

# A Study on Union Budget with Reference to Agri-tech Start-ups in India

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## Abstract:

The rapid growth of agritech startups in India has transformed the agricultural sector by introducing innovative solutions for productivity, supply chain efficiency, and financial inclusion. The Union Budget plays a crucial role in shaping this ecosystem through policy measures, funding allocations, and incentives aimed at fostering entrepreneurship and technological advancement. This study analyzes the impact of the Union Budget on agritech startups in India, focusing on key provisions related to agriculture, digital infrastructure, and startup development.

The paper examines how budgetary initiatives such as financial support, credit access, and policy reforms influence the growth and sustainability of agritech ventures. It also evaluates the effectiveness of these measures in addressing existing challenges, including limited access to capital, regulatory barriers, and technological adoption in rural areas. Furthermore, the study identifies gaps between policy intentions and their implementation, highlighting areas where agritech startups continue to face constraints.

The findings suggest that while the Union Budget has increasingly prioritized innovation and digital agriculture, there remains a need for more targeted and accessible support mechanisms. The paper concludes by recommending policy improvements to enhance the role of agritech startups in driving agricultural modernization and economic growth in India.

**Keywords:** Agri tech startups, Union Budget.

## Introduction

Agriculture remains the backbone of India's economy, contributing approximately 18% to the country's Gross Domestic Product (GDP) and employing nearly 46% of the population (GrowthJockey, 2023). In recent years, the intersection of technology and agriculture—popularly known as agritech—has emerged as a transformative force, enabling precision farming, digital marketplaces, supply chain optimization, and data-driven decision-making (Suresh et al., 2024). Agritech startups, leveraging innovations such as artificial intelligence, drones, IoT, and data analytics, have the potential to enhance farmer incomes, reduce post-harvest losses, and modernize India's agricultural landscape.

The **Union Budget of India** plays a crucial role in shaping the policy and financial environment for startups, including those in the agritech sector. Budgetary allocations, subsidies, credit schemes, and digital infrastructure initiatives directly influence the growth trajectory of these startups. Despite this, there is a **limited focus in existing literature on analyzing the specific impact of budget provisions on agritech startups**. Most studies concentrate on general agricultural policies or the overall agritech ecosystem, without establishing a clear link between fiscal policy and startup performance (Adhya & Sahoo, 2022; Haritha et al., 2024).

Given this context, the present study aims to analyze the **impact of Union Budget provisions on the growth, funding, and operational effectiveness of agritech startups in India**. Using secondary data from government reports, industry analyses, and news sources, this research seeks to evaluate trends before and after budget announcements, assess policy effectiveness, and identify gaps between fiscal intent and real-world implementation. The study also investigates how initiatives such as digital advisory platforms, AI tools, and credit schemes influence the adoption and scalability of agritech solutions. By addressing these questions, this research fills a critical gap in understanding the **relationship between national fiscal policy and the growth of technology-driven agricultural startups**, providing insights for policymakers, investors, and agritech entrepreneurs.

## **Review of literature:**

### **1. Haritha et al. (2024) – Rise of Agritech in India**

Haritha et al. (2024) provide a comprehensive mapping of India's agritech ecosystem, highlighting the rise of startups focused on precision farming, supply chain optimization, and farm analytics. They document funding trends, showing an increase in venture capital and government-backed support over the last decade. The paper emphasizes regional differences in adoption, with more startups emerging in states with better digital infrastructure. It categorizes business models, including digital marketplaces, soil testing services, and weather advisory platforms. The authors note that agritech growth is closely tied to policy incentives and public-private partnerships. Challenges such as limited farmer awareness and infrastructural gaps are also highlighted. This literature serves as a baseline to understand which areas government budgets indirectly affect. Budget allocations to digital agriculture or rural infrastructure can stimulate the adoption of these startups' solutions. The study's data helps in trend analysis of investments before and after budget announcements. It underlines the importance of aligning fiscal measures with ecosystem needs. Lastly, it provides a framework for analyzing how budget support can enhance sustainability and scalability in agritech.

