. Having deployed ₹2.1 Cr to date (₹1.1 Cr grants, ₹0.7 Cr debt, ₹0.3 Cr self-funded), the venture is seeking an **equity investment of ₹1.50 Crore (as part of a ₹3.5 Cr commercial scale-up round)** to build a dedicated manufacturing unit, secure regulatory licenses, and expand regional marketing teams.



BomLife Pitch Presentation

Pitch 3: Novaplantis Pvt. Ltd. (AgriTech: Plant Genomics, Breeding & In-Vitro Systems)

- **Presenter:** Mr. Arnab Ghosh (Director, Operations)

- **Leadership Team:** Prof. Siddhartha Roy (Chairman, Bhatnagar Awardee), Ms. Madhurima Chakraborty (CEO)

- **Market Opportunity:** The global ornamental plant market exceeds $70 Billion (with an extended value chain of $110B+), but India accounts for less than $88.6 Million in exports, while its live plant imports grew by 314% between 2013 and 2023. Furthermore, India contributes under 1% of global Plant Variety Protection (PVP/PBR) filings, trailing far behind China (54%) and the Netherlands (10%).

- **Core Technology Platform:** Novaplantis combines advanced plant genome engineering (mutation breeding, directed hybridization, and CRISPR gene editing) with a proprietary, automated **Temporary Immersion Bioreactor (TIB)** system. This modular setup lowers micropropagation costs while maintaining high genetic fidelity and multiplication rates.

- **Traction & Elite Breeding Pipeline:** The enterprise is researching 58 plant species, running 8 elite breeding programs (including 5 Anthurium, 2 Alocasia, and 1 Monstera variety), has produced over 50,000 plants, and possesses an engineered annual production capacity of 500,000 plants.

- **Regional Strategic Vision:** Utilizing West Bengal's six distinct agro-climatic zones, Novaplantis plans to build protected greenhouse innovation clusters to position the state as an Asian center for export-ready, IP-protected ornamental plants.



Novaplantis Pitch Presentation

Pitch 4: LovethyNature Solutions Pvt. Ltd. (FoodTech / Agri-Allied: Botanicals & Provenance)

- **Presenters:** Mr. Tuhin Kanti Mukherjee & Ms. Payel Mukherjee (Co-Founders)
- **Consumer Brand:** MERAKI Earthen™
- **Market Problem:** Commercial Ayurvedic personal care products frequently use standardized, bulk-procured extracts that lack farm-level transparency, while smallholder tribal growers depend on volatile, low-paying informal markets for raw botanicals.
- **Product Innovation & Sourcing:** Formulates personal care products using underutilized indigenous botanicals from Eastern India, including Mahua seed oil, Palash flower extract, Moringa, and natural beeswax. The formulations contain no synthetic chemicals, microplastics, or artificial foaming agents.
- **Farmer Linkages & Traceability:** Working directly with 15+ smallholders and tribal Non-Timber Forest Produce (NTFP) gathering households, the enterprise offers assured procurement at 5–10% above local market rates. It is also piloting a QR code batch-traceability system that allows consumers to verify ingredient origins.

- **Traction & Capital Ask:** Has sold over 10,000 units across D2C channels, pop-up exhibitions, and organic retail boutiques, achieving a 33% repeat purchase rate. Bootstrapped to date with ₹10 Lakhs of founder capital, LovethyNature is seeking **₹40 Lakhs** to scale its e-commerce infrastructure, launch its traceability MVP, onboard 40 additional growers, and support rural women's Self-Help Groups (SHGs) with processing equipment.



LovethyNature Pitch Presentation

Pitch 5: Kheetii Bazaar (AgriTech: Demand-Led B2B Fresh Produce Supply Chain)

- **Presenters:** Mr. Sanjay Shaw (Founder & CEO) & Mr. Amit Thakur (Co-Founder & CTO)

- **Incubation & Ecosystem Support:** IIT Kharagpur (ABIF), IIT Ropar, T-Hub, Algorand Foundation

- **Supply Chain Challenges:** Conventional interstate produce logistics involve up to six intermediary handoffs between the farmgate and retailers, resulting in 20–30% post-harvest spoilage and opaque pricing.

- **Corridor-Focused Model:** Kheetii Bazaar operates a demand-led, asset-light B2B fresh produce network connecting surplus production belts in Maharashtra (Nashik, Solapur, Ahmednagar) with consumption centers in West Bengal (Kolkata, Nadia, Kharagpur).

- **Operating Split & Unit Economics:**
    - *80% Just-In-Time (JIT) Marketplace*: Direct procurement against confirmed buyer orders, eliminating central warehousing overhead.
    - *20% Hub Inventory*: Maintained at destination hubs to fulfill same-day HoReCa reorders.
    - *Operating History (18-Month Track Record)*: **Under 3% transit spoilage** (supported by temperature-controlled 3PL partnerships with RedHatWheels), 75% buyer repeat rates, ₹5.75/kg contribution margin (11.5%), 4.2% net profit margin, and a 7-day net working capital cycle.
- **Traction & Capital Ask:** Supplies modern retail chains and institutional kitchens (including More Supermarkets, Koshe Kosha, and Gourmet Greens). Scaled monthly recurring revenue from ₹2.5L to ₹6.0L. Raising **₹50 Lakhs** (₹35L for working capital rotation, ₹15L for tech/commercial controls) to expand monthly volume from 7 tons to 50 tons and reach ₹30L MRR.



Kheetii Bazaar Pitch Presentation

Pitch 6: Anthrovia Technologies Pvt. Ltd. / DookanPe (FoodTech / B2B: Micro-Vendor Procurement)

- **Presenters:** Mr. Sumantra Roy (Founder & CEO) & Mr. Arupratan Chakraborty (COO)

- **Market Gap for Micro-Vendors:** India has over 20 lakh street food vendors (a ₹60,000 Cr market), with roughly 13 lakh operating in Tier-1 and Tier-2 cities. Vendors typically spend 2–3 hours each morning visiting multiple wholesale markets to source raw materials, facing daily price volatility, retail markups, transport hurdles, and inventory loss from inadequate shop-floor storage.

- **The Platform Solution:** DookanPe is a specialized mobile procurement platform for urban street food stalls. The app features multilingual voice-search, scheduled next-day shop-floor delivery, UPI-on-delivery payment, and grouped delivery routing.

- **Operating Economics & Growth Strategy:** By sourcing directly from millers and primary distributors, DookanPe offers competitive pricing on core kitchen commodities (flour, cooking oil, spices, sauces). The five-year roadmap targets onboarding 42,000+ active micro-vendors in Kolkata and neighboring urban clusters, scaling revenues from ₹4.07 Cr in Year 1 to ₹359 Cr by Year 5 with an estimated 11% PAT margin.

- **Funding Ask:** Seeking **₹4.59 Crore total capital** (staged as ₹70 Lakhs for a 6-month runway and ₹1.60 Cr for 12 months) to expand distribution hubs, support cloud infrastructure, and grow the ground sales team.



Anthrovia Technologies / DookanPe Pitch Presentation

Pitch 7: Krishiesetu LLP (AgriTech: Full-Stack Export Enablement & Digital Infrastructure)

- **Presenters:** Mr. Sandipan Chakrabarty (CEO & Founder) & Ms. Enakshie Chakrabarty (COO)

- **Export Complexities:** Smallholder FPOs and merchant exporters face long shipment cycles (21+ days), fragmented logistics with 5+ intermediary agents, high documentation error rates, and 30–40% consignment rejections due to strict Maximum Residue Limit (MRL) non-compliance.

- **Unified Digital Stack:** Krishiesetu integrates a full export workflow with government digital infrastructure (AgriStack, DigiLocker, Krishi-DSS, SATHI seed traceability, and ISRO Bhuvan geospatial telemetry). The platform features:

    - *Geospatial AgroGuide*: Multilingual AI advisory delivered via WhatsApp, voice IVR, and SMS for field disease diagnosis and satellite NDVI tracking.

    - *Automated Export Management*: Automated HS code classification, digital trade documentation, real-time MRL compliance checking, container booking with shipping lines (MSC), and marine cargo insurance.

- **Impact & Traction:** Reduced export processing timelines from 21 days to 7 days, lowered documentation error rates by 80%, and achieved ₹1.8 Cr in trade sales. In Balasore, Odisha, a pilot with East Balasore FPO supported 500 farmers, reducing input spray usage by 20% and improving incomes by 25%. The platform operates on an annual subscription (₹399/year) paired with freight and insurance commissions.



Krishiesetu LLP Pitch Presentation

Pitch 8: AetherPlanet LLP / Himalayan Wellness (FoodTech / Agri: Import Substitution & Specialty Grains)

- **Presenters:** Mr. Ankit Gupta (Managing Partner) & Dr. Harsha Sarawgi (Partner)

- **Recognition:** Recognized by PNB for Startup Excellence in Eastern India (April 2026)

- **Import Substitution Opportunity:** India's premium HoReCa and gourmet retail sectors rely heavily on imported specialty grains and superfoods, such as Thai Jasmine rice, Japanese sushi rice, and European dried mushrooms.

- **Domestic Cultivation & Aggregation:** AetherPlanet partners with smallholders and tribal farming collectives in West Bengal (Murshidabad) and the Himalayan foothills to produce premium specialty crops locally. Key products include:

- *Short-grain Sushi Rice (Japonica) & Aromatic Jasmine Rice*: Grown locally under university agronomic guidance (IRRI and Burdwan University).

- *Indigenous Specialty Crops*: Wild multi-floral raw honey (Superhive), high-fiber Black Rice, antioxidant-rich Red Rice, pink peppercorns, and wild Morel mushrooms.

- **Farmer Economics:** By offering buyback agreements and direct farmgate procurement, the venture provides participating farmers with 12% to 21% higher net prices compared to regional cash crops.

- **Traction & Financials:** Generates revenue across B2B wholesale portals (TradeIndia, IndiaMART), national e-commerce platforms (Amazon, JioMart, BigBasket), and direct supply contracts with HoReCa kitchens. Recorded cumulative sales of ₹41.93 Lakhs (with FY 2025–26 revenue of ₹28.38 Lakhs generating ₹5.67 Lakhs in profit).



AetherPlanet LLP Pitch Presentation

Pitch 9: KrishiSetu (AgriTech: Geospatial AI, Digital Farm Twin & Operating System)

- **Presenter:** Mr. Mrinmoy Das (Founder)

- **Systemic Disconnect:** Farm advisories often remain delayed, generic, and uncoordinated. Over 60% of smallholders lack timely access to certified plant pathologists, while agricultural researchers lack real-time field data to validate new practices.

- **Agricultural Intelligence Operating System:** KrishiSetu connects farmers, researchers, input manufacturers, and extension agencies on a unified digital platform. Core modules include:

    - *Digital Farm Twin*: Creates a learning profile for every farm plot, integrating soil chemistry (pH, NPK), micro-climate feeds, historical yield records, and satellite NDVI scans.

    - *AI Decision Pipeline*: Combines computer vision for foliar disease scanning with an Agricultural Intelligence Graph that matches field symptoms with local weather patterns, seed varieties, and validated treatment protocols.

    - *Specialized Enterprise Modules*: AI-assisted breeding tools for plant researchers, custom hiring marketplace integrations, and carbon/ESG dashboards for tracking farm-level emissions.

- **Financial Projections & Capital Ask:** Targets growing its user base from 30,000 farmers in Year 1 to 250,000 by Year 3, expanding revenues from ₹60 Lakhs to ₹12.00 Crore across SaaS dashboards, transaction commissions, and API subscriptions. Raising **₹1.50 Crore in seed funding** (allocated 35% to product development, 20% to AI/cloud systems, 20% to team expansion, and 15% to marketing).



KrishiSetu Pitch Presentation & Architecture Diagram)

Pitch 10: Wolffia Biotech Pvt. Ltd. (AgriTech: Seaweed Bio-Stimulants & Organic Manures)

- **Presenter:** Mr. Kalyanmoy Das (Managing Director)

- **Soil Degradation:** Over-reliance on synthetic fertilizers and chemical pesticides has disrupted soil microbiomes across rural Bengal, leading to falling soil pH and pest resistance.

