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INDIAN AGRITECH MARKET LANDSCAPE REPORT, 2025

INFOCUS: AI REWIRING AGRI SOLUTIONS

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India's Internet Boom: 1.2 Bn+ Users By 2030

	2024	2030	Absolute Growth (%)
Smartphone Users	1 Bn+	1.5 Bn+	50%
Internet Users	886 Mn+	1.2 Bn+	35%
Urban Internet Users	397 Mn+	546 Mn+	38%
Rural Internet Users	488 Mn+	708 Mn+	45%

Internet Penetration (Active Users)
58%

5G Enabled Indian Cities/Towns
7.7K+

Urban Internet Penetration (Active Users)
77%

Number Of Male Internet Users
470 Mn+

Cost Of 1 GB Internet Data
$0.16

Number Of Female Internet Users
416 Mn+

Source: KANTAR, IAMAI, Inc42 Analysis
Note: The numbers for 2030 are estimated

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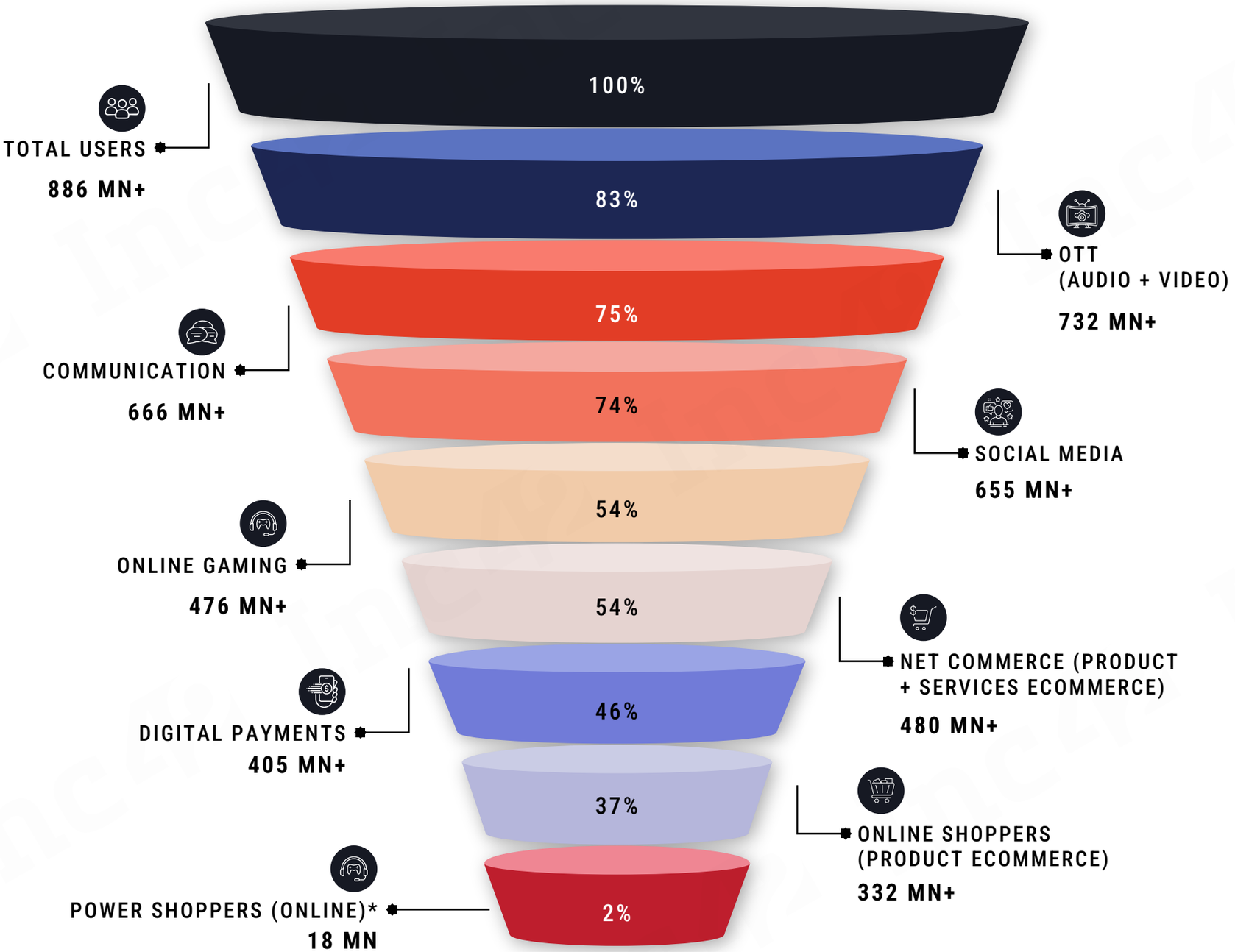
Power Law In Consumer Internet: The Indian Internet User Funnel



Power shoppers make 2% of India's total internet users

Source: Inc42 Analysis, KANTAR, IAMAI
Note: *Power Shoppers in India are individuals who place 50 or more orders per year on ecommerce platforms

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The State Of Indian Startup Economy

Third-Largest

Startup Ecosystem Globally, Measured By The Number Of Startups & Unicorns

70K+

Total Number Of Tech Startups Launched

$165 Bn+

Total Funding Raised By Indian Startups Since 2014

126

Total Number Of Unicorns

$650 Bn+

Combined Valuation Of Indian Startups

147

Total Number Of Soonicorns

1.6 Mn+

Total Number Of Direct Jobs Created

9.5K+

Total Number Of Active Investors

50+

Total Number Of Listed New Age Tech Companies

Source: Inc42

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Key Development Indicators: India VS China VS USA

In the last financial year, India recorded higher foreign direct investments than China

Key Indicators	India	China	USA
GDP (Current)	$4.1 Tn	$19.4 Tn	$30.6 Tn
10-Year-CAGR (GDP)	7%	6%	5%
GDP Per Capita (Current)	$2.5K	$13K	$82K
10-Year-CAGR (GDP Per Capita)	6%	6%	4%
High Technology Exports (2022)	$35 Bn	$770 Bn	$166 Bn
10-Year-CAGR (Hi-tech Exports)	10%	3%	-0.2%
FDI Inflow	$71 Bn	$33 Bn	$341 Bn
10-Year-CAGR (FDI Inflow)	7%	-20%	2%

Foreign investor enthusiasm towards India is high due to the country's stable and open business climate, favourable government policies, and a growing consumer market.

Source: Inc42 Analysis, IMF World Bank, Nikkei Asia
Note: The FDI data for India is for FY24 while for the United States and China is for calendar year 2023. GDP (current) data is for 2025

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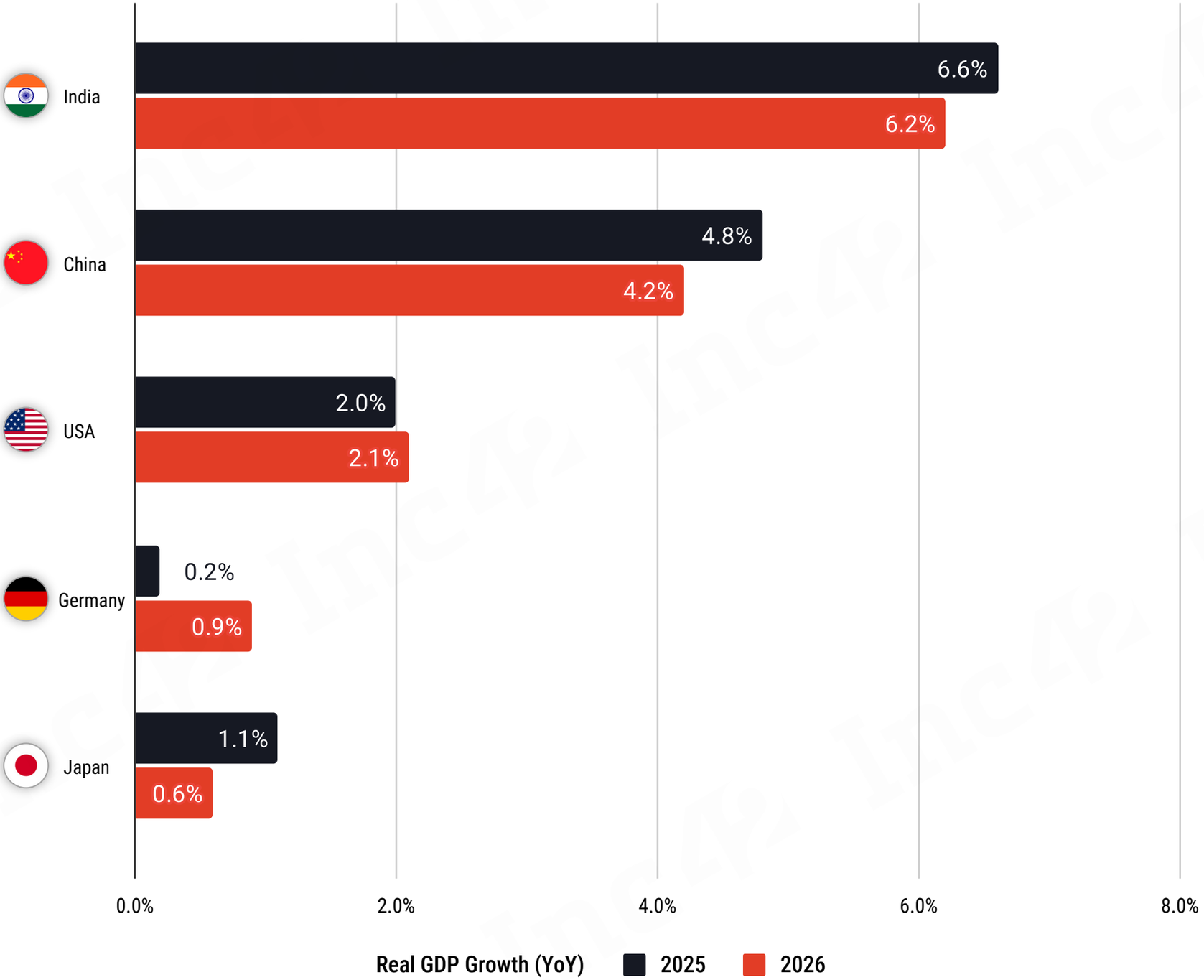
India To Remain The World's Fastest-Growing Economy In 2026

India is expected to remain the fastest-growing economy among the top five economies next year in terms of annual real GDP growth



Source: Inc42 Analysis, IMF
Note: The data is sourced from the IMF World Economic Outlook, October 2025 edition.

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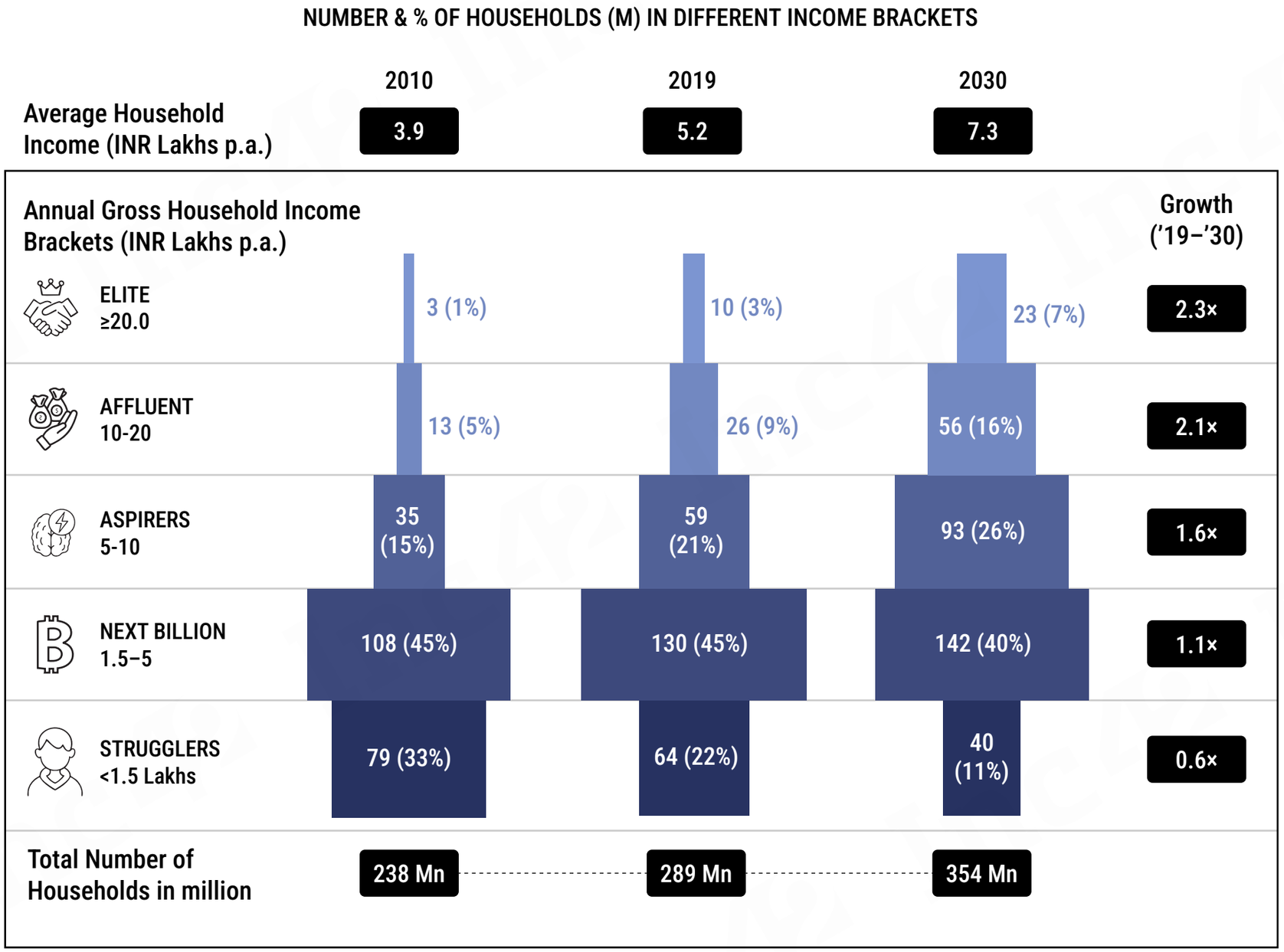
Upward Movement In Annual Household Income