### **2. Suresh et al. (2024) – Data-Driven Agritech Startups (India & Japan)**

Suresh et al. (2024) explore the role of data analytics in enhancing agricultural productivity through agritech startups. The study compares India and Japan, highlighting India's challenges in digital literacy and infrastructure. It focuses on AI, machine learning, and IoT as core technologies for agritech solutions. The authors argue that data-driven startups require supportive financial policies to thrive. They also note that regulatory frameworks and credit availability influence adoption rates. The paper provides evidence that budgetary allocations for digital agriculture could significantly improve farmer participation. It emphasizes ecosystem support, including incubation centers, research grants, and technology transfer programs. The study shows that startups play a critical role in bridging the knowledge gap for farmers. Budget impacts are indirectly assessed through government incentives that promote technology adoption. The literature is relevant to your study as it links fiscal measures with the operational effectiveness of agritech startups.

### **3. Adhya & Sahoo (2022) – Agritech Startups in India: Opportunities & Challenges**

This paper provides an overview of India's agritech startups, highlighting both opportunities and structural challenges. It documents funding trends, noting that venture capital inflows have been increasing but remain concentrated in certain regions. The authors identify gaps in access to data, digital tools, and farmer networks. They stress the need for government policy to provide subsidies and incentives to support early-stage startups. The study details startup business models, from market linkages to input optimization

services. It highlights the potential for agritech to improve farmer incomes and reduce post-harvest losses. Regulatory challenges, such as licensing and compliance, are discussed as obstacles to scale. The authors argue that budgetary support in the form of credit, grants, or tax relief could boost sector growth. This literature provides context for your analysis of budget impacts before and after announcements. It underscores the importance of integrating fiscal measures with technological and infrastructural support.

#### **4. Agriculture Institute (2023) – Agritech Startup Ecosystem in India**

The Agriculture Institute (2023) report maps the Indian agritech ecosystem, identifying major players, incubators, and funding platforms. It highlights government initiatives such as Startup India and the Digital India campaign, which indirectly support agritech startups. The report categorizes startups by sector: supply chain, precision agriculture, marketplace solutions, and AI-based advisory services. It discusses challenges such as scalability, digital literacy, and infrastructure gaps. The authors emphasize the need for policy support to ensure wider adoption and sustainability. They provide evidence that startups benefit from targeted fiscal measures, including grants, subsidies, and tax incentives. The report also reviews investment trends, showing a gradual increase in both private and public funding. It links ecosystem growth to policy reforms and government interventions. This literature is relevant for your research as it frames how budget allocations can create enabling conditions for startup success. It also highlights areas where gaps remain in fiscal support.

#### **5. Paranjpe (2023) – Innovation Gaps in India’s Agritech**

Paranjpe (2023) identifies key innovation gaps in India’s agritech sector, particularly in connecting farmer needs with technological solutions. The study reviews the readiness of startups to deploy AI, IoT, and data-driven tools. It argues that policy support, including budget allocations, is essential to bridge these gaps. The paper highlights challenges in funding, infrastructure, and adoption rates among farmers. It stresses that government incentives can reduce risks for early-stage startups. The author analyzes existing digital agriculture programs and their limitations. The literature emphasizes the importance of linking fiscal measures with ecosystem development. It shows that indirect support, like credit facilities and digital infrastructure, can catalyze innovation. The study underscores the need for strategic budget planning to foster sustainable agritech growth. It provides a critical perspective for assessing the impact of Union Budget announcements on startup scalability.

#### **6. Bethi & Deshmukh (2023) – Challenges & Opportunities in Agritech Startups**

Bethi & Deshmukh (2023) review barriers to growth for Indian agritech startups, including regulatory hurdles, funding constraints, and digital infrastructure limitations. They discuss market opportunities such as supply chain optimization, farm advisory services, and precision agriculture. The authors emphasize the role of government support in enabling startup success, including grants, credit, and tax benefits. The study links policy frameworks to adoption and sustainability of digital agriculture solutions. They identify gaps in technology transfer and skill development. Budget allocations in research, digital platforms, and infrastructure are highlighted as key enablers. The literature provides insight into how fiscal measures can accelerate ecosystem maturity. It offers a foundation for evaluating pre- and post-budget impacts on agritech startups. This study reinforces the need for aligning government spending with innovation priorities. It contributes to understanding the policy-startup interface for your research.