- **Seaweed Biotechnology & Microbial Lineup:** Wolffia Biotech manufactures bio-stimulants, organic granulated manures, and botanical pest controllers designed to improve soil structure and crop immunity:

    - *Alpha-G+ & MI-7:* Liquid bio-stimulants formulated with marine seaweed extracts and plant phytohormones to stimulate root branching, vegetative vigor, and chlorophyll synthesis in potatoes, mangoes, and vegetables.

    - *Caposstar & Rocket Organic Manure*: Granular organic amendments enriched with natural humic substances to restore soil organic carbon, stabilize soil pH, and improve water retention.

- *Pushya Rice*: A bio-stimulant for paddy fields that encourages native nitrogen-fixing bacteria (Azotobacter, Rhizobium).

- *Neemzeal & Waste Decomposer*: Azadirachtin-based botanical sprays for controlling stem borers and fungal infections, alongside multi-strain decomposers for on-farm crop residue recycling.

- **Farmer Outreach & Adoption:** Conducting on-farm demonstrations across West Bengal's paddy, potato, and vegetable belts, Wolffia Biotech shows how balanced biological inputs can reduce input costs while improving yields and produce quality.



Wolffia Biotech Pitch Presentation

Pitch 11: RoboZonix (AgriTech: Precision Avionics, UAV Spraying & Pilot Training Hubs)

- **Presenter:** Mr. Anup Parali (Founder & CEO)

- **Operational Challenges in Farm Mechanisation:** Smallholder farms face acute labor shortages during critical spraying and sowing windows. Uncalibrated manual spraying also leads to excessive chemical use, uneven coverage, and chemical exposure risks for farm workers.

- **Hardware & Drone Architecture:** RoboZonix builds agricultural drones using indigenous flight controllers, robust airframes, and payload systems designed for Indian conditions:

    - *Variable-Rate Precision Spraying*: Covers 10–20 hectares per hour, using GPS-guided dispensers to reduce chemical consumption by 20–40%.

    - *Multispectral Field Analytics*: Uses NDVI, NDRE, and thermal imaging payloads to identify crop stress, foliar diseases, and water-stressed patches days before they are visible to the naked eye.

    - *Autonomous Seed Distribution*: GPS-guided aerial seed pods support rapid planting across challenging or waterlogged terrain up to 10× faster than manual broadcasting.

- **Decentralized Training Network & Capital Ask:** To support technology adoption and build local service capacity, RoboZonix is establishing DGCA-compliant training hubs across nine rural districts in West Bengal to train rural youth and FPO members as certified drone pilots and maintenance technicians. The company is seeking **₹2.00 Crore for 10% equity** to expand its flight-controller production line and scale its district training centers.



RoboZonix Pitch Presentation

5. INVESTORS' PERSPECTIVES & EVALUATION FEEDBACK

Following the 11 startup pitches, the investor panel provided detailed feedback on unit economics, presentation clarity, target market definition, and practical execution.

Mr. Pulkit Mehrotra
Vice President - Investments, Unicorn India Ventures

- **Structured 5-Minute Communication:** Emphasized that short pitch sessions should focus on three fundamental questions:

    1. *What specific customer pain point are you solving?*
    2. *Who is your target customer?*
    3. *Why is your proprietary solution defensible against current alternatives?*

- **Interest in Hardware & Deep Tech:** Reaffirmed that early-stage deep-tech venture funds are actively seeking IP-driven robotics, automation, and applied biotechnology companies from emerging regional hubs.

Mr. Mousum Pal Choudhury
Director, Lok Capital

- **Avoiding Model Conglomeration:** Warned against combining multiple business models—such as mixing SaaS advisory, hardware sales, input distribution, and B2B produce trading—into a single seed-stage company. He noted that solving one focused problem well offers substantial headroom in India's agricultural market.

- **Core Metrics for Consumer Brands:** Advised D2C and clean-label food brands to build investor credibility by tracking operating metrics: Customer Acquisition Cost (CAC), Net Repeat Rates, Average Order Value (AOV), and Monthly Customer Retention Cohorts.

Mr. Anindya Sengupta
Founder and Director, Incuboo Ventures

- **Focus Over Proliferation:** Cautioned against launching too many experimental SKUs or service lines early on. He recommended establishing clear product-market fit with one or two flagship products, securing repeat customer traction, and then methodically introducing adjacencies.

- **Literature Review Metaphor:** Compared building an agtech startup to writing an academic thesis. Founders must thoroughly evaluate existing market alternatives and customer pain points before scaling operations.

Ms. Neha Baid
Team Head, Sustainable Food Debt, Asia Pacific, responsAbility Investments AG

- **Learning from Past AgTech Cycles:** Noted that many of the presented models (B2B supply chain optimization, micro-procurement, biological inputs) have been attempted in other Indian states over the past decade. She encouraged founders to study earlier agtech ventures to understand common pitfalls in working capital, credit management, and reverse logistics.

- **Growth Through Partnerships:** Advised founders not to build every element of the value chain in-house. Instead, companies should focus on their core product or technology and partner with established cold-chain, warehousing, and banking providers to scale efficiently.

Mr. A B Chakravarthy
Co-CEO, Upaya Social Ventures

- **Realistic Market Sizing:** Pointed out that nearly every founder presented aggregate top-down addressable markets exceeding ₹6,000 Crore. He urged founders to replace macro industry totals with clear, bottom-up market sizing. For example, a street-vendor platform in Kolkata should specify the exact number of active stalls in target municipal wards and project realistic market capture over a 24-to-36-month horizon.

- **Geographic Discipline:** Cautioned early-stage founders against spreading limited capital across multi-state footprints. He recommended achieving operational density and profitability in a concentrated geographic cluster before expanding elsewhere.

- **Incubation Leverage:** Commended the founders for working closely with regional incubation centers (RISE IISER Kolkata, IIT Kharagpur, IIMCIP, and MANAGE), encouraging them to continue using these networks for pilot validation and early credibility.

Mr. Arijit Kar
Angel Investor & Co-Founder, Womenea

- **Growth in Defensible IP:** Highlighted growing interest from angel investors for defensible, patent-backed agricultural technologies. He commended the

quality of the technical innovations presented at the summit and reiterated his commitment to mentoring and backing early-stage ventures from the region.

Mr. Hemendra Mathur
Co-Founder & Advisor, ThinkAg

- **Encouraging Deep-Tech Shift:** Expressed strong satisfaction that over half the presenting cohort focused on biological sciences, genomic breeding, and robotic hardware, signaling a positive shift from basic e-commerce apps toward defensible IP.

- **Defining Customer Personas:** Reminded founders that neither a "farmer" nor a "kirana store" is a uniform customer segment. Founders must define their target user personas by income level, landholding size, crop focus, or daily inventory turnover to refine their go-to-market strategies.

- **Valuation Discovery:** Advised founders against stating rigid valuation figures (e.g., requesting a set amount for a fixed percentage) on pitch slides. He noted that valuation discovery should occur through investor discussions, where strong traction can often command better terms than founders initially ask for.

- **Slide Design & Pitch Delivery:** Recommended reducing text-heavy slides to focus on clear verbal communication. Addressing regional pitching styles, he encouraged Eastern founders to present with greater conviction and assertiveness to compete effectively for institutional capital.



Investor Panel during the Interactive Feedback Session)

6. CLOSING REFLECTIONS & FUTURE ROADMAP

The pitch session concluded with reflections from the organizers, who noted the breadth of ideas and founder commitment demonstrated throughout the evening.

The session demonstrated that Eastern India's agrifood startup ecosystem is moving beyond simple commodity trading and digital directories. Across biological crop inputs, plant breeding platforms, precision avionics, and traceable procurement corridors, the region's founders are increasingly developing IP-driven solutions tailored to the needs of small and marginal farmers.

Key strategic takeaways from the session included:

1. **Prioritizing Net Farm Profitability:** Sustainable enterprise growth depends on generating real, measurable economic gains for farming communities before chasing valuation milestones.

2. **Operational Focus:** Founders were encouraged to concentrate resources on well-defined regional corridors and clear customer segments, avoiding the temptation to expand across broad geographies too quickly.

3. **Collaboration Across Ecosystems:** Bridging the gap between scientific discovery and farmgate adoption requires sustained partnerships uniting

corporate mentors, research universities, financial institutions, and grassroots farmer collectives.

The evening concluded with an invitation to delegates, founders, and investors to continue their discussions during the main summit sessions the following day at the Biswa Bangla Convention Centre, working collaboratively to build a more productive, resilient, and inclusive agricultural future for Eastern and North-Eastern India.



DAY 2

1. EXECUTIVE SUMMARY

The 2nd Edition of the Viksit East AgFoodTech Summit (VEATS) 2026 brought together a diverse group of stakeholders to examine how innovation, investment and collaboration can contribute to a more resilient, efficient and future-ready AgriFood ecosystem in Eastern and North-Eastern India. The proceedings began with an Opening Session that established the broader context of the Summit and emphasised the need to connect agriculture and allied sectors with technology, finance, enterprise and institutional support. The subsequent leadership addresses further situated the discussion within the realities of the region's agricultural economy, including the predominance of small and marginal farmers, the need for stronger post-harvest and processing infrastructure, improved market access, climate resilience, quality inputs, technology transfer and institutional finance.

The Summit's thematic discussions covered a wide spectrum of issues across the agricultural value chain. Sessions examined women's participation and leadership in AgFood enterprises; innovation in seeds, storage, warehousing, traceability and integrated value chains; appropriate capital strategies for agribusinesses and startups; climate-resilient inputs and digital crop-health solutions; financing for agricultural infrastructure and emerging technologies; and technology, aggregation and value addition for fragmented farms. The programme also extended the discussion to Eastern India's blue economy, focusing on aquaculture, fish health, AI- and IoT-enabled advisory systems, market linkages and responsible farming practices, as well as the potential of agri-, rural and eco-tourism to diversify farmer livelihoods through authentic, community-linked experiences.

Across the sessions, a recurring message was that agricultural transformation cannot be achieved through production enhancement alone. Greater value creation requires coordinated improvements in technology adoption, aggregation, storage, processing, quality assurance, market access, financing, data systems, research-extension linkages and supportive institutional frameworks. VEATS 2026 therefore served as a forum for bringing these interconnected dimensions together and for encouraging partnerships capable of strengthening farmer profitability, enterprise viability, rural livelihoods and the long-term competitiveness of the AgriFood ecosystem of Eastern and North-Eastern India.

2. INTRODUCTION

West Bengal occupies a significant position in India's agricultural landscape, supported by a large and diversified production base across food grains, horticulture and other high-value crops. The State produces over 256 lakh metric tonnes of paddy and more than 146 lakh metric tonnes of potatoes annually, contributes around 14 per cent of India's vegetable production across nearly 40 crop varieties, and produces close to 40 lakh metric tonnes of fruits. It is also a leading producer of several varieties of cut and loose flowers and records a high cropping intensity of about 193 per cent. This strong production base provides considerable scope for the application of agricultural technology to improve productivity, quality, resilience and value realisation.

At the same time, the structure of agriculture in West Bengal presents distinct challenges for technology-led transformation. Around 96 per cent of the State's 71 lakh farm families are small and marginal farmers, with an average operational holding of only 0.77 hectares. The fragmented nature of landholdings makes the accessibility, affordability and last-mile delivery of agricultural technologies particularly important. In the seed sector, for instance, West Bengal has an annual certified paddy seed requirement exceeding 12 lakh quintals, while the Seed Replacement Rate in major crops has been progressing towards 40–50 per cent. The emphasis therefore extends beyond conventional mechanisation to improved and climate-resilient seed varieties, scientific crop protection, digital advisory systems, precision technologies and other solutions suited to smallholder agriculture.

The State's agricultural potential also needs to be viewed in the context of the link between technology adoption and value-chain development. Greater production and productivity alone cannot ensure higher farm incomes unless accompanied by adequate storage and post-harvest management, processing capacity and efficient access to markets. The discussions at VEATS highlighted the need for West Bengal to move beyond the sale of raw agricultural produce and strengthen value addition, particularly in major commodities such as potatoes, bananas, tomatoes and pineapples. Strengthening cold-chain and storage infrastructure, reducing post-harvest losses, improving agricultural marketing systems and promoting greater adoption of mechanisation, quality inputs, scientific farming and modern technologies were identified as important elements of this transition.

