



AgriTech landscape and opportunities in Southeast & South Asia

For presentation at Omnivore's Annual Meeting

February 2026



Executive Summary

- **Agriculture remains the economic backbone** of Southeast and South Asia, contributing nearly 15% of GDP and up to 40% of employment. **Digitalisation and AgriTech adoption could unlock more than US \$90 billion in annual GDP gains in Southeast Asia by 2033**, with major yield improvement potential across key regional commodities
- **South-East and South Asia function less as unified regions and more as a collection of distinct, fragmented markets**, each with its own policy regimes, value-chain dynamics, and consumer patterns — **requiring localisation, not replication, for successful scaling**
- **Value chains across the region diverge sharply**. Export-oriented sectors such as rubber, coffee, and palm oil in Indonesia, Vietnam, and Thailand are relatively commercial and tech-adopting, while staples like rice, maize, and sugarcane in Bangladesh and Cambodia remain dominated by smallholders. These differences in margins, mechanisation, and regulatory burden shape distinct venture pathways and investment theses
- **AgriTech investment has corrected sharply** over the past three years, **peaking at around US \$650 million in 2022 before falling by nearly half in both deal and funding volume by 2024**. However, we argue that decline does not reflect weakening fundamentals, but rather a growing recognition among investors of the structural and market constraints that shape these ecosystems
- Early-stage ventures can grow quickly at home but rarely deliver venture-scale returns once they face cross-border infrastructure and regulatory hurdles. Key takeaways: **unit economics beat headline market size; direct-to-farmer models are too costly; expanding regionally before winning one market is unstable; and execution plus distribution matter more than the technology itself**
- **Investors must calibrate return expectations given these market conditions**. Targeting exit values in the US \$200–400 million range rather than billion-dollar unicorns, and prioritising early entry, disciplined ownership, and timely exit strategies can still achieve attractive returns
- **Corporate partnerships have become the dominant path to liquidity**. While only eight IPOs have been completed across the broader ecosystem since 2020, corporate acquisitions account for roughly three-quarters of exits. **Investors should integrate potential corporate buyers and distribution partners into their strategies**
- **Development finance institutions and impact investors remain critical anchors**, acting as cornerstone LPs in most newly launched agrifood funds (with a combined US\$650 million committed to date), and providing the patient, impact-first capital that de-risks markets and enables sustainable growth beyond pure financial returns
- **Renewed, cautious optimism for AgriTech investment is emerging** across four verticals: digital value chains, agri-fintech, sustainable feed and biotech, and consumer brands, including a **resurgence in aquaculture specifically**

15%

of GDP in SEA is from Agriculture

\$90B

USD in GDP gains for SEA countries from digitalisation and Agtech adoption by 2033

Up to

40%

of employment opps. are related to agriculture

Key learnings from unsuccessful ventures include...



Unit economics beats market size, many well-funded ventures have failed due to negative margins even in large \$100B markets



Direct-to-farmer is expensive due to high levels of smallholder fragmentation making aggregations and upselling difficult. CAC is often 3-5x higher than B2B intermediary models



Expansion is risky; fragmented markets, regulation and agronomy differences make cross-border transfer costly and complex

High potential opportunities identified include...



Digital value chain platforms—including SaaS, traceability, and MRV solutions—represent the most mature opportunity



Agri-fintech addresses a \$12-15 B SME financing gap through trade-data underwriting



Biotech remains early-stage, but growing CVC activity is creating commercialisation pathways



Distinct consumer branding opportunities driven by rising purchasing power and evolving preferences



Aquaculture; Rising protein demand, shrinking arable land, and climate volatility are accelerating a shift toward farm-based seafood and seaweed production

A tale of two segments...



Smallholders dominate staple crops such as rice and maize; looking to enhance productivity



Export-orientated sectors such as rubber, coffee and palm oil are **relatively commercial and tech adopting**

The successful investor of the future will...



Build strategic corporate partnerships which have become the dominant path to liquidity, partners should be pulled into ventures early



Invest early, exit early; targeting exit values in the US \$200 – 400 million range rather than billion-dollar unicorns



Leverage Blended Finance models; recognising growth will increasingly depend on combining equity, credit and concessional capital

01

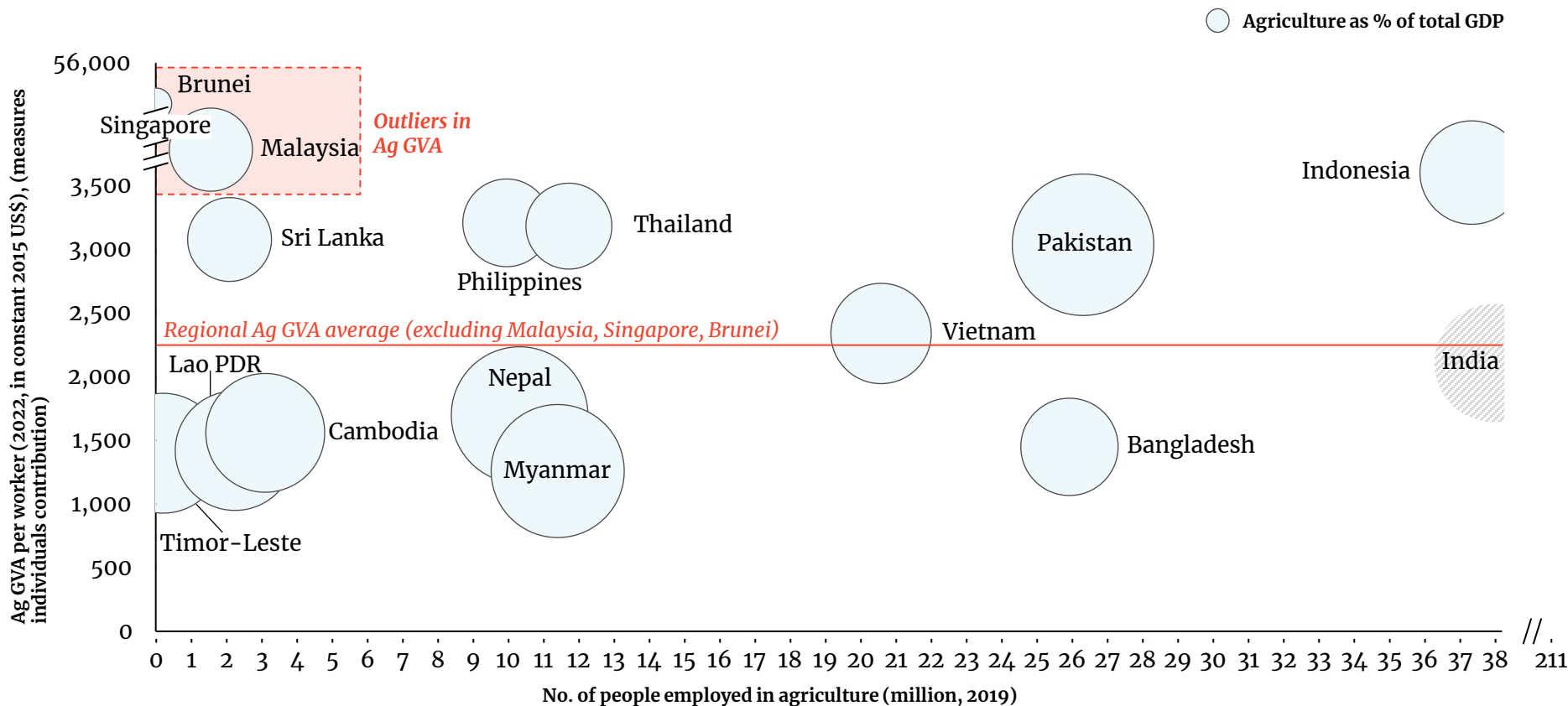
Agriculture Sector Fundamentals in Southeast Asia: Threading the needle in a tangled market

Key points:

- ▶ The “Southeast Asia market” is a mirage – embrace variance
- ▶ Shared structural challenges present at scale opportunities
- ▶ “Regional” is not the only game in town

The economic weight of agriculture varies significantly across region; role as primary employer is nearly universal

Average GVA per work vs No. people employed in agriculture across SASEA economies

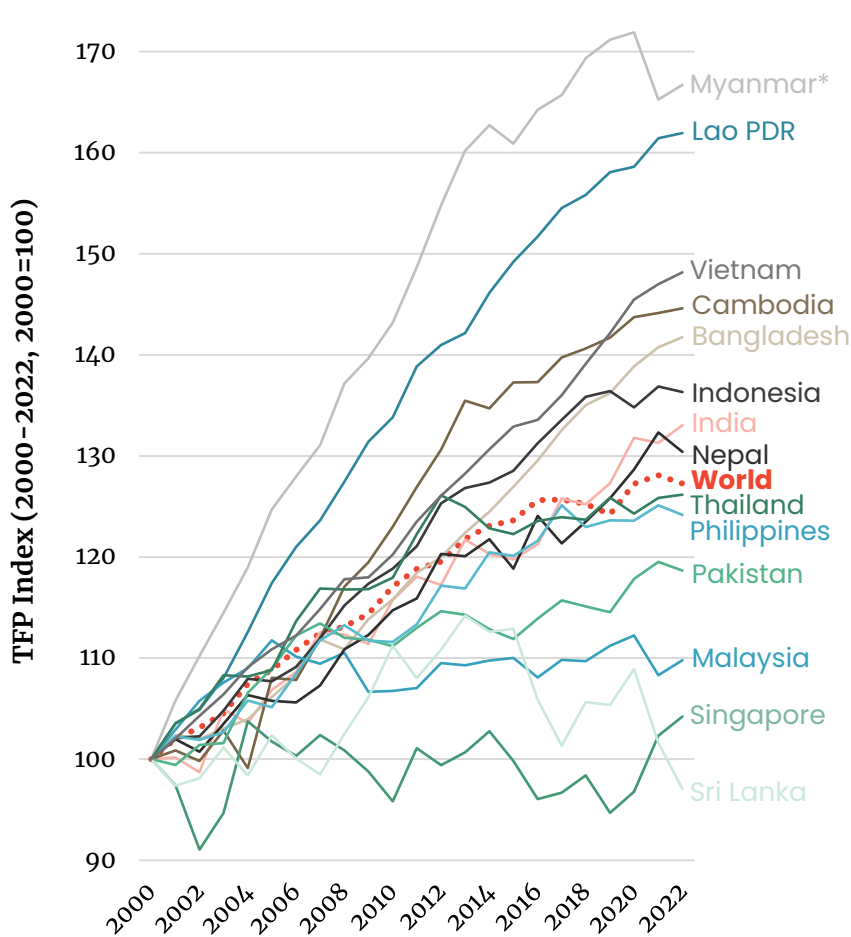


- ▶ Agriculture’s direct contribution to GDP is declining in line with global development trends
- ▶ The disparity between GDP contribution and employment share highlights low labor productivity signaled by a low Gross Value Add (GVA) per worker. This productivity gap is both a major economic challenge for these nations and a significant greenfield opportunity for investors backing technologies that can enhance efficiency and uplift rural incomes.

Source: Ag GVA per worker is from [World Bank and OECD national accounts, and ILOSTAT](#) (2025); no. of people employed in agriculture is based on [ILO data](#); Ag GDP as percentage of total is from [World Bank](#)

Growth drivers in the agricultural sector

Total Factor Productivity (TFP) growth in the region is steady, but divergent productivity pathways highlight opportunities in high-growth nations.



Country Index Ratings >	Materials	Capital	Output	Land	Labour
World	▲	▲	▲	▼	▼
India					
Bangladesh	▲	▲	▲	■	▼
Pakistan	▲	▲	▲	■	■
Nepal	▲	▲	▲	■	■
Sri Lanka	■	▲	■	▼	▼
Indonesia	▲	▲	▲	■	▼
Vietnam	▲	▲	▲	■	▼
Philippines	▲	▲	▲	■	▼
Thailand	■	▲	■	▼	▼
Malaysia	▲	▲	▲	■	▼
Singapore					
Lao PDR	▲	▲	▲	▲	▼
Cambodia	▲	■	▲	▲	▲
Myanmar*	▲	▲	▲	■	▼

Legend:

▲ High Growth (>2.0% avg. annual growth)

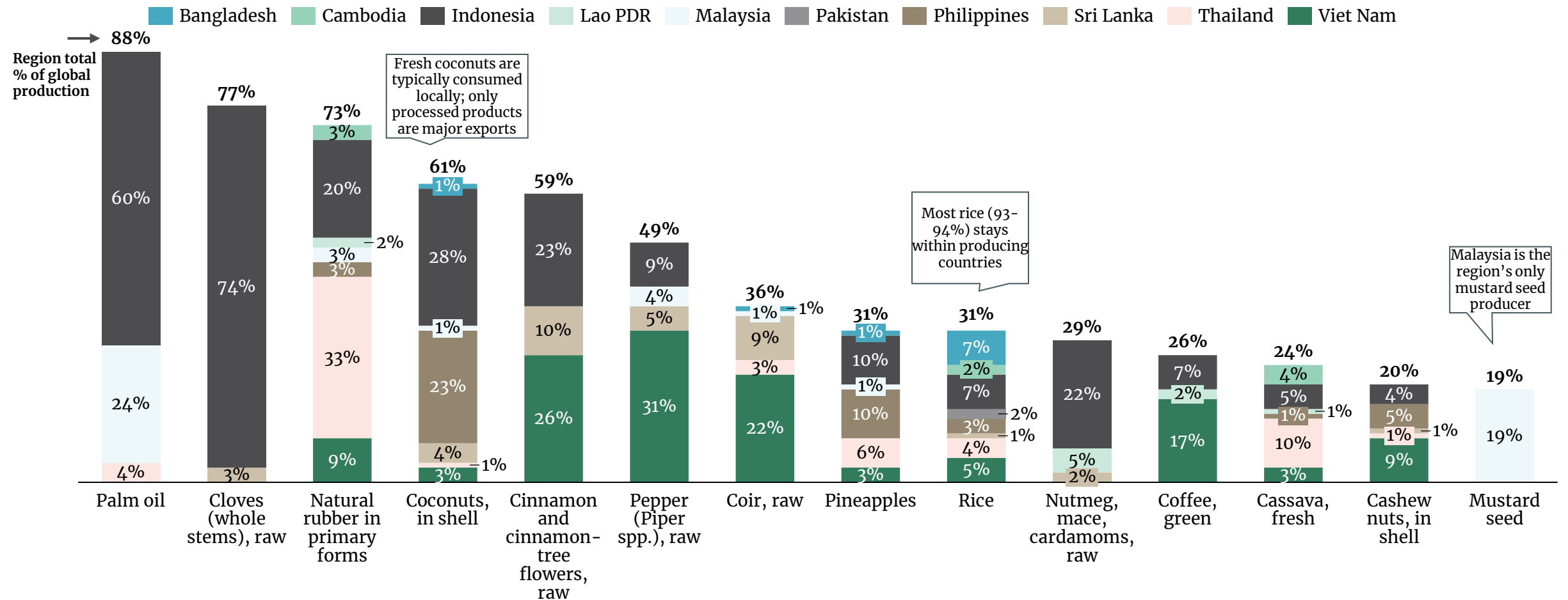
■ Moderate Growth (1.0%–2.0%)

▼ Low/Negative Growth (<1.0%).