#### **7. Anjali et al. (2023) – Role of Agritech Startups in India’s Agricultural Landscape**

Anjali et al. (2023) examine the contribution of agritech startups to value creation in Indian agriculture. They document productivity improvements, income enhancement for farmers, and technology adoption rates. The study categorizes startups into advisory, marketplace, and input optimization solutions. It

highlights challenges like infrastructure gaps, low digital literacy, and limited funding. The authors argue that government incentives, including budget allocations for research and digital agriculture, are vital for growth. They provide case studies demonstrating successful startup interventions in rural areas. The paper emphasizes the importance of policy support in scaling solutions. Budget impact is analyzed indirectly through technology deployment and infrastructure enhancement. This literature informs your research on how fiscal measures influence agritech adoption. It highlights the link between government spending and operational effectiveness.

#### **8. Sharma (2026) – Budget Constraints & Supply Chain Challenges**

Sharma (2026) discusses the constraints faced by agritech startups in supply chain integration. The paper highlights how uneven adoption of technology is linked to limited funding and infrastructure support. It emphasizes that government initiatives, like digital advisory tools, can help overcome these barriers. The author notes that budget allocations toward digital agriculture and AI platforms create new opportunities for startups. Policy clarity and implementation mechanisms are critical for maximizing impact. The study provides a before-and-after perspective of budget announcements. It shows that fiscal support can enhance startup scalability and adoption rates. Sharma also highlights regional disparities in startup growth. The literature links budget trends to technology deployment and farmer engagement. It is relevant for comparative analysis of budget impact on agritech startups.

#### **9. Expert Commentary (2026) – Agritech Budget Calls for Last-Mile Adoption**

This commentary provides insights from industry experts on the 2026 Union Budget's effect on agritech startups. Experts emphasize that while AI tools and digital advisory platforms are introduced, last-mile adoption remains a challenge. They highlight the need for dedicated funds for early-stage startups. The commentary discusses gaps in credit access, infrastructure, and farmer outreach. It links budget allocations to ecosystem readiness and scalability potential. Stakeholder feedback points to mixed implications for agritech innovation. The analysis suggests indirect benefits for startups through digital infrastructure support. The literature informs your research on policy clarity and budget effectiveness. It underscores the importance of aligning fiscal measures with operational realities. This source complements secondary data analysis of budget trends.

#### **10. McKinsey (2020) – Agtech in India: Future Potential**

McKinsey (2020) provides a market analysis of agritech potential in India, highlighting opportunities to increase farmer incomes by 30–35% through technology adoption. The report analyzes funding trends, investor interest, and startup scalability. It emphasizes the need for policy support, including subsidies and digital infrastructure investment. The study categorizes startups by sector: marketplace, advisory, and supply chain. It provides data on adoption challenges, particularly in rural regions. Budget allocations in technology, research, and extension services are noted as enablers. The literature offers quantitative backing for assessing fiscal impacts on the agritech ecosystem. It also informs your trend analysis before and after budget announcements. The report underscores the interplay between market potential and policy facilitation. It is a critical reference for justifying the research problem.

#### **11. Deloitte (2022) – Indian Agriculture Reforms**

Deloitte (2022) analyzes agricultural reforms in India and their implications for investment and private sector participation. The report highlights policy measures aimed at improving farm productivity, supply chains, and market linkages. It emphasizes the importance of fiscal incentives and subsidies for agritech adoption. The study notes that startups in digital agriculture and AI-driven solutions are highly influenced by government initiatives. It reviews how regulatory clarity and ease of doing business affect startup

growth. Budget allocations toward infrastructure and research support are cited as key drivers for sector expansion. The report provides case studies on technology adoption in rural regions. It links policy interventions to operational scalability of agritech startups. Deloitte underscores the need for public-private collaboration to strengthen ecosystem readiness. This literature helps contextualize Union Budget impacts on agritech investment and growth trends.

### **12. KPMG (2022) – Agritech Investment Trends**

KPMG (2022) provides insights into venture capital and private equity flows in the Indian agritech sector. The report categorizes investment by startup stage, technology type, and regional concentration. It shows a growing interest in AI, IoT, and digital marketplace startups. The authors highlight the influence of government policy and budgetary incentives on investor confidence. The report identifies gaps in funding for early-stage startups and rural technology deployment. It emphasizes the need for fiscal measures to reduce risks for investors. Trends in pre- and post-budget funding allocations are discussed, offering data for comparative analysis. KPMG stresses the role of subsidies, grants, and tax relief in scaling operations. The literature provides quantitative backing for examining financial impacts of budget announcements. It underscores the interdependence of policy, investment, and agritech growth.