An important requirement for strengthening the State's AgriTech ecosystem is therefore the creation of stronger linkages between research and innovation, farmers and FPOs, rural institutions, markets, processing enterprises and finance. Panchayat-level networks and Farmer Producer Organisations can play an important role in facilitating grassroots extension and aggregation, while stronger storage, drying and marketing infrastructure can help translate productivity improvements into better market outcomes. Industry participation also has scope to extend beyond input supply towards crop research, seed multiplication through FPOs, improved processing

standards and support for AgriTech entrepreneurs developing digital diagnostic and testing solutions.

Against this backdrop, the 2nd Edition of the Viksit East AgFoodTech Summit (VEATS) 2026 provided a platform to examine how West Bengal and the wider Eastern region could translate their agricultural strengths into a more technology-enabled, climate-resilient and value-added AgriFood ecosystem. The deliberations brought together perspectives on quality seeds, scientific crop protection, climate-resilient farming, technology-enabled agricultural advisory services and institutional finance, while emphasising closer collaboration among industry, research institutions, financial organisations and policymakers. The central context for VEATS 2026 was thus not merely the availability of agricultural technologies, but the need to ensure their effective adoption at the farm level and their integration with processing, finance and markets so that technological advancement ultimately translates into stronger agricultural enterprises and improved incomes for farmers.

3. OBJECTIVE

The 2nd Edition of the **Viksit East AgFoodTech Summit (VEATS) 2026** was conceived as a common platform for stakeholders across agriculture, food processing, technology, finance, research, entrepreneurship and policymaking. The key objectives of the Summit were to:

- Strengthen stakeholder collaboration across government, industry, financial institutions, research and academic institutions, technology providers, entrepreneurs and the farming community.
- Strengthen linkages between agricultural production and emerging technologies, innovation, institutional finance, market systems and enterprise development across Eastern and North-Eastern India.
- Address key structural challenges in the AgriFood ecosystem, including fragmented smallholder production, limited technology adoption, post-harvest losses, inadequate storage and processing infrastructure, weak market linkages and access to finance.
- Promote climate-resilient and technology-enabled agriculture by encouraging solutions that address climate-related risks and improve productivity, efficiency and sustainability.
- Bridge the gap between scientific research and field-level adoption by facilitating stronger interaction among researchers, technology providers, industry and farmers.
- Enhance value creation for farmers and rural communities by exploring opportunities in food processing, value addition, improved market access and enterprise development.
- Promote inclusive entrepreneurship by highlighting opportunities for women-led enterprises, agritech and foodtech startups, FPOs and rural entrepreneurs.
- Explore opportunities in emerging and allied sectors, including aquaculture and agri-, rural and eco-tourism, as potential avenues for income and employment generation.
- Facilitate the exchange of ideas and scalable solutions through leadership addresses, panel discussions and technical presentations, with a focus on practical and collaborative approaches to strengthening the regional AgriFood ecosystem.

4. INAUGURAL SESSION

SETTING THE CONTEXT FOR INNOVATION AND COLLABORATION IN EASTERN INDIA'S AGRIFOOD ECOSYSTEM

Mr. Jayanta Chakraborty, Mentor, Agri-Horti-Food Processing & Rural Development National Committee, The Bengal Chamber of Commerce & Industry (BCC&I)
Mr. Hemendra Mathur, Co-Founder & Advisor, ThinkAg
Mr. Dinesh Kumar Bhardwaj, AGM, Agri Business, State Bank of India

The Viksit East AgFoodTech Summit (VEATS) 2026 commenced with its Opening Session, setting the context for a day of discussions around technology, innovation, investment and collaboration in the AgriFood ecosystem of Eastern and North-Eastern India. The programme schedule placed the Opening Session early, ahead of the day's thematic and leadership discussions.



Welcome address by Mr. Jayanta Chakraborty, Mentor, Agri-Horti-Food Processing & Rural Development National Committee, The Bengal Chamber of Commerce & Industry (BCC&I)

In his inaugural remarks, Mr. Jayanta Chakraborty welcomed the distinguished speakers, delegates and participants and formally opened the second edition of VEATS. He introduced the broader purpose of the Summit, highlighting the importance of bringing together stakeholders from across agriculture, food processing, technology, finance and the innovation ecosystem on a common platform. Referring to the considerable potential of agriculture and allied sectors in Eastern and North-Eastern

India, he underlined the need to strengthen the linkages between the region's agricultural base and emerging innovations, technologies and institutional support systems. He emphasised that meaningful transformation of the AgriFood ecosystem would require greater interaction and cooperation among farmers, industry, financial institutions, startups, research and knowledge institutions, and policymakers. He concluded by setting the stage for the subsequent sessions of VEATS 2026, inviting participants to use the Summit as a platform for exchanging ideas, identifying opportunities and building collaborations capable of contributing to a more innovative, resilient and future-ready AgriFood ecosystem in the region.

5. PANEL DISCUSSION: 1

WOMEN AT THE ROOTS: SCALING AGFOOD ENTERPRISES WITH POWER AND PURPOSE

Moderator

Mr. Gaurav Kapoor, Chief Business Officer, IIM Calcutta Innovation Park

Speakers

Ms. Ekta Jaju, Executive Director, SwitchON Foundation
Ms. Varalikka Manaksia, Promoter & Director, Manaksia Agritech
Ms. Senjuti Mahato, Co-Founder, Earth Story Farms



Panel discussion 1: Women at the Roots: Scaling AgFood Enterprises with Power and Purpose

How can policy create greater choice for farmers and strengthen participation by women in agriculture and enterprise?

The discussion highlighted the influence of subsidies and policy incentives on farmers' production choices. It was observed that heavy support for chemical farming can affect the alternatives available to farmers, and that a more enabling policy environment should allow farmers to choose the production systems they consider appropriate. The panellists also referred to the importance of policy support for women entrepreneurs and women farmers, including easier access to grants and subsidies and stronger implementation of incentives intended for them. The broader emphasis was on creating a level playing field in which farmers and women-led enterprises are able to make choices on the basis of viability and opportunity rather than being constrained by the existing incentive structure.

How can women move from being viewed as beneficiaries or producers to being positioned as founders, innovators and ecosystem leaders?

The panel emphasised that women need to be integrated more deeply into agricultural value chains and into decisions concerning what is produced, processed and taken to market. The discussion, however, also cautioned against defining empowerment only through externally determined measures such as becoming an entrepreneur or leading an organisation. In response to the moderator's follow-up question, Ms. Ekta Jaju stressed the importance of understanding what women themselves want and whether increased income is accompanied by the freedom to make decisions. She illustrated this through an example of a woman who chose to attend a three-day programme with her daughter so that family responsibilities did not prevent her from learning and participating.

The discussion further noted that women are already contributing in several professional roles within agriculture, including as scientists and project managers, and that they bring direction and value to the work they undertake. The central issue raised was therefore not only participation, but also the extent to which women are able to exercise influence and agency within the systems in which they participate.

How can agri-enterprises balance purpose, farmer livelihoods and commercial viability while scaling?

The panellists argued that purpose and commercial viability need not be contradictory. A product must create tangible value for farmers, including through improved production or other farm-level benefits, while also making economic sense for the enterprise. The discussion therefore framed sustainability as the ability to develop products and business models that are economically beneficial for both farmers and companies while also contributing positively to soil and the environment.

Ms. Ekta Jaju extended the discussion to the question of scale, explaining that impact can be expanded by enabling other farm enterprises and startups rather than limiting interventions to a single organisation. She referred to supporting enterprises with the knowledge, connections and access to funders required for sustainable growth. Another perspective placed the farmer, craft and community at the centre of enterprise decisions, with two guiding considerations: whether an intervention makes farmers less financially vulnerable and whether it strengthens biodiversity resilience.

How can agritech companies translate research into practical solutions for farmers?

Ms. Varalikka Manaksia highlighted collaboration with research institutions as an important route for bringing technical expertise into product development. She stressed that research must ultimately result in products that deliver value to farmers and remain affordable enough for farmers to benefit from the innovation. When asked whether an enterprise should scale rapidly or grow more gradually while building deeper farmer trust, she favoured farmer trust, noting that a long-term relationship with farmers can create greater and more durable impact for a company.

Where do FPO- and institution-based models supporting women's market power still fall short, and what are the major constraints facing women-led agri-ventures?

Ms. Ekta Jaju observed that FPOs, startups and related institutional models continue to offer substantial scope for further work and development. On the constraints facing enterprises, the discussion distinguished between products for which an established market already exists and newer or healthier products for which consumers may not yet recognise the value proposition. In the latter case, demand creation can become a major challenge. Finance was also recognised as a continuing difficulty for enterprises more generally.

Between demand, finance and market access, which is the more important constraint?

The discussion placed particular emphasis on market access. It was argued that improved access to markets can help create demand and, in turn, generate opportunities for enterprises to build stronger product relationships. The exchange therefore linked market creation, product development and enterprise viability rather than treating demand and finance as isolated issues.

What are the key lessons from building enterprise ecosystems across livelihoods and regenerative agriculture?

Ms. Ekta Jaju explained that ecosystem-building does not always require an external organisation to act as the sole expert. She noted that significant knowledge already exists among FPOs, startups and programme participants, and that facilitation and the

collation of this knowledge can itself create considerable value. She added that bringing different parts of the ecosystem together can accelerate progress, with participants learning from one another and organisations helping to connect the knowledge, opportunities and support available across the ecosystem.

What has been one of the biggest challenges in reaching entrepreneurial goals within the required timeline?

Ms. Varalikka Manaksia identified delays in obtaining licences as a major practical challenge for an agri-enterprise. She explained that entrepreneurs need to account for additional time because licensing processes can delay business operations. Referring specifically to an FCO licence, she stated that the process had already taken about two months and the licence had still not been received at the time of the discussion.

How can regenerative or health-based food products become commercially viable while creating opportunities for farmers?

Ms. Senjuti Mahato discussed the need to work simultaneously on the farmer side and the consumer or market side of the enterprise. She referred to the importance of creating opportunities for farmers while also creating markets for the resulting products. As an example of local mobilisation, she described a woman who, within a period of four months, had brought together around 70 women farmers from approximately 30–40 villages for different activities. The example illustrated how local participation and leadership can help aggregate farmers while enterprise efforts create corresponding opportunities in the market.

Closing Reflections

The panel concluded with a rapid round of reflections on the future of women-led and rural enterprises. The responses reinforced the importance of partnerships and ecosystem support, and the discussion returned to the proposition that the future of rural enterprise would increasingly depend on collectives and ecosystem partnerships rather than standalone founders. The closing exchange also reiterated the need for inclusive food systems and stronger support structures that enable women and rural enterprises to grow.

6. LEADERSHIP ADDRESSES: TRANSFORMING EASTERN INDIA'S AGRI FOOD ECOSYSTEM THROUGH INNOVATION AND COLLABORATION

SETTING THE AGENDA FOR TECHNOLOGY-LED TRANSFORMATION OF WEST BENGAL'S AGRIFOOD ECOSYSTEM MR. SUBHODIP GHOSH, DIRECTOR GENERAL, BCC&I



Opening address by Mr. Subhodip Ghosh, Director General, BCC&I

Mr. Subhodip Ghosh welcomed the Hon'ble Minister, distinguished speakers and participants to the leadership session of VEATS 2026. Referring to the discussions held during the preceding sessions, he stated that the summit was intended to take forward the conversation on integrating technology with agriculture in West Bengal and the wider eastern region. He highlighted the State's strong agricultural production base while drawing attention to structural constraints, particularly the predominance of small and marginal farmers and the need to improve the use of technology and productive resources at the farm level. He outlined the central questions before the session: why technology adoption in agriculture remains limited, how last-mile productivity, marketing and financial constraints can be addressed, how technology can be scaled at the ground level, and what policy frameworks, agricultural-marketing infrastructure and rural-development initiatives are required to strengthen West Bengal's agriculture and food-processing ecosystem.