23 Mn households in India will have an annual income above INR 20 Lakh in 2030



Approximately 50% of the household in India will have annual income above INR 5 Lakh by 2030 as compared to 33% in 2019

Source: BCG, Inc42 Analysis

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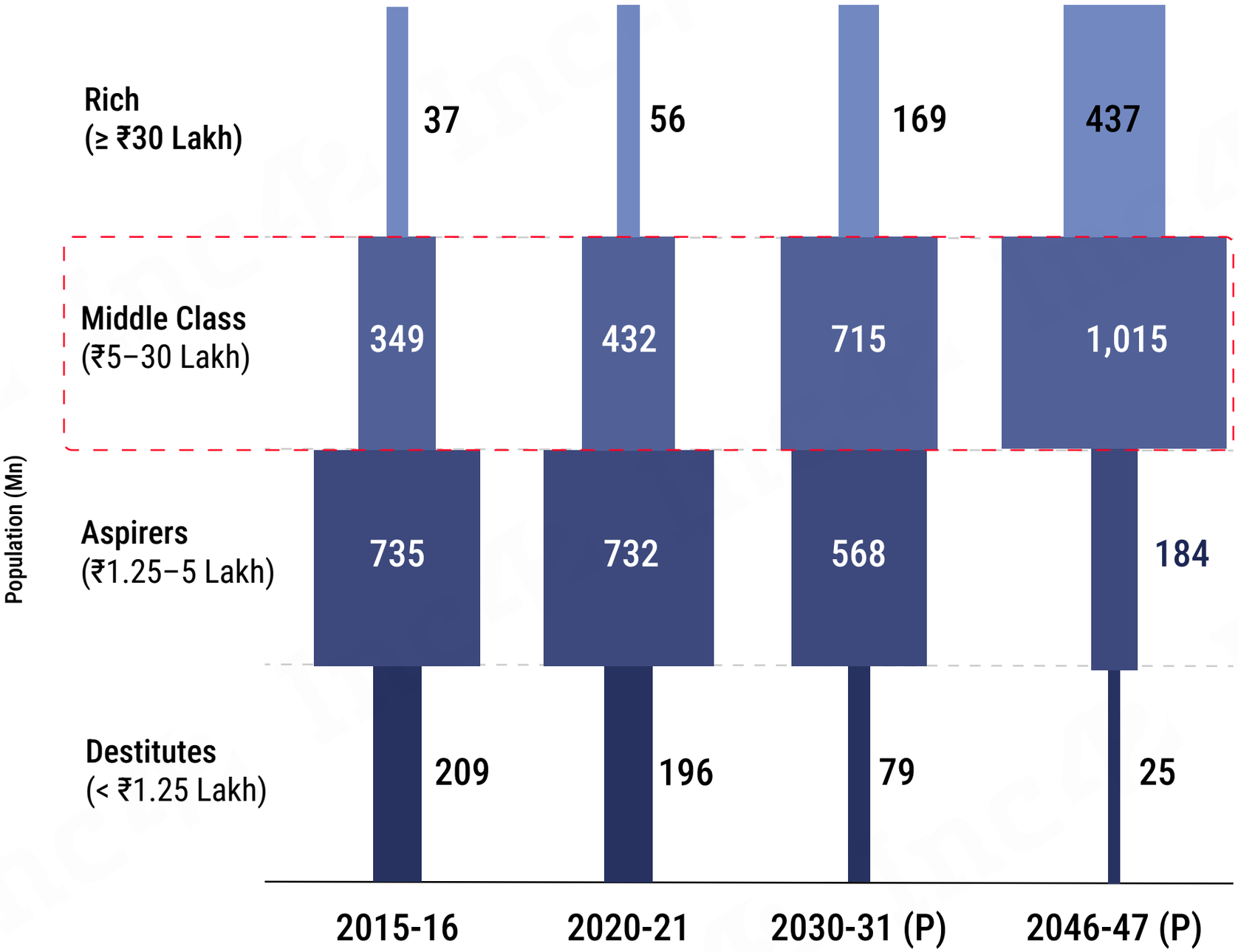
India's Income Pyramid



India's middle class is expected to reach 1 Bn+ by 2046-47, which is a 2.4x increase above the 2020-21 level.

Source: PRICE, Inc42 Analysis

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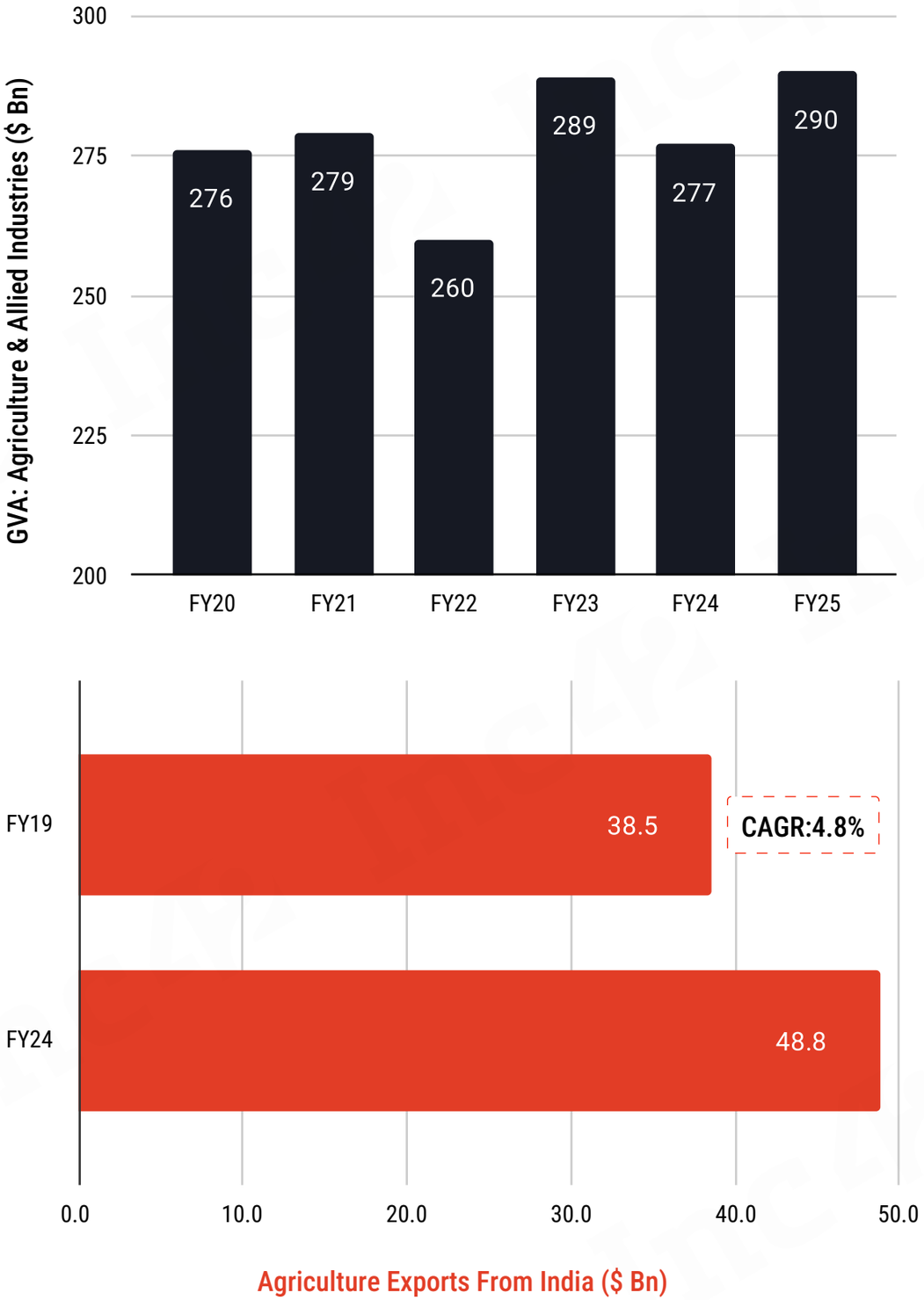
Agriculture's GVA And Export Growth Gaining Momentum



- The Gross Value Added (GVA) for agriculture and allied industries continues to show structural resilience, maintaining a steady upward trend, except for a brief dip in FY22 amid irregular monsoon patterns, COVID-19–related supply chain disruptions, and underlying structural constraints.
- Despite sectoral volatility, India's agricultural exports rose from $38.5 Bn in FY19 to $48.8 Bn in FY24, reflecting a CAGR of 4.8%. However, continued progress will depend on addressing logistics inefficiencies and building resilience against weather-related risks.
- India continues to be a leading global export hub for basmati and non-basmati rice, marine products, spices, sugar, tea, coffee, buffalo meat, and a wide range of fruits and vegetables. These products drive India's $48.8 Bn agri-export base, highlighting the importance of improved logistics and export-oriented policy support.

Source: Inc42 Analysis, IBEF

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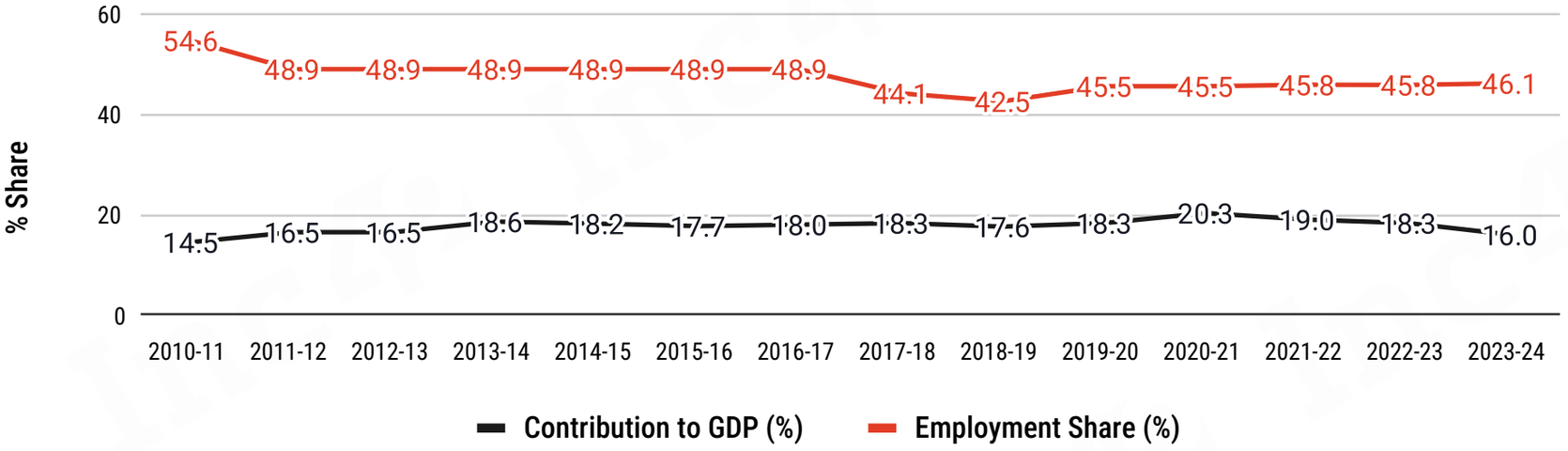
Agriculture Sector Is Still The Largest Source Of Employment



- The latest Economic Survey reports that agriculture and allied sectors make up 46% of India's employment, well ahead of services (30%) and manufacturing (11%). This reinforces agriculture's position as the country's largest source of jobs.
- A growing push for credit and technology access has accelerated formalisation in India's agricultural sector. Institutional credit uptake increased from 37% in FY11 to 68% in FY24, marking a 31-percentage-point rise.
- The share of women in agricultural employment rose from 57% to 64% between FY18 and FY24, while male participation fell from 40% to 36%, reflecting a shift of male workers into construction, trade, hospitality, transport, and related services.