### **13. Union Budget 2023–24 (Government Report)**

The official Union Budget 2023–24 report details allocations for agriculture, rural development, and digital initiatives. It emphasizes farmer welfare, irrigation projects, and infrastructure support. Specific budget lines support technology adoption and startups, such as digital advisory platforms. The report provides baseline data for pre-budget conditions. It allows comparative analysis with subsequent budgets to assess policy shifts. Allocation for research and extension services indicates government priorities for agritech innovation. The document helps identify gaps between fiscal intent and startup ecosystem needs. It also provides data on credit schemes and subsidies relevant for early-stage agritech startups. The report is an authoritative source for secondary data analysis. It establishes a foundation for examining the effect of fiscal measures on agritech growth.

### **14. Union Budget 2025–26 (Government Report)**

Union Budget 2025–26 details revised allocations to agriculture and allied sectors. Increased funding for digital platforms, AI adoption, and farmer support programs is highlighted. The report enables comparative trend analysis with the 2023–24 budget. Budget lines for research and rural infrastructure indicate government priorities for scaling agritech startups. The document provides secondary data for evaluating policy effectiveness. It includes credit support schemes, subsidies, and incentives relevant to early-stage agritech firms. Analysis of allocation shifts helps identify emerging opportunities and gaps. The report also provides insights into regional focus and sectoral priorities. It is critical for assessing the impact of fiscal measures on startup growth. The literature links budget trends to ecosystem readiness and innovation adoption.

### **15. Times of India (2026) – AI Tool Bharat Vistaar Announcement**

This news article reports the launch of the AI-based tool Bharat Vistaar for farmers under the Union Budget 2026. The initiative aims to provide multilingual advisory services for crop planning and pest management. It demonstrates government focus on digital agriculture and technology-enabled solutions. Startups can leverage this platform for integration and service expansion. The article provides qualitative evidence of fiscal prioritization toward AI-driven agritech. It highlights the expected impact on farm productivity and decision-making. The news also underscores the role of government support in promoting technology adoption. It provides context for analyzing pre- and post-budget effects on startup operations.

This source supports case studies and practical examples in your research. It emphasizes the translation of budgetary policy into tangible initiatives.

### **16. Economic Times (2026) – Budget Allocations for Agriculture**

Economic Times (2026) reports a total allocation of ₹1.63 lakh crore to agriculture in Union Budget 2026. The article breaks down investments in irrigation, research, and digital advisory programs. It provides quantitative data for trend analysis and comparative study. The report highlights implications for agritech startups in terms of potential market opportunities. It emphasizes policy focus on high-value crops and technology-driven solutions. The article enables assessment of government priorities and fiscal impact. It also serves as a secondary source for evaluating budget-driven ecosystem changes. The literature informs your hypothesis on budget impact on startup growth. It provides a real-world perspective on policy-to-market translation. This source is critical for establishing empirical connections in your research.

### **17. Economic Times (2026) – Agri Research Funding Concerns**

This article highlights concerns regarding cuts in agricultural research funding in the 2026 budget. Stakeholders fear a negative impact on innovation and long-term productivity. The report emphasizes that reduced funding may hinder early-stage agritech startups dependent on research collaborations. It provides evidence of mixed fiscal outcomes on ecosystem sustainability. The article identifies the need for targeted budget allocations to support innovation-driven startups. It also highlights stakeholder feedback on policy gaps. The literature is relevant for discussing potential limitations of fiscal support. It adds balance to the research by acknowledging challenges alongside opportunities. The report enables critical analysis of budget impacts. It provides a context for evaluating policy effectiveness and gap analysis.

### **18. Wired (2024) – Agritech Evolution Case Study**

Wired (2024) presents a case study of Plantix, an agritech startup leveraging AI for pest detection. The study documents startup growth, funding sources, and technology deployment. It highlights challenges such as market penetration and farmer adoption. Government incentives and digital platforms are shown to accelerate adoption. The article provides real-world examples of startups benefiting from policy support. It emphasizes the importance of technology-enabled advisory services. Funding trends illustrate how fiscal measures influence private investment. The study links budget allocations for AI and digital agriculture to operational scaling. It provides qualitative data for secondary analysis in your research. The literature supports discussion on innovation, scalability, and budget impact.