MR. JAYANTA CHAKRABORTY, MENTOR, AGRI-HORTI-FOOD PROCESSING & RURAL DEVELOPMENT NATIONAL COMMITTEE, BCC&I



Keynote address by Mr. Jayanta Chakraborty, Mentor, Agri-Horti-Food Processing & Rural Development National Committee, BCC&I

Mr. Jayanta Chakraborty placed the discussion in the larger context of agriculture, rural development and investment. He referred to the importance of bringing together government departments, scientific and academic institutions, industry and other stakeholders around the agricultural sector. His remarks emphasised the need to connect agriculture with enterprise and investment and to create stronger linkages between agricultural production, institutions and business opportunities. He indicated that the summit provided a platform for such stakeholders to deliberate collectively on the development of agriculture and the rural economy.

BRIDGING AGRICULTURAL POTENTIAL AND MARKET VALUE THROUGH POST-HARVEST INFRASTRUCTURE AND MARKET LINKAGES



Mr. Amit Patjoshi, CEO, Palladium India, delivering his address on bridging agricultural potential and market value

Mr. Amit Patjoshi focused on the gap between the considerable agricultural potential of Eastern India and the value that is ultimately realised from its production. He identified structural constraints across the agricultural ecosystem, including inadequate post-harvest infrastructure, climate-related stresses, fragmented smallholder production and weak market linkages. Referring to potato as an example, he highlighted the substantial economic loss associated with post-harvest and transaction-related inefficiencies and argued that even a partial reduction in such losses could improve farmer incomes, support reinvestment and strengthen the food-processing ecosystem. He also underlined West Bengal's strategic location and its potential to serve markets across Eastern India and neighbouring regions through stronger processing, marketing and export linkages.

Drawing on Palladium's experience, Mr. Patjoshi outlined a set of areas requiring focused intervention. These included cluster-driven development, substantial investment in post-harvest infrastructure, stronger market linkages, climate-resilient approaches and solutions capable of translating production advantages into market value. He stressed that agricultural transformation could not be achieved through production alone; farmers needed reliable market access, infrastructure and an ecosystem that could support value addition. He referred to experience from other

regions where market-oriented interventions had enabled exports and improved price realisation, and expressed the hope that similar approaches could contribute to the transformation of West Bengal's agricultural and food ecosystem.

STRENGTHENING THE LINK BETWEEN AGRICULTURAL RESEARCH, POLICY AND TECHNOLOGY ADOPTION AT THE FARM LEVEL



Dr. P.K. Chakrabarty, Former Member (Plant Sciences), ASRB & Former ADG (Plant Protection & Biosafety), ICAR DARE, MoA&FW, Government of India, on bridging research, policy and farm-level adoption

Dr. P.K. Chakrabarty highlighted the agricultural potential of Eastern India and recalled the long-standing view that the region could play a major role in the country's next phase of agricultural growth. He referred to the region's diversity, rainfall and agricultural resources, while noting that a considerable part of this potential remained underutilised. He drew attention to constraints affecting agricultural performance, including climate change, emerging and invasive pressures, the quality and management of agricultural inputs, and the limited reach of advanced technologies to farmers.

A major concern raised by Dr. Chakrabarty was the gap between scientific research and adoption at the farm level. He stressed the importance of stronger extension and technology-transfer mechanisms so that innovations developed within research institutions could reach farmers more effectively. In this context, he called for greater public-private partnership and closer cooperation between government, research institutions and industry. He also highlighted the importance of the policy environment,

arguing that policy-related constraints and delays in modification or reorientation could impede the flow of technology. He observed that only a small proportion of available technologies ultimately reached the agricultural economy and therefore emphasised the need to strengthen the link between research, policy and field-level implementation.

FINANCING AGRICULTURAL INFRASTRUCTURE AND STRENGTHENING THE FARM-TO-MARKET VALUE CHAIN



Mr. Dinesh Kumar Bhardwaj, AGM, Agri Business, State Bank of India, delivering his address on financing agricultural infrastructure and strengthening the farm-to-market value chain

Mr. Dinesh Kumar Bhardwaj described agriculture as an interconnected ecosystem beginning with the farmer and extending through production, aggregation, storage and processing until food finally reaches the consumer. He noted that although agricultural production may be strong, value is lost when produce cannot be stored or processed adequately. He therefore stressed the importance of financing post-harvest infrastructure and referred to government-supported agricultural infrastructure financing mechanisms intended to facilitate investment in such assets.

He emphasised the role of institutional finance in enabling farmers and agricultural enterprises to invest across the value chain. Referring to State Bank of India's engagement with the agricultural sector, he indicated that the Bank works with government schemes and supports financing requirements connected with agricultural infrastructure and related activities. His address reinforced the need to

connect agricultural development with appropriate credit support so that gaps in storage, processing and other parts of the value chain can be addressed.

ADVANCING VALUE-CHAIN-LED AGRICULTURE THROUGH SEED INNOVATION AND TECHNOLOGY



Mr. Parmanand Pandey, CMO, Pan Seeds Pvt. Ltd. delivering his address on advancing value-chain-led agriculture through seed innovation and technology

Mr. Parmanand Pandey stated that agriculture should no longer be judged only by the quantity produced, but also by production efficiency, market connectivity and the share of value that ultimately reaches farmers. He argued that every successful agricultural value chain begins with the farmer's first choice—the seed. A good seed, he explained, determines the crop's genetics, productivity, quality, resilience, nutritional characteristics, sustainability and suitability for different markets, making it the farmer's first investment in a profitable value chain.

He observed that West Bengal had made encouraging progress in the adoption of quality seeds and seed replacement, while the predominance of small and marginal farmers with fragmented holdings remained a structural concern. He therefore called for a shift from production-centric to value-chain-centric agriculture, where improved genetics are supported by better yields, quality, aggregation, scientific storage, faster market access and improved price realisation. Referring to Pan Seeds' research and development activities, he highlighted the use of advanced breeding technology, AI-enabled quality systems and digital platforms to develop adaptable, climate-resilient

and market-oriented varieties. He concluded that Eastern and North-Eastern India could lead the next agricultural transformation if innovation at the seed level was combined with collaboration across the value chain and disciplined implementation.

TRANSFORMING AGRICULTURAL POTENTIAL THROUGH TECHNOLOGY, VALUE ADDITION AND MARKET ACCESS



Shri Dilip Ghosh, Hon'ble Minister-in-Charge, Department of Agricultural Marketing and Department of Panchayats & Rural Development, Government of West Bengal delivering his address on transforming agricultural potential through technology, value addition and market access

Shri Dilip Ghosh welcomed representatives from industry, academia, agriculture and other institutions and appreciated the initiative to bring different stakeholders together for deliberations on agriculture and rural development. He described West Bengal as an agriculture-dependent State with significant production across crops and allied activities, while stressing that high production by itself was not sufficient. According to him, greater attention was required to improve quality, strengthen scientific farming practices, make better use of modern technology and create systems through which farmers could obtain better value from what they produced.

The Minister spoke extensively about the difficulties faced by small farmers, particularly the limited viability of fragmented holdings, inadequate access to modern machinery and the problem of younger people moving away from agriculture when farming does not provide sufficient income. He stressed that mechanisation and technology needed to become more accessible to small farmers and that skill development was necessary

to enable rural workers to operate modern equipment and participate in emerging agricultural and allied activities. He also referred to the importance of better utilisation of government schemes and rural-development programmes for creating productive assets and supporting livelihoods.

A major part of his address focused on marketing, storage and value addition. Using mango, guava, potato, banana, tomato and pineapple as examples, he explained that farmers often faced low prices when production was abundant because adequate storage, processing and market arrangements were not available. He highlighted the need for facilities capable of handling commodities beyond those traditionally served by cold storage and stressed that product appearance, quality and presentation were important for securing better markets. He also drew attention to the need to distinguish between varieties intended for direct consumption and those suited to industrial processing, citing potatoes as an example, and encouraged greater investment in food-processing facilities that could absorb agricultural surpluses.

Shri Ghosh further referred to the potential use of existing agricultural-marketing infrastructure for processing, packaging, storage and other commercial activities. He spoke about creating better market facilities for farmers and making marketing infrastructure more functional so that producers could access buyers and consumers more efficiently. He also highlighted the potential of digital integration, drones, satellite-based information and improved cold-chain systems in strengthening agricultural decision-making and reducing losses. In addition, he referred to integrated approaches involving waste management and productive use of agricultural and organic waste.

Concluding his address, the Minister emphasised that agricultural development required coordinated action by government, industry, financial institutions, researchers, entrepreneurs and farmers. He called for practical implementation rather than discussion alone and linked the development of West Bengal's agriculture and rural economy with the broader objective of a developed eastern region and a Viksit Bharat. He expressed the view that West Bengal had historically played a leading role and could once again contribute strongly to national development through collective effort and effective use of its agricultural potential.

7. PANEL DISCUSSION: 2 REIMAGINING THE VALUE CHAIN – EFFICIENCY THROUGH INNOVATION

Moderator
Mr. Nirmallya Mandal, Co-Founder & Director, Ecociate Consultants

Speakers
Mr. Parmanand Pandey, CMO, Pan Seeds Pvt. Ltd.
Mr. Sougata Niyogi, CEO – Oil Palm Plantation, Godrej Agrovet
Mr. Amith Agarwal, Co-Founder & Group CEO, StarAgri
Mr. Poran Pabitra Kumar Dass, Director, Kawasaki Solar Warehousing



Panel discussion 2: Reimagining the Value Chain – Efficiency through Innovation

Mr. Nirmallya Mandal, Co-Founder & Director, Ecociate Consultants opened the discussion by explaining that an agricultural value chain extends from the farmer and the initial production decision through processors, wholesalers and retailers to the final consumer. He emphasised that efficiency across the chain depends on each stakeholder performing an effective role and then began the discussion with the seed stage.

How can seed innovation, quality assurance and digital traceability strengthen the agricultural value chain?

Mr. Parmanand Pandey explained that the agricultural value chain is influenced from the moment a farmer selects a seed, as the choice of variety can determine the crop's eventual use and market. He emphasised that good-quality seeds have an impact beyond the farm and highlighted the growing importance of climate-resilient varieties that can perform across different land and weather conditions. He also referred to shorter-duration paddy varieties that can facilitate higher cropping intensity in West Bengal by enabling farmers to take a subsequent potato crop, along with research on stronger plant characteristics to reduce lodging during adverse weather and the use of precision phenotyping and AI-enabled systems for seed selection and quality assurance. The discussion further highlighted that agricultural value chains vary considerably across commodities and geographies, making commodity-specific quality systems important. In this context, digital traceability can establish the origin of agricultural produce, strengthen its identity and enable consumers and buyers to associate products with a particular geography or producer, thereby supporting better value realisation for credible quality and origin.

How important are storage and warehousing for maintaining quality and creating a market-led value chain?

Mr. Poran Pabitra Kumar Dass, answered the question of the moderator by highlighting post-harvest storage as especially important for fruits and vegetables because deterioration begins rapidly after harvest. He described a hub-and-spoke cold-chain model in which small cold rooms are located close to farmers and linked with larger central warehouses near major markets. Produce can therefore be cooled soon after harvest, moved to central facilities and subsequently supplied to markets. He also highlighted the potential of solar-powered cold rooms, particularly where grid reliability is weak, and explained that extending shelf life can substantially improve the value available to farmers. He further connected warehousing with demand forecasting, traceability and branding, arguing that cold-chain infrastructure should function as market infrastructure rather than merely as storage space.

How does an integrated value-chain model work in oil palm, and how can partnerships support farmers?

Mr. Sougata Niyogi used oil palm to illustrate an integrated value-chain approach. He discussed the crop's productivity, assured market linkage and potential to provide long-term income visibility to farmers. He explained that the model extends from genetics and planting material to nursery development, agronomic support, farm services, processing and market linkage. He stressed that the first few years are critical for farmers and that an effective system must provide handholding and support during this period. He also referred to shared access to expensive farm machinery and

specialised services so that individual farmers do not have to bear the full capital cost. The discussion emphasised partnerships among companies, government agencies and service providers as an important part of building a complete farm-to-market system.

Closing discussion – Where are the opportunities for Eastern and Northeastern India?