Source: Inc42 Analysis, Economic Survey 2024-25, Periodic Labour Force Survey (PLS)

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Nearly 69% of Indian Farmers Own Less Than One Hectare Of Land

Category of Holdings	Size Group (hectares)	Number of Holdings	Percentage Share (%)	Average Size (Hectare)
Marginal	Less than 1	100,251	69%	0.4
Small	1 to 2	25,809	18%	1.4
Semi-Medium	2 to 4	13,993	9.6%	2.7
Medium	4 to 10	5,561	3.8%	5.7
Large	10 & above	838	0.6%	17
Total	-	146,454	100%	-

Source: Inc42 Analysis, Ministry Of Agriculture
Note; The landing holding statistics shown in this slide are from the 2015-16 period, representing the most recent data from official sources.

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Farmer Producer Organisations (FPOs): A Catalyst In Increasing Farm Income

43K+
Active FPOs

712
Districts Covered

212
Crops Produced

₹254 Cr+
Equity Grants From The Government

₹453 Cr+
Credit Guarantee Issued

30 Lakh+
Farmers Connected

40%
Share Of Women In Farmers Connected

Maharashtra
State With Highest Active FPOs

A Farmer Producer Organisation (FPO) is a registered farmer collective, set up under the Companies Act or state Cooperative Acts, to improve coordinated production and market access. India has over 43K FPOs, backed by the Small Farmers' Agribusiness Consortium (SFAC) under the Ministry of Agriculture.

FPOs engage about 30 lakh farmers, including 40% women, showing progress in inclusive participation. Still, this covers under 3% of India's 100 Mn farming households, underscoring both the model's early stage and its large unrealised potential.

While FPOs cover 212 crops, signalling diverse engagement, this level of spread may constrain operational efficiency. Excessive diversification can fragment supply chains and limit the ability to build strong, crop-focussed competitive advantages.

Source: Inc42 Analysis, Cornell University, PIB

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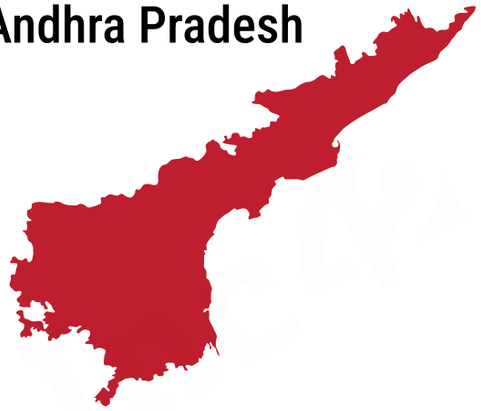
How FPOs Are Boosting Farmer Incomes Across Key States

Andhra Pradesh



In case studies across Andhra Pradesh, FPO members achieved a significant income boost, characteristic of highly integrated models. FPOs successfully intervened in dairy and horticulture value chains, enabling **members to increase the price of milk from approximately ₹27 to ₹32 per litre, securing a premium of ₹5/litre**. A significant social impact was observed, as member families substantially reduced their reliance on high-interest moneylenders.

Bihar

A TARINA study conducted in northern Bihar substantiated the economic advantage of collectivisation. FPO members reported an average monthly income of **₹18,555, which is 14% higher than the ₹16,353** earned by non-members. This significant income differential is attributed to fundamental advantages such as pooled input procurement and improved market reach. The effective use of platforms, such as online maize sales by **FPOs like Arniya Agro-Producers Company Limited**, highlights the role of technology in maximizing returns and market efficiency.

Gujarat

In Gujarat's Valsad district, **FPO membership demonstrated** a measurable economic impact, yielding a 9.7 percent higher **annual farm income for members compared to non-members**. This improved profitability is strongly linked to operational efficiency; collective input purchasing resulted in significant average annual savings for members. Key FPOs, including Karjan Vibhag, Dixal Vibhag, and Tutarkhed Vibhag Bagayat Sahakari Mandali, showcased robust organisational health with verified Gross Profit Ratios (GPR) ranging from 0.63 to 0.71.

Source: Inc42 Analysis, India Water Portal, Secondary Sources

Maharashtra accounts for 34% of India's FPOs (as of March 2025), reflecting the strongest state-level ecosystem. Institutional support is strong, with schemes like the Maharashtra State Agricultural Marketing Board fostering a supportive ecosystem. Success stories, such as the Krushijeevan Agro FPO, based in Pune, has successfully implemented a public-private partnership (PPP) model for tomato farming, mobilising 500 farmers over 200 hectares. The FPO introduced modern technologies such as soil testing, mulching, farm machinery banks, and plot-level pack houses, resulting in productivity increases from 20 to 25–30 tonnes per hectare and incremental farmer benefits of ₹20,000–25,000 per hectare.

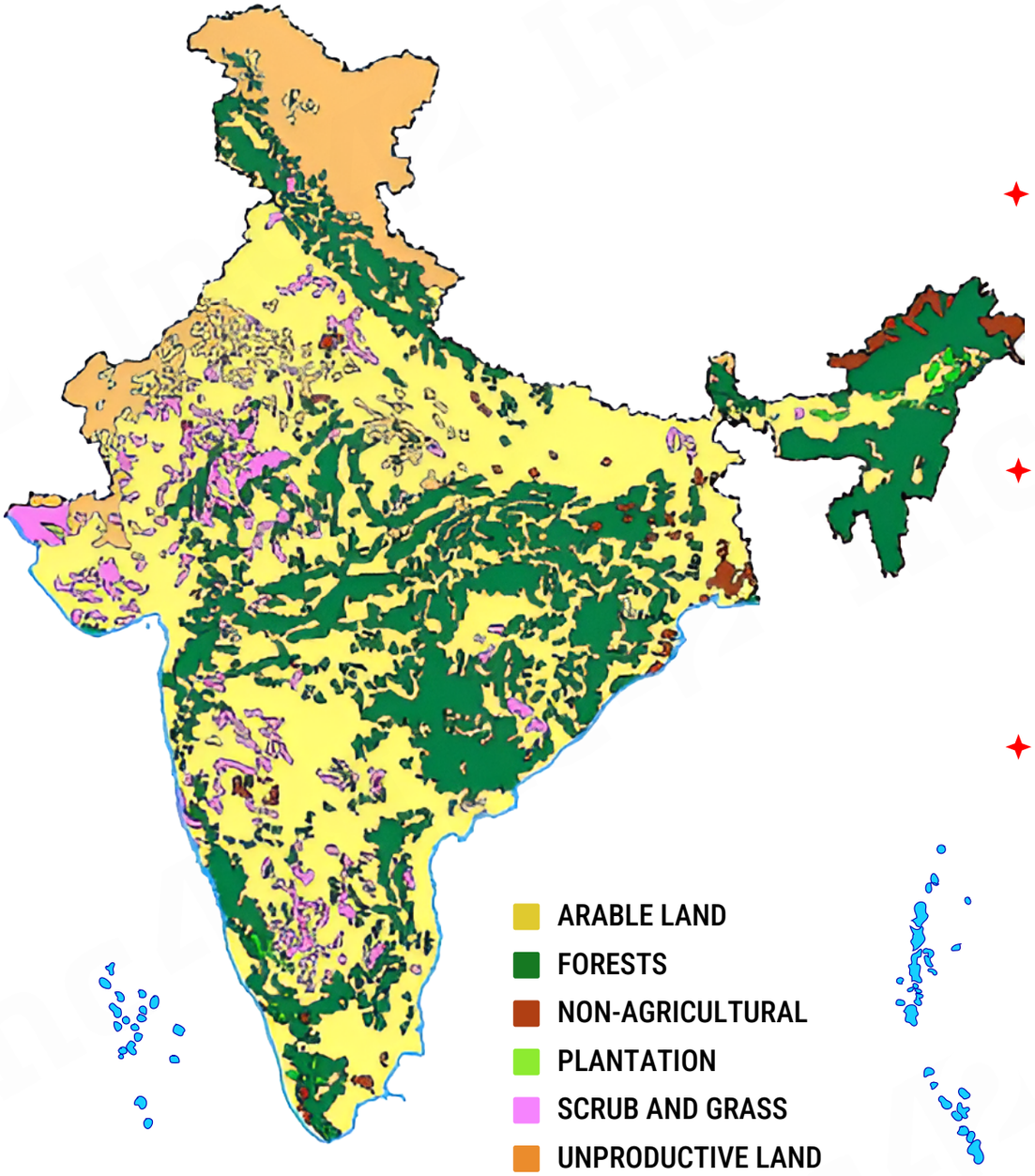
Maharashtra

West Bengal

A rigorous 2021 study in West Bengal confirmed a dramatic economic advantage for FPO members. FPO farmers reported an average family income of ₹242,765 per year, significantly higher than the ₹159,732 earned by non-FPO farmers. This represents a powerful income differential, largely achieved by cutting out intermediaries, reducing transaction costs, and improving post-harvest practices.Furthermore, FPO membership enhanced financial security, with 66% of FPO farmers linked to financial institutions, compared to only 43% of non-FPO farmers, enabling greater investment and financial stability.

Source: Inc42 Analysis, India Water Portal, Secondary Sources

India's Arable Land: 60% Coverage, Indo-Gangetic Plains Being The Most Fertile



- Around 60% of the mapped area is arable, while the remainder comprises forests, plantations, built-up land, scrub, grassland, and other non-productive categories.
- The Indo-Gangetic Plains account for most of this arable land, making the region the core of India's food production and high-yield cropping systems.
- This concentration heightens exposure to groundwater stress, soil decline and monoculture risks, but also creates a concentrated market for precision agritech, climate-resilient inputs, and value-chain solutions.

Source: Inc42 Analysis, India Water Portal, Secondary Sources

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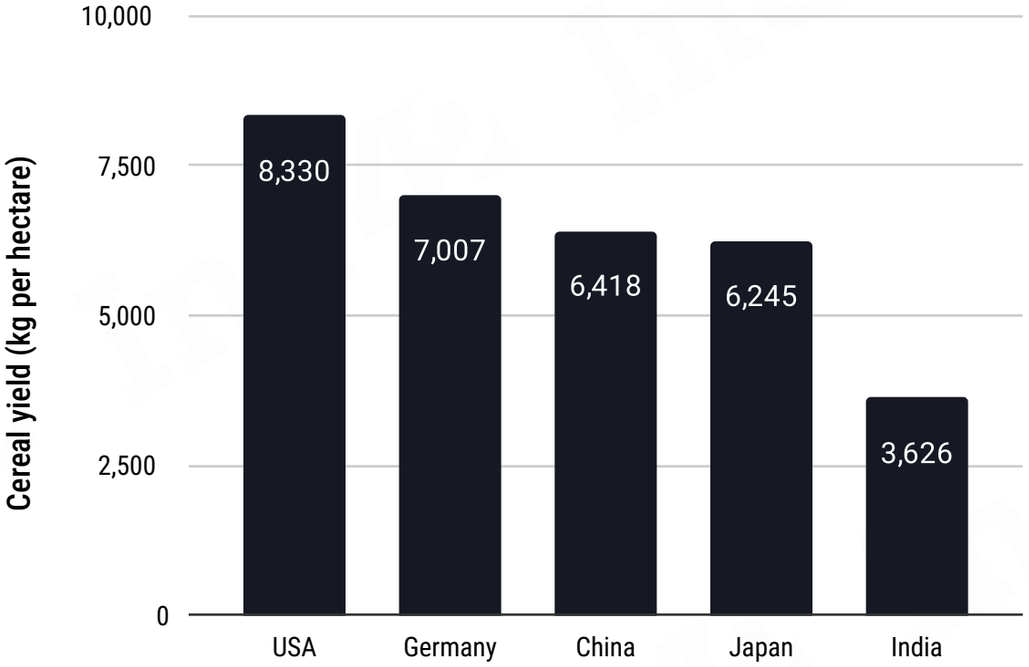
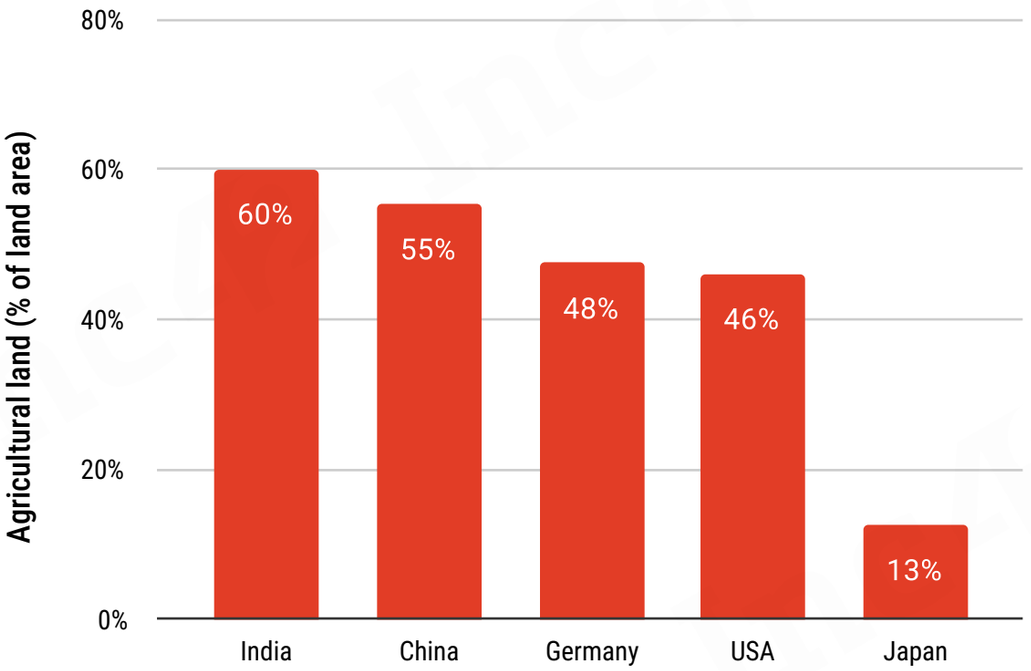
India Has The Most Arable Land But The Lowest Crop Yield Among Top Five Economies