### **19. Reuters (2024) – Space Data Fuels India's Farming Innovation**

Reuters (2024) reports on satellite and space-based technologies supporting precision farming in India. The article documents funding trends, technology adoption, and government collaboration. Startups leveraging satellite data benefit indirectly from fiscal allocations in technology and research. The report emphasizes opportunities for AI-driven farm advisory and supply chain optimization. It shows real-world adoption of advanced technology in agriculture. Budget support for technology infrastructure is highlighted as a key enabler. The article provides empirical examples for secondary data analysis. It connects fiscal policy to innovation uptake among startups. The literature underlines the role of government investments in enabling tech solutions. It also informs your comparative analysis of budget allocations before and after announcements.

### **20. Startup Trend Articles (Various Sources)**

Various reports from Startup India and NITI Aayog highlight funding trends, startup scale, and government support for agritech. They provide data on investments, incubation programs, and policy frameworks. The articles emphasize fiscal incentives, credit schemes, and digital initiatives. They document challenges such

as uneven adoption, skill gaps, and regulatory barriers. Trends in funding before and after budget announcements are discussed. The literature demonstrates how budget allocations influence ecosystem growth and scalability. It also provides context for regional disparities in startup activity. These sources serve as secondary data for comparative analysis and trend studies. They are critical for understanding real-world implications of fiscal policy. The literature informs the overall hypothesis on the impact of Union Budget on agritech startups.

### Objectives:

1. To study budget allocation contributed to agritech startups in india
2. To explore the policies adopted for agritech startups in the union budget.

### Research Methodology:

The data was collected through secondary sources and budget related data was gathered through websites and portals. The secondary data is analysed through trend and comparative analysis.

### Trend Analysis: Year-wise Budget Allocation for Agritech Startups in India

Trend analysis of India's Union Budget reveals a **gradual increase in fiscal support for agritech startups** over the past decade, reflecting the government's recognition of technology-driven agriculture as a key growth area. While precise allocations specifically earmarked for startups are often embedded within broader agricultural and digital initiatives, analyzing budget lines related to **agriculture technology, research, digital advisory platforms, and farmer support schemes** allows us to infer trends and identify policy priorities.

#### 1. 2018–2019

- The Union Budget allocated funds for digital agriculture, eNAM (Electronic National Agriculture Market), and irrigation projects.
- Startups began leveraging government programs indirectly through digital marketplaces and advisory services.
- Initial funding emphasis was on infrastructure development rather than direct startup support.
- Trend: Foundation-laying phase for digital agri-tech integration.

#### 2. 2019–2020

- Increased allocation for research and digital initiatives under the Ministry of Agriculture and Farmers Welfare.
- Pilot projects for precision farming, IoT integration, and weather advisory platforms began receiving government support.
- Trend: Recognition of technology adoption as a driver for farm productivity.

#### 3. 2020–2021

- COVID-19 highlighted the need for digital and supply chain solutions; the budget supported startups via PM Kisan schemes and digital marketplaces.
- Startups providing logistics, advisory, and e-commerce services saw indirect benefits from fiscal allocations.
- Trend: Early-stage support through existing agricultural programs; direct startup funding was still limited.

#### 4. 2021–2022

- Budget emphasis on AI, drone technology, and smart agriculture.
- Initiatives like agri-tech incubators and skill development programs received dedicated funding.
- Startups engaged in digital advisory and precision farming began scaling operations using government-backed platforms.
- Trend: Increased alignment between technology innovation and government policy.

#### 5. 2022–2023

- Union Budget highlighted funding for agri-tech research, soil health programs, and digital solutions for farmers.
- Startups benefitted from enhanced digital infrastructure, credit facilities, and public-private partnerships.
- Trend: Moderate increase in fiscal focus on enabling startup innovation.

#### 6. 2023–2024

- ₹1.2 lakh crore allocated to agriculture and allied sectors, with explicit support for digital advisory, AI tools, and rural technology adoption.
- Startups providing AI-based pest management, precision advisory, and farm-to-market logistics saw indirect funding support.
- Trend: Fiscal policy increasingly tailored to support tech-enabled agritech solutions.

#### 7. 2024–2025

- Enhanced focus on sustainable agriculture, high-value crops, and integration of blockchain technology in supply chains.
- Union Budget allocations began factoring in environmental sustainability alongside technology adoption.
- Trend: Growing policy sophistication targeting startup innovation in agri-tech.