- ▶ Countries with high TFP growth driven by strong output and material input growth but a declining labor index (like Vietnam) signifies a modernising sector where labor is becoming more productive. This market is ripe for technologies that further enhance input efficiency, such as precision agriculture.
- ▶ Countries with low TFP growth where output gains are matched by increases in labor and land inputs (like Pakistan) indicates growth through extensification, not intensification. This points to a foundational opportunity for basic mechanisation, improved inputs, and knowledge dissemination platforms.

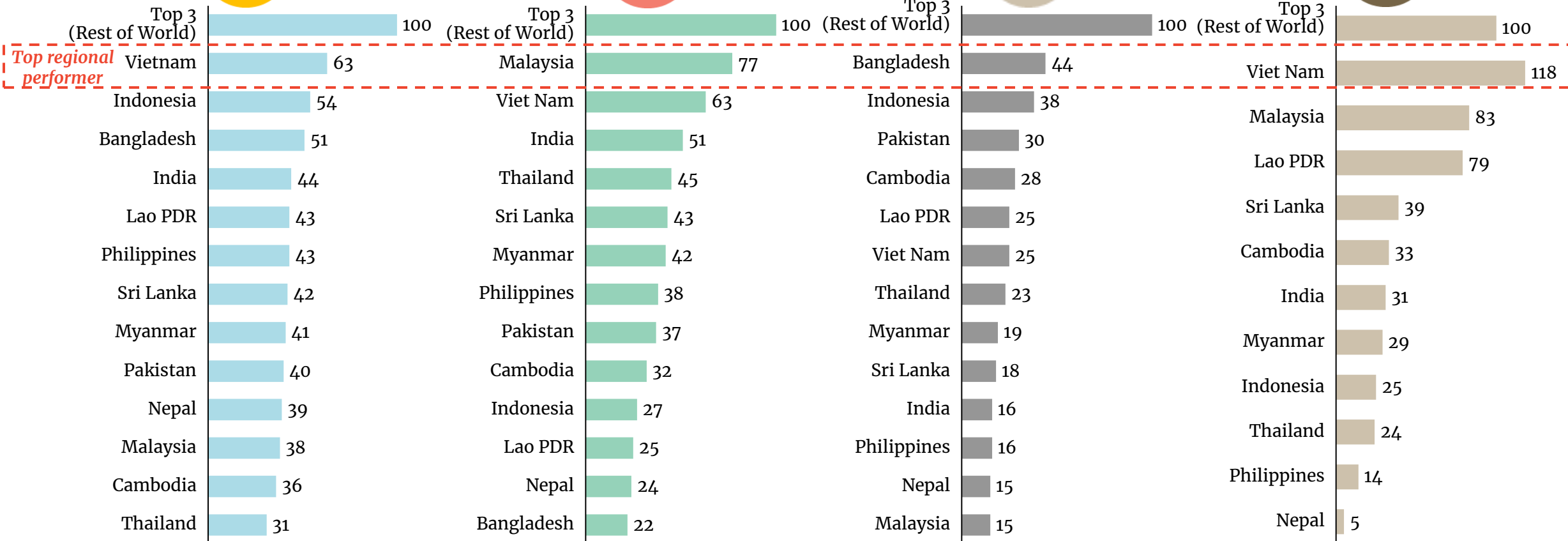
The region's sector is highly diverse; larger producers drive volume in major crops, others carve out positions in high-value specialty markets

South(east) Asian countries' proportion of global production volume across major crops



Productivity uplift is a common opportunity driver across the region

Southeast Asian producers commonly 2-6x less productive than leading global benchmarks in core commodities, with some outperforming exceptions (i.e., Vietnam and Malaysia)



Source: FAOSTAT
 Note: Productivity index for South(east) Asian producers is relative to average of top 3 countries in the rest of the world. Top 3 for rice: Australia, Tajikistan, Uruguay; top 3 for chicken: Rwanda, Argentina, Bolivia; top 3 for maize: Oman, UAE, Kuwait; top 4 for coffee: China, Vietnam, Malawi, Brazil

Highly commercial, tech-adopting operations coexist with fragmented smallholder production creating distinct venture pathways

Smallholder-led staple value chains

Highly commercialised, tech-adopting value chains

Description ▶ Primarily serves local and national food security needs. Characterized by high volume, low-margin operations with emphasis on yield optimization, post-harvest loss reduction, and efficient distribution to domestic markets

Focused on global markets with emphasis on quality standards, traceability, and scale. Higher value per unit with complex international supply chains. Requires compliance with international certifications and sustainability standards

Typical producer archetypes involved ▶



Independent Smallholders
Fragmented subsistence farmers



Organised or partnered farmer
Cooperative/contract / plasma member



Commercial SME farmer
Growth-stage producer



Independent Smallholders
Fragmented subsistence farmers



Organised or partnered farmer
Cooperative/contract/ plasma member



Integrated agribusiness
Large private and state-owned enterprises

Value chains in this category ▶



← Aquaculture, horticulture, and livestock span both market s - smallholder backyard systems coexist with industrial operations, creating diverse investment opportunities within each sector →

Differing value chain archetypes offer distinct set of innovation opportunities

Smallholder-led staple value chains

Highly commercialised, tech-adopting value chains

Most valuable technologies needed

▶ **Farm-to-Fork Intelligence:** Integrated AI systems combining precision ag (soil sensors/drones/weather analytics), digital advisory (crop management/pest identification) and quality inspection

▶ **Post-Harvest Value Optimization:** Smart storage, automated drying/processing, and aggregation platforms that reduce losses and help smallholders capture more value from their crops

▶ **Financial & Risk Management Tech:** Digital payment systems, AI-driven crop insurance, micro-lending platforms, and supply chain financing solutions tailored for smallholder cash flow patterns

▶ **End-to-End Traceability & Compliance:** Blockchain-enabled supply chain transparency, IoT monitoring, satellite imagery analytics, and automated ESG/sustainability reporting

▶ **Industrial Agriculture Automation:** Advanced quality assurance systems (automated grading, sorting, packaging), precision agriculture at scale, and yield optimisation technologies

▶ **Global Market Intelligence & Logistics:** AI-powered price forecasting, demand analytics, cold chain management, and sophisticated supply chain optimization

Examples of innovations



AI-powered rice quality inspection reducing assessment time by 95% with computer vision technology



AgriTech platform providing digital farm records, methane reduction, and carbon finance incentives for smallholder rice farmers



AI-driven platform providing weather analytics, crop insurance, and predictive insights for smallholder decision-making



Achieved 99% traceability to plantation level for palm oil supply chains using digital tracking systems for sustainability compliance

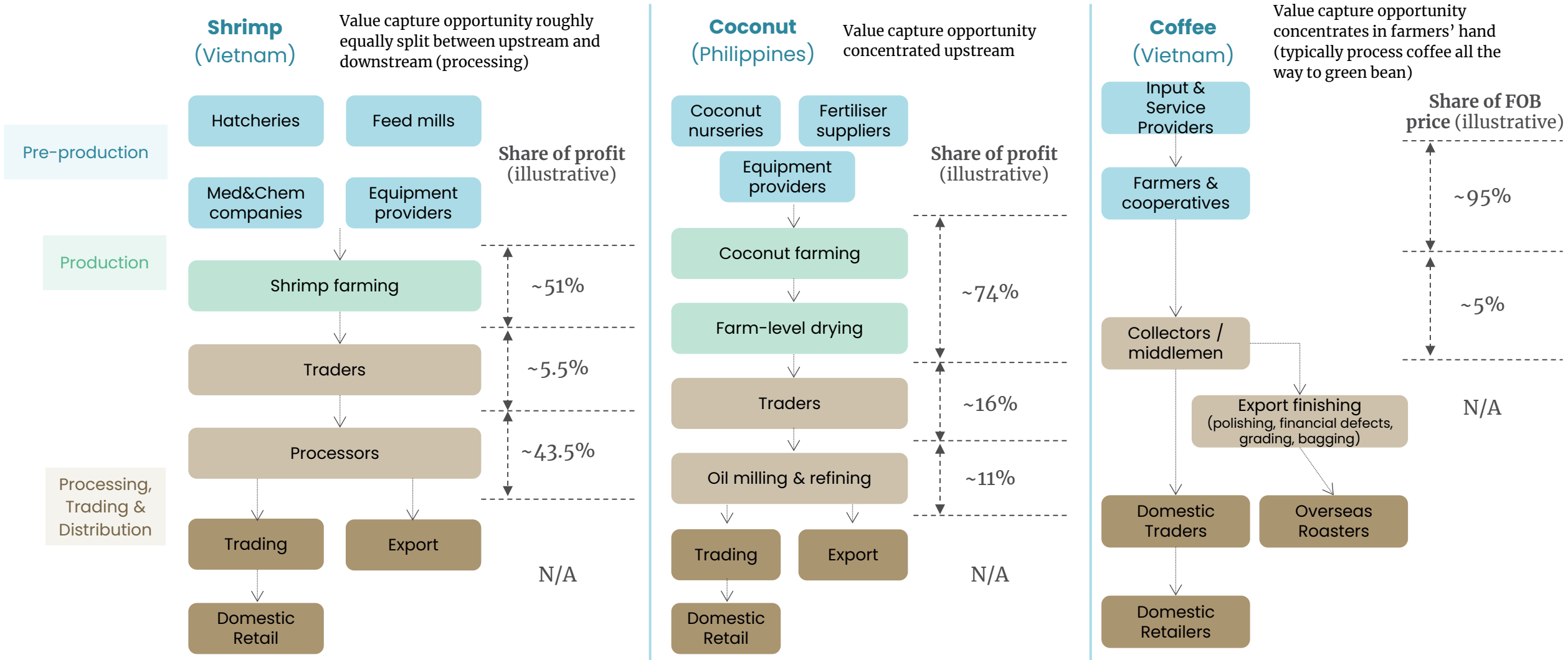


World's first commercial vertical farm using 9-meter tall rotating A-frame towers, producing half a ton of vegetables daily



Digital commodity trading platform providing electronic trading infrastructure for agricultural commodities with advanced technology for market participants

Divergent profit pools across distinct value chains pointing to varied opportunities for value capture from innovation (1/2)



02

AgriTech & venture capital in the region: from VC-led growth to a broader playbook

Key points:

- **First wave: VC-driven growth (pre-2022):** Until 2022, AgTech largely followed the same venture dynamics as the wider ecosystem, marked by rapid growth and increasing capital intensity.
- **Second wave: A broader playbook needed (post-2022):** Since the correction, AgTech is beginning to diverge as the limits of asset-heavy, capital-intensive models have become clearer, increasing the need for more diverse scaling approaches.

Overview of the data sample

The dataset covers funding activity in AgTech across Southeast Asia (2020–2025), with comparisons to other venture-backed sectors.

AgTech Key Figures

150+

number of funded agtechs

240+

number of deals (2020-2025)

\$3.1B+

total funding (2020-2025)

\$4.5M

median deal size

2022

year with the highest number of deals & funding volume

All Other Sectors Key Figures

460+

number of funded ventures

670+

number of deals (2020-2025)

\$29.6B+

total funding (2020-2025)

\$8.0M

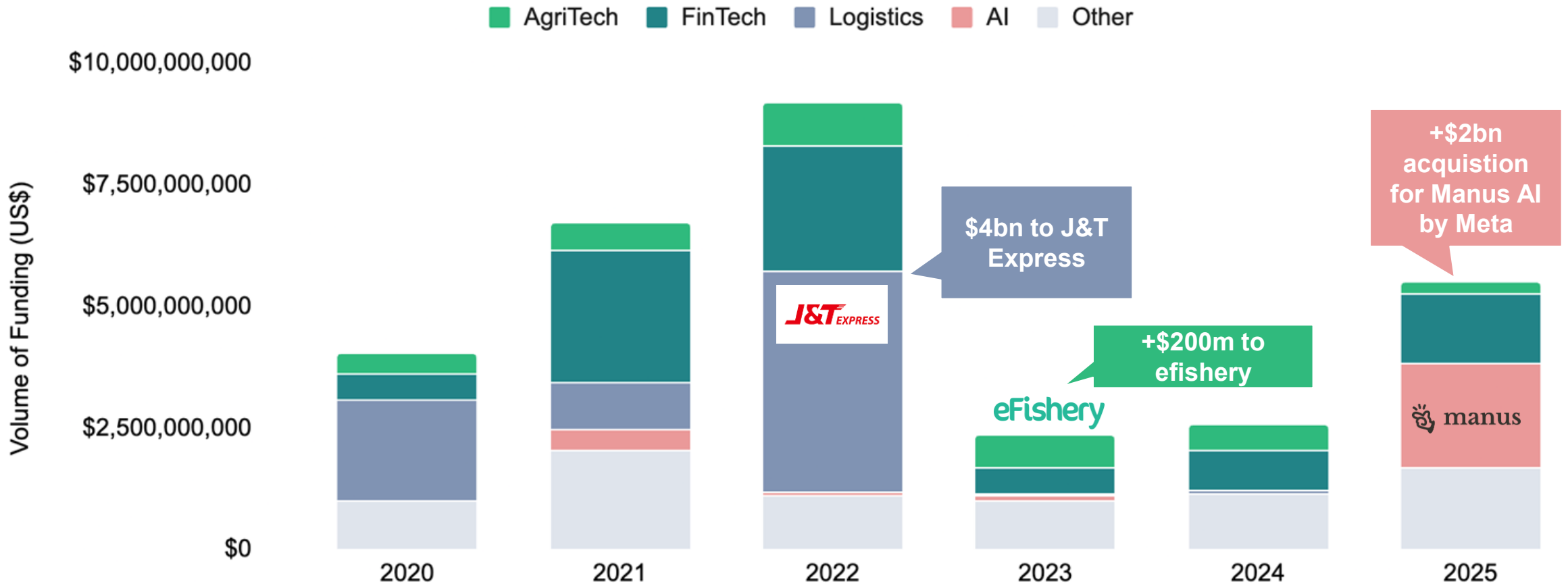
median deal size

2022

year with the highest number of deals & funding volume

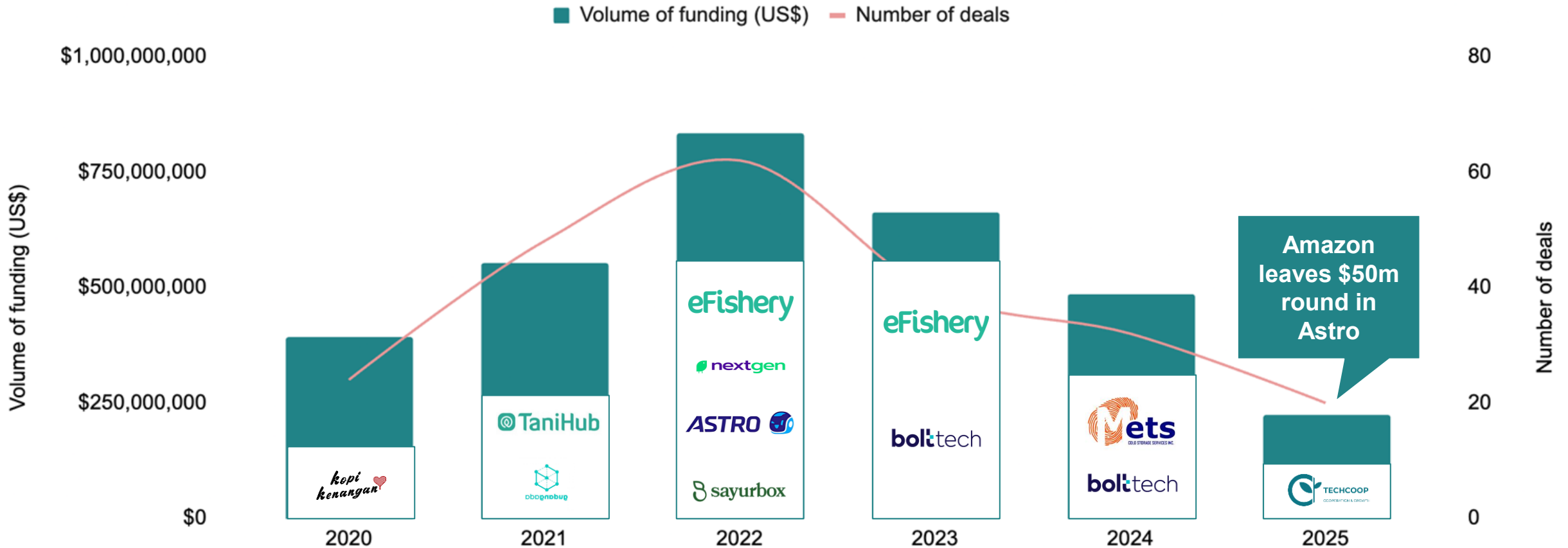
Southeast Asia's VC market entered a post-2022 correction

After the 2022 peak, deal activity fell sharply, with headline funding sustained by a small number of mega-deals masking a broader slowdown.