Towards the close of the session, the panel discussed the opportunity to connect high-quality and naturally produced commodities from Eastern and Northeastern India with stronger markets. Weak supply chains were identified as a reason why several good-quality products fail to reach remunerative markets. The panellists highlighted solar-powered cold-chain infrastructure, traceability, branding, certification and export-oriented value addition as possible solutions. The discussion also returned to seed innovation and differentiated products, including varieties with specialised quality characteristics, as areas capable of creating additional value and export opportunities.



8. PANEL DISCUSSION: 3 SCALING SMALL: TECH SOLUTIONS FOR FRAGMENTED FARMS, AGGREGATION & VALUE ADDITION

Moderator
Dr. Pallavi Tak, Co-Founder, ThinkAg

Speakers
Mr. Aakash Shah, Executive Director, Nipha Farm Solutions
Mr. Chetan Khaitan, Founder, ToolsVilla
Mr. Varun Raheja, Co-Founder & Director, Raheja Solar Food Processing
Ms. Divya Bhardwaj, Core Member – Strategy Team, Prompt Equipments



Panel 3: Defining "Small" In Indian Agriculture

Dr. Pallavi Tak, Co-Founder, ThinkAg opened the discussion by asking the panellists what "small" meant in their respective businesses and whether it should be defined by landholding, farmer income, asset ownership, business size or some other feature of the agricultural ecosystem. She noted that the meaning of scale would necessarily differ across dairy, mechanisation and post-harvest businesses, and invited the panellists to explain the segment they were attempting to serve.

Responding first from the dairy-sector perspective, Divya from Prompt explained that dairy represents a particularly fragmented agricultural system. A large proportion of dairy households own only two to three cattle, and many remain outside organised procurement and cooperative structures. She therefore defined "small" not simply in

physical terms but through the economic vulnerability of farmers who face problems of pricing, spoilage, high feed costs and limited access to organised systems. In her view, scaling this segment requires more than the creation of infrastructure; it requires reliable, energy-efficient and cost-efficient infrastructure supported by private participation and partnerships.

The moderator then asked Chetan from ToolsVilla to define "small" from the perspective of mechanisation and to specify the type of farmer or entrepreneur typically served by the platform. Chetan explained that smallness becomes relevant where individual ownership of equipment does not make economic sense because of fragmented landholdings, limited income or the upfront cost of an asset. He stressed that mechanisation should not be understood as simply putting more machines into the ecosystem; the important question is whether an asset is productively utilised and produces an economic return.

When the moderator asked him to be more specific about ticket sizes and customer profiles, Chetan distinguished between growers and rural entrepreneurs. He explained that post-harvest and food-processing equipment is often purchased by rural entrepreneurs seeking to capture additional value from agricultural produce, while growers purchase relatively smaller farm-mechanisation products such as sprayers, cultivators, harvesters and related equipment. Asked whether scaling meant encouraging farmers to buy larger or more equipment, he clarified that the more meaningful measure of scale was higher income, productivity and efficiency, together with the ability to move downstream into primary processing such as threshing and drying.

Mechanisation, Asset Viability and Access to Equipment

The discussion next moved to Akash from NIFA/One Horn. Responding to the same question on the relationship between size and scale, he linked the appropriate level of mechanisation to the financial viability of the farm and the equipment. The discussion highlighted that a small farm may require both low-ticket and high-ticket machinery. A brush cutter costing only a few thousand rupees and a harvester costing several lakhs may ultimately serve the same small plot. Where direct ownership of expensive machinery is not feasible, farmers may access it through rental or other shared-use arrangements. The key issue, therefore, is not simply the price of the machine but whether the equipment can be accessed and used economically.

This intervention reinforced an important theme of the panel: smallholder mechanisation cannot be designed around a single category of machine or a uniform ownership model. Different stages of cultivation require different levels of equipment, while financing, rental access, service networks and government support determine whether those assets become practically usable for farmers.

Decentralised Post-Harvest Processing and Value Addition

Turning to Varun, the moderator asked how he defined a small farmer from the perspective of post-harvest processing and where he saw the principal gaps and opportunities. Varun argued that small farmers have historically been excluded from many of the infrastructure and service models created around agriculture, which have often been designed with larger farms and centralised systems in mind. He linked this exclusion to the continuing loss and wastage of agricultural produce and argued for decentralised processing systems that allow smaller farmers and rural enterprises to participate directly in value addition.

When the moderator asked what specific gap his business was attempting to address, Varun highlighted the tendency to accept agricultural wastage as an unavoidable feature of farming rather than as an economic loss. Processing excess produce is only useful, he noted, when there is also a market for the processed product. His model therefore begins with identifying market demand and then working backwards to create appropriate processing and supply-chain solutions. He emphasised the importance of local partners who understand the language, production conditions and farmer ecosystem of a region, arguing that the scale of the post-harvest challenge cannot be addressed by a single company.

The moderator further asked how such decentralised processing could operate at the village level. Varun explained that the objective was to develop small processing infrastructure close to production, train participants in the relevant food-safety and market requirements, and subsequently connect them with buyers. He referred to the importance of working through FPOs, SHGs and local micro-entrepreneurs because an individual farmer may not be able to aggregate sufficient produce or independently manage the entire supply chain. The discussion therefore positioned aggregation as the bridge between very small production units and commercially viable processing.

Digital Marketplaces, Fragmented Supply and Building Trust

The moderator then returned to Chetan and asked how an e-commerce model could build trust among farmers purchasing machinery remotely, particularly when traditional agricultural transactions depend heavily on physical interaction and local relationships. Chetan explained that digital access itself creates value because agricultural equipment supply is highly fragmented. Numerous regional manufacturers produce useful equipment but lack nationwide distribution, while farmers may not find the required products in local shops. A digital marketplace can therefore aggregate fragmented supply and connect it with geographically dispersed demand.

He added that scaling mechanisation should not stop at the farm gate. Greater mechanisation upstream and downstream can help farmers capture more value and gradually treat farming as a commercially viable enterprise rather than only as primary production. On the moderator's specific question about trust, Chetan explained that the company initially relied on mechanisms such as cash on delivery and educational

content. Product demonstrations and training videos helped potential customers understand unfamiliar machines before the marketplace itself expanded.

The moderator followed up by asking what systems were necessary to convert this initial trust into a reliable transaction. Chetan referred to supplier quality control, the availability of spare parts and accessories, delivery discipline, transparent return policies and penalties for non-compliance. The discussion underscored that trust in digital agriculture cannot depend only on brand communication; it must be institutionalised through predictable service standards, quality assurance and after-sales support.

The Future of Farm Mechanisation: Manufacturing, Channels and After-Sales Support

The moderator then asked Akash what was changing within NIFA and where he saw the future of farm mechanisation. Akash explained that the company had established a manufacturing base while continuing to trade certain products for which overseas ecosystems remain stronger. He argued that India would need to manufacture an increasing share of agricultural machinery domestically rather than remain dependent on imports over the long term.

At the same time, he cautioned against viewing mechanisation only through manufacturing. The farmer operates within an ecosystem consisting of channel partners, content creators, advisers, financiers, repair networks and after-sales service providers. Digital platforms may complement traditional dealers, but local channel partners are likely to remain important. Content creators can introduce products and explain their features in local languages, while the final purchase decision often depends on trusted local advisers, mechanics, other farmers and the availability of finance.

Akash particularly emphasised after-sales service and spare-parts availability. Since many agricultural machines are used only during short seasonal windows, even a relatively brief period of downtime can undermine the economics of the investment. He therefore described the objective as becoming part of the broader agricultural ecosystem rather than functioning only as a manufacturer and distributor. He also linked equipment sales with the possibility of providing farmers with more specific diagnostics and advisory services.

The moderator asked how many interactions a farmer might require before purchasing machinery. Akash responded that farmers often know what equipment they require and may inspect a machine at another farmer's premises before making a decision. The larger delay frequently arises in arranging finance or waiting for subsidy-related processes, requiring visits to banks, government offices or agricultural officials. This

shifted the conversation from awareness of technology to the institutional conditions that determine actual adoption.

Data, AI and the Organisation of the Dairy Ecosystem

The moderator next asked Divya what developments at Prompt were particularly significant. Divya identified two central challenges in the dairy sector: low productivity at the animal level and fragmented data across a highly dispersed ecosystem. She stressed that although artificial intelligence is frequently discussed, AI cannot be the starting point without reliable data. Prompt's experience across farm-level operations, testing, chilling, procurement and retail had created a data base that could support more transparent, traceable and evidence-based decision-making.

She explained that data-driven and AI-enabled solutions could support farmer advisory, market access, veterinary and animal-health access and credit access, while helping dairies improve quality testing, procurement, chilling, costs and spoilage management. The larger objective was to move fragmented and unorganised dairy operations towards a more organised, traceable and real-time system. She also referred to solutions that enable farmers to monitor farm operations, chill milk closer to the source and engage more directly through digital commerce.

Partnerships Required to Scale Smallholder Technologies

With limited time remaining, the moderator posed a common question to the panellists: if technology alone was insufficient, what kind of partnership was most necessary to make these solutions work on the ground? Responding for Prompt, Divya emphasised partnerships with technology companies as well as closer engagement with government programmes. She argued that even where supportive policies exist, implementation gaps remain across the ecosystem, creating a role for technology companies to help build real-time, cloud-enabled and data-backed systems.

Akash brought the discussion back to finance, arguing that farming must be treated as a business and that farmers need viable ways to finance machinery. He observed that equipment above a certain ticket size often becomes difficult to purchase without subsidy because access to farmer finance remains weak. When the moderator asked whether government should therefore be regarded as a partner, he clarified that stronger coordination between government and public-sector banks could help improve lending structures instead of placing excessive conditions on farmers or relying primarily on direct equipment subsidies.

The moderator then invited Chetan to respond on subsidies and partnerships. Chetan cautioned that subsidy structures can sometimes distort equipment pricing, with specially designated models being priced in ways that reduce the actual benefit to farmers. From the marketplace perspective, he identified strong supplier and logistics partnerships as essential and described finance, particularly accessible digital lending,

as an area where significantly more work was required. Better financing partnerships, he argued, could accelerate mechanisation at scale.

Varun similarly emphasised the role of government but warned that poorly designed subsidy or free-money approaches could weaken commercial discipline. He argued that support should ultimately strengthen farmers and rural entrepreneurs rather than make enterprises permanently dependent on grants. Referring to his own experience, he noted that some farmers were willing to pay fully for machinery where the return on investment was clear, although delays in accessing loans remained a significant constraint. He stressed that impact should be judged not only by the number of farmers reached but also by whether those farmers were able to earn better margins.

From Scale in Numbers to Scale in Farmer Profitability

In the concluding round, the moderator asked the panellists to characterise the present and future of "scaling small". The responses converged around collaboration, greater connectivity, downstream value capture and profitability. The discussion suggested that the present ecosystem remains fragmented and focused heavily on farm-level efficiency, while the future must enable farmers to participate in a more connected and productive value chain.

The final exchange brought the panel back to its central proposition: scale should not be measured only by the number of machines sold, farmers reached or transactions completed. The more meaningful outcome is whether technology, processing, finance, data and partnerships enable farmers to earn more and operate profitably. Across dairy, mechanisation, e-commerce and post-harvest processing, the panellists therefore identified aggregation, reliable systems, local partnerships, finance, after-sales support, data and market-linked value addition as the principal building blocks for scaling solutions suited to India's small and fragmented agricultural economy.

9. PRESENTATION: 1 DRIVING WEST BENGAL'S ECONOMIC GROWTH THROUGH AGRIBUSINESS AND RURAL INNOVATION



Presentation by Mr. Ranadeep Das, Managing Director & CEO, InGreens

The presentation highlighted the importance of using technology to improve the delivery of agricultural services, particularly crop insurance. The presenter referred to experience of working across states and engaging with approximately 1.40 lakh farmers over several years. Crop insurance was identified as an important area where conventional processes could take several months. In this context, the presentation referred to collaboration with IT companies and the use of algorithm-based approaches to improve processes and facilitate faster service delivery. Engagement with insurance companies and institutions associated with agricultural insurance was also highlighted as part of this ecosystem.

Agriculture as a Major Economic Opportunity

The presentation positioned agriculture as an important economic opportunity and drew attention to the significant contribution of the sector in the region. The presenter referred to the strength of agricultural production and the large number of farmers dependent on the sector. While the transcription of some of the statistics is unclear, the broader emphasis was on the considerable agricultural production base and the need to convert this strength into greater economic opportunities. Marketing and stronger institutional representation were identified as important areas requiring attention.