#### 8. 2025–2026

- Budget emphasized AI, Bharat Vistaar multilingual advisory tools, and digital platforms for farmers.
- Startups received indirect benefits through grants, research funding, and platform integration opportunities.
- Trend: Stronger alignment of fiscal measures with agritech startup growth potential; emphasis on scalability and last-mile adoption.

### Observations and Insights

1. **Incremental Growth:** Union Budget allocations for agriculture technology show consistent incremental growth, particularly after 2020.
2. **Digital Emphasis:** Post-2020 budgets increasingly focus on AI, IoT, and digital advisory tools.
3. **Indirect Support for Startups:** While direct allocations for startups are limited, policy initiatives like eNAM, digital marketplaces, and AI platforms indirectly enhance startup operations.
4. **Alignment with Sustainability:** Recent budgets integrate environmental sustainability with digital technology adoption, benefiting agritech startups focused on climate-smart solutions.
5. **Comparative Perspective:** Pre-budget periods often see slower ecosystem growth, while post-budget periods reflect increased adoption of digital tools, platform integration, and access to credit or grants.

## Interpretation of the Trend (for Agritech Context)

### Growing Support Base

- There's a **steady increase** in agriculture budget allocations from FY 2023-24 through FY 2026-27 — moving from ~₹1.25 lakh crore to ~₹1.63 lakh crore — indicating **greater fiscal support to the agricultural sector overall**.

### Budget as Proxy for Agritech Enablement

- Although budgets do not separately list **agritech startup funding**, many allocations related to **digital agriculture, research, rural development, and allied sectors** create an enabling environment for agritech innovation and adoption. For example: new AI tools and digital service frameworks announced in 2026-27 budget can benefit the agritech ecosystem indirectly.

### Relative Growth vs Share

- Despite nominal increases, the **share of agriculture allocations in the total Union Budget has shown downward pressure** over recent years, highlighting budgetary prioritization challenges. This trend suggests that while absolute amounts grow, **relative emphasis on agriculture (and indirectly agritech)** may not be proportionally increasing as fast as other sectors.

### Opportunity for Agritech Startups

- The trend of increasing overall allocations can be interpreted as a **better policy climate for technology adoption in farming**, widening room for agritech startups to leverage government schemes, funding avenues via ecosystem programmes, and initiatives like digital advisory tools. Startups can align with allied allocations for rural digitalization, credit, and research incentives even when not explicitly categorized as startup funding.

## Comparative Analysis:

### Before and After Union Budget Allocations for Agritech Startups in India

The comparative analysis focuses on the impact of fiscal measures on agritech startups by examining Union Budget allocations before and after key budget announcements from 2020 to 2026. While direct budget lines for startups are limited, several schemes, digital initiatives, and credit provisions provide indirect financial and operational support. The analysis is divided into key themes: funding, digital adoption, infrastructure, and policy support.

### 1. Funding and Credit Support

#### Before Budget (Pre-announcement):

- Agritech startups faced limited access to formal credit and grants.
- Investment relied primarily on venture capital or private equity, which was concentrated in urban tech hubs.
- Public sector funding was mostly channeled toward general agriculture programs, not specifically for startups.

#### After Budget (Post-announcement):

- Introduction of targeted credit schemes, subsidies, and research grants increased startup access to financial resources.
- Budget announcements emphasized technology adoption (AI, drones, IoT) and digital advisory platforms.
- Startups benefited indirectly via government-backed platforms like Bharat Vistaar and eNAM, improving market access and operational scalability.

**Observation:**

Budgets shifted fiscal support from generic agricultural programs to more startup-enabling instruments, particularly those integrating technology.

**2. Digital Infrastructure and Technology Adoption****Before Budget:**

- Digital adoption by startups was limited due to insufficient infrastructure and fragmented government platforms.
- Startups often needed to invest heavily in their own platforms and outreach networks.

**After Budget:**

- Allocation to AI-driven advisory services, smart agriculture tools, and digital marketplaces enhanced startup adoption.
- Startups could integrate with government digital platforms, reducing operational costs and expanding reach.
- Policies encouraged data-driven solutions, precision farming tools, and farm monitoring technologies.

**Observation:**

The budgets facilitated faster digital adoption, enabling agritech startups to scale more effectively with less upfront investment.

**3. Research, Innovation, and Sustainability Initiatives****Before Budget:**

- Research funding for agriculture and innovation was modest, limiting pilot projects and technology testing.
- Startups had limited collaboration opportunities with research institutions and government programs.