- At 3,626 kg/hectare, India's cereal yield lags key global producers such as the USA (8,330) and China (6,418). The 56% yield gap with the USA signals large untapped potential, which can be bridged through better agronomy, higher-quality inputs, mechanisation, and modern farming methods.
- Fragmented land, limited modern inputs, poor irrigation, and low mechanisation underpin India's yield gap. Productivity gains will depend on interventions such as land consolidation, wider agritech access, and stronger irrigation infrastructure.
- India's agritech boom, spanning precision farming, AI-led advisory, and digital marketplaces, has the potential to transform farm productivity. Realising this impact will require strong public–private collaboration in research, supply-chain modernisation, and farmer financing.

Source: Inc42 Analysis, World Bank

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Key Government Policies Driving India's Agriculture Sector

Policy Name	Description	Impact
Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)	Launched in December 2018, the PM-KISAN scheme provides INR 6,000 per year in three installments as direct income support to eligible farmers. This financial assistance aims to supplement their needs for purchasing agricultural inputs.	Benefiting millions of farmers, the scheme has been instrumental in alleviating financial stress and supporting their agricultural and household expenses.
Soil Health Card Scheme	This scheme provides farmers with soil health cards that contain information about the nutrient status of their soil. This helps farmers to make informed decisions about fertiliser use and crop rotation.	The scheme has helped farmers optimise their use of fertilisers, leading to improved soil health and increased crop productivity.
Pradhan Mantri Fasal Bima Yojana (PMFBY)	The Pradhan Mantri Fasal Bima Yojana (PMFBY) is a crop insurance scheme launched by the Government of India to provide financial support to farmers in case of crop failure due to natural calamities, pests, or diseases.	The scheme has provided a safety net for farmers, protecting them against the financial losses due to crop failures.

Source: Inc42 Analysis, Secondary Sources

Key Government Policies Driving India's Agriculture Sector

Policy Name	Description	Impact
Rashtriya Krishi Vikas Yojana (RKVY)	The Rashtriya Krishi Vikas Yojana (RKVY) is a State Plan scheme launched by the Government of India to ensure the development of agriculture and allied services. The scheme aims to promote innovation and agri-entrepreneurship by providing financial support and nurturing an incubation ecosystem in the country.	The Rashtriya Krishi Vikas Yojana (RKVY) significantly impacts agri-tech startups by offering financial support and fostering an ecosystem through 24 R-ABIs. This promotes agri-entrepreneurship by providing grants covering up to 90% of funding for idea/pre-seed stage startups.
Pradhan Mantri Annadata Aay Sanrakshan Abhiyaan (PM-AASHA)	PM-AASHA (2018) is an umbrella scheme to ensure farmers receive the Minimum Support Price (MSP) for their produce, protecting them from price fluctuations. It operates through three sub-schemes: Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS), and Pilot of Private Procurement & Stockist Scheme (PPPS).	By ensuring remunerative prices through PSS, PDPS, and PPPS, PM-AASHA has increased farmer financial security, reduced distress sales, and contributed to the overall stability and growth of the agricultural sector.
Production Linked Incentive (PLI) Scheme For Food Processing	The Production Linked Incentive (PLI) Scheme for Food Processing offers financial incentives based on production output to manufacturers. Its goal is to boost the industry's competitiveness in domestic and international markets, promote innovation, and encourage investment.	The PLI scheme for Food Processing has driven increased investment, fostering innovation and technological advancements. It has also created jobs and enhanced the global competitiveness of Indian food products, contributing to sectoral growth.

Source: Inc42 Analysis, Secondary Sources

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India's Agritech Value Chain

Stage	Traditional Role & Pain Points	Finance & Insurance	Agritech/Tech Integration
Input Access & Advisory	Dealer-based inputs/advisory	Input loans, micro-credit, bundled crop insurance at sowing	Digital input platforms, AI, remote soil diagnostics **Impact:** Lower costs, better yields, info inclusion
Production	Manual/inefficient methods	In-season working capital, weather-index insurance, equipment EMIs	IoT sensors, drones, precision farming **Impact:** Lower costs, better yields, info inclusion
Harvest & Post-Harvest	Manual, poor infra, losses	Harvest machinery loans, loss/damage cover, warehouse/pledge finance	Smart harvesters, AI quality assessment, blockchain traceability **Impact:** Loss reduction, compliance, safety
Processing & Logistics	Opaque, multi-intermediary	Supply-chain/receivables finance, logistics credit, warehouse receipt loans	SCM platforms, IoT cold chain, traceable transport/logistics **Impact:** Transparency, lower wastage, better pricing
Market Linkage & Sales	Local mandis/traders	Buyer/Trader credit, forward-contract finance, price-risk/hedging products	E-mandis, D2C apps, price discovery platforms **Impact:** Market access, price realisation

Source: Inc42 Analysis, Secondary Sources

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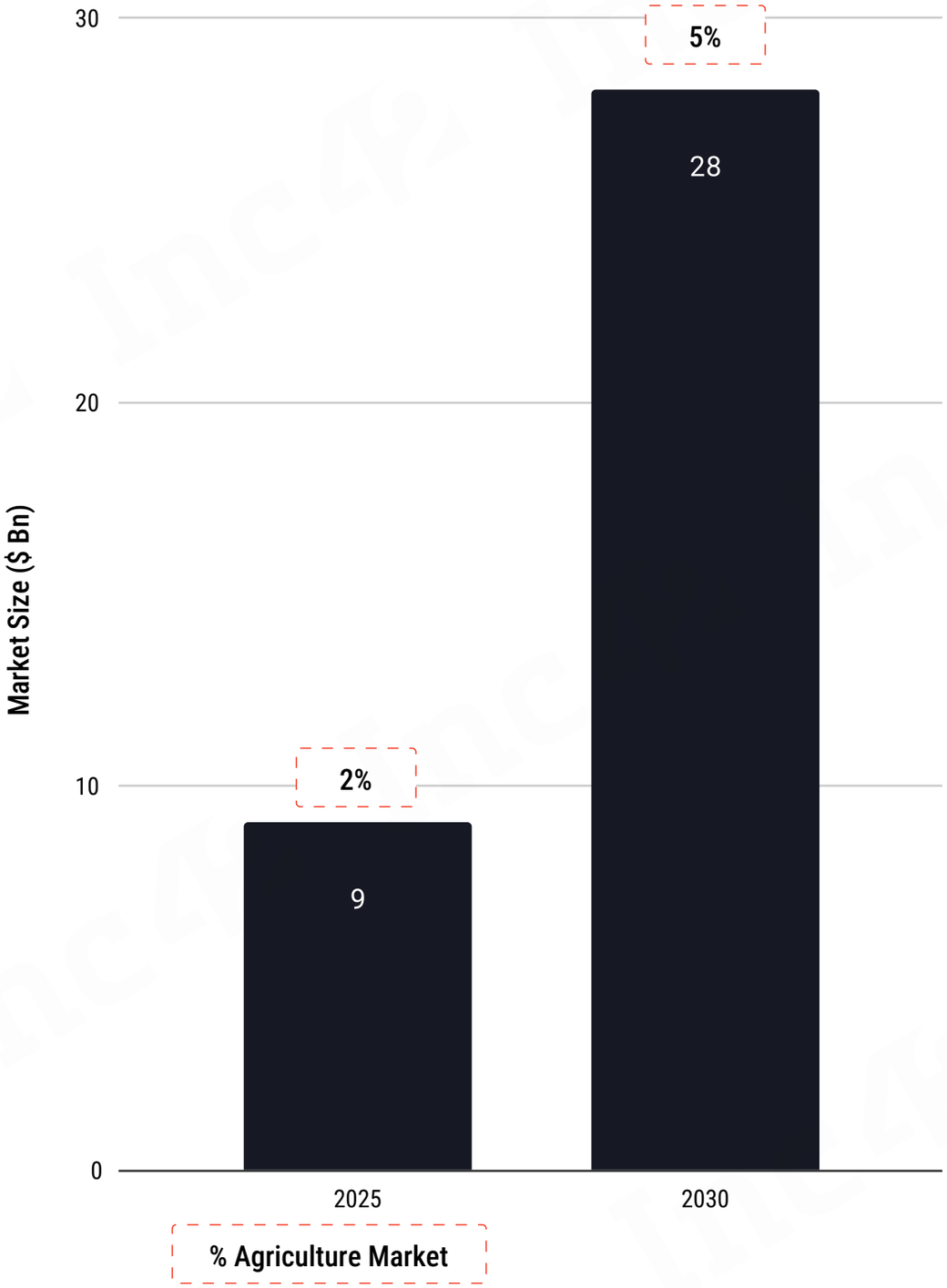
Agritech Set to Hit $28 Bn by 2030, Even as Sector Penetration Remains Just 5%



- India's agritech market is projected to grow from $9 Bn in 2025 to $28 Bn by 2030 at a 25% CAGR, even as the broader agriculture sector expands from $452 Bn to $563 Bn at 4.6% CAGR. Yet agritech's share of the sector will rise only modestly—from 2% to 5%—reflecting the early stage of technology adoption.

- Despite the sector tripling in value, limited digital literacy, fragmented landholdings, poor connectivity, and entrenched traditional practices continue to constrain adoption, keeping agritech concentrated among progressive or capital-strong farmers rather than the wider farming population.

- Agritech's rapid growth remains spread across many young, early-stage players, resulting in a fragmented market with limited scale per company. Yet this fragmentation also signals a dynamic, evolving ecosystem. The next phase of growth is likely to be driven by active consolidation, strategic M&A deals, and future IPO opportunities, which could help create category leaders, strengthen investor confidence, and catalyse meaningful long-term expansion in the sector.