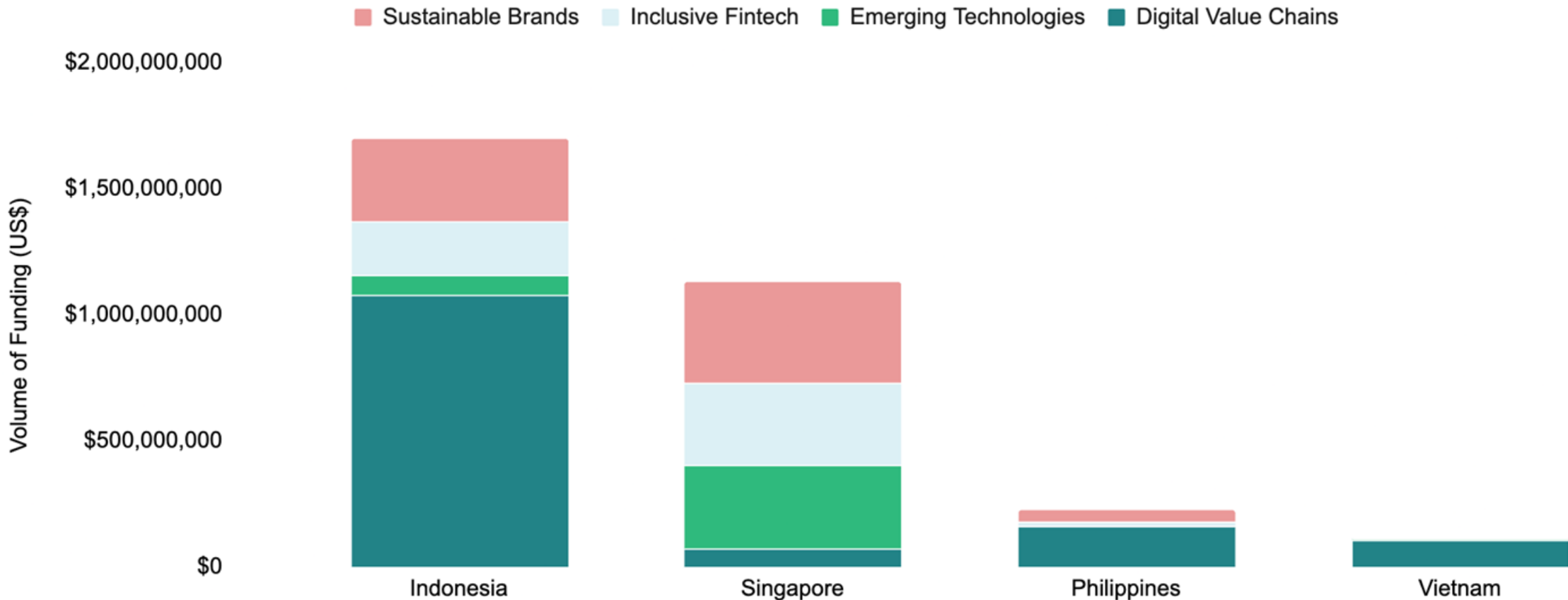
AgriTech funding became more concentrated after 2022

A handful of large transactions sustained volumes, while deal counts decline signalling weaker underlying market depth.



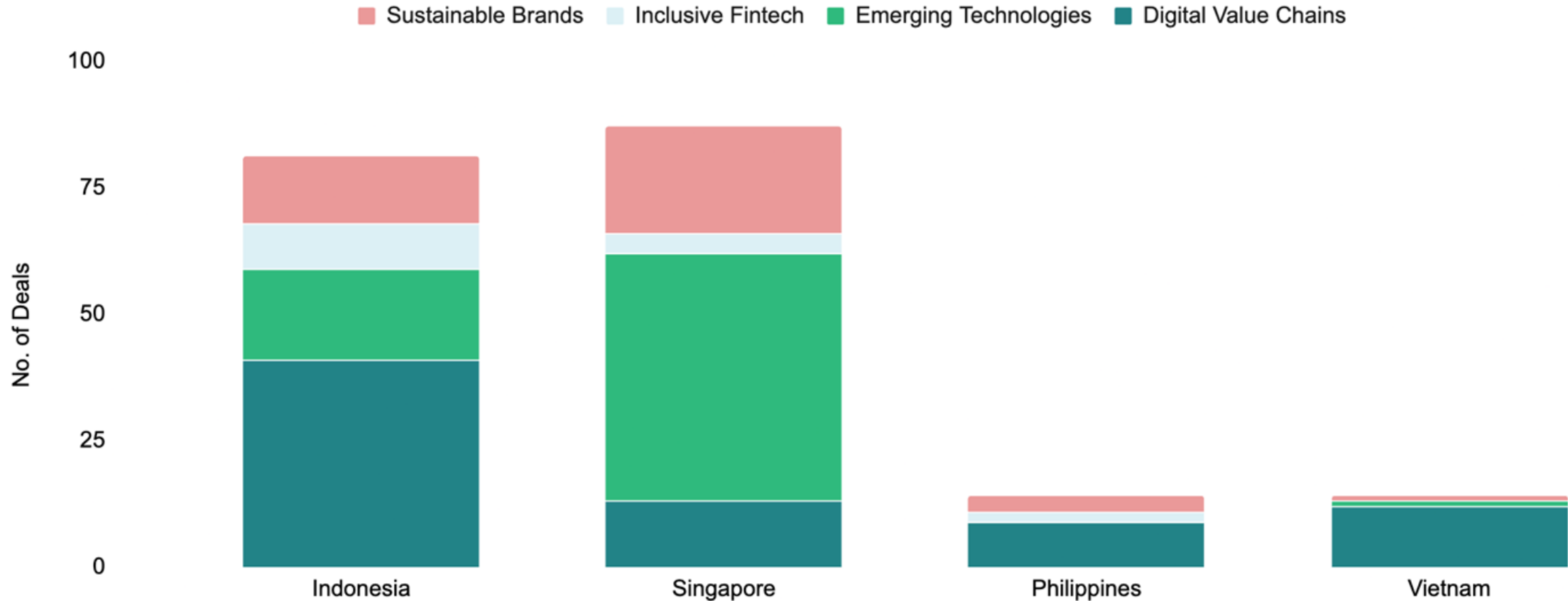
AgriTech funding concentrated in different models across Southeast Asia

Indonesia's funding skewed toward digital value chains, while Singapore led in emerging technologies and sustainable brands



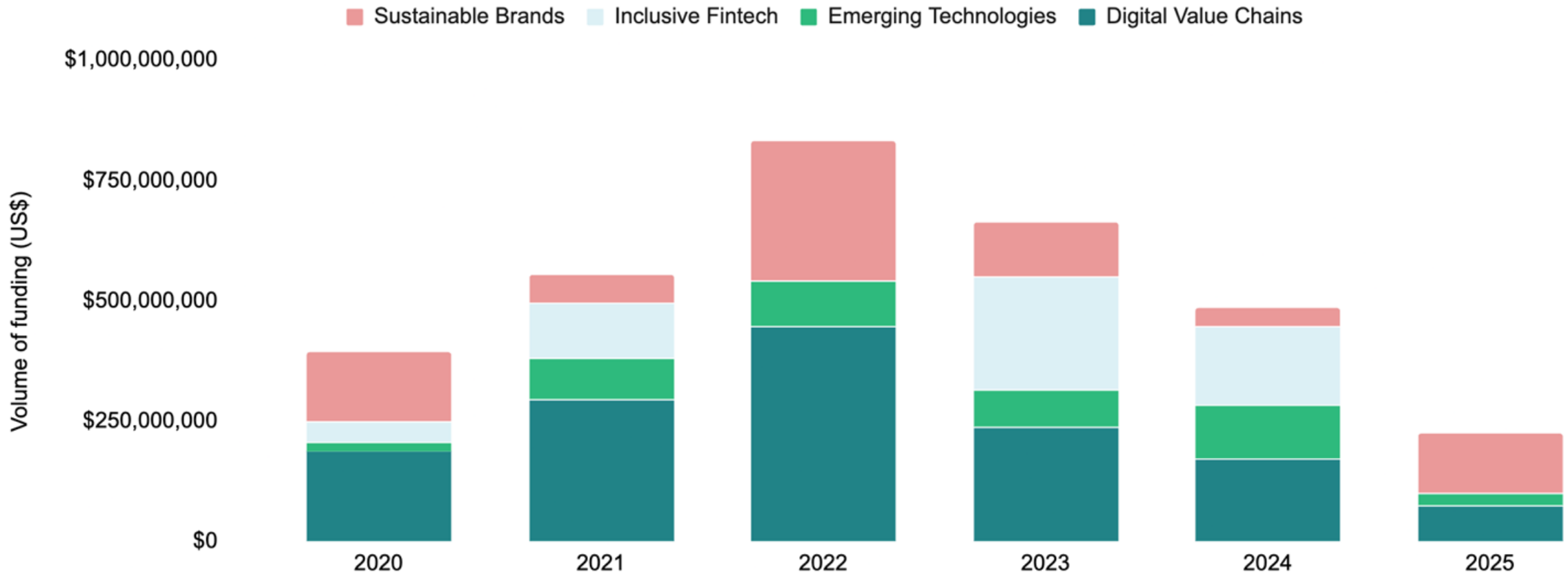
Deal mix more diverse than headline funding volumes

While funding volumes were driven by a small number of large transactions, underlying deal activity across markets spanned a broader mix of AgriTech models, particularly at earlier stages.



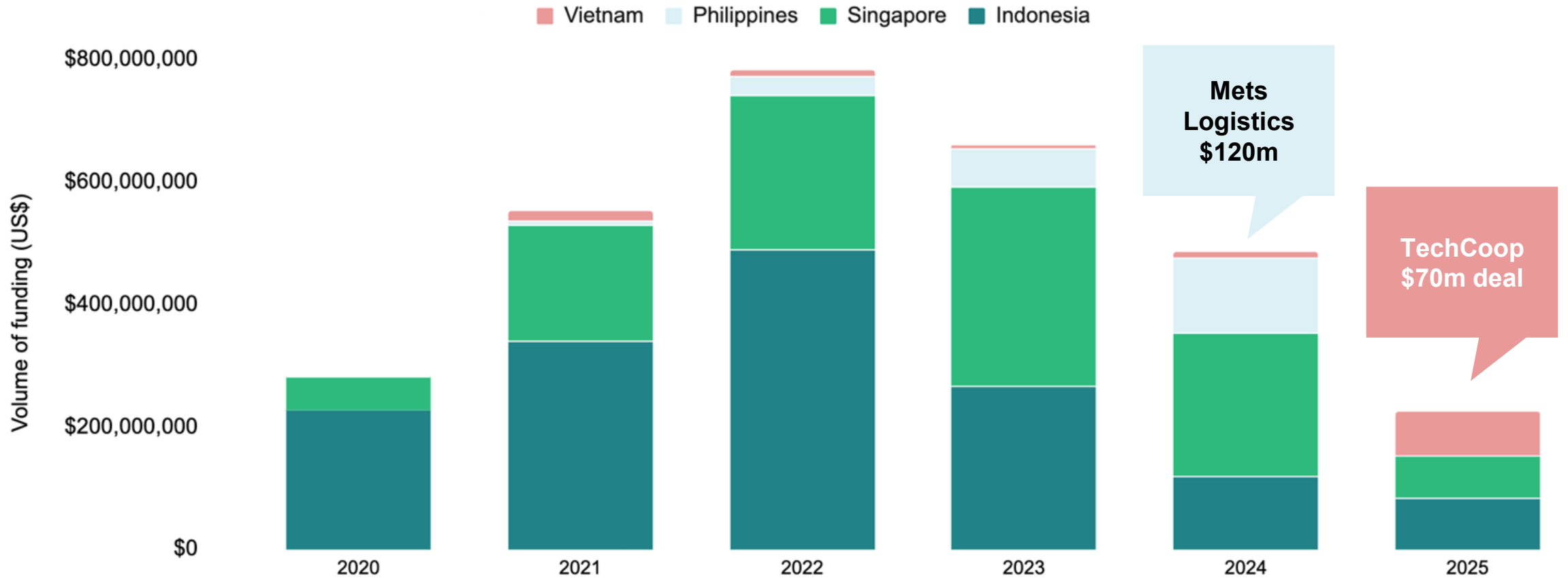
AgriTech funding corrected unevenly across solution types after 2022

Post-2022 funding declines were most pronounced in digital value chains and inclusive FinTech, while emerging technologies and sustainable brands proved relatively more resilient.