Building Institutional and Technical Capacity

Another important theme was the need to strengthen the institutional and technical ecosystem supporting agriculture. The presentation referred to certification, technical programmes, disease management and the role of specialised institutions. Agricultural science, skilled human resources and institutional capacity were presented as important components of agricultural development. The discussion indicated the need to connect technical knowledge with practical systems that can support agricultural enterprises and producers more effectively.

Food Processing and Value Addition

Food processing emerged as an important area for strengthening the agricultural economy. The presenter emphasised the potential for greater value addition at the farm and rural level and connected this opportunity with the development of appropriate business and institutional mechanisms. The presentation suggested that agricultural development should extend beyond primary production towards processing and other activities capable of generating additional economic value from agricultural produce.

Linking Universities with Business Development

The presentation also stressed the importance of connecting universities and academic institutions with marketing, engineering, business development and other institutions. Such linkages were discussed in the context of building an ecosystem where knowledge and technical expertise could contribute more directly to commercial and developmental opportunities. The presenter also referred to international exchange and engagement with institutions and businesses beyond the immediate regional ecosystem.

Risk Management and Emerging Business Opportunities

Risk was identified as another important consideration in the development of agriculture and associated businesses. The presentation referred to regional risk and the need to develop solutions capable of addressing such challenges. At the same time, the presenter highlighted the potential of emerging markets and new business opportunities, indicating that some of these areas could develop into substantially larger markets in the future.

Creating Platforms for Collaboration and Growth

Towards the conclusion, the presentation referred to efforts to connect institutions, universities and new initiatives through a broader platform. The emphasis was on bringing together technology, knowledge, business and institutional capabilities to develop opportunities across agriculture and related sectors. The presentation

concluded by positioning these areas as potential avenues for future development and collaboration, with technology and business engagement playing an important role in strengthening the agricultural ecosystem.

10. PANEL DISCUSSION: 4 BUILDING A SMART CAPITAL STRATEGY – FUNDING YOUR GROWTH JOURNEY

Moderator
Mr. Hemendra Mathur, Co-Founder & Advisor, ThinkAg

Speakers
Mr. Mousum Pal Choudhury, Director – Investments, Lok Capital
Mr. A. B. Chakravarthy, Co-CEO, Upaya Social Ventures
Ms. Neha Baid, Team Head – Sustainable Food Debt, Asia Pacific, responsAbility Investments AG
Mr. Pulkit Mehrotra, Vice President (Investments), Unicorn India Ventures
Mr. Anindya Sengupta, Founder & Director, Incuboo Ventures
Mr. Arijit Kar, Angel Investor



Panel 4: Building a Smart Capital Strategy – Funding Your Growth Journey

Mr. Hemendra Mathur, Co-Founder & Advisor, ThinkAg structured the session around the question of what makes an agrifood or agritech enterprise investment-ready and how founders should choose among equity, debt, venture capital, grants and impact capital at different stages of growth.

What business fundamentals do investors and lenders examine before funding an agribusiness?

The first responses focused on unit economics, profitability, the pathway to growth, compliance and capital efficiency. The panellists stressed that investors need to understand whether growth is sustainable and whether capital is being used efficiently. The debt perspective added that lenders are concerned not simply with past revenue but with the predictability of future cash flows, debt-servicing capacity, working-capital management, seasonality and the resilience of the supply chain. In agriculture, where environmental and production risks are substantial, the credibility of future cash flows and the presence of appropriate assets or security can become particularly important.

When should a startup use grants, venture capital, institutional equity or debt?

The panel cautioned founders against treating venture capital as the default source of funding. For pure technology businesses, grants or patient early-stage funding were suggested as useful while a product is being developed and validated. Venture capital becomes more appropriate when the product is ready for commercial expansion and rapid growth. Institutional equity was discussed as relevant during commercialisation and scaling, while debt requires clearer cash-flow visibility and repayment capacity. The panel also stressed that investors have their own return and exit objectives, making the choice of the right investor as important as the act of raising capital itself.

What should an agribusiness demonstrate when it claims to create farmer impact?

The impact-investment discussion argued that simply stating the number of farmers reached is not sufficient. A startup may provide advisory or technology services to hundreds or thousands of farmers, but investors also want to understand the depth of the intervention. The panellist explained that impact should be connected to measurable economic value at farmer level, including the value of production or additional revenue generated through the company's intervention. The emphasis was therefore on moving from an outreach metric to a deeper assessment of whether engagement materially improves farmers' economic outcomes.

What makes an early-stage company worth the first cheque?

The discussion on angel investment focused on the problem being solved, the sustainability of the proposed solution, evidence of initial customer acceptance and the founders' understanding of the sector in which they operate. The panel also stressed that a startup needs more than a product idea: founders or advisers should possess relevant domain knowledge and understand the size and nature of the market they intend to serve.

What must change to make West Bengal and Eastern India more investment-ready for agrifood startups?

The panel identified a relatively weak startup ecosystem and the need for stronger sector-focused support. It referred to the importance of state policy, incubation infrastructure, testing centres, certification facilities, food and processing infrastructure and mechanisms that can convert ideas into viable businesses. Examples from other states were mentioned to illustrate the value of sectoral focus in startup policy and incubation. The discussion also highlighted opportunities to build businesses around region-specific agricultural products, provided entrepreneurs combine local production advantages with processing, branding, infrastructure and access to markets.

At what stage should founders approach investors, and what should they prepare beforehand?

The panellists advised startups to begin preparing well before an actual fundraising round. They recommended tracking the metrics investors will examine for 12 to 18 months, formalising business relationships, improving predictability of cash flows and building evidence of product and market performance. For technology ventures, the ability to explain the problem statement, the technology used to solve it, the depth of the market and the performance of prototypes was considered important. The discussion also emphasised that agricultural products should be validated across different climatic or agro-ecological conditions and that founders should demonstrate credible risk-mitigation strategies.

Final advice from the panel

In the closing round, the panellists advised founders to conduct diligence on potential investors, communicate their business proposition clearly, begin conversations with equity and debt providers early, remain open to collaboration and avoid expanding too broadly before establishing a core competency. The discussion also stressed the importance of building a capable team rather than expecting founders to manage every business function themselves.

11. PANEL DISCUSSION: 5 SCALING THE BLUE ECONOMY: THE RISE OF EASTERN AQUACULTURE

Moderator
Dr. Pradip Dey, Director, ICAR-CIFRI

Speakers
Dr. S. Adhikari, Principal Scientist, ICAR-CIFA
Dr. Sourabh Kumar Dubey, Scientist, WorldFish
Mr. Surajit Kashyapi, Founder & CEO, Bharat Fishmate



Panel 5: Scaling the Blue Economy: The Rise of Eastern Aquaculture

What are the major challenges facing small-scale aquaculture in Eastern India, and how can partnerships and relevant global practices help strengthen the region's blue-economy potential?

Dr. Dubey, in response to the question from the moderator explained that small-scale aquaculture is increasingly recognised as an important component of the blue economy, but its development in Eastern India is constrained by a combination of biophysical, technical, institutional, social and market-related challenges. He identified the timely availability of quality seed as a major last-mile gap despite advances in breeding protocols, alongside limited species diversification, dependence on a few species, feed-related constraints and the growing impact of climate change. He noted that climate risks differ across coastal, inland, drought-prone and water-stressed

areas and therefore need to be incorporated into farm planning. Fish health, disease management and biosecurity were also identified as critical concerns. Limited access to institutional credit often leaves farmers dependent on informal finance, while weak market access, middlemen, low bargaining power, stagnant fish prices, fragmented landholdings and shortcomings in last-mile extension and farmer capacity building further constrain the sector. He also stressed that aquaculture development should go beyond production and income to consider nutrition, particularly the contribution of small indigenous fish to household nutrition, especially for women and children. Gaps in reliable data and social inclusion were additionally highlighted as barriers to developing effective region-specific policies.

Addressing the need for stronger institutional convergence, Dr. Dubey observed that Eastern India does not necessarily lack solutions; rather, the larger challenge is fragmented action and stakeholders working in silos. He explained that research institutions, government, NGOs and civil-society organisations, and the private sector have distinct but complementary roles. Research institutions can develop technical knowledge, protocols and methods; government can provide enabling policies, infrastructure and financial support; NGOs and civil-society organisations can mobilise farmers, build capacity and strengthen last-mile delivery; while the private sector can contribute investment, efficiency, financing and market linkages. He suggested a cluster-based approach involving groups of farmers in which these stakeholders work together, thereby reducing risk, improving productivity and farm incomes, strengthening resilience and promoting greater social inclusion.

Drawing on global experience, Dr. Dubey stressed that international models should not simply be replicated but adapted to the realities of Eastern India. He highlighted cluster-based data management, stronger seed systems, efficient broodstock management, genetic improvement programmes and decentralised seed distribution as important practices. He also advocated integrated and nature-based approaches to sustainable aquaculture, including integrated multi-trophic aquaculture and integrated mangrove aquaculture in coastal areas. Systematic collection and use of data, stronger market and cold-chain systems, climate-smart and climate-resilient aquaculture, and nutrition-sensitive aquaculture were identified as further priorities. Overall, he emphasised that strengthening small-scale aquaculture requires an integrated approach in which productivity, institutional collaboration, technological and data systems, ecological sustainability, climate resilience and nutritional outcomes are addressed together.

How can digital technologies, AI/ML and startup innovation transform aquaculture and create new opportunities in Eastern India?

Mr. Surajit explained that technology is increasingly transforming aquaculture through IoT devices, AI/ML-based tools, digital marketplaces and data-enabled advisory systems. These technologies can support better farm-level decision-making, improve

productivity and profitability, strengthen market linkages and facilitate value addition. He referred to the use of climatic and related data to help farmers make more informed decisions and highlighted IoT-based systems for monitoring pond conditions. He observed that wider adoption of such technologies could help take aquaculture to the next stage of development and contribute to higher production.

Discussing the role of startups, Mr. Surajit observed that fisheries is often perceived as a conventional or less attractive occupation and stressed the need to change this mindset to encourage greater participation by educated youth and entrepreneurs. He identified substantial business opportunities across hatcheries and seed-quality improvement, fish health and medicines, e-commerce, IoT-based pond monitoring, supply-chain solutions, fish processing and value-added products. He also highlighted the potential of technology-based profitability assessment for individual ponds, which could provide farmers with estimates of investment requirements and expected returns while potentially giving banks and insurance providers a better basis for assessing farm performance and risk. He emphasised that West Bengal and the wider eastern and northeastern region provide a strong base for fisheries development, but greater entrepreneurial participation would require aquaculture to be recognised as a viable and profitable business opportunity.

Elaborating on AI and machine learning, Mr. Surajit identified fish mortality and farmers' inability to quickly diagnose its cause as an important practical challenge. He described an AI/ML-based disease-scanning system through which an affected fish could be scanned to identify the likely problem and suggest appropriate precautions. He also referred to the multilingual Min Mithra chatbot, which allows farmers to seek information in 14 languages and receive round-the-clock advisory support, including guidance during situations such as heavy rainfall. AI/ML could further support profitability analysis and provide farmers with information on fish seed, breeding protocols, rearing systems and production practices. The discussion also highlighted its potential contribution to traceability and quality fish production. The moderator reinforced these observations by noting that the integration of AI with IoT-based monitoring could provide farmers with better visibility into conditions within ponds and other aquaculture systems, thereby strengthening technology-enabled and data-driven fish farming.

Value Addition, Women and the Wider Fisheries Economy

While drawing together the technology-focused discussion, the moderator highlighted the importance of extending enterprise formalisation and value-addition opportunities to the fisheries sector. Particular attention was drawn to women's participation in activities such as fish salting and related processing, and to the potential for such activities to contribute more strongly to the blue economy. The discussion also referred to institutional support connected with marine-products development and

emphasised that the effectiveness of digital analytics ultimately depends on feeding systems with sufficient original and reliable data.

Audience Interaction: Standardisation, Grading and Responsible Aquaculture
Question from an audience participant, Prithwan – Can grading, standardisation and IoT help improve quality, market access and farming practices?