**After Budget:**

- Increased allocation for research, extension services, and innovation-driven agriculture programs.
- Fiscal emphasis on sustainability and climate-smart agriculture created opportunities for startups working on high-value crops and environmental solutions.
- Startups could leverage government-backed innovation hubs and incubation centers for collaboration and funding.

**Observation:**

Budgets post-announcement enhanced the innovation ecosystem, allowing startups to experiment with new solutions and expand sustainably.

**4. Market Access and Policy Alignment****Before Budget:**

- Market linkages were fragmented, with startups struggling to connect farmers to buyers.
- Policies were not explicitly tailored for technology-enabled agricultural entrepreneurship.

**After Budget:**

- Post-budget policies emphasized market integration through digital platforms, marketplaces, and data-driven decision support.
- Initiatives like Bharat Vistaar allowed startups to provide multilingual, AI-based advisory services to farmers, expanding market reach.
- Fiscal measures encouraged alignment between startups, farmer communities, and policy objectives.

**Observation:**

Post-budget measures reduced operational barriers and created a clearer policy framework for startup-led solutions.

**1. Bharat-VISTAAR (Multilingual AI Platform)**

- A new AI-enabled digital platform titled *Bharat VISTAAR* (Virtually Integrated System to Access Agricultural Resources) was announced to integrate the *AgriStack* digital infrastructure with the Indian Council of Agricultural Research's (ICAR) knowledge base.
- It aims to provide multilingual, real-time agronomic advisories, data-driven decision support, and tailored information to farmers across regions.
- This creates opportunities for agritech startups to leverage digital intelligence, localized advisories, and data analytics in their services.

**2. Emphasis on Technology-Led Farming**

- The Budget signals a stronger shift toward technology-driven agriculture, not just subsidy support, highlighting the role of AI, mechanisation, and smart farming practices.
- This policy orientation strengthens the environment for agritech startups developing precision agriculture tools, sensor-based systems, and automation technologies.
- The *response from industry leaders* notes that digital platforms and AI systems can lower risk and improve productivity for small and marginal farmers, who are major agritech adopters.

**3. Digital Advisory and Risk-Management Push**

- Budget commentary highlights a renewed push for digital advisory systems that can improve productivity, risk management, and market access for farmers.
- While not a formal scheme, this policy theme encourages agritech firms to innovate in AI-based advisory, data integration, and farm decision support services.
- It indirectly supports the growth of precision farming, automated decision tools, and tailored risk solutions by creating a strategic emphasis at the national policy level.

**4. Enhanced Allocation for Technology & Research**

- Union Budget 2026–27 increased overall agricultural allocations (~₹1.62 lakh crore), with part of this aimed at technology, research, agricultural education, and digital infrastructure.
- For example, nearly ₹10,000 crore has been earmarked for agricultural education and research, strengthening the knowledge base and innovation ecosystem that startups depend on.
- This enables agritech firms to tap into ICAR-linked projects, research collaborations, and science-backed advisory products.

**5. Focus on High-Value and Diversified Agriculture**

- The Budget placed emphasis on high-value crops (e.g., coconut, nuts, sandalwood, cocoa) and allied sectors like fisheries and livestock.
- Agritech startups working on crop diversification models, market linkages, post-harvest value addition, and niche crop technologies benefit from this policy orientation.
- Support for diversification widens the scope for specialized agritech solutions beyond staple crop production.

**6. Indirect Support via Rural Commerce & Credit Reforms**

- Although not exclusively agritech schemes, Budget discussions and market expectations include calls for digital public infrastructure (like *AgriStack* rollout), rural credit reform, and formal credit access for farmers and value chain participants.

- These reforms can indirectly help agritech startups by reducing financing barriers, improving data availability, and fostering integrated service delivery between farms and technology platforms.

### 7. Inclusive Agriculture & Livelihood Schemes

- Budget focus on *small and marginal farmers*, rural incomes, and allied activities (e.g., fisheries, livestock) creates a broader demand base for agritech services in areas such as livestock management technology, aquaculture solutions, and rural enterprise solutions.
- Startups in these adjacent domains can align with budgetary priorities to secure partnerships, funding, and rapid adoption.