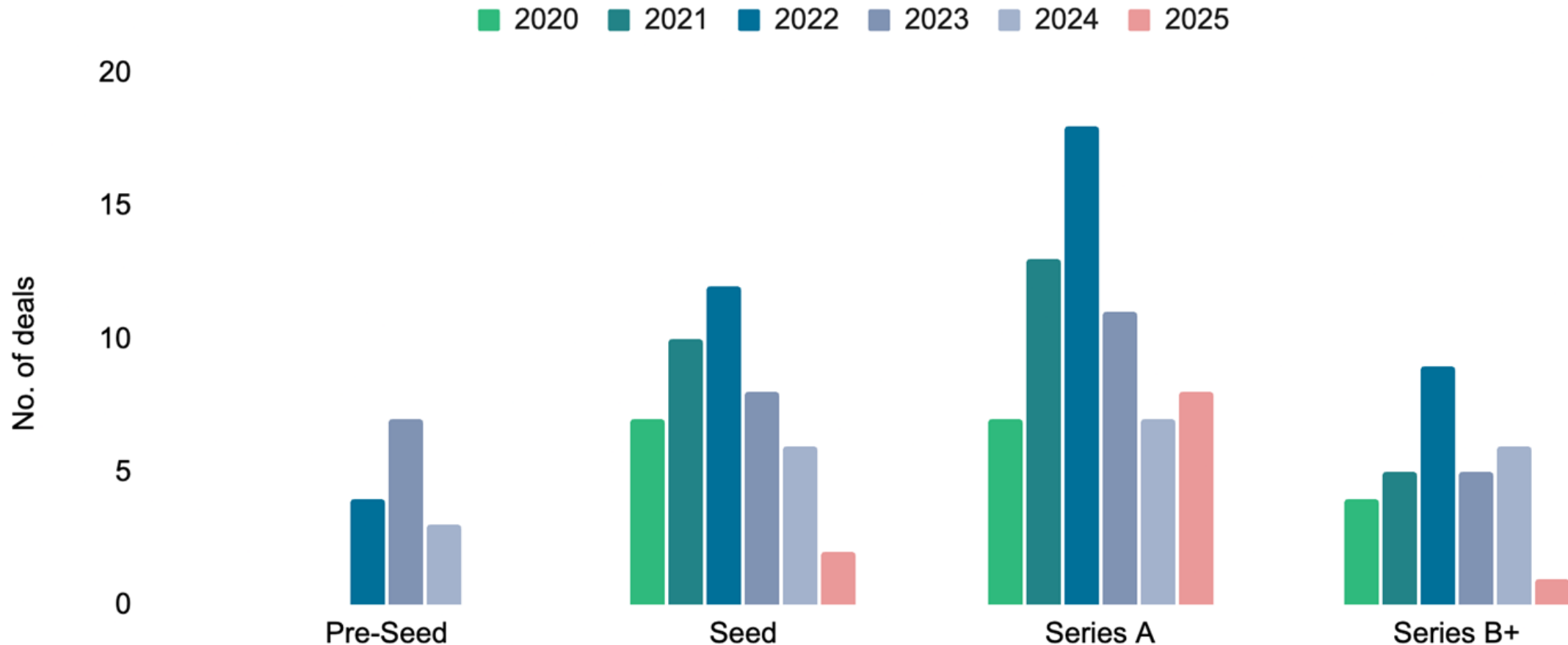
AgriTech funding corrected unevenly after 2022

Indonesia experienced the largest correction as funding to digital value chains fell sharply, while smaller markets were anchored by a limited number of large deals.



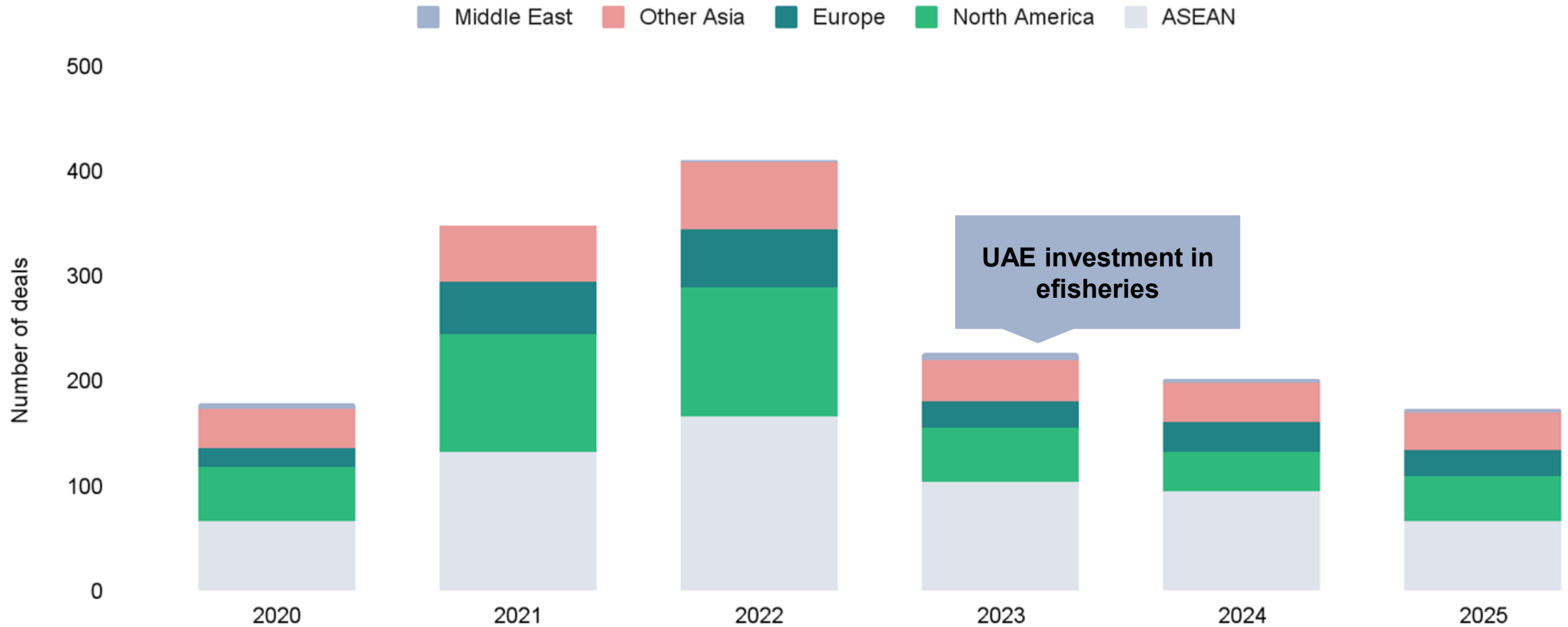
Post-2022, deal flow thinned most at Series A and Beyond

While early-stage deal activity remained volatile, the most pronounced decline after 2022 occurred at Series A and Series B+, highlighting pressure in the scale-up pipeline



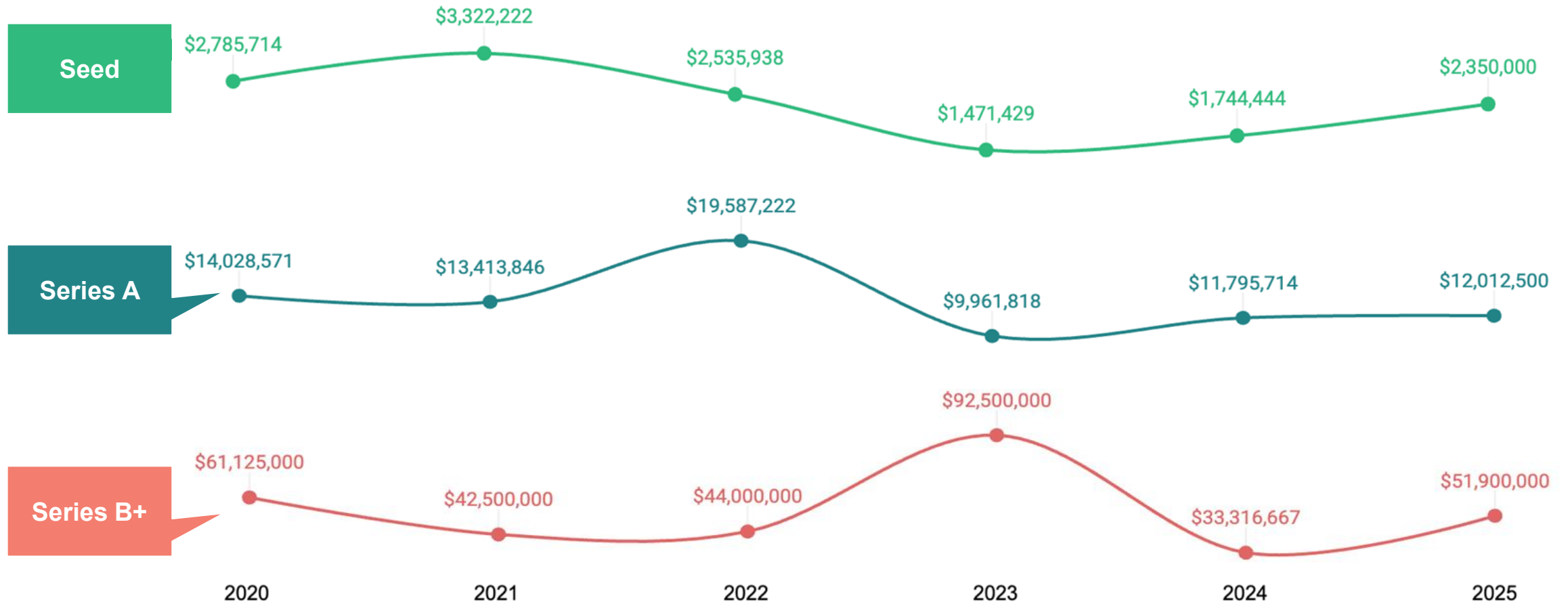
Funder participation narrowed after the post-2022 correction

As the market corrected, participation from U.S.-based and late-entry international investors declined, increasing year-to-year volatility in who is funding AgriTech



Median Ticket Sizes adjusted sequentially across stages After 2022

Following the 2022 peak, median round sizes declined first at Seed, then at Series A, and later at Series B+, indicating a staged tightening of capital as the market correction worked its way through the funding stack



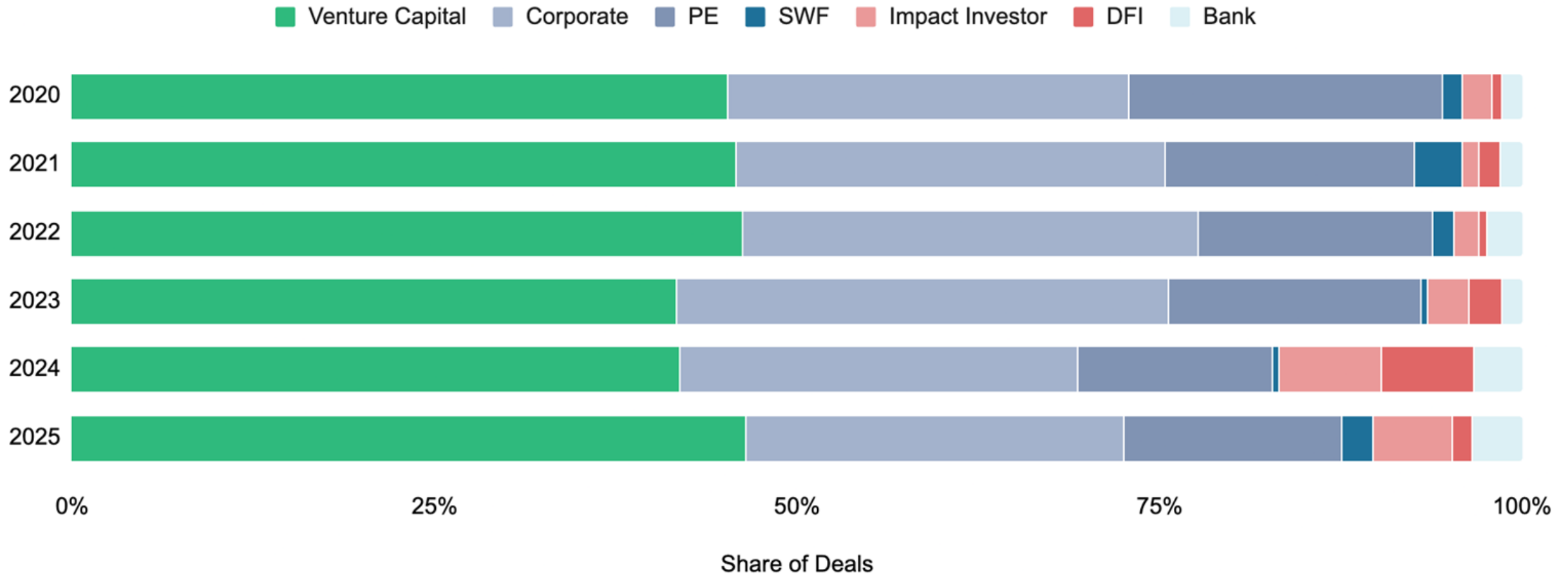
Who actually backs AgriTech in Southeast Asia

AgTech funding in Southeast Asia is venture-led at early stages and DFI-anchored at scale, with limited depth in commercial follow-on capital.

Funder Type	What they are	Where they show up	What they do	Prominent Examples
VCs (Venture Capital Firms)	Growth equity for scalable models	Seed-Series A (dominant by deal count)	Drives experimentation and speed, but poorly suited to asset-heavy or capital-intensive models	
CVCs (Corporates & Corporate VCs)	Strategic capital and access	Opportunistic, often post-product	Validate business models and create exits, but not consistent scale funders	
Other Commercial (PE, Banks)	Commercial debt and late equity	Activity concentrated in proven infra/cash-flow models.	Only engage once risk is largely removed largely absent from venture AgriTech	
DFIs (Development Finance Institutions)	Risk-tolerant, catalytic capital	Anchor nearly all AgTech-focused GP/LP funds in SEA + Series A+ and infrastructure-heavy plays	Anchor large rounds, but selective and slow-moving cannot replace a commercial growth market	
Impact Investors	Blended finance and patient equity	Seed-Series A (selectively)	Support inclusive and climate models, but ticket sizes are limited	
Accelerators & Hubs / ESOs	Venture creation and early de-risking	Pre-seed / Seed	Strong pipeline creation, weak at bridging ventures to Series A	

Funder participation narrowed after the post-2022 correction

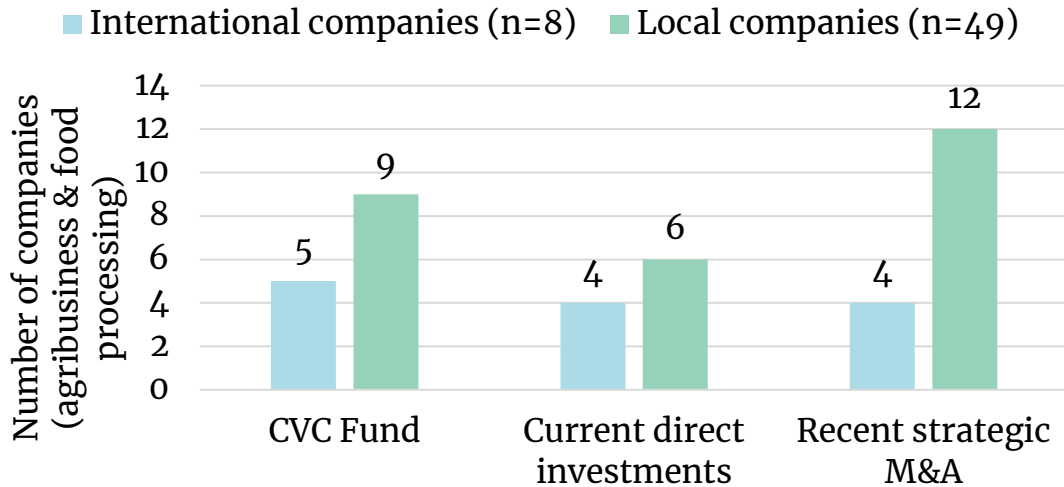
As venture participation declined through the correction, DFIs and other development-linked funders accounted for a larger share of AgriTech deal activity.