Source: Inc42 Analysis, IBEF

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Market Integration Will Be The Most Lucrative Agritech Segment By 2030

Segments	2030 GMV Share	Description & Use Cases	Growth Drivers & Recommendations
Supply Chain & Market Linkages	$12.7 Bn (45%)	Digital platforms for farm-to-fork logistics, e-NAM integration, post-harvest loss reduction (20-30% current waste)	Reduces intermediaries; AI price forecasting **Opportunity:** Integrate with 1.5 Bn population's food demand (+35% by 2030)
Precision Agriculture	$6.2 Bn (22%)	AI, IoT sensors, drones, satellite imagery for soil/crop monitoring, smart irrigation	Yield +21%; water savings 30% **Opportunity:** Climate-smart tools for 60% rainfed farms
Agri-Fintech	$5.1 Bn (18%)	Credit, insurance, payments via apps; warehouse financing	Financial inclusion for 50 Mn unbanked farmers **Opportunity:** Leverage UPI for instant payouts
Digital Advisory & Inputs	$4.2 Bn (15%)	AI crop recommendations, input procurement (seeds/fertilisers)	Data-driven decisions; biotech integration **Opportunity:** Bundle with subsidies for 25-35% income uplift

Source: Inc42 Analysis, Secondary sources

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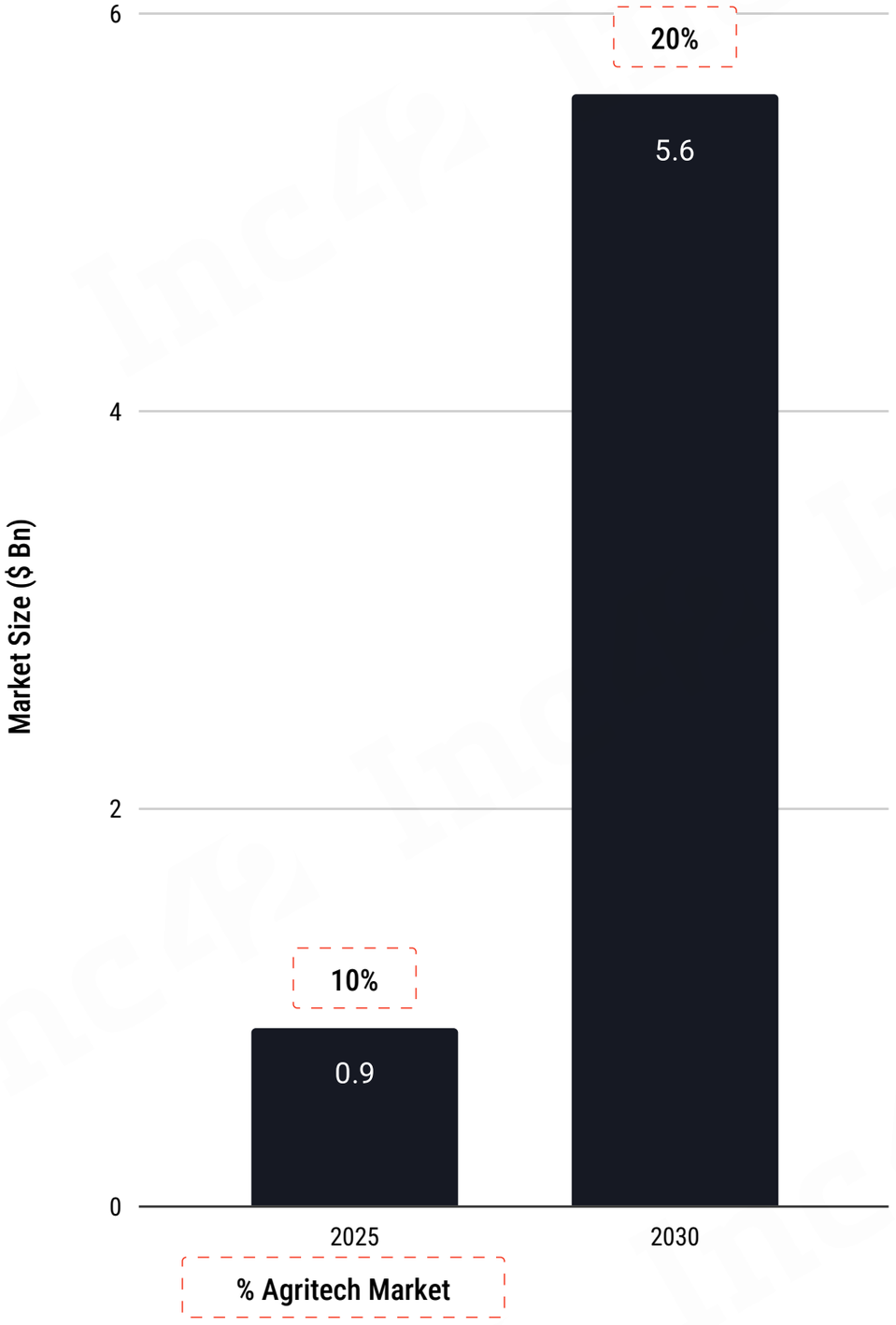
AI Adoption Accelerates In Agritech, Creating A $5.6 Bn Opportunity By 2030



Source: Inc42 Analysis, Secondary Sources

- The AI in agritech market is projected to grow from $0.9 Bn in 2025 to $5.6 Bn by 2030 at a 44% CAGR, almost twice the pace of India's broader agritech sector (25% CAGR).
- Globally, AI in agriculture is expected to rise from $5.9 Bn to $61 Bn during the same period at a 26% CAGR, indicating that India's adoption is accelerating significantly faster, driven by rising demand for precision farming tools, automated decision systems and AI-powered advisory solutions.
- Despite this momentum, AI currently accounts for only 10% of India's agritech market, projected to reach 20% by 2030. This widening gap signals two parallel realities: AI-led products are attracting outsized investor attention and driving most breakthrough innovation, while 80% of the sector still relies on non-AI digital tools, from soil mapping and weather APIs to basic input ecommerce.
- This unevenness stems not just from technological maturity but also from differences in farmer adoption patterns: AI tools remain concentrated among progressive, larger, or capital-ready farmers, while smaller and resource-constrained farmers continue to depend on simpler, low-cost digital solutions.

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AI Technology Stack In Agriculture

Layer 1 — Data Acquisition & IoT Infrastructure

- Soil sensors (moisture, pH, nutrient levels)
- Weather stations and environmental monitoring
- Drones and satellite imagery
- Livestock wearables and farm equipment sensors
- Connectivity protocols: MQTT, LoRaWAN, NB-IoT, 5G

Layer 2 — Data Processing & Cloud Infrastructure

- Cloud platforms: AWS, Azure, Google Cloud
- Data lakes and warehouses (PostgreSQL, MongoDB)
- Edge computing for real-time processing
- Data pipeline frameworks: Hadoop, Apache Spark
- API architecture (REST, GraphQL) for data integration

Layer 3 — Analytics, AI & Machine Learning

- Machine learning frameworks: TensorFlow, PyTorch
- Computer vision for crop disease detection
- Predictive models for yield forecasting and weather
- Generative AI for farm advisory systems
- Languages: Python, R for model development

Layer 4 — Applications & Decision Support

- Farm management dashboards and interfaces
- Precision irrigation and fertilizer recommendations
- Pest and disease early warning systems
- Supply chain and marketplace integration
- Financial services and carbon credit tracking

Source: Inc42 Analysis

AI Applications In Agriculture

Supply Chain & Market Linkages

- Price forecasting and market intelligence for real-time trading decisions
- Demand prediction and inventory optimisation for supply chain partners
- Logistics optimisation for post-harvest transport and storage
- Automated quality grading and traceability systems
- AI-driven direct buyer-farmer matching platforms
- Supply chain transparency and blockchain integration for certification

Precision Agriculture

- Yield prediction with 90% accuracy using satellite imagery and soil sensors
- Real-time irrigation optimisation (80% water efficiency improvement)
- Precision fertiliser application (85% accuracy in nutrient dosing)
- Computer vision for crop disease and pest detection
- Automated crop health monitoring via drones and ground sensors
- Predictive maintenance for farm equipment

Agri-Fintech

- Alternative credit scoring using farm data, satellite imagery, and behavioural patterns
- Crop yield-linked collateral valuation for secured lending
- Parametric crop insurance with weather-triggered automated payouts
- Dynamic pricing for farm inputs based on real-time market conditions
- Loan disbursement and recovery management via mobile platforms
- Carbon credit monetisation and ESG-linked financial products

Digital Advisory & Inputs

- Conversational AI chatbots providing multi-language farm guidance
- Crop variety and seed selection recommendations based on local conditions
- Integrated e-commerce platforms for farm input aggregation and delivery
- Personalised advisory dashboards with prescriptive recommendations
- Community-driven knowledge sharing and farmer peer networks
- Government scheme eligibility assessment and application assistance

Source: Inc42 Analysis

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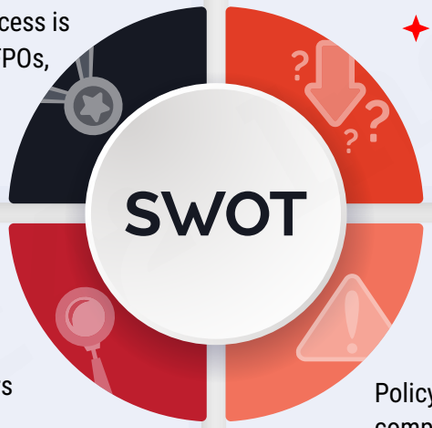
SWOT Analysis: Agritech Market In India

Strengths

- **Massive Addressable Market:** Largest employment source (46% workforce) across 100 Mn+ farming households. $48.8 Bn in exports (FY24).
- **Digital Infrastructure Maturity:** 886 Mn+ internet users and UPI's 48.5% global real-time transactions share enable direct, scalable, and low-cost digital engagement, bypassing legacy constraints.
- **Accelerated AI Adoption:** AI in Indian agritech is growing at 44% CAGR (nearly double the global rate), with its market share projected to double from 10% to 20% by 2030, positioning India as an AI innovation hub.
- **Favorable Policy Ecosystem:** Institutional credit access is up to 68%. Government support includes 43,000+ FPOs, PM-KISAN, PMFBY (crop insurance), and RKVY/PLI schemes supporting entrepreneurship and innovation.

Weaknesses

- **Severe Exit Constraints:** Zero IPO exits and less than 1% of M&A deals since 2014. This absence of liquidity limits investor returns and constraints future capital formation.
- **Limited Penetration:** Agritech is largely accessible only to 3% of farming households (progressive/capital-rich farmers). Adoption is constrained by low digital literacy, fragmented sub-2-hectare landholdings, and traditional practices.
- **Challenged Unit Economics:** Agriculture's seasonal nature (2-3 major purchases annually) leads to low transaction frequency. Customer acquisition costs are high and cannot be amortised easily, resulting in extended payback periods.
- **Market Fragmentation:** Market growth to $28 Bn by 2030 signals penetration rising only from 2% to 5% of the sector, meaning growth is spread thinly across many competitors. Funding remains low, preventing economies of scale.



Opportunities

- **Substantial Productivity Gap:** India's cereal yield (3,626 kg/hectare) is 42-56% lower than major economies (USA, China, etc.). This large gap offers clear, demonstrable ROI for precision agriculture.
- **Expanding Premium Segments:** India's middle class is set to reach 1 Bn+ by 2046-47. Rising incomes drive demand for traceability, food safety, and premium produce, which farm-to-fork platforms can capture at superior margins.
- **Agri-Fintech (18% Share):** $5.1 Bn market targeting over 45 Mn unbanked farming household. UPI and other digital footprints enable parametric insurance and credit decisioning.
- **Fastest-Growing Major Economy:** India's projected 7% 10-year GDP CAGR and high FDI inflow ($71 Bn in FY24) reflect high foreign investor enthusiasm, attracting capital and talent to the agritech sector.

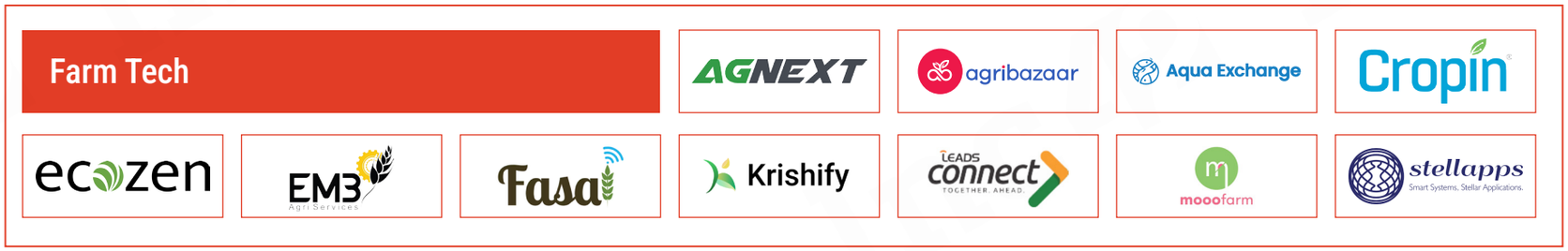
Threats

- **Regulatory Complexity:** Intersects land laws, APMC regulations, and subsidy regimes across 28 states. Policy unpredictability (e.g., farm law rollbacks) adds compliance costs and deters long-term capital commitments.
- **Sustained Funding Winter:** Annual funding declined 74% from 2022 peaks and is below $300 Mn. Absent exits and zero unicorns create a structural disadvantage in capital allocation decisions compared to other tech sectors.
- **Tech Giant Entry Threat:** Well-capitalised incumbents (Jio Agri, Microsoft) leverage rural distribution and cross-subsidisation capabilities to offer services below cost. This makes standalone startup unit economics unviable and forces consolidation.
- **Unwillingness/Inability to Pay for Technology:** Despite policy support, low subsistence-level incomes for the majority of Indian farmers lack the willingness-to-pay for premium technology. Free or heavily subsidised government services create an unfavorable competitive environment for paid solutions.

Source: Inc42 Analysis

Inc42 Datalabs

India's Agritech Startup Landscape



Source: Inc42
Note: The companies mentioned here operate in multiple segments.