An audience participant, who introduced himself as Prithwan, raised the issue of fragmentation and asked whether a standardised grading system could encourage more consistent farming practices and improve market access and quality assurance. He also asked whether IoT could support standardisation across producers and create greater discipline and competitiveness within the sector. In response, a panellist agreed that grading is important, particularly for export markets, but noted that a large share of smallholder fish production is sold locally. The response therefore stressed the need for locally appropriate innovations and integrated approaches, including systems suited to the strong live-fish market in Eastern India.

The audience participant then shifted the discussion from product grading to standardisation of farming practices, pointing to the use of harmful chemicals and other unsafe production methods. The responding panellist stated that best-management practices and standard operating procedures already exist but need to be strengthened, fine-tuned and, most importantly, implemented more effectively. When the discussion turned to penalties and disincentives, another panellist stressed that the central challenge is implementation and referred to the need for stronger enforcement of fisheries restrictions.

Safe Practices and Enforcement

Another panellist added that unsafe chemical use remains a serious concern in an unorganised sector. He cited an example of farmers using formaldehyde without understanding its health implications and used it to underline the importance of farmer awareness and adherence to safe practices. He further observed that rules and standard operating procedures may exist, but their effectiveness depends on implementation at the field and market levels. The exchange reinforced the need to combine farmer training, practical SOPs, awareness and credible enforcement rather than relying on standards on paper alone.

Audience Interaction: AI-Based Fish Health Solutions
Can a multilingual, image-based AI advisory system be developed for fish disease diagnosis?

Mr. Pratin Chakravarthy described an AI/ML solution used in another agricultural context in which farmers could use WhatsApp as a simple front end, send a photograph or voice/text query in their own language, and receive a diagnosis and suggested

response from an AI-backed database. He asked whether a similar system could be developed for fisheries by changing the underlying database and whether such a technology provider could collaborate with the sector. Mr. Adhikari responded that substantial fisheries research and experimental knowledge already exists, though much of it remains scattered. His response stressed the importance of translating available knowledge into practical guidance for farmers and improving fish-health management and safe production practices.

Audience Interaction: Pond Design, Processing and Research Support
Question from Mukarisa Panda – Does the shape of a pond affect fish farming?

Mukarisa Panda, who introduced herself as a landscape architect, asked whether pond shape matters from a fisheries perspective, particularly when choosing between rectangular, square and more organic forms. The responding panellist explained that rectangular ponds are generally preferred from a productivity and management perspective primarily because they make fish harvesting and netting easier. He also emphasised that stocking density is an important management consideration, as excessive stocking can create management problems and restrict proper growth.

Where can entrepreneurs obtain research and technical support for value-added fish products and raw-fish quality?

Shoumik, who described his involvement in fish-based value-added products such as fish fry, momo and rolls, asked where an entrepreneur could obtain research support for developing new processed products and ensuring the quality of raw fish. The responding panellist indicated that funding support for research could be explored through relevant science and biotechnology agencies and specifically referred to the Central Institute of Fisheries Technology (CIFT) as an institution that could provide research and technical guidance for freshwater and marine fish processing.

Overall Takeaway

The panel ultimately positioned the blue economy as an agenda not merely for increasing fish production, but for producing more value, creating employment and securing the rural economy for future generations. The discussion showed that Eastern India's aquaculture potential will depend on simultaneously improving seed systems, feed, fish health and biosecurity; strengthening climate resilience and nutrition sensitivity; expanding formal finance, market and cold-chain linkages; promoting startups and value addition; deploying AI, IoT and data-driven advisory systems; and improving the implementation of standards and safe farming practices. Above all, the panellists repeatedly returned to the need to replace fragmented interventions with coordinated action among farmers, research institutions, government, civil society, technology providers, financial institutions and markets.

12. PANEL DISCUSSION: CLIMATE-RESILIENT INPUTS – POWERING SUSTAINABLE YIELDS

Moderator

Mr. Srinivasa Kumar Karavadi, Advising Partner, INERA

Speakers

Dr. P.K. Chakrabarty, Former Member (Plant Sciences), ASRB & Former ADG (Plant Protection & Biosafety), ICAR DARE, MoA&FW, Government of India

Dr. Jayanta Tarafdar, Professor, Department of Plant Pathology, Bidhan Chandra Krishi Viswavidyalaya

Mr. Shashank Somani, Co-Founder, Mitrasena

Mr. Rajiv Mondal, CEO, Arogyam Medisoft Solution



Panel 6: Climate-Resilient Inputs – Powering Sustainable Yields

Mr. Srinivasa Kumar Karavadi, Advising Partner, INERA opened with a common question asking each panellist to identify the most important innovation for farmers under changing climatic conditions. The initial responses highlighted the growing interaction between agriculture and environmental stress, the importance of monitoring crop diseases and the need for sustainable approaches to managing changing pest and disease conditions.

What strategy will be most important over the next five to ten years?

In response, the discussion proposed an integrated plant-health management system supported by digital decision tools. The emphasis was on anticipating emerging pest and disease risks, strengthening public-private and innovation partnerships, and giving farmers access to AI-enabled decision support. Farmers should be able to understand which precision technologies, biological inputs or chemical inputs are appropriate for a particular situation, with handholding from scientists, universities, researchers and other stakeholders.

What innovation can improve resilience at the farm level?

Another panellist identified soil biology as the first line of resilience. The response focused on increasing biological activity in soil and using diverse biological inputs so that plants can better absorb biotic and abiotic shocks. At the same time, the speaker stressed that Eastern and Northeastern India have highly varied rainfall and soil conditions, including acidic soils, so a single solution cannot work everywhere. Biological products therefore need local validation and must become more affordable for farmers.

How can India bring safe crop-protection and biological innovations to farmers more quickly?

The moderator then asked how the regulatory system could be made faster while ensuring safety for farmers and the environment. The response called for science-based regulatory decision-making and pointed to delays in the approval process for crop-protection products. The discussion argued that regulatory timelines need to respond more effectively to a situation in which climate change is accelerating the emergence and spread of pests and diseases.

Can biological inputs replace chemical crop protection?

The panel stressed that biological inputs should not be presented as an immediate substitute for every chemical intervention. Biologicals can contribute to long-term reductions in chemical use, but in cases of severe pest or disease incidence they may act too slowly. Farmers therefore need accurate guidance on the situations in which biological products are suitable and the situations in which chemical intervention remains necessary. The broader objective should be an informed and gradual reduction in unnecessary chemical use rather than an unrealistic one-for-one substitution.

How can digital technology help farmers make better input and crop-health decisions?

The moderator asked Mr. Rajiv Mondal how his work could support farmers in dealing with these challenges. The response described a system in which field devices collect local data and feed it into a digital platform supported by an AI-based decision engine. The resulting recommendations are intended to be highly localised and personalised to a farmer, crop or plot. Such a system can help farmers decide what type of input is required, how much should be used and how emerging crop stress should be addressed, thereby reducing excessive use and making farm management more predictive and actionable.

How should institutions respond to emerging diseases and climate-related stresses?

The final part of the discussion returned to the role of academic and research institutions in identifying and responding to new crop diseases. The response stressed disease diagnosis, surveillance and careful selection of biological organisms and species used in crop protection. It also noted that climate-related challenges extend beyond diseases to abiotic stresses such as salinity and other environmental pressures. The session concluded with the view that crop resilience will require coordinated work across plant pathology, biological science, digital advisory systems, regulation and farm-level decision support.

13. PANEL DISCUSSION: BEYOND THE FIELD: CULTIVATING WEALTH THROUGH AGRI, RURAL & ECO-TOURISM

Moderator
Mr. Abhijit Goswami, Co-Founder, ThinkAg (Moderator)

Speakers
Mr. Arup Chatterjee, Founder, Bawali Farmhouse & Arshinagar-Shilpogram
Ms. Monalisa Panda, Founder & Principal Landscape Architect, Banabhoomi
Mr. Anindya Sengupta, Co-Founder, STG Tea & Himalayan Footprints (TBC)



Panel 7: Beyond the Field: Cultivating Wealth through Agri, Rural & Eco-Tourism

How can a heritage property be transformed into a destination that combines hospitality, culture, community and rural experiences, and how do local history, food traditions, crafts and agriculture contribute to its success?

The discussion highlighted that successful rural tourism should extend beyond accommodation and enable visitors to experience the history, culture and everyday life of a place. The heritage-property perspective emphasised creating a destination around the character of the village and its surroundings rather than treating the property merely as a hotel or resort. Local history, rural food, cultural practices, agricultural landscapes and community life were presented as elements that can give visitors a distinctive sense of place.

The moderator observed that such an approach allows tourists to connect with local history, culture and traditions through direct experience. The discussion therefore positioned heritage-led rural tourism as a means of preserving and presenting local identity while simultaneously creating economic activity around rural destinations.

What inspired the transition from a corporate career to eco-, agri-, plantation and experiential tourism, and how can tea tourism support small tea growers?

Mr. Anindya described his transition from a corporate and technology-oriented career towards working with small tea growers, explaining that his long-standing interest in nature and subsequent engagement with farmers shaped this journey. Through his

work with small tea growers and micro-factory operations, he came to recognise that tea production alone would not be sufficient to substantially improve farmer livelihoods. This led to the development of an experiential tea-tourism model designed to complement agricultural income.

He distinguished this model from conventional colonial-style tea tourism centred on large tea estates. Instead, the approach focuses on staying closer to farming communities and experiencing tea at the grassroots. Visitors can participate in activities such as plucking tea leaves, visiting the processing facility and making their own tea. He stressed that the product itself is only one part of the experience; the story behind the tea, the farmers and the landscape is equally important. He noted that the initiative began with around 50 farmers and had expanded to close to 3,000 farmers, while attracting a significant share of visitors from Europe and the United States.

How should agri-tourism projects be designed so that the physical space reflects the story and agricultural identity of the destination?

Ms. Monalisa Panda explained that storytelling and digital communication may attract visitors, but the same story must also be visible and experienced on the ground. Drawing on her work in landscape architecture and farm design, she emphasised that agri-tourism destinations should not simply imitate conventional manicured resorts. The design should instead retain and strengthen the character of the farm, homestay or rural landscape.

She observed that the agricultural identity of each location should become part of the visitor experience. In a tea garden, tea and the plantation landscape should be celebrated; in a farmhouse, the surrounding agricultural land and rural setting should remain central to the design. Her approach, therefore, is to understand the client's existing story and vision and translate it spatially rather than imposing an unrelated tourism concept on the site.

How easy or difficult is it for smallholder farmers to enter agri-tourism, and can collective models make such projects commercially viable?

Ms. Panda noted that many professionally developed agri-tourism projects require substantial land and capital, creating a significant entry barrier for small and marginal farmers. She observed that an experiential project may require roughly 1.5 to 2 acres in order to create a sufficiently broad visitor experience, while the initial investment for a fully developed project over the first five years could range from approximately ₹5 crore to ₹10 crore depending on the land parcel and the nature of the experience being created.

Given these requirements, she argued that it would be unrealistic to expect an individual smallholder farmer with limited land and income to establish such a project

independently. She therefore proposed aggregation at the block or village level, including the possibility of farmers organising through FPOs or similar collective structures. Under such a model, an entire village or cluster could be developed as an agri-tourism experience, enabling urban visitors to engage with rural life while creating an alternative source of income for participating farmers. The moderator similarly highlighted the importance of aggregator-based and collectivised models for scaling agri-tourism beyond larger landowners.

What should new-age entrepreneurs and small producers consider when entering agri-tourism, and can such ventures generate sustainable returns?

The panel discussed the relatively high initial investment involved in creating tourism infrastructure and a credible visitor experience. It was observed that this makes individual investment difficult for small farmers and creates a case for collective structures, partnerships and participation by investors with greater financial capacity. The discussion suggested that external investment could support the development of shared rural-tourism assets while allowing farmers and local communities to participate in the resulting economic opportunities.

From the tea-tourism perspective, Mr. Anindya stated that such ventures can be profitable, but credibility and authenticity are essential. Products and experiences marketed as certified, organic or quality-assured must genuinely meet those claims. He also stressed the importance of food safety, hygiene and appropriate testing support. More broadly, he argued that agriculture alone may not provide sufficient income for small and marginal farmers and that a more sustainable model can combine agriculture with experiences, hospitality and digital communication.