Corporates are important partners for both raising capital and scaling

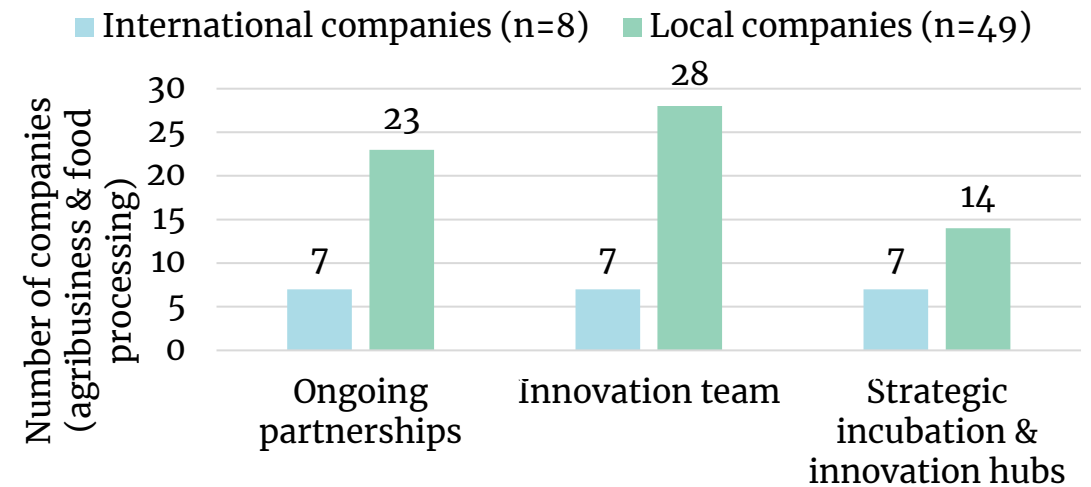
Local corporations are active investors and acquirers; earlier strategic partnerships can help provide ventures with the distribution, credibility and market access necessary to de-risk and accelerate growth.

Corporate capital as liquidity engines



- ▶ **Acquisitions** represent the primary exit. Local companies have made 3x more acquisitions in the last 5 years than international firms, aiming to acquire tech, market access, or talent to defend and grow their business.
- ▶ A **CVC investment** is strategic, not just financial, as it is a validation signal and a precursor to a potential acquisition if the venture is solving a problem the parent company is willing to pay for.
- ▶ While less common, **direct investments** still represent an opportunity for non-dilutive or strategic capital and can be a good stepping stone

Corporate as scaling mechanism



- ▶ Benefits for ventures in a partnership with major agribusinesses or food processors include:
 - Access to infrastructure to solve the 'last mile' problem efficiently
 - Validation through pilot projects or co-branding with trusted local players
 - Reduction of Customer Acquisition Cost (CAC) and change to unit economics

What the post-2022 correction revealed about AgriTech in SEA

The funding downturn did not just reduce capital availability, it exposed structural weaknesses in how AgTech models were built, financed, and scaled.

1

Headline funding masked a sharp drop in deal activity: Post-2022 funding volumes were sustained by a small number of large transactions, while overall deal counts declined materially, obscuring weaker underlying momentum.

2

The correction propagated through stages with a lag: Median ticket sizes adjusted sequentially, first at Seed, then Series A, and later Series B+, reflecting a gradual repricing of risk rather than an abrupt halt in capital.

3

The primary bottleneck emerged at the Seed–Series A transition: Early-stage activity remained relatively resilient, but deal flow thinned sharply at Series A and beyond, constraining ventures' ability to scale despite early traction.

4

Outcomes diverged around business model: Asset-heavy and capital-intensive models, particularly in logistics, value chains, and early bundling of finance, proved fragile under the correction, while asset-light, business-focused models were more resilient.

5

Failures reflected structural weaknesses, not just tighter capital: Company stress cases were driven less by the absence of capital and more by mismatches between business models, capital type, and speed of scaling.

Distinct market dynamics limit capital flowing into AgriTech, with few exits, lower priority status and regulations creating headwinds for investors

‘Single use’ funding

In Southeast Asia, AgriTech rarely sees successful exits. Without IPOs or acquisitions, proceeds don’t cycle back into funds. Instead of recycled capital, new money must constantly flow in, creating a “single-use” dynamic.

“

We’re now in the deep winter of ag tech investing... if you take the last 10 years, I think 90% or 99% of any investments into AgriTech has failed

”

‘Trickle-down’ sector

AgriTech is rarely a primary mandate. Climate and impact funds often treat it as a side bet— capital flows first into more prominent sectors like fintech or energy, with AgriTech catching only residual allocations.

“

If you look at where capital goes today, it’s not here — it flows first to other sectors, and agrifood is left struggling

”

The sticky web of regional governance

Scaling AgriTech across Southeast Asia is extremely difficult— each country has different crops, policies, and farmer behaviors. What works in one market often fails in another, making cross-border investment and growth messy and resource-heavy.

“

Every single country has its own unique regulations... So, if you’re running the same model across countries, you quickly get stuck. It’s not straightforward at all

”

AgFoodTech exits in the region

The agrifoodtech exit landscape is characterised more by distressed sales and consolidation rather than traditional successful exits through IPOs or acquisitions.

Company Name	Type of Exit	Year of Exit	Deal Size	Exit Details	HQ Country
Wakuliner	Acquisition	2025	Undisclosed	Acquired by Daily Co	Indonesia
Limakilo	Acquisition	2019	Undisclosed	Acquired by Warung Pitar	Indonesia
Just Produce	Acquisition	2022	Undisclosed	Acquired by Unfold	Singapore
Eunoia	Acquisition	2022	Undisclosed	Acquired by HungryGoWhere (Grab)	Singapore
Chope	Acquisition	2024	Undisclosed	Acquired by Grab	Singapore
Foody - Joint Stock Company	Acquisition	2017	\$64 million	Acquired by Sea Group (Shopee)	Vietnam
Chilibeli	Acquisition	2022	Undisclosed	Acquired by WeBuy	Indonesia
MyBrand	Acquisition	2021	Undisclosed	Acquired by Yummy Corp	Indonesia

03






State of AgriTech in Southeast Asia: signals from the shakeout

Key points:

- ▶ **Fissures from the first wave:** common challenges exposed in the last half-decade of AgriTech venture deployment in Southeast Asia
- ▶ **Lessons banked, models hardened:** innovators are adapting and learning
- ▶ **Steady pipeline:** increasing density of startups solving real pain-points across core investment verticals
- ▶ **Catalysts closing the risk gap:** corporate and development ecosystems are increasingly underwriting the first mile to scale; local lending institutions showing an appetite for AgriTech






AgriTech success cases in Southeast Asia

AgriTech companies that prioritised asset-light structures and B2B or consumer business models proved more resilient through the post-2022 correction.

	Category	Capital raised	Key funders	Status	What went right	Learnings
	Sustainable Brands	~\$30m private capital + IPO (IDX, 2024)	East Ventures, AC Ventures, Pavilion Capital	Successful IPO (2024)	Asset-light retail model with unit economics proven at the store level before expansion	Retail AgTech scales when unit economics are proven locally before growth
	Digital Value Chain (Traceability & compliance)	Undisclosed (venture + project finance)	DOB Equity, Swisscontact, SECO-linked capital	Operating at scale	B2B compliance-driven revenues with limited balance-sheet exposure	Compliance-driven B2B models scale more reliably than farmer-facing platforms
	Emerging technologies (Agri SaaS, AI, remote sensing)	~\$44m+ total	Chiratae, Ankur Capital, ABC World Asia	Operating globally	Asset-light SaaS scaled without operational or credit risk	Asset-light SaaS scales without balance-sheet risk
	Digital Value Chain (Food service SaaS)	~\$50-65m	Ant Group, Square Peg, SPH	Acquired by Grab (2024)	Asset-light SaaS integrated into a regional super-app ecosystem	Platform integration can outperform standalone regional expansion
	Sustainable brands	~\$1m seed	Nasa Ventures	Acquired by DailyCo	B2B services with predictable cash flows and low capital intensity	B2B services can succeed without venture-scale funding

AgriTech stress cases in Southeast Asia

Capital- and asset-heavy AgTech models that scaled rapidly under growth capital pressure proved fragile through the post-2022 correction.

	Category	Capital raised	Key funders	Status	What went wrong	Learnings
	Digital Value Chain (Livestock)	~\$14m Series A (2022)	Global and regional VCs	Closed (2024)	Asset-heavy marketplace and finance model scaled before unit economics	On-farm digitisation combined with trade and finance requires strong margins and patient capital
	Inclusive FinTech (Agri P2P lending and farmer finance)	~US\$9–10m total Series A	Monk's Hill Ventures, Mandiri Capital Indonesia, BRI-linked investors	Liquidated (2025)	Capital intensive business under large foreign growth capital	Scaling in capital-intensive agri models increases operational risk
	Digital Value Chain (Fisheries):	\$300m+ total \$200m Series D (2023)	SoftBank, Temasek, Northstar, 42XFund	Operations suspended	Capital intensive business under large foreign growth capital	Capital-intensive platforms amplify governance and control risk at scale
	Digital Value Chain (Produce)	~\$64m Series B (2021)	Global VCs and regional growth investors	Operations reduced	Asset-heavy business in low-margin markets	Food logistics requires disciplined, working-capital-led growth
	Digital Value Chain (Fisheries)	\$5m total (Pre-Series A extension in 2024)	Accel, Insignia, Mandiri Capital, BNI Ventures	Operations reduced	Cold-chain infrastructure with slow utilisation and long payback periods	Infrastructure-heavy AgTech needs blended, patient capital and strategic partners

Sifting through the seaweed: De-risking aquaculture & marine opportunities

Most promising efficiency solutions should combine IoT monitoring, AI-driven optimisation, and mobile-accessible interfaces to simultaneously tackle cost reduction, ease adoption barriers, and build climate resilience.

Key Stats

26.9B

USD
Indonesia's annual aquaculture contribution

65%

Vietnam Mekong River Delta's share of national output

11.8B

USD
Projected Indonesian seaweed sector growth by 2030

The Problem

Problem statement #1: High input cost risk

- ▶ Feed accounts for 57% of total costs for shrimp, 84% for pangasius
- ▶ Seed costs are substantial: 20% for shrimp, 8% for pangasius
- ▶ Survival rates critically low: 15% for ecological shrimp, 50-55% for semi-intensive/intensive shrimp, 52% for pangasius
- ▶ Economic impact: \$220 million/year in Vietnam for pangasius seed loss alone

Problem statement #2: Technology adoption barriers

- ▶ >85% of shrimp farms and 20-30% of pangasius farms are small-scale household operations
- ▶ Technology demand exists (12% demand for smart shrimp pond management), but limited adoption
- ▶ Small-scale farmers face barriers in technology adoption: lack of know-how, insufficient investment capacity, limited technical skills

Problem statement #3: Climate vulnerability

- ▶ Climate impacts: rising ocean temperatures, marine heatwaves, declining pH, oxygen, and salinity
- ▶ Projected declines in maximum catch potential: 20-30% under high emissions scenario, 5-20% under low emissions scenario
- ▶ Urgent need for adaptation and innovation in farming practices

The Solution

- ▶ **AI-powered feed optimization:** Precision feeding algorithms to reduce waste and optimize feed conversion ratios
- ▶ **Alternative feed platforms:** Using local/sustainable ingredients (insects, algae, agricultural byproducts)
- ▶ **Smart nursery systems:** Biotech-enhanced seedling production to improve survival rates

- ▶ **Mobile-first IoT systems:** Plug-and-play devices designed for basic smartphone users
- ▶ **AI decision support:** Complex data translated into simple, actionable recommendations
- ▶ **Cooperative sharing models:** Cost-distributed technology access across farmer groups

- ▶ **Multi-parameter monitoring:** Real-time water quality sensors with climate adaptation protocols
- ▶ **Predictive analytics:** Weather integration and early warning systems for extreme events
- ▶ **Adaptive management tools:** Dynamic stocking algorithms and species diversification platforms

Sifting through the seaweed: De-risking aquaculture & marine opportunities

The other major opportunity in aquaculture lies in valorising seafood and seaweed by-products, and in expanding seaweed farming and value addition.

The Problem

Problem statement #4: Value capture gap in seafood and seaweed

- ▶ Up to 50% of tuna is unutilized for consumption, while pangasius farming generates 6–10 tons/ha/crop of sludge with untapped uses
- ▶ Much of seaweed is exported as raw material, limiting domestic value addition
- ▶ Missed opportunities include collagen peptides (from tuna, tilapia, jellyfish skins), biostimulants and biofertilizers, biomaterials such as bioplastics, sustainable packaging, and feed additives
- ▶ Unlocking these streams could create new revenue sources while reducing waste and environmental impact

Problem statement #5: Seaweed underutilisation

- ▶ Indonesia has enormous, underutilised potential for seaweed cultivation; only ~0.8% of 12 million suitable hectares currently used
- ▶ Proven technology can boost yields by up to 20% (e.g., Banyu providing high-quality spore seedlings)
- ▶ Applications span biostimulants, bioplastics, feed additives, biofuels, carbon sequestration
- ▶ Organic seaweed appears to be a large opportunity, but no Indonesian seaweed is certified organic; many farms are perceived to be lacking in certification and traceability

The Innovators

- ▶ Converting tuna co-products into marine collagen peptides, premium Omega-3 oils, and algal oils for supplements/infant formula
- ▶ Invested in Jellagen (jellyfish collagen) and Algama Foods (micro-algae ingredients) to diversify into functional marine products
- ▶ Indonesian seaweed startups are investing in downstream processing for biostimulants (Aquabloom, Zentide, Banyu), bioplastics (Evoware, Ijo), animal feed additives, and hydrocolloid extraction (Rote Karaginan Nusantara)



- ▶ Supplies high-quality spore seedlings and advanced practices that raise seaweed yields by ~20% for smallholder farmers
- ▶ Operates large-scale mechanized seaweed farms in Lombok using automated seeding and harvesting, enabling scalable, carbon-negative feedstock



A region of regions

While the region shares common challenges, the deep diversity in markets, policies, languages, and cultures across the region makes each country as a distinct market with a unique risk-reward profile.