Inc42 Datalabs

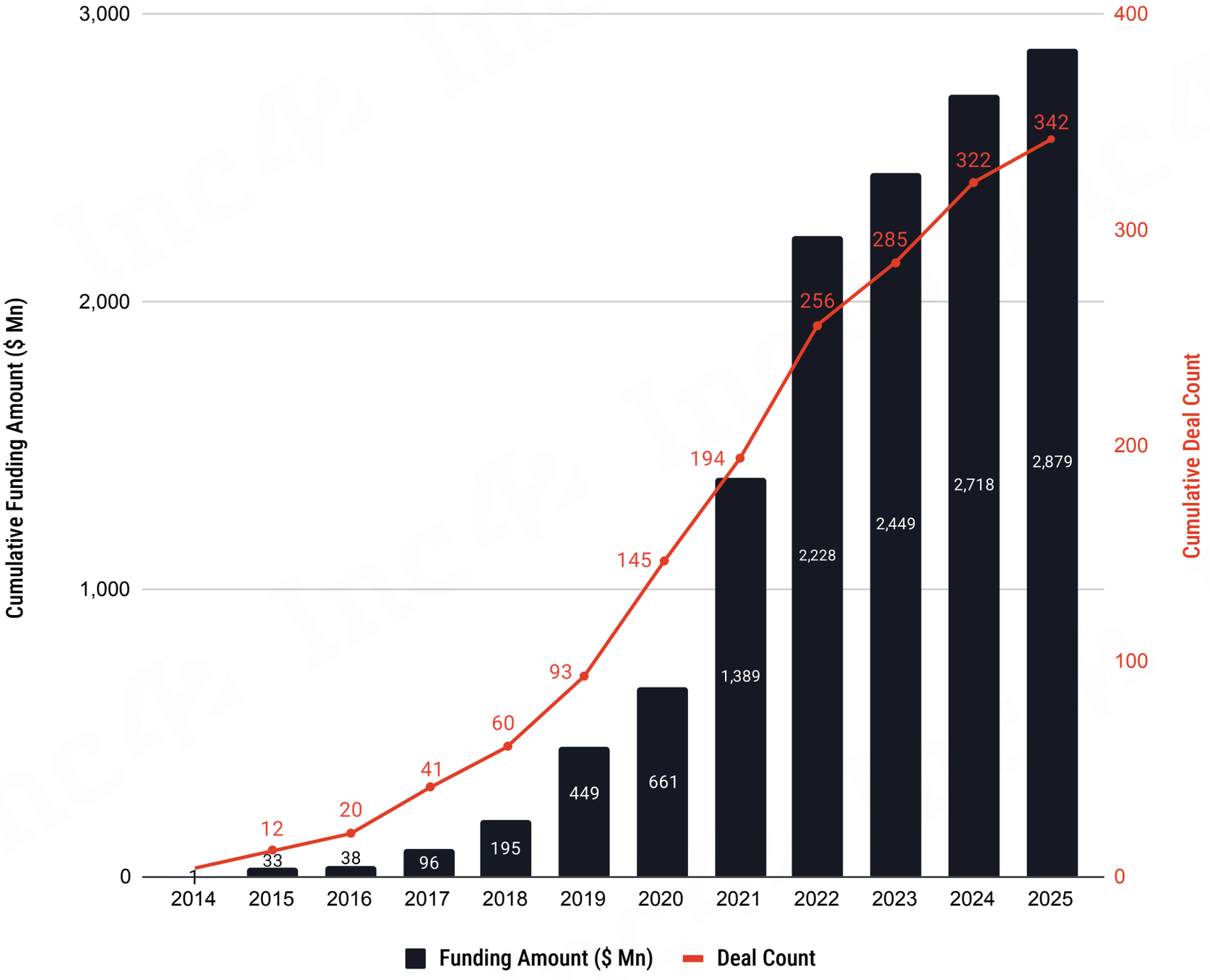
India's Agritech Startup Ecosystem: Key Highlights

Source: Inc42
Note: Funding amount and deal count data is between the interval of 2014 to Q3 2025.

Inc42 Datalabs

Indian Agritech Startups Have Raised $2.9 Bn+ Since 2014

The market linkage segment alone captured 62% of this funding

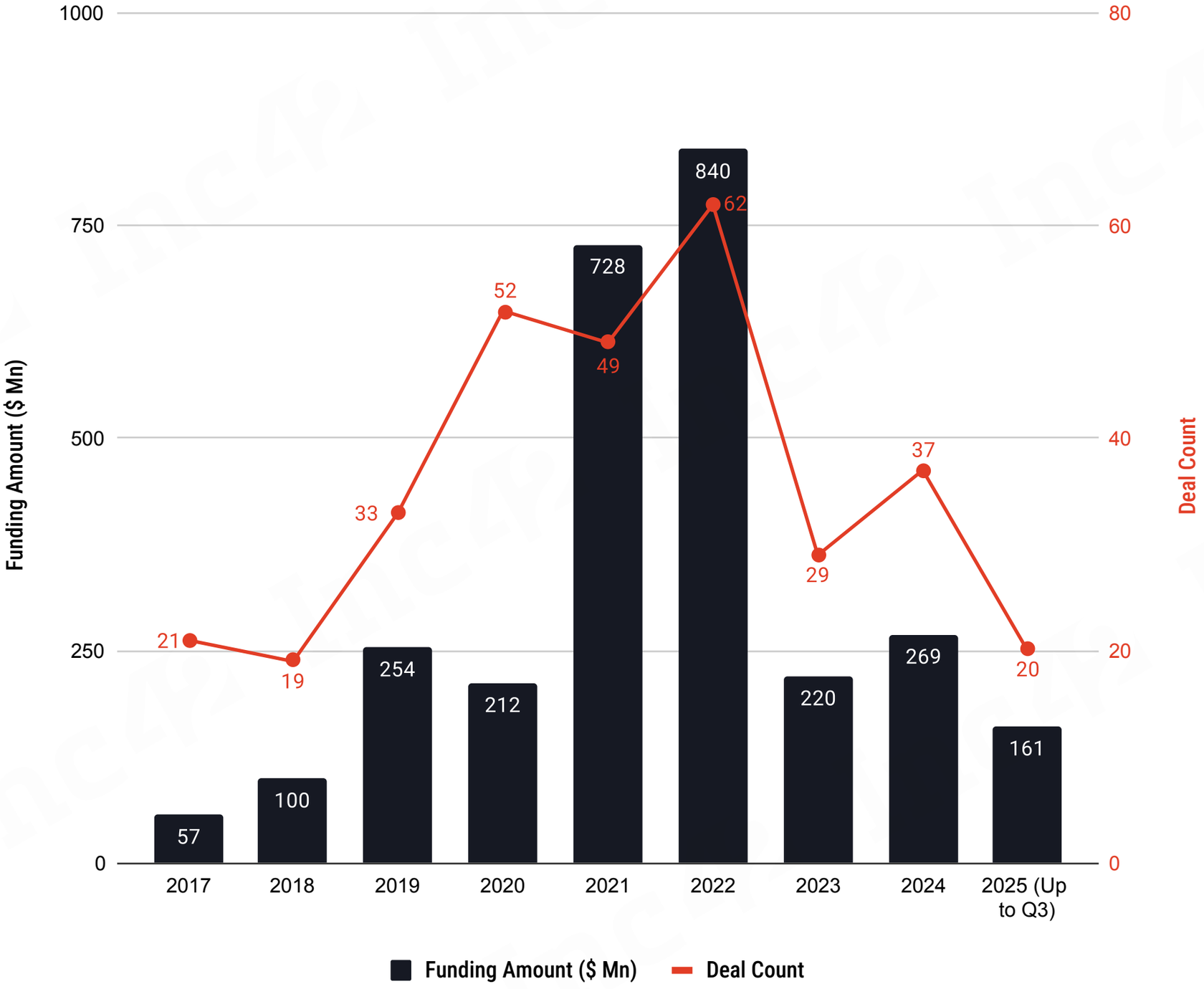


Source: Inc42
Note: 2025 data is for the period between January and September 2025.
StarAgri raised INR 250 Cr from Temasek Holdings in 2014; that round is not included in this analysis.

Inc42 Datalabs

Indian Agritech Funding Resets After 2022 Peak

Compared to 2022, annual funding declined 74% and remains below $300 Mn range, similar to 2017-20 trends

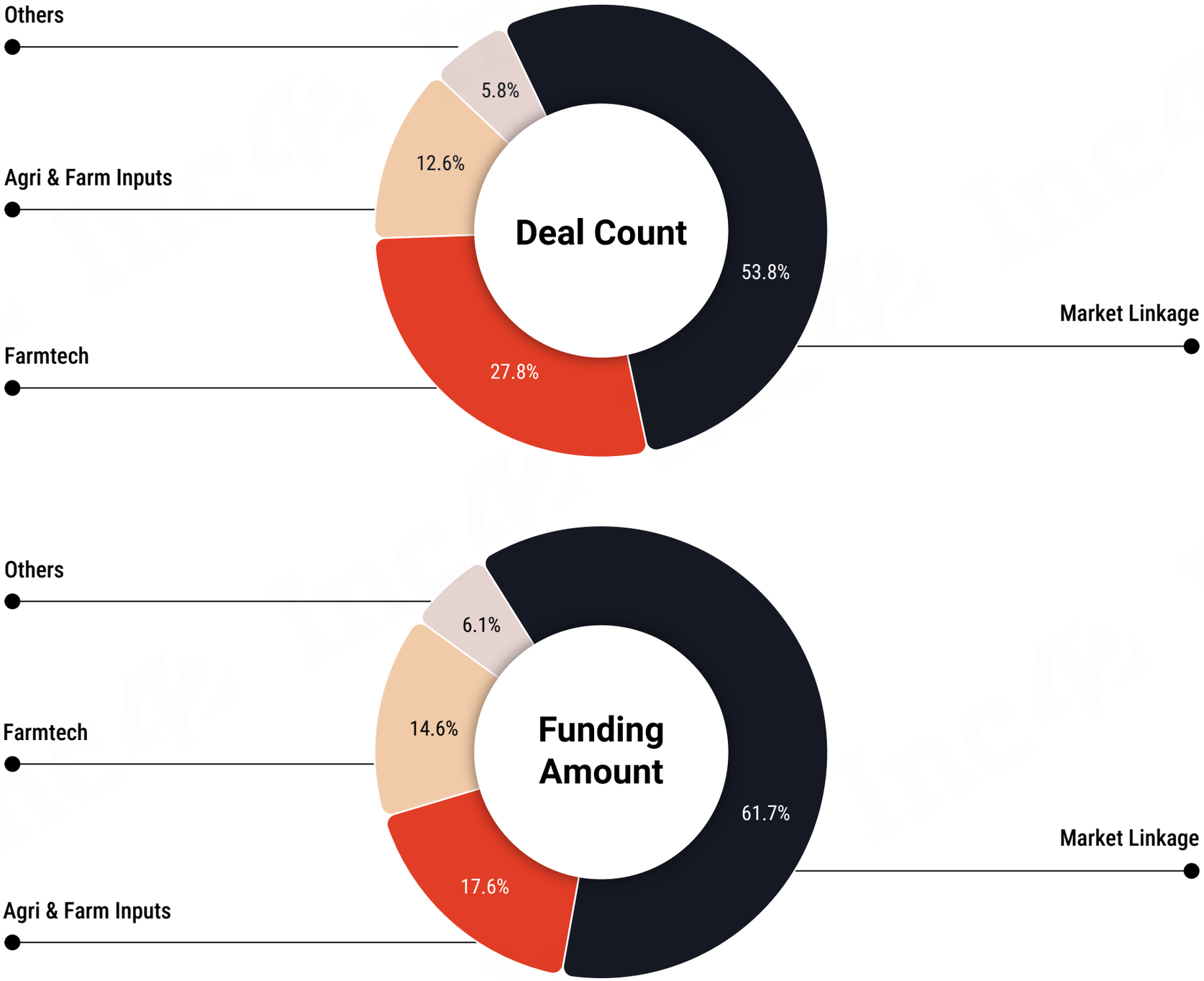


Source: Inc42
Note: 2025 data is for the period between January and September 2025

Inc42 Datalabs

Segment Wise Breakdown Of Indian Agritech Startup Funding

Market linkage is the most funded sub sector in India's agritech startup ecosystem



Source: Inc42
Note: Data is for the between 2014 and Q3 2025

Inc42 Datalabs

Bengaluru Emerges As The Top Hub For Agritech Startups In India

Home to Cropin, Ninjacart and Stellapps, Bengaluru recorded over $1 Bn in funding since 2014