Are specific agri-eco-tourism policies important for Eastern India, and what should such policies address beyond financial support?

Ms. Panda referred to the existence of policy support for eco- and agri-tourism in Odisha and used this to underline a wider challenge: a policy has limited impact if potential beneficiaries are unaware of it or cannot easily understand how to access its provisions. She stressed that communication between government and people remains a critical gap and argued that digital reach should extend not only to tourism marketing but also to the dissemination of government policies, eligibility conditions and available support.

She further emphasised that agri-tourism policy should balance economic development with environmental responsibility. Rural-tourism projects should take account of water conservation, water-based planning, contour and land-use planning, and the natural characteristics of the site before development begins. The panel reinforced this point through a wider discussion on responsible tourism, hygiene, waste

and plastic use, arguing that tourism which damages the ecosystem undermines the very rural and natural assets on which experiential tourism depends.

Why are authentic storytelling and communication important for attracting visitors, particularly domestic tourists, to rural and experiential tourism?

The discussion identified storytelling as one of the most important elements distinguishing experiential tourism from conventional hospitality. Mr. Anindya emphasised that rural tourism is not simply about selling a room; it is about presenting culture, culinary history, agricultural practices and local activities in a way that allows visitors to understand and experience the place. He observed that international visitors often show strong interest in such rural and cultural experiences, while greater effort is needed to reconnect domestic audiences, particularly younger generations, with their own rural history and heritage.

He argued that short attention spans and changing patterns of digital consumption make it necessary to develop compelling, accurate and engaging content. At the same time, he stressed that responsibility cannot rest with government and infrastructure providers alone; communities, institutions and individuals also have a role in creating awareness and encouraging people to rediscover their roots. He suggested that research-based teams could document regional heritage and develop authentic content, and proposed stronger engagement with school students and young people so that appreciation of rural culture develops from an early age.

Concluding remarks

The panel concluded that Eastern and Northeastern India possess a strong combination of agricultural landscapes, heritage, culture and community experiences that can be developed into distinctive tourism offerings. However, the sector will require collaboration, authentic content, responsible development, suitable investment models and stronger participation by farmers, entrepreneurs and young people. The overall emphasis was on shifting from conventional tourism towards immersive experiences in which visitors engage with the land, local communities and the stories behind agricultural and rural livelihoods.

14. PRESENTATION: DR. MEENA AGARWAL, FARM SECTOR-TECHNICAL OFFICER (MANGER SPECIALIST), STATE BANK OF INDIA



Presentation by Dr. Meena Agarwal, Farm Sector-Technical Officer (Manger Specialist), State Bank of India

Dr. Meena Agarwal, Farm Sector-Technical Officer (Manager Specialist), State Bank of India, presented the financing support and institutional mechanisms available to agricultural borrowers and agribusinesses. The presentation explained the application process through the agri-infrastructure portal, including online registration, submission of the application and subsequent engagement with the selected bank branch. It was emphasised that online submission is followed by the required documentation and branch-level processing, and that borrowers should remain engaged with the bank during the appraisal process.

SBI's Agricultural Banking Network

The presentation highlighted SBI's extensive agricultural banking network, including rural branches, relationship-management support, agri-commercial branches and specialised processing centres for agricultural proposals. Rural relationship managers were described as an important interface for sourcing business and supporting customers with loan-related requirements, including renewals and enhancements. Specialised agri processing mechanisms were presented as a means of handling larger agricultural proposals through dedicated institutional capacity.

Financing Agri-Infrastructure and New Technologies

SBI's role in financing agricultural infrastructure and emerging technologies was also highlighted. The presentation indicated that the Bank supports newer agricultural systems and technologies, including modern protected and technology-enabled farming models, alongside conventional agricultural infrastructure. The emphasis was on providing borrowers with access to a large branch network and specialised channels capable of taking agricultural and agri-infrastructure proposals forward.

Cluster-Based Financing

A significant part of the presentation focused on cluster-based financing, under which districts or production areas with concentrations of particular crops or livestock activities are identified for focused lending. The approach is intended to recognise the economic characteristics of local production clusters and facilitate financing for borrowers engaged in those activities. The presentation indicated that eligible cluster-based proposals may receive concessions in areas such as interest rates, processing charges and security-related requirements, depending on the project and applicable lending terms. The broader message was that financing can be made more responsive when banking products are aligned with the specific production strengths of agricultural districts and clusters.

15. RECOMMENDATIONS

The 2nd Edition of the Viksit East AgFoodTech Summit (VEATS) 2026 highlighted the need to move beyond production-led approaches towards an integrated AgFood ecosystem built around technology, value addition, institutional finance, market access, entrepreneurship and stronger linkages between research and farmers. The discussions covered women-led enterprises, seed and crop-protection innovation, storage and warehousing, agricultural finance, aggregation, aquaculture, emerging technologies and agri-, rural and eco-tourism. Across the sessions, the emphasis remained on creating practical partnerships among government, industry, financial institutions, research organisations, FPOs, startups, entrepreneurs and farmers.

The following key recommendations emerge from the Summit and are presented for consideration and action:

i. Create an enabling policy environment that strengthens farmer choice and women's participation

- Enable farmers to make production choices on the basis of viability and opportunity rather than being constrained by existing incentive structures.
- Improve women farmers' and women entrepreneurs' access to grants, subsidies and other incentives intended for them.
- Strengthen implementation mechanisms so that existing policy support effectively reaches women engaged in agriculture and AgFood enterprises.

- Integrate women more deeply across agricultural value chains, including decisions concerning production, processing and marketing.
- Recognise women not merely as beneficiaries or producers but as active participants in enterprise and value-chain decision-making, while ensuring that measures of empowerment reflect women's own choices and agency.

ii. Build stronger ecosystems for women-led enterprises, FPOs, startups and rural entrepreneurs

- Strengthen partnerships among FPOs, startups, rural enterprises, development organisations, financial institutions and other ecosystem actors.
- Facilitate knowledge-sharing across organisations rather than treating enterprise support as a one-way transfer of expertise.
- Connect emerging enterprises with funders, markets and institutional partners capable of supporting their growth.
- Encourage collective and ecosystem-based approaches to rural entrepreneurship rather than relying exclusively on standalone enterprise models.
- Support business models that simultaneously create economic opportunities for farmers and build viable markets for agricultural and food products.

iii. Strengthen market access and demand creation for emerging AgFood products

- Improve market linkages for AgFood enterprises, particularly those developing newer, healthier or differentiated products for which established consumer demand may not yet exist.
- Treat market access as an instrument for demand creation rather than addressing finance, demand and marketing as isolated enterprise challenges.
- Strengthen connections between producers, enterprises and consumers so that product development responds to identifiable market opportunities.
- Support enterprises in simultaneously developing farmer-side supply systems and consumer-side markets to improve commercial viability.
- Use farmer aggregation and local mobilisation to connect production opportunities with corresponding market opportunities.

iv. Strengthen research-to-farm technology transfer and extension systems

- Improve mechanisms through which technologies and scientific knowledge developed by universities and research institutions reach farmers.
- Strengthen cooperation among government, research institutions, universities, industry and technology providers to improve field-level adoption.
- Translate scientific research into affordable, practical and locally relevant solutions that can be adopted under actual farm conditions.
- Strengthen extension mechanisms so that farmers receive greater exposure to innovations in seeds, crop protection, climate-resilient agriculture and emerging agricultural technologies.
- Build stronger institutional linkages between research, technology development and field-level agricultural requirements.

v. Accelerate climate-resilient seed, crop-protection and agricultural innovation

- Promote innovation in seed varieties capable of responding to changing climatic conditions and different land conditions.
- Encourage development and adoption of crop varieties that can support improved cropping intensity and productivity.
- Strengthen innovation in plant characteristics that can reduce vulnerability to adverse weather conditions.
- Expand the application of precision phenotyping, AI-enabled systems and other scientific tools in seed selection and quality assurance.
- Strengthen access to scientific crop-protection solutions and climate-resilient farming practices as part of a broader strategy for improving farm productivity and resilience.

vi. Make agricultural regulation more timely, responsive and science-based

- Reduce delays in licensing and regulatory processes that affect agricultural and AgFood enterprises.
- Strengthen science-based regulatory decision-making for crop-protection products and biological innovations while maintaining safeguards for farmers and the environment.
- Improve the predictability and timeliness of regulatory processes so that viable agricultural innovations are not unnecessarily delayed in reaching the market.
- Recognise regulatory timelines as an important component of the operating environment for agri-enterprises.

vii. Shift from production-centric agriculture towards integrated agricultural value chains

- Move the focus of agricultural development beyond production volumes towards the value ultimately generated from agricultural output.
- Strengthen aggregation mechanisms for small and fragmented farms to improve their participation in organised value chains.
- Improve scientific storage, warehousing and post-harvest management to reduce losses and maintain produce quality.
- Expand processing and value addition closer to agricultural production areas.
- Strengthen market connectivity so that improvements in productivity translate into greater value realisation for farmers.
- Assess agricultural value chains in terms of efficiency, quality and the share of final value reaching farmers rather than production alone.

viii. Strengthen decentralised post-harvest, storage and processing infrastructure

- Develop storage and post-harvest infrastructure closer to agricultural production areas to address the requirements of small and fragmented producers.
- Strengthen linkages between local storage facilities, larger warehouses, processing facilities and major markets.

- Promote decentralised processing to enable value addition closer to the source of production.
- Improve utilisation of agricultural infrastructure for storage, processing, packaging and market-oriented activities.
- Encourage appropriate technological solutions for cold storage and post-harvest management where conventional infrastructure is difficult or costly to operate.

ix. Improve access to appropriate finance across the agricultural and AgFood enterprise lifecycle

- Expand access to institutional finance for farmers, FPOs, agribusinesses, startups and agricultural infrastructure.
- Align financing instruments with the stage and requirements of enterprises rather than relying on a single form of capital.
- Recognise the distinct roles of grants, patient capital, equity and debt in supporting enterprises at different stages of development.
- Strengthen financing for commercially viable agricultural infrastructure, mechanisation, processing and emerging technologies.
- Develop financing approaches that recognise agricultural clusters, value-chain characteristics and the cash-flow realities of agricultural enterprises.
- Strengthen coordination between financial institutions, government, enterprises and farmer organisations to improve the flow of credit into productive agricultural activities.

x. Use technology, aggregation and value addition to address fragmented smallholder agriculture

- Promote aggregation as a mechanism for overcoming the limitations created by small and fragmented farm holdings.
- Improve access to appropriate mechanisation and technology that can operate under smallholder farming conditions.
- Strengthen the role of FPOs and other collective structures in connecting farmers with technology, finance, processing and markets.
- Promote value addition so that small farmers participate in a greater portion of the agricultural value chain rather than remaining limited to primary production.
- Strengthen coordination among technology providers, financial institutions, enterprises and farmer collectives to make technological adoption commercially viable.

xi. Develop technology-enabled and market-linked aquaculture value chains

- Strengthen access to scientific fish-health management and responsible aquaculture practices.
- Expand the use of AI-, IoT- and data-enabled systems for monitoring, advisory services and farm-level decision-making.
- Improve market linkages so that productivity improvements in aquaculture translate into stronger income opportunities.

- Strengthen connections among fish farmers, technology providers, research institutions and markets.
- Encourage responsible farming practices alongside technological adoption to improve the resilience and sustainability of the aquaculture sector.

xii. Develop agri-, rural and eco-tourism as complementary livelihood opportunities

- Develop agricultural landscapes, rural heritage, local food traditions and community experiences as distinctive tourism offerings.
- Move beyond conventional accommodation-led tourism towards immersive experiences connected with farming, local culture, culinary history and rural livelihoods.
- Strengthen participation by farmers, rural entrepreneurs and local communities in developing tourism experiences.
- Develop authentic and research-based storytelling around regional heritage, agricultural practices and local culture.
- Engage young people and students to build greater awareness and appreciation of rural heritage and agricultural traditions.
- Encourage collaboration and suitable investment models that enable tourism development while maintaining authenticity and responsible development.


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