Immediate Near-term (next 5 years)

	Market	Opportunities in focus				Value Chains in Focus	Summary Notes
		Digital value chains	Inclusive FinTech	Emerging technologies	Sustainable brands		
SOUTHEAST ASIA	Indonesia						Large near-term upside in AgFinTech and compliance-driven digital value chains, with improving unit economics and growing premium consumer demand as urban health, sustainability, and DeepTech ecosystems mature.
	Vietnam						Poised to become ASEAN's leader in compliance-linked digital value chains and traceability SaaS, supported by export intensity, scaling AgFinTech, and steady premiumisation alongside maturing aquaculture and biotech plays.
	Philippines						An emerging second-wave market where cold-chain-enabled digital platforms and embedded fintech deepen, driven by corporate pull and regional venture spill-over into food safety and biotech.
	Thailand						A corporatised but investable market anchored in export-oriented digital value chains, with increasing flow of university spin-outs in biotech and food tech and continued premium brand growth via M&A.
	Malaysia						Strong government-backed DeepTech pipeline with rising opportunity in palm oil ESG and traceability platforms, though commercial scale hinges on deeper private-sector execution and partnerships.
	Singapore						ASEAN's DeepTech and consumer-brand command centre, excelling in IP-rich commercialisation, regional SaaS incubation, and M&A-led scaling rather than domestic market depth.
	Other SE Asian countries						
SOUTH ASIA	Pakistan						A structurally high-risk market where growth is incremental and anchored to processor-linked digital logistics and embedded finance, with slow-burn potential in water, seed, and low-cost mechanisation tech.
	Bangladesh						A distinct, smallholder-led market where agri-fintech dominates and donor-backed cold chain and traceability in seafood and vegetables scale selectively, while biotech advances steadily but slowly.
	Nepal & Sri Lanka						

Indonesia



- **Immediate view:** Strong opportunities in AgFinTech, where financing gaps create room for inclusion-driven solutions and banks are actively engaging with early-stage innovators. Mixed bag in digital value chains, where corporates are engaged, problem statements are clear and sizeable, but digital literacy, grower WTP, and infrastructure challenge viability. Sustainable brands gaining traction behind a growing urban middle class.
- **Near-term view (<5 years):** We foresee excitement and strengthening unit economics driving behind digital value chains, with emphasis on compliance- and standard-driven digital platforms and sharpened propositions for value chain efficiency solutions, emerging technologies with greater integration of knowledge institutions into a DeepTech ecosystem, and premium consumer brands as health, wellness, and sustainability become mainstream.

Key value chains:



Agricultural landscape

- Market size
- Infrastructure
- Policy coherence

- Ag sector among largest in Southeast Asia, with production value nearly equivalent to the next three biggest markets combined
- Weaknesses in logistics, storage, and tracking infrastructure cause over \$40 billion in annual production losses
- The effectiveness of agricultural policies is hampered by fragmented institutions and slow implementation

Venture context

- Capital availability
- Exit pathways
- Local fund depth

- Capital availability constrained at growth stages with limited access to scale-up capital and continued dependence on foreign investors
- Structured exits and scalable M&A examples are scarce, underscoring weak exit prospects despite some notable transactions like Sayurbox
- Local fund participation has stagnated since 2022, and over 70% of deals still include overseas investors, highlighting shallow local fund depth

State of AgriTech

- Sector resilience
- Innovation diversity
- Business model maturity

- AgriFoodTech grew from ~10% to ~25% of overall tech funding share even as broader tech funding fell by over 90% between 2022-2024
- >85% of AgriTech capital concentrated in just four categories, leaving upstream science-based solutions underfunded
- While many smallholder-facing startups have collapsed, more scalable asset-light, B2B platform models are emerging and becoming dominant

Opportunities in focus

Immediate view

Near-term view (<5 years)

Digital value chains	AgFinTech	Emerging technologies	Sustainable brands
<ul style="list-style-type: none"> • Major corporates are active in key value chains and will pay for compliance and/or efficiency • However, recent high-profile failures demonstrate execution risks 	<ul style="list-style-type: none"> • Despite significant ag loans (18% of ag GDP), only ~17% farmers access credit, indicating major inclusion gaps • Risk mitigation needed given high default rates 	<ul style="list-style-type: none"> • Moderate opportunity limited by weak IP enforcement, underdeveloped R&D base, and slow/unclear regulatory systems that hinder deeptech scalability 	<ul style="list-style-type: none"> • Large consumer market with growing urban middle class • Local success stories like Kopi Kenangan demonstrate regional scaling viability
<ul style="list-style-type: none"> • Scale advantage plus regulatory pull create strongest regional opportunity 	<ul style="list-style-type: none"> • Maintain position but faces continued execution challenges in farmer markets 	<ul style="list-style-type: none"> • ROAF-BRIN consolidation creates more coordinated R&D approach 	<ul style="list-style-type: none"> • Domestic market premiumisation accelerates as middle class grows. Increased demand for health & wellness/environmentally conscious brands

Vietnam



- **Immediate view:** Opportunities are strongest in digital value chains and AgFinTech, where exporters and processors demand compliance tools and SME finance is starting to scale. Sustainable brands like premium coffee and cocoa are gaining traction, though still at early scale.
- **Near-term view (<5 years):** Vietnam is set to lead the region in traceability and compliance-linked SaaS platforms, driven by its “1M ha rice program” and seafood exports. Emerging technologies in aquaculture and biotech will mature into investable plays, while consumer premiumisation continues steadily.

Key value chains:



Agricultural landscape	Market size	Infrastructure	Policy coherence
	<ul style="list-style-type: none"> • Ag sector the 3rd largest in ASEAN by production value, contributing 12% of GDP and employing 30% of the workforce • Logistics and cold-chain capacity remain underbuilt; recent investments have reduced post-harvest losses to <20% in some key commodities • Despite ambitious modernisation plans, implementation remains fragmented across ministries and SOEs continue to dominate 		
Venture context	Capital availability	Exit pathways	Local fund depth
	<ul style="list-style-type: none"> • Steady rise in venture inflows across sectors, but deal sizes remain small, with most clustering in early growth rounds • Exits overwhelmingly dominated by private acquisitions, management buyouts, and strategic investments – successful IPOs are rare • Foreign investors drive deal flow, with local funders slower to return post-2022 		
State of AgriTech	Sector resilience	Innovation diversity	Business model maturity
	<ul style="list-style-type: none"> • Median ticket sizes have trended up, with some >\$10M, suggesting larger bets on fewer startups even as the category mix stays concentrated • On-farm solutions dominate both deals and funding (~60%), and two categories capture ~85% of capital—showing activity but a narrow base • Multiple agritech failures cite market misfit, slow digital adoption, and fragmentation—signalling models still being refined 		

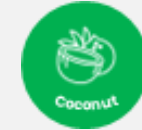
Opportunities in focus			
Digital value chains	AgFinTech	Emerging technologies	Sustainable brands
Immediate view	<ul style="list-style-type: none"> • Export powerhouse in rice, shrimp, coffee, and fruits • Export orientation creates pull demand for traceability and compliance 	<ul style="list-style-type: none"> • Gap between credit supply and farmer access indicates structural inefficiency • Opportunities lie in SME/export finance and parametric insurance 	<ul style="list-style-type: none"> • Moderate opportunity limited by weak IP enforcement, underdeveloped R&D base, and slow/unclear regulatory systems that hinder deeptech scalability • Premium coffee, cocoa, and seafood exports drive opportunity • Domestic middle class is growing along with interest in functional and premium products
Near-term view (<5 years)	<ul style="list-style-type: none"> • “1M ha rice program” and seafood compliance will turbocharge traceability and logistics SaaS adoption • Likely to be the regional leader in digital ag value chains 	<ul style="list-style-type: none"> • Increasing SME/export finance platforms and insurance pilots scaling • Still constrained by farmer trust and repayment challenges 	<ul style="list-style-type: none"> • Strong STEM talent pools mature with better tech transfer mechanisms • Premiumisation trend strengthens, especially in cocoa, coffee, and dairy

Philippines



- **Immediate view:** AgriTech opportunities are building in point solutions within digital value chains (seafood, bananas, coconuts) and AgFinTech, with pilots in SME/export finance and aquaculture insurance.
- **Near-term view (<5 years):** Investors can expect stronger traction & sophistication in cold chain-enabled value chain platforms and embedded fintech solutions with traction & lessons learned from first-wave. The combination of deeper corporate involvement (i.e., from URC, San Miguel, Del Monte) and regional scaling of ventures from more mature market will underpin new, backable opportunities in biotech and food safety.

Key value chains:



Agricultural landscape

- Market size
- Infrastructure
- Policy coherence

- Ag sector 4th largest in ASEAN by production value, with global export positions in bananas and coconuts
- Weak farm-to-market logistics, limited cold-chain coverage, and irrigation gaps constrain efficiency and increase costs
- Fragmented agency roles and subsidy-driven distortions undermine consistency and private-sector alignment

Venture context

- Capital availability
- Exit pathways
- Local fund depth

- Raised nearly \$600M in 2024, but most capital is concentrated in seed to Series A, showing limited late-stage depth
- The ecosystem is still young, with limited large-scale exits; liquidity events are emerging but not yet frequent
- Foreign investors accounted for 146 vs. 37 local—a stark imbalance that shows dependence on external capital

State of AgriTech

- Sector resilience
- Innovation diversity
- Business model maturity

- Funding rose 2021→2023 (peaking at \$44.7M) then stalled in 2024 with one undisclosed deal—resilient but volatile
- VCs dominated 8/11 deals, and publicly disclosed deals across agrifoodtech categories were entirely equity driven
- Five companies accounted for 93% of total agrifoodtech funding, with food delivery startups raising \$65M alone

Opportunities in focus

Immediate view

Near-term view (<5 years)

Digital value chains	AgFinTech	Emerging technologies	Sustainable brands
<ul style="list-style-type: none"> • Large ag exports (bananas, coconuts, seafood) create need for digital compliance and logistics solutions • Weak infrastructure and high fragmentation keep costs high 	<ul style="list-style-type: none"> • Notable ag loan volume (~60% of ag GDP) but only ~30% of farmers access formal credit, with elevated interest rates indicating structural inefficiencies rather than clear opportunity 	<ul style="list-style-type: none"> • Research strengths in aquaculture health and biotech, but commercialisation is slow • Donor/academic-driven projects dominate 	<ul style="list-style-type: none"> • Highly price-sensitive market • 32% of household expenditure on food and beverages indicates budget constraints limiting premium brand opportunities
<ul style="list-style-type: none"> • Logistics/cold chain investments will reduce losses and strengthen compliance-linked platforms 	<ul style="list-style-type: none"> • With digital payments entrenched, fintech for export receivables and SME chains will expand • Insurance products gain traction via DFI/corporate pilots 	<ul style="list-style-type: none"> • Current R&D will slowly move from pilot to early commercialising • Exit pathways remain limited, so improvement is moderate 	<ul style="list-style-type: none"> • Strong consumer demand + corporate/MNC backing create opportunities for premium brands integrated with local sourcing • Price sensitivity remains primary constraint

Digital value chains: sustained investment in tools for core value chains

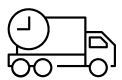
Aquaculture and plantation crops showing leading level of sustained engagement, investment in digital tools for production monitoring and management – from smallholder to commercial-scale production

Key opportunities



AI/satellite-enabled traceability for compliance

- \$B+ regional compliance market emerging, concentrated in high-value commodities
- Opportunity to build **first-mover SaaS platforms** linking exporters with satellite/verification data



B2B SaaS for traceability & logistics optimisation

- Most demand for **efficiency, traceability and logistics** solutions
- Strongest conviction in **high-value export chains**

Tailwinds

- ▲ ASEAN trade digitization
- ▲ EU/US import rules & traceability compliance
- ▲ Large corporates' push for compliance tools
- ▲ High (90%+) regional digital readiness (esp. PH, VN)

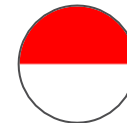
Headwinds

- ▼ Strict policy environment – penalties for errors
- ▼ Fragmented smallholder supply chains
- ▼ High upfront hardware costs, especially for SMEs

Key markets, verticals, and examples



- VN Govt. *1 Million Ha Rice* program promoting **MRV, traceability**
- MimosaTEK & Fresh Studio with rice **decarbonisation, traceability** pilots



- Palm oil B2B SaaS providing ESG / EUDR **traceability, GHG accounting**
- IFC/EU programs for **palm compliance**



- Ricult **digitising farmer procurement** with CVC backing (\$2m Series A 2020)
- EU Horizon-funded **Satelligence** pilots for **satellite-based compliance**

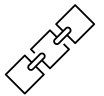


- Mayani: P1.0M grant (Glenfiddich); HSBC-backed **regen farming** coop
- Govt.-backed farm **fisheries** pilots (cold chain, digital marketplaces)

Inclusive fintech: strong business case, increasing commercial validation

Rural FinTech concentrated in select SE Asian ecosystems – notably Vietnam, the Philippines and Thailand

Key opportunities



Supply chain & export financing platforms

- **\$12-15B agri-SME financing gap** in trade-data underwriting
- **Export chains** (coffee, seafood, palm oil) with **predictable receivables**
- **Active innovators** (i.e., TechCoop, Jala) and global lenders (Cargill, IFC)



Aquaculture & livestock disease insurance

- Frontier, **billion-dollar risk market**
- **Clustered hubs** in set regions (shrimp, tilapia, poultry, swine) and integrator network
- Early traction from **corporate and insurance pilots** (AXA Climate, World Bank)

Tailwinds

- ↑ Rising digital adoption (>90% digital payments in PH, VN)
- ↑ Policy push for SME agri-insurance, finance pilots
- ↑ DFI, impact investors driving appetite for food / climate plays

Headwinds

- ▼ Persistent high default risk, weak agri-credit scoring
- ▼ Limited actuarial data for livestock / aquaculture disease
- ▼ Farmer trust & affordability hurdles slowing uptake

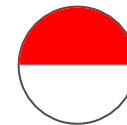
Key markets, verticals, and examples



- TechCoop (\$30M in disbursed payments) digitising **cooperative finance**
- **Shrimp insurance** pilots supported by IFC/World Bank



- **Parametric typhoon insurance** (AXA C)
- Fertiliser e-voucher schemes
- Mobile-led SME finance pilots (iFarms)



- Cargill-supported **SC finance pilots**
- **Shrimp/tuna disease insurance** via insurtech pilots



- Export SME financing pilots using **ASEAN customs digitization**
- ListenField embedding **credit scoring into farm management platforms**

Consumer-facing agrifood brands: winning requires integration

Singapore leads but premiumisation trend and increasing scale via corporates spurs opportunity across region

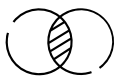
Key opportunities



Opportunity to back **category-defining consumer brands** with **direct sourcing, premium positioning, and vertical integration** (e.g. functional foods, bean-to-bar cocoa, alt-protein)



Large, unmet consumer demand across SEA for **health & wellness, local authenticity, and low-footprint packaging**



White space for **integrated, D2C agrifood ventures** that control supply chains and capture **export premiums**

Tailwinds

- ▲ Rapidly growing urban middle class & Gen Z
- ▲ MNCs driving exits, scaling pathways
- ▲ ESG, traceability push from MNCs benefitting integrated supply chains

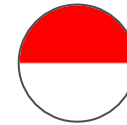
Headwinds

- ▼ Mixed success rate – many exits due to consolidation or distressed sales, not IPO/M&A
- ▼ Differentiation challenge in crowded competitive sets
- ▼ Weak unit economics due to local purchasing power

Key markets, verticals, and examples



- **Strong local champions:** Marou (cacao), TH True Milk (dairy)
- **MNCs sourcing regionally** (Barry Callebaut, Nestlé, Mondelez)



- Kopi Kenangan (QSR coffee with supply integration)
- Corporate **CVC activity** (CP Group, Wilmar, Indofood)



- Thai Union Ventures, CP Group deeply invested in **functional foods & alt-protein**
- **Innovation hubs** like True Digital Park

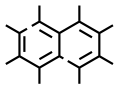


- URC as a **regional conglomerate with brand building focus**
- **MNC engagement and distribution** (Nestlé, PepsiCo, Mondelez)