	Funding Amount	Deal Count	Notable Startups
 Bengaluru	$1 Bn+	104	BigHaat, CropIn, Fasal, Fyllo, Krishi Tantra, Ninjacart, Niqo Robotics, Stellapps, Vegrow
 Delhi NCR	$891 Mn+	73	Agrowave, Arya.ag, Barton Breeze, Bijak, DeHaat, FarMart, MoooFarm, Otipy (Crofarm), Poshn, Unnati
 Chennai	$423 Mn+	39	Aquaconnect, DailyGurus, Dhaksha Unmanned Systems, Dvara E-Dairy, Impensus Electronics, Madras Mandi, Samunnati, Seagrass Tech, Veg Route, WayCool
 Pune	$228 Mn+	31	Agri10x, AgriVijay, AgroStar, BioPrime AgriSolutions, Ecozen, FarmERP (Shivrai Technologies), Hectare Agritech, KhetiGaadi, KisanKonnect, Krishigati
 Mumbai	$161 Mn+	25	StarAgri, CottonGuru, Desai AgriFoods, Farm2Fam, Grow Indigo, Innoterra, Jai Kisan

Source: Inc42
Note: Data is for the between 2014 and Q3 2025

Inc42 Datalabs

Agritech Funding In India: A Stagewise Breakdown

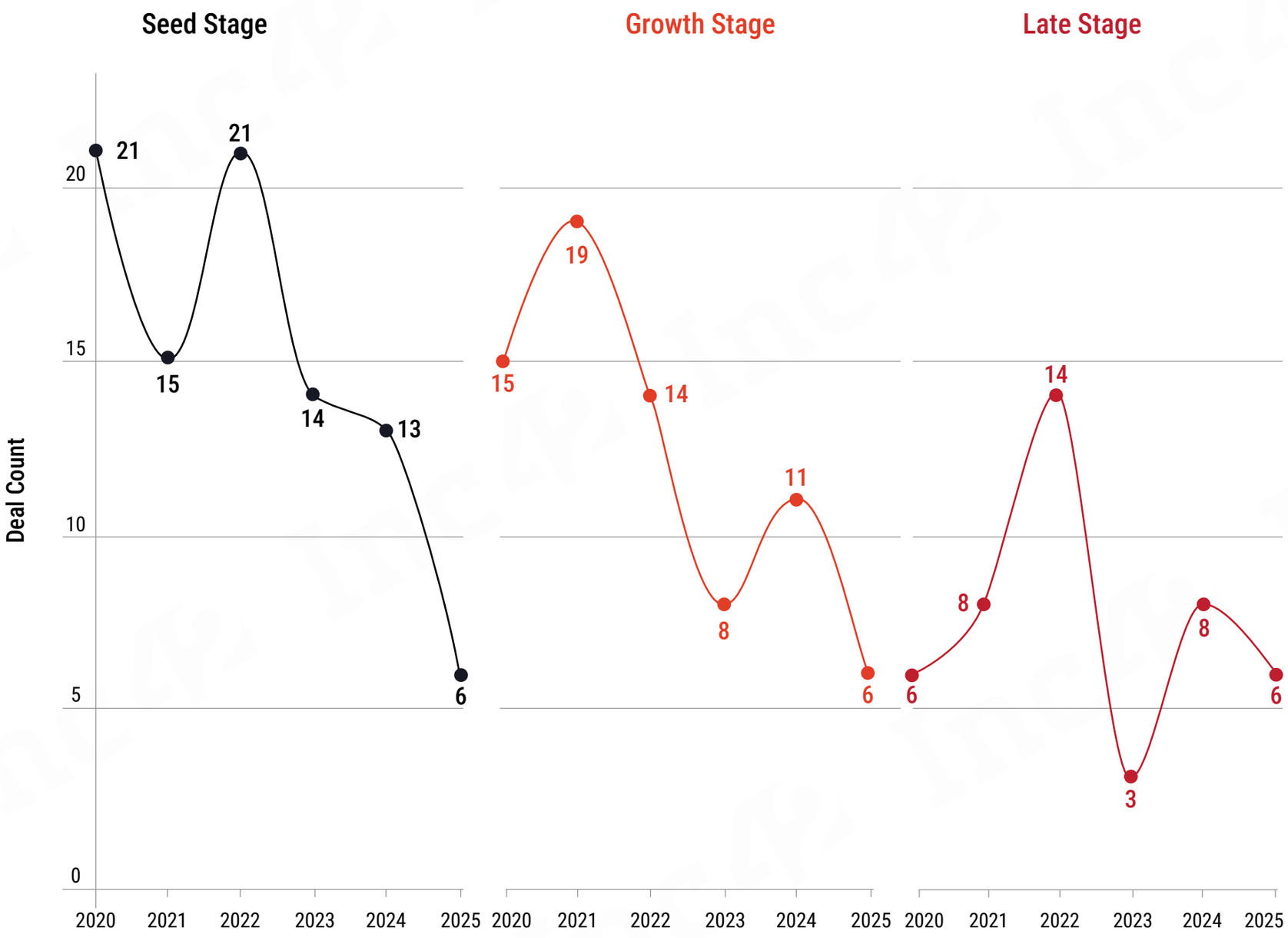
Stage	Seed Stage	Growth Stage	Late Stage
Funding Amount [2014-25]	$166 Mn+	$1 Bn+	$1.5 Bn+
CAGR [2020-24]	15%	5.7%	5.9%
Deal Count [2014-25]	135	104	54
CAGR [2020-24]	-11%	-7.5%	7.5%
Top Segment	Market Linkage	Market Linkage	Market Linkage
Median Ticket Size [2024]	$200K	$6.5 Mn	$19 Mn

Source: Inc42
Note: Data is for the between 2014 and Q3 2025

Inc42 Datalabs

Deal Volume Falls Across Seed, Growth & Late Stage In Agritech

The CAGR (2020-24) for agritech funding deal across seed, growth and later stage were -11%, -7.5% & 7.5 respectively

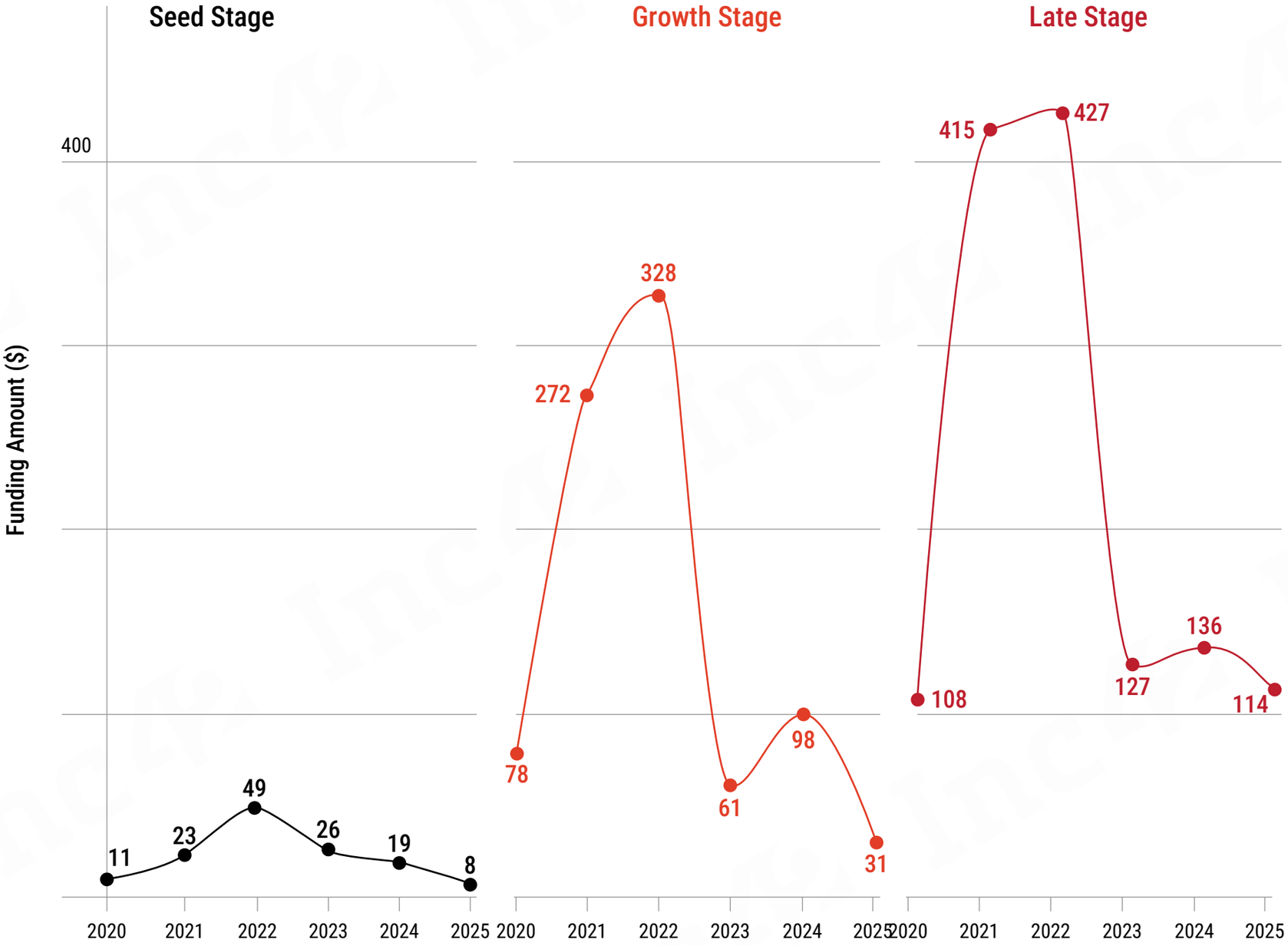


Source: Inc42
Note: Data is for the period between 2020 and Q3 2025

Inc42 Datalabs

Agritech Funding Volumes Decline Across All Stages

The CAGR (2020-24) for agritech funding deal across seed, growth and later stage were 15%, 5.7% & 5.9% respectively



Source: Inc42
Note: Data is for the period between 2020 and Q3 2025

Inc42 Datalabs

Agritech Contributes Less Than 1% To Total Startup M&As In India

	M&A Deal Count	% Of Total M&As
Enterprise Tech	335	24%
Ecommerce	220	15%
Fintech	146	10%
Edtech	137	10%
Consumer Services	139	10%
Media & Entertainment	96	7%
Healthtech	78	5%
Advanced Hardware & Technology	65	5%
Real Estate Tech	44	3%
Travel Tech	68	5%
Agritech	10	~1% (0.7)

- Agritech startups contributed less than 1% (0.7%) to the total M&A deal count, with only 10 transactions observed. This demonstrates that the sector's consolidation, acquisition, or exit opportunities have been limited relative to other verticals, despite agritech's strategic relevance to India's economy.
- Farm sector regulations (land, subsidies, supply chains) and the involvement of multiple government agencies add layers of complexity, which may deter strategic investors.
- Operational risks such as logistics, perishable supply chains, and credit cycles further reduce the sector's suitability for frequent M&A transactions.
- Agritech startups typically face longer sales cycles, recurring pilot stages, and incremental revenue streams. The sector also depends on seasonal cycles and faces exposure to climate risk and unpredictable yields, which can restrict rapid scaling and make exits via M&A less attractive to buyers.

Source: Inc42
Note: Data is for the between 2014 and Q3 2025

Inc42 Datalabs

Indian Agritech Startups Yet To Go Public: A Sign Of Limited Exit Avenues

	IPO Count	% Of Total Listed
Fintech	10	19%
Ecommerce	9	17%
Enterprise Tech	8	15%
Real Estate Tech	6	11%
Travel Tech	4	8%
Media & Entertainment	3	6%
Consumer Services + Foodtech	5	9%
Cleantech	3	6%
Advanced Hardware & Technology	2	4%
Logistics	2	4%
Agritech	0	0%

- Agritech has recorded no IPOs to date and accounts for less than 1% of India's M&A activity, underscoring the sector's early stage maturity and the absence of established exit pathways. While this highlights structural hurdles, it also signals how much headroom remains for consolidation, scale-building, and long-term value creation.
- In contrast, fintech and ecommerce demonstrate what a mature digital sector looks like, reflecting their scale, profitability, and proven investor confidence. These sectors show the trajectory agritech can follow as it matures.
- Importantly, agritech's pipeline is strengthening with six soonicorns, players like StarAgri heading for IPO. As more growth stage companies emerge, exits are likely to rise, improving investor confidence and reinforcing the sector's long-term stability.
- Agritech's current exit profile highlights a sector still in its build-out phase, where the next decade of consolidation, capital inflows, and scale-up activity will determine the leaders capable of creating meaningful public or strategic exits.