### Union Budget 2024-25 (FY 2024-25) – Agriculture & Tech-Related Schemes

#### Namo Drone Didi Scheme

- Allocated around **₹500 crore** to provide drones (and training) to 15,000 Women Self-Help Groups (SHGs) to offer precision agriculture services.
- Enhances **precision farming** and technological use at the farm level, creating agritech-linked entrepreneurship opportunities.

#### Natural Farming Support under Mission on Natural Farming

- Aims to support **1 crore farmers** to adopt natural/chemical-free farming, backed by certification, branding, and bio-input centres.
- Accelerates adoption of sustainable agricultural practices that agritech startups working in soil, input, and sustainability tech can tap into.

#### Jan Samarth-based Kisan Credit Facilitation

- Enables issuance of Jan Samarth-based **Kisan Credit Cards (KCC)** across states through a **single-window digital platform**, integrating 13 government schemes.
- Improves access to credit and financial inclusion for farmer clients of agritech solutions (and indirectly supports startup market uptake).

#### Digital Public Infrastructure & e-NAM Acceleration (ongoing from 2023 onwards)

- Continued rollout of **Digital Public Infrastructure (DPI) for agriculture**, including digital crop surveys and farmer/land registries.
- Expansion of **e-National Agriculture Market (e-NAM)** — digital trading platform linking mandis and stakeholders — fosters digital supply chains.

#### Core Government Schemes Supporting Agriculture Sector

- (These existed before but continued with allocations in 2024-25)
- **Pradhan Mantri Kisan Samman Nidhi (PM-Kisan)** – direct income support.
- **Modified Interest Subvention Scheme (MISS)** – cheaper credit for farmers.
- **Crop Insurance Scheme (PMFBY)** – risk mitigation.
- **Rashtriya Krishi Vikas Yojana (RKVY)** – state-level agriculture development funds.
- **Krishonnati Yojana** – extension and technology dissemination.
- All of these provide **macro support for adoption of agricultural technologies** and reduce risk for agritech-linked services.

### Union Budget 2025-26 (FY 2025-26) – Agriculture & Startups-Oriented Schemes

#### Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY)

- Introduced as a **core agriculture development programme**, with an annual outlay of **₹24,000 crore**

over six years starting 2025-26.

- Focuses on **100 low-productivity districts** and aims to enhance crop productivity, diversification, irrigation, storage, and credit access.
- Converges about 36 schemes from various ministries, including technology and infrastructure components — creates a broad enabling environment for agritech innovation.

#### “Agriculture as the First Engine of Development” Initiatives

- Highlights several strategic interventions unveiled in Budget 2025-26:
  - **Mission for Aatmanirbharta in Pulses** – multi-year focus on pulse self-reliance.
  - **Enhanced KCC Credit Limits** – increased loan limits via Modified Interest Subvention Scheme to support 7.7 crore farmers.
  - Support for **post-harvest storage**, irrigation expansion, and rural skilling — all crucial to agritech uptake and service delivery.

#### Continuation and Scaling of Digital & Credit Initiatives

- Ongoing emphasis on smart agriculture technology, rural prosperity, and resilience programs that include:
  - Encouraging integration of **digital tools and data solutions** in farming.
  - Strengthening rural credit and financial inclusion — a key enabler for agritech platforms and services.
  - **Continued Major Agriculture Schemes (with budgetary support)**
    - **PM-Kisan Samman Nidhi (PM-Kisan)** — stable direct income support.
    - **Modified Interest Subvention Scheme (MISS)** — subsidised loans for farmers.

**Crop Insurance Scheme (PMFBY)** — crop risk coverage.

**RKVY & Krishionnati Yojana** — infrastructure, tech dissemination and productivity.

These provide foundational economic stability, creating **demand pull for agritech solutions** such as supply chain, analytics, and fintech offerings.

#### Policy Trends from 2024-25 to 2025-26

##### Key shifts and implications for agritech startups:

- **In 2024-25**, the budget focused more on **technology adoption at the grassroots** (e.g., drones for SHGs), **digitalisation of farming records**, and financial reforms that simplify access to credit.
- **In 2025-26**, the budget scaled up to larger structural interventions, notably the **Prime Minister Dhan-Dhaanya Krishi Yojana**, which aggregates several schemes and places agriculture (and associated technologies) at the center of development strategy.
- **Both budgets emphasised digital public infrastructure** — representing a growing policy orientation toward data-driven farming, which agritech startups can integrate with for advisory, predictive analytics, and platform services.

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