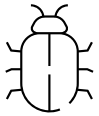
Emerging technologies: regional institutional coverage across life sciences

Singapore’s historical strength in DeepTech and agri R&D increasingly complemented by regional pool of institutions (especially in VN, TH, MY) – each with distinct and complementary competencies

Key opportunities



Biotech & Animal Health: Vaccines, diagnostics, bio-inputs to address livestock / aquaculture disease, climate-resilient farming



Alternative Proteins & Functional Foods: Plant-based, insect, and fermentation-derived proteins



Precision & Regenerative Ag: IoT, bio-fertilizers, crop improvement platforms addressing climate adaptation, compliance markets



Food Processing & Circular Economy: Innovation hubs pushing waste-to-value (bio-packaging, upcycling, feed)

Tailwinds

- ▲ Govt., donor funding for climate, food security
- ▲ Growing STEM talent pools (esp. VN, ID, TH)
- ▲ CVC activity in biotech, alt-proteins, diagnostics (Thai Union Ventures, CP Group, Bayer, Wilmar)

Headwinds

- ▼ Commercialisation often slow, bureaucratic
- ▼ Universities strong in IP but weak in commerc'n
- ▼ Fragmented demand and limited exit track record outside SG

Key markets, verticals, and examples



- Regional biotech & alt-protein hub
- A*STAR, NUS, Temasek Life Sciences Lab
- Commercialisation pathways



- VN National University with strengths in aquaculture health, biotech inputs
- International demand for compliant shrimp exports driving biotech



- Mahidol University & BIOTEC leading across life sciences
- Strong government support for biotech/alt-protein pilots



- National Biotechnology Institutes
- EUDR compliance driving biotech applications in palm sustainability and bio-fertilizers

Appendices

- ▶ Country profiles

Deep dive Palm oil in Indonesia

- **2025/26 estimated total production:** 47M metric tons
- **Harvested area:** 14.4M hectares
- **Domestic consumption:** ~26M tonnes
- **Exports:** 29.5M tonnes (2024-2025), with major markets: China, India, Pakistan, US
- **Stock levels:** Expected to rise 8% to 5.3M tonnes

Leading agribusinesses



Critical dynamics

- **Global leadership:** World's largest producer and exporter of palm oil, supplying over half of the global market and contributing 2.5% of national GDP
- **Geographic concentration:** Nearly 70% of plantations are in Sumatra, with the remainder in Kalimantan
- **Production structure:** Dominated by large private enterprises (e.g., Wilmar, Sinar Mas) producing just over half of total output
- **Land expansion & replanting:** Focus is shifting to replanting and intensification, especially as many plantations approach the end of their productive cycle

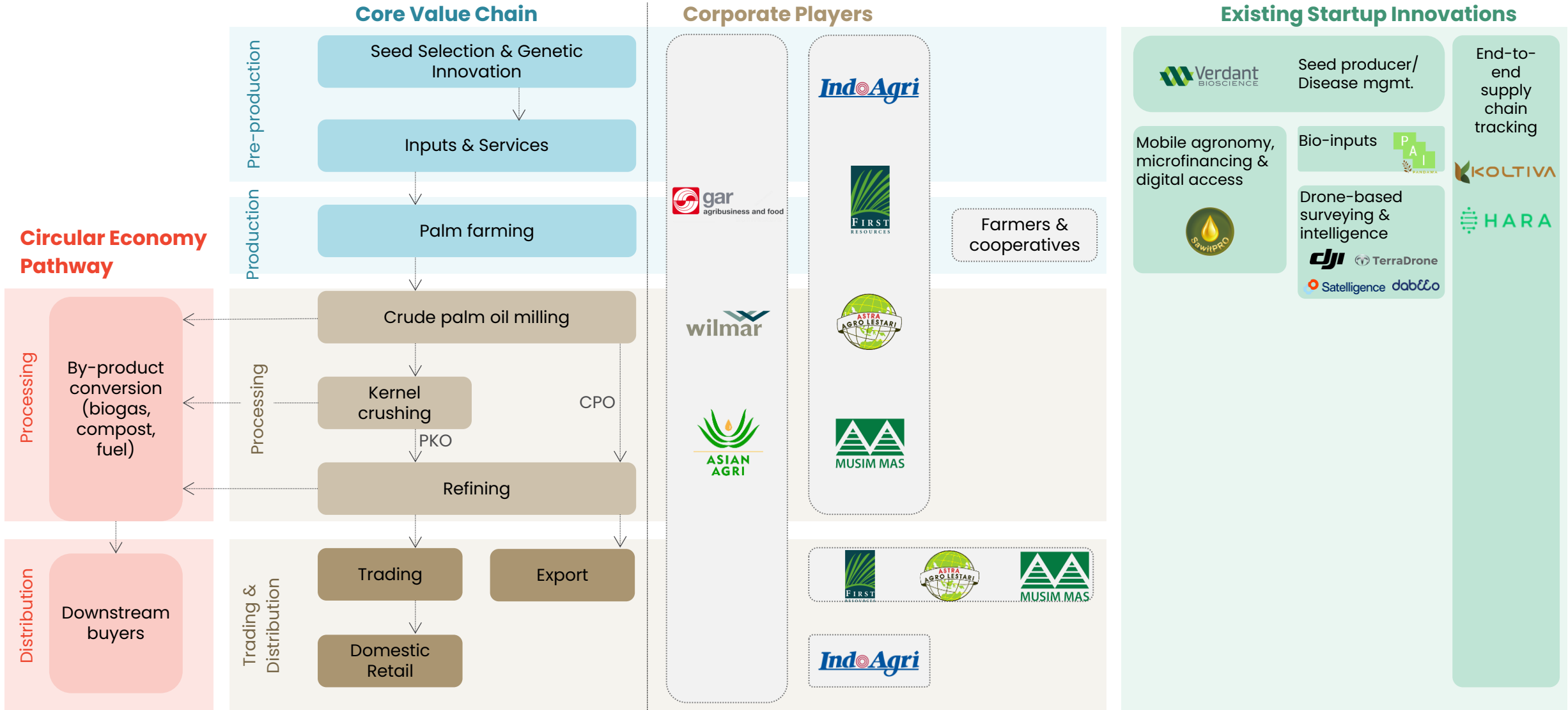
Drivers of value differentiation

- **Scale & integration:** Large, vertically integrated plantations can achieve higher productivity and access to capital, technology & export markets
- **Sustainability & certification:** Compliance with sustainability standards (RSPO, ISPO & ISCC) and traceability is increasingly required for access to premium export markets, especially Europe (impacted by EUDR) and North America
- **Government policy & market access:** Export levies, biodiesel mandates, and price stabilisation funds shape domestic and international market dynamics
- **Technological adoption:** Use of digital tools, precision agriculture, and logistics solutions are increasingly differentiating high-performing producers

Ongoing challenges & outlook

- Aging plantations and limited new land expansion threaten long-term growth
- Rising domestic demand (biofuels, food) may further limit exportable surplus
- Sustainability compliance and traceability will be critical for future export growth
- Price volatility and global competition remain ongoing risks

Deep dive Palm oil in Indonesia








Palm oil agribusinesses are typically fully-integrated, with some downstream variation

Note: All drone-based startups (DJI, TerraDrone, Dabeeco, and Satelligence) are foreign companies, so will not be featured in the deep dives on the next pages

Deep dive → Palm oil in Indonesia

Top 5 largest palm oil agribusinesses in Indonesia






Company	Ownership Type	Plantation Size in Indonesia (ha)	Countries with Plantations	CPO Production (tons/year)	Revenue 2023/24 (USD)	Export Markets	Certification	Integration Level	Tech & R&D
 gar agribusiness and food	Public (SGX), Widjaja family	~532,500	Indonesia (main), China (R&D presence only)	~2.94 million	\$9.76B	Asia, EU, Global	RSPO, ISPO, NDPE	Full (has consumer food arm)	<ul style="list-style-type: none"> Emphasis on tech/innovation for productivity, and exploring new products (e.g., biomass residues) Implementing global mill-level traceability Developing Net Zero roadmap for 2050
 wilmar	Public (SGX), Kuok/ADM	~150,904	Indonesia, Malaysia, Africa (Gabon, Nigeria)	~1.75 million	\$67.16B	Global (India, China, EU)	RSPO, ISPO, NDPE	Full (also a commodity trader, processor handling large 3 rd party volumes)	<ul style="list-style-type: none"> Substantial R&D resources (500 research staff and >370 patents globally) In Indonesia, focus on oil palm biotech and agronomy
 Indofood THE SYMBOL OF QUALITY FOODS	Public (IDX), Salim Group	>300,000	Indonesia only	~706,000	\$3B+ (est.)	Mostly Domestic	ISPO (not RSPO)	Full (has consumer food arm)	<ul style="list-style-type: none"> 2 R&D centres; for palm, emphasis on improved planting materials and mechanised estate mgmt. Consumer food arm innovates in foodtech
 FIRST RESOURCES	Public (SGX), Ciliandra family	>215,000	Indonesia only	>1 million	\$1.04B	Asia, EU	RSPO, ISPO, NDPE	Full	<ul style="list-style-type: none"> Completed 100% digital traceability by 2023 Building a sustainability R&D centre Exploring diversification into rubber/pulp
 ASTRA AGRO LESTARI	Public (IDX), Astra Intl (Jardine)	~268,000	Indonesia only	~1.3 million	\$1.4B	India, China, EU	ISPO (RSPO pending)	Full (focus on bulk sales)	<ul style="list-style-type: none"> Mechanised estate mgmt. (drones, satellite mapping) Developing higher-yield seed varieties

Source: Company annual reports, press releases, news research

Note: The companies listed are repeatedly identified as among the largest palm oil agribusinesses in Indonesia by area, output, and revenue; two other companies, Musim Mas and Asian Agri, are sometimes included by others in the industry

Deep dive Palm oil in Indonesia

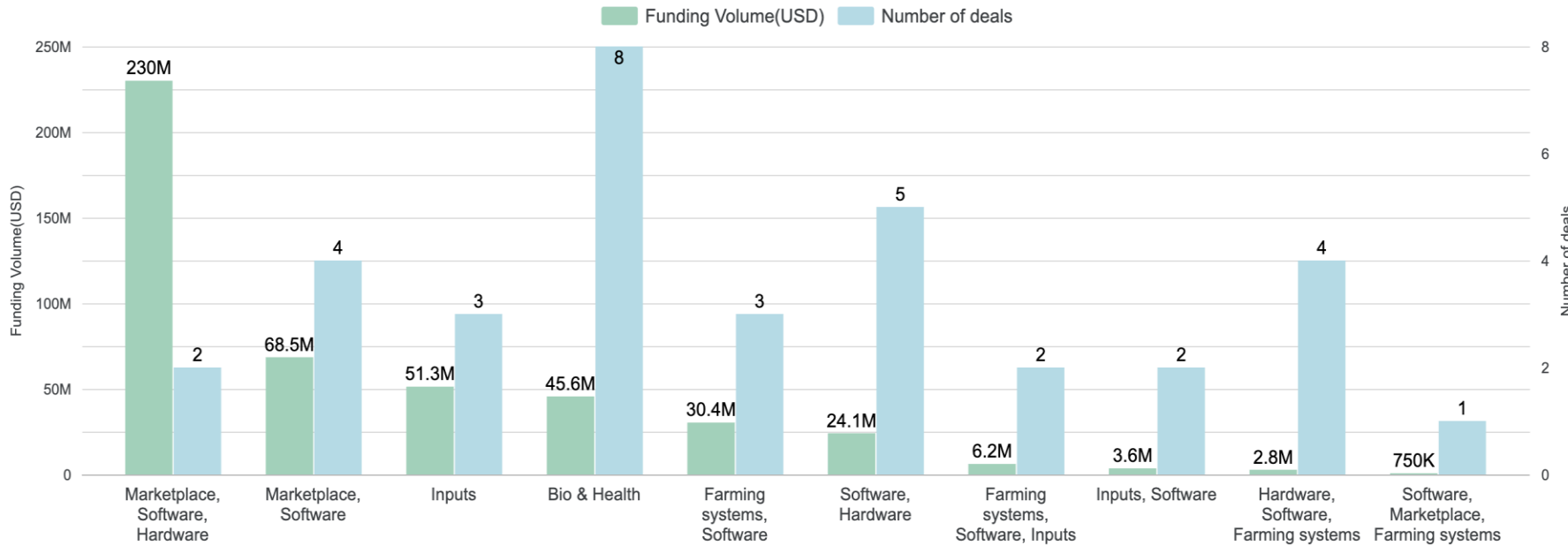
Innovators in the Indonesian palm oil value chain

					
Business Model	Develops and supplies chemical input-reduction technologies for plantations, helping reduce herbicide, pesticide, and fertilizer usage	Integrated digital palm-oil management platform: mobile apps for farming, finance, input procurement, agronomy and loyalty incentives for farmers & mills	Commercial R&D and sale of high-performance F1 hybrid oil palm seeds; focuses on precision breeding for industrial plantations	SaaS + field consulting for end-to-end supply-chain traceability and ESG compliance (seed-to-table) for agribusinesses	Blockchain-enabled farm-data exchange platform; enables agri-financing and traceability, earning a commission on each smallholder transaction
Target Users	Plantation companies (incl. palm oil), input suppliers, and agri-distributors	Palm oil supply-chain players: independent smallholders, mills, cooperatives, harvesters and drivers	Large-scale oil palm estates and plantation groups seeking higher-yielding, climate-resilient planting materials	Multinational agribusinesses and their commodity suppliers needing traceability/ESG data	Smallholders and cooperatives; also banks/insurers seeking farm data to extend credit
Year Founded / HQ	Founded: 2014/2015 HQ: East Java; active across major plantation regions	Founded: 2022 HQ: Jakarta	Founded: 2013 HQ: Singapore (operations in Indonesia)	Founded: 2013 HQ: Jakarta (with presence in 52 countries)	Founded: 2015 HQ: Singapore. Operates mainly in Indonesia
Fundraising Stage	Investors include ANGIN, Kinara and Rabo Foundation (amount undisclosed)	Seed (June 2023; amount undisclosed)	Privately funded; established via joint venture between Temasek, Genting Plantations, Sinar Mas, and Felda Global	Series A (2023; seven-figure USD raised led by AC Ventures)	Privately funded (no public rounds disclosed); corporate and grant support
Tech Stack / IP	Proprietary adjuvant technologies that enhance agrochemical effectiveness — lowering application volume up to 50%	Mobile/web platform with integrated IoT/mapping; fintech system for loans; e-commerce module for inputs; digital agronomy advisory (GPS-based)	Pioneered F1 hybrid breeding for oil palm using controlled pollination; leverages genomic selection and phenotyping systems	Cloud-based Web/mobile apps with GIS/mapping tools; satellite and farm-level data for traceability, GHG tracking, deforestation alerts	Blockchain + mobile apps for farm data capture and aggregation; proprietary digital KYC/credit scoring for farmers
Notable Partnerships	Partnership with Rabo Foundation; supported by Bulog and other gov'n't institutions	(No major external partners announced publicly)	R&D and breeding collaborations with Sinar Mas, FGV (Malaysia), and Genting Plantations; supported by Temasek	Investors include AC Ventures, Silverstrand, Planet Rise, DFI Asia, The Meloy Fund; works with global brands on supply-chain projects	Collaborated with Bank BNI (Indonesia) for digital micro-loan programs (KUR)
Impact / Certifications	Claimed reduction of pesticide usage, improved productivity and environmental outcomes; aligns with RSPO/IPM	Serves ~94,000 smallholders managing 377,000 ha (with 905 M kg FFB tracked); supports RSPO-aligned best practices	First company to commercialize F1 hybrid oil palm seeds; offers ~20% higher yields over commercial DxP	Platform used by >1.0M producers and ~6.8K enterprises globally (2023); compliance assistance for EU Deforestation Reg. (EUDR) and RSPO	Onboarded >20,000 farmers across ~250 villages (2019); supports fintech inclusion

Source: Company websites, press releases

Resilient aquaculture startups embrace product diversification

61% of startups combine multiple offerings, with platform ecosystems (Marketplaces + SaaS) capturing the largest funding rounds.