Source: Inc42
Note: IPO data is as of November 2025

Inc42 Datalabs

Investors Backing Indian Agritech Startups

Source: Inc42
Note: This is not an exhaustive list

Inc42 Datalabs

Early Stage Agritech Startups To Watch

	Description	Total Funding	Segment	Headquarters
Aquin Biotech	Aquaculture and livestock feed formulation startup	Undisclosed	Agri-BioTech	Bareilly
Bharat Intelligence	AI platform addressing farm labour crisis in India	$788K	Farmtech	Mumbai
BharatRohan	Drone-based hyperspectral remote sensing for crop monitoring	$2.3 Mn	Farmtech	Delhi NCR
Bull Agritech	Agri-supply chain platform connecting farmers to processors	$330K	Market Linkage	Ahmedabad
Cornext	Silage production and fodder ecosystem for dairy farmers	$2.2 Mn	Agri & Farm Inputs	Hyderabad
Farmonaut®	Geospatial technology for satellite-based crop health monitoring	Bootstrapped	Farmtech	Bengaluru
Fragaria	Controlled environment fruit cultivation (premium berries)	$2 Mn	Modern Farming	Chennai
Godaam Innovations Pvt Ltd	Smart storage solutions for post-harvest loss reduction	Undisclosed	Farmtech	Nashik
Gramik™ Empowering Farmers	Peer commerce platform for rural farmer empowerment	$2 Mn	Market Linkage	Lucknow
harvested ROBOTICS	AI-powered laser weeding robotics for autonomous farming	$580K	Farmtech	Lucknow
Mkelly® Biotech Pvt. Ltd.	Livestock and aquaculture feed formulation for improved survival	Undisclosed	Agri-BioTech	Mohali
Oright Sabse Right	IoT and blockchain-based dairy supply chain traceability	$1 Mn	Farmtech	Delhi NCR

Source: Inc42
Note: This is not a comprehensive ranking or an exhaustive list of agritech startups in India.
The startups have been listed alphabetically and represent a selection of notable companies for illustrative purposes.

Inc42 Datalabs

The Next Big Opportunity Zones In Agritech

Drone Technology & Precision Agricultural Robotics

Opportunity

Price forecasting and market intelligence for real-time Drones reduce labor dependency while enabling high-frequency monitoring and targeted interventions. Applications span crop health assessment, selective spraying, seeding, and yield prediction. Nascent market with high growth potential.

Value Proposition

Autonomous or semi-autonomous systems for tasks traditionally requiring intensive labor (spraying, scouting, seeding) while generating granular geospatial data for decision-making.

Notable Startups

dhaksha drones

A Chennai-based drone manufacturer producing both battery-operated and petrol-engine drones. The company has been selected for the government's PLI scheme to boost domestic manufacturing and demonstrates potential for acqui-hires by strategic agribusiness players.

Garuda aerospace

The indigenous agri-drone developer, recently established indigenisation facility near Chennai. Demonstrates government support for drone adoption and localisation.

MARUT - DRONES -

A Hyderabad-based drone manufacturer secured $6.2 Mn in Series A funding from Lok Capital in November 2024. The company specialises in developing purpose-built agricultural drones.

Source: Inc42

AI & Autonomous Agricultural Intelligence

Opportunity

The AI in agritech market is projected to surge from $0.9 Bn in 2025 to $5.6 Bn by 2030 at a 44% CAGR—nearly double the pace of India's broader agritech sector (25% CAGR). Fine-tuned large language models on agronomic data unlock personalized, real-time advisory at scale, addressing over 85 Mn farming households with limited extension services. Multilingual AI systems spanning Hindi, Marathi, Telugu, Kannada, and more overcome language barriers, driving rapid adoption across India's diverse geographies.

Value Proposition

AI systems provide context-specific agronomic guidance, pest identification, market advisory, and climate-risk assessment through conversational interfaces such as voice, chat, and video. Integration with IoT sensors enables autonomous decision support, including automated alerts for disease outbreaks, weather events, and optimal input application timing. This reduces reliance on human experts and significantly lowers the cost per farmer interaction.

Notable Startups

agribazaar

Agribazaar's AgriBhumi platform enhances India's agricultural ecosystem with satellite imagery and machine learning, offering pre-harvest and in-season insights. It enables crop yield forecasting, land classification, field mapping, and arable land identification, supporting better acreage estimation, crop tracking, and planning for farmers and policymakers.

CropIn

Leverages computer vision and AI to analyse satellite and drone imagery for crop health monitoring, pest detection, and yield prediction, enabling proactive intervention before yield loss occurs.

DeHaat

Combines voice AI with agronomic data to deliver local-language recommendations reaching farmers with limited digital literacy. The use of mobile-based platforms with multilingual support is specifically designed to bridge the digital divide. Voice-based interactions are a major benefit for farmers who are more comfortable speaking in their native language than typing.

Source: Inc42

Post-Harvest Management & Warehouse Infrastructure

Opportunity

Post-harvest losses account for 15-30% of agricultural output. Cold chain infrastructure, warehousing, and last-mile logistics platforms creates a lucrative market for reducing waste and enhancing farmer price realisation.

Value Proposition

Technology-enabled storage facilities, cold chains, and processing centers reducing waste while enabling value addition. Infrastructure-heavy but high-margin operations with government co-investment mechanisms.

Notable Startups

arya.ag

Arya.ag has raised over $119 Mn for its post-harvest agri-commerce platform in India. The platform provides storage to reduce losses, financing against produce, and digital marketplaces linking sellers and buyers. It combines rural warehouses with tech tools for inventory and pricing, focusing on improving efficiency and transparency in the agricultural supply chain, particularly for smallholder farmers.

ecozen

The company has developed climate-smart cold storage solutions (Ecofrost) and motor controls (Ecotron). The company leverages solar-powered infrastructure and IoT monitoring to deliver sustainable warehousing solutions. Ecozen also benefits from government infrastructure financing schemes and carbon credit monetisation opportunities.

StarAgri

StarAgri, an integrated agritech platform, Operates a pan-India network of over 2,204 warehouses across 403 locations spanning 18 states, providing integrated post-harvest solutions including real-time tracking, inventory management, and quality testing. The platform combines scientific warehousing with market linkages, enabling farmers to achieve optimal price realisation whilst reducing storage losses through climate-controlled facilities and FIFO inventory rotation protocols.

Source: Inc42

Agri-Waste Valorisation & Circular Agritech

Opportunity

Circular agritech platforms in India are converting farm waste into valuable resources like compost, biogas, bioenergy, and alternative materials. These solutions address environmental challenges while unlocking significant economic opportunities.

Value Proposition

Integration with carbon credit monetisation programmes, government subsidies for waste management, and farmer adoption incentives tied to soil health improvements and input cost reductions.

Notable Startups

CRASTE

It converts crop stubble into eco-friendly packaging and engineered boards using its proprietary Fumasolv technology, which extracts lignin from agricultural waste. By purchasing residue from farmers, Craste creates additional income streams and eliminates stubble burning. Its formaldehyde-free particle boards and moulded packaging replace single-use plastics, saving trees and reducing water usage with zero discharge. The startup collaborates with global brands like Stanley Black & Decker and Anheuser-Busch to advance sustainable packaging solutions.

GPS Renewables

GPS Renewables is a leading food waste-to-biogas ecosystem, operating 100+ installations that transform corporate and municipal organic waste into clean biogas for cooking, thermal applications, and power generation. In partnership with Oil India Ltd., the company is developing eight compressed biogas (CBG) plants, contributing to India's SATAT initiative and driving progress toward national biofuel and decarbonisation targets.

Source: Inc42

Analyst Recommendations: What Agritech Startups Must Get Right To Win The Next Decade

Prioritise AI-Native Architecture As The Core Moat

AI in agritech is expanding at a 44% CAGR, nearly double the sector's overall 25% growth, and is expected to account for 20% of market value by 2030. Startups that treat AI as an add-on rather than the foundation of their product stack risk falling behind. Building proprietary data assets through sensor networks, satellite integration, and long-term behavioural tracking will be essential. The real competitive edge will lie in a company's ability to predict yields, detect pests early, and model climate risk with high accuracy, capabilities that compound over time and create strong switching costs as datasets and models mature.

Capture Value At Market Linkage Layer To Control The Full Stack

Market-linkage solutions are expected to contribute 45% of the agritech market by 2030 ($12.7 Bn), making them the largest and most value-rich segment. To capture meaningful margin, startups must control multiple points in the chain — on-farm aggregation, quality grading, logistics coordination, and institutional buyer access. Building vertically integrated platforms that reduce the current 20–30% post-harvest loss can unlock spread at every step. Advantages will increasingly come from AI-driven price forecasts, blockchain-based traceability, and direct enterprise procurement channels, capabilities that create defensible moats and are difficult for commodity-only players to replicate.

Build Exit Readiness Into Product Architecture From Day One

With zero IPOs and limited M&A activity so far, agritech's exit landscape remains underdeveloped, making it essential for startups to build exit opportunities. This begins with targeting categories where strategic buyers naturally exist (such as FMCG, commodity traders, and input manufacturers). Product platforms should be API-first to ensure seamless integration with potential acquirers. Above all, startups should optimise for revenue quality rather than vanity metrics, focusing on gross margins, retention, and capital efficiency, which align with what late stage investors and acquirers value most.

Embed Financial As A Revenue Multiplier, Not A Side Offering

Agri-fintech is projected to form 18% of the agritech market by 2030, translating to $5.1 Bn, yet many startups still treat financial services as peripheral add-ons. With over 50 Mn farmers unbanked and only 68% able to access institutional credit, embedded finance offers a major opportunity to drive revenue growth and deeper customer stickiness. Startups should integrate credit, insurance, and payments directly into their core workflows, enabling input financing at the point of purchase, instant settlements through UPI, and parametric insurance triggered by IoT or weather-linked data. This approach transforms one-time transactions into recurring revenue streams while addressing the sector's most persistent bottleneck: reliable access to capital for farmers..

Source: Inc42 Analysis

Engineer Unit Economics For Rural Profitability, Not Urban Playbooks

Agritech cannot replicate traditional consumer-internet models because the underlying economics are fundamentally different. Only 2% of India's 886 Mn+ internet users qualify as "power shoppers," and most farmers operate on seasonal cash flows and fragmented 1–2 hectare holdings. This requires startups to redesign unit economics from the ground up. Sustainable models must remain viable at low transaction frequency, rely on asset-light infrastructure, and unlock revenue across the entire farm cycle. The companies will have to diversify earnings through SaaS subscriptions, commission-based marketplace models, and value-added services that monetise inputs, credit, advisory, procurement, and post-harvest workflows.

Capitalise On AI-Powered Drone Technology To Unlock Precision Agriculture At Scale

Drone adoption is emerging as one of the strongest catalysts for precision agriculture in India, sitting at the intersection of AI innovation and on-ground productivity gains. The precision agriculture segment (projected to reach $6.2 Bn) is increasingly powered by integrated drone-AI stacks. These systems generate high-value insights through AI-based computer vision (enabling 85%+ accurate pest and disease detection), multispectral crop health analysis, and ML-driven prescriptive recommendations such as hyper-local fertiliser and spray maps. The result is measurable on-field impact, including 30–40% lower chemical usage, improved yields, and repeatable, defensible data advantages for companies building these capabilities.

Redefine Capital Strategy Beyond Venture Capital

Agritech's absence from unicorn lists and limited exit activity suggests that the sector does not naturally fit traditional venture capital return expectations. Founders should therefore diversify their capital strategy, using revenue-based financing for working capital needs, bringing in strategic corporates for distribution and procurement access, engaging impact investors with longer investment horizons, and blending grants with equity to manage early-stage risk. The metrics that matter here are sustainable profitability, farmer income uplift, and not valuation milestones that may be structurally unrealistic for this sector.

Commoditisation Risk From Tech Giants

Large tech players such as Google, Microsoft, Amazon, and Reliance are entering agriculture with platforms that combine deep capital reserves, nationwide distribution, and strong consumer trust, creating competitive dynamics that startups cannot easily match. Reliance's Jio Agri platform, backed by its retail network and financial capacity, is a particularly strong example. These companies can cross-subsidise agritech services, offer them at below-cost rates, and integrate them into broader ecosystems spanning ecommerce, fintech, and telecom. This raises the risk of commoditisation for standalone agritech solutions and may push early-stage ventures toward consolidation earlier than planned or on less favourable terms.

Source: Inc42 Analysis

Methodology

Since 2015, Inc42 has established itself as the premier resource for discovering Indian startups that are revolutionising industries and making a significant impact on society.

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For this report:

- Overall data in this report is from 2014 to Q3 2025, unless mentioned otherwise.
- **Seed stage:** Startup at angel or seed stage
- **Growth stage:** Startups at Series A and B funding stage
- **Late stage:** Startups at Series C or above funding stage
- Unicorn refers to any digital / tech company valued at or above $1 Bn or have touched this valuation once in their business lifecycle.
- A soonicorn is any public or private digital/tech company valued at or above $200 Mn.
- Our database enrichments and corrections are done on a regular basis, therefore slight variations in funding-related data compared to previously released reports may exist.
- The market opportunity is estimated using a top-down assessment of technology penetration and adoption across the agriculture sector, and reflects the revenue generation potential attributable to each segment.

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