▶ A common pattern we see is the bundling of products and services. 61% of the aquaculture startups we investigated have some form of bundling. The following are the common product bundles we see:

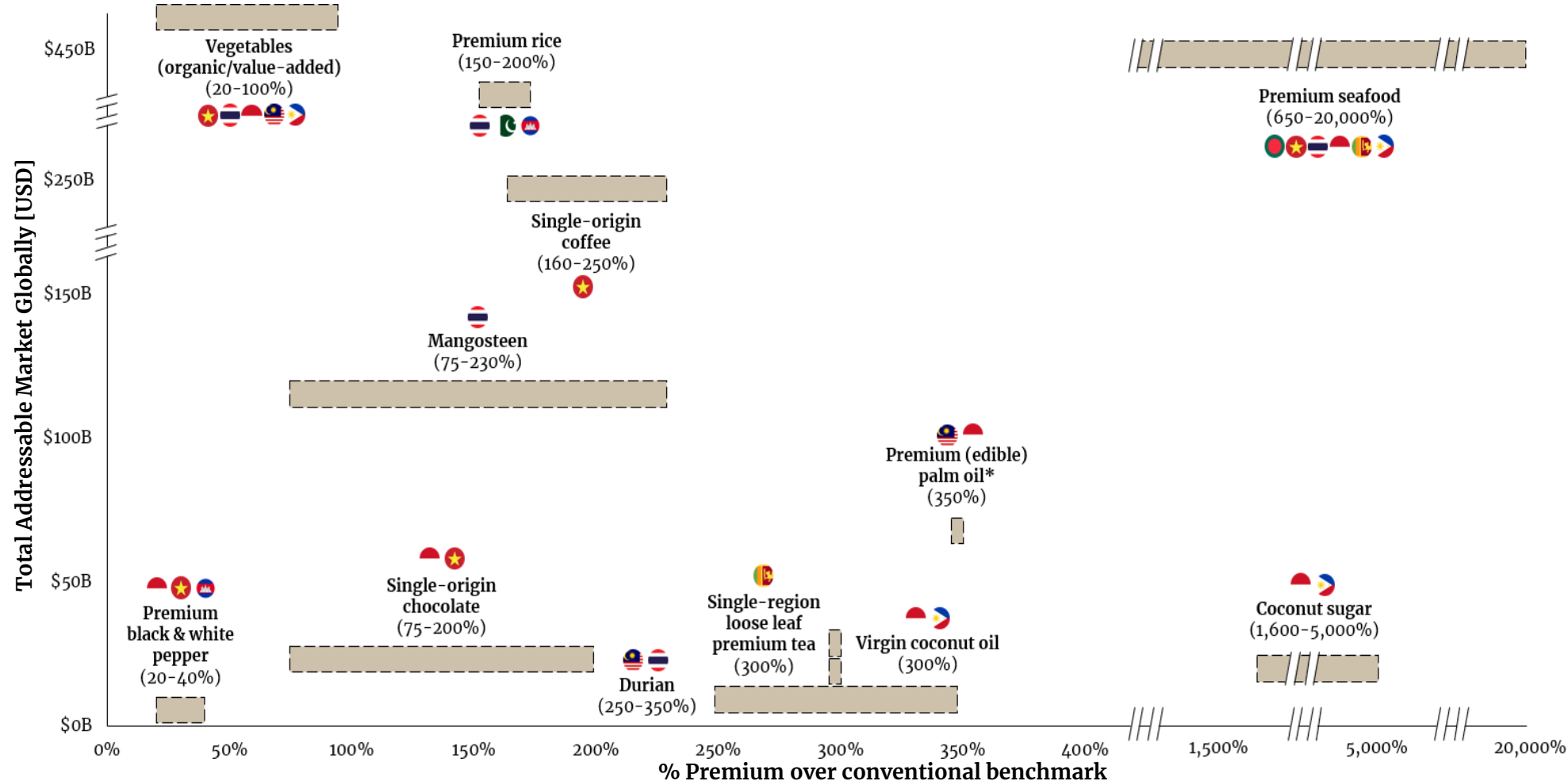
- ▶ Hardware : feeders, IoT sensors, buoys
- ▶ Software: platforms/analytics
- ▶ Inputs: insect protein, oils, frass, feed ingredients
- ▶ Bio & Health: antimicrobials, probiotics, vaccines, diagnostics
- ▶ Farming Systems: RAS/vertical/indoor farms
- ▶ Marketplace / supply-chain / traceability

▶ Funding takeaways:

- ▶ Capital mostly flows to platform ecosystems (marketplace + SaaS + services)
- ▶ Sustainable feed is a clear growth area, with insect protein attracting large checks
- ▶ Biotech shows early-stage funding patterns, being the only product where we see grant-type funding
- ▶ RAS and vertical farming are gaining limited but growing interest from investors

Premiumisation as an opportunity in Southeast & South Asia

Premium opportunities span from origin certification (blockchain, traceability) to technologies enabling better production systems, creating diverse AgriTech investment pathways.



- ▶ Some traditional commodities (rice, palm) offer surprising premium opportunities, suggesting untapped value in “boring” agricultural sectors
- ▶ Technology-dependent vs. origin-dependent premiums create different investment opportunities (Origin premiums: Geo certification, traceability; Processing premiums: Food tech, biotech, precision ag, automation)
- ▶ Southeast Asian and South Asia have natural advantages in rice, tropical fruits, spices, seafood; local startups have inherent competitive advantages over global players

Source: Various market research reports, retailer and brand sites; news research and scientific journals

Note: Sustainability/traceability premiums for palm oil (e.g., certified sustainable) tend to be ~1-5% above CPO (and are often absorbed upstream), unlike the multi-x retail premium seen for red-palm/“virgin” positioning

Health & Wellness / Functional Foods

Reducing undesirable ingredients & plant-based alternatives



Jackfruit-based meat alternatives 	Mushroom-based meat alternatives
Locally-inspired plant-based meats 	Granola & snacks with 100% plant-based ingredients
Asia's 1 st full-stack oat milk brand 	Superfood snacks from heritage & ancient grains
Granolas & snacks from locally-sourced whole grains 	

Fortified and functional products

Gummy vitamins 	“Better-for-you” instant foods
Dairy- & sugar-free probiotic teas 	

Value Chain Integration & Local Excellence

Optimising value through integrated supply chains & direct local market access



Leading home-grown brand with value-added dairy products
Leading home-grown producer of fresh milk and dairy products
World-renowned bean-to-bar chocolate crafted from local cacao
800+ artisanal food products with local ingredients
One of the fastest-growing grab and go coffee chain in Indonesia
Crafts bean-free upcycled coffee using bread, soy and barley waste

Minimising Environmental Impact

Converting waste streams into sustainable packaging through circular innovation

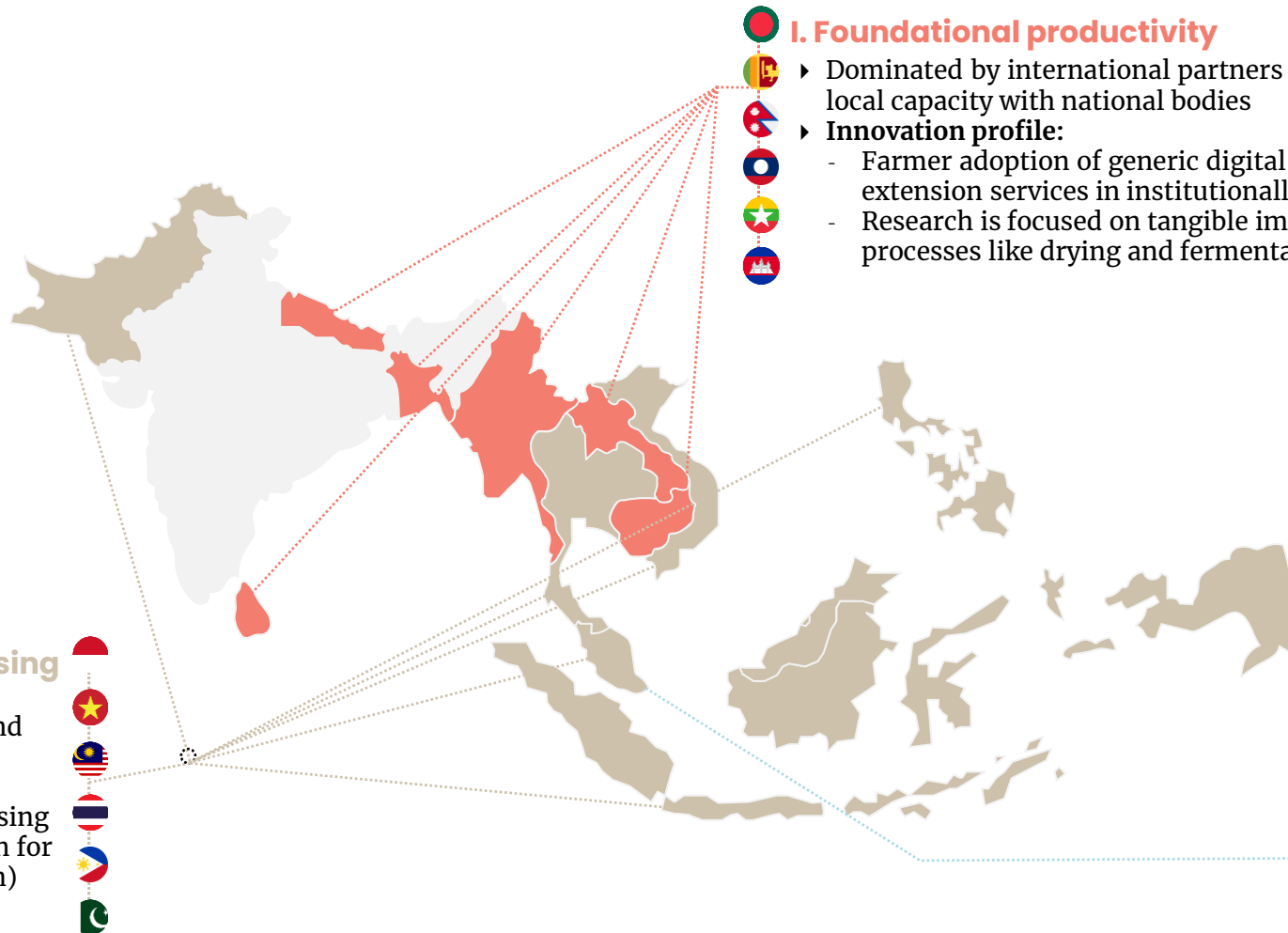


Insulated packaging from coconut husk fibers
Seaweed-based biopackaging
Makes sustainable straws, cutlery and packaging using byproducts like coconut and sugarcane
Develops seaweed-based packaging that is biodegradable and edible, reducing plastic waste.
Uses spent grain from food & beverage industries to create compostable, food-safe packaging.

The innovation gradient across regional ecosystems

From foundational productivity to frontier innovation, the varying focus of national ecosystems provide different sources of opportunities.

While most advanced deep-tech opportunities are concentrated in Singapore, there are opportunities aligned to the innovation profile of other markets (e.g., post-harvest infrastructure and food processing technologies in value addition-focused countries)



I. Foundational productivity

- ▶ Dominated by international partners (IRRI, IFPRI, CIRAD) building local capacity with national bodies
- ▶ **Innovation profile:**
 - Farmer adoption of generic digital tools for peer-to-peer extension services in institutionally weak environments
 - Research is focused on tangible improvements in traditional processes like drying and fermentation

II. Accelerating and specialising

- ▶ Rise of "national champion" institutions to centralise R&D and tackle national priorities
- ▶ **Innovation profile:**
 - Biotechnology and bioprocessing
 - Sustainable staples (e.g., push for low-emission rice production)
 - Commodity specialisation

III. Frontier innovation

- ▶ Government-led, capital-intensive R&D hubs (A*STAR's SIFBI) tightly integrated with global VCs and MNCs
- ▶ **Innovation profile:**
 - Future foods (e.g., alternative proteins, cellular agriculture, and high-tech controlled environment farming)
 - Translational science - bridge the gap from lab to commercial scale-up

AgriTech solution types represented in the sample

The dataset spans four dominant AgTech solution categories across the region.

	Inclusive FinTech	Digital Value Chains	Emerging Technologies	Sustainable Brands
Definition	Financial services expanding access to credit, working capital, and investment for farmers and agri-SMEs.	Platforms that digitise production, aggregation, logistics, traceability, and market access across farm-to-consumer flows.	Frontier and deep-tech applied to agri-food systems, often asset-light but R&D-intensive.	Consumer or B2B brands where sustainability, sourcing, or nutrition is central to the value proposition.
Solutions	Agri-lending and credit platforms Crowdfunding / investment platforms Insurance and embedded finance	Agri marketplaces (inputs, produce, fisheries) Food delivery & food service SaaS Traceability, SCM, logistics, cold chain	Agri SaaS, AI, remote sensing Farm management and decision tools Biotech, novel inputs, robotics	Innovative food & beverages Food processing & alternative products Health- and sustainability-led brands
Sample	13	54	63	29
Examples	iGrow: agri-crowdfunding (operating, constrained scale) Amartha: regulated microfinance at scale KoinWorks (Agri): diversified SME lending with agri exposure	Koltiva: enterprise traceability & compliance Chope: food service SaaS (acquired by Grab) TechCoop: B2B agri-trade platforms FishLog: fisheries cold chain (downsized)	CropIn: agri SaaS & data platforms Agros: farm management & analytics AquaEasy: aquaculture monitoring	Fore Coffee: consumer food & beverage brand OATSIDE: plant-based oat milk brand Cricket One: insect-based protein ingredients supplier

Financial institutions' venture arms are emerging funders of note

Local financial institutions accounted for 26% of AgriTech deals recorded by corporates

SELECT EXAMPLES

Investor	# of AgriTech deals	Parent	HQ Country
BRI Ventures	6	Bank Rakyat Indonesia	Indonesia
Saison Capital	3	Credit Saison	Singapore
OCBC Ventures	2	OCBC Bank / OCBC Group	Singapore
Mandiri Capital	1	Bank Mandiri	Indonesia
Jakarta Ventura	1	Bahana Artha Ventura	Indonesia
BNI Ventures	1	Bank Negara Indonesia	Indonesia