Sattva Knowledge Institute SKI primer

AGRICULTURAL FINANCE IN INDIA

September 2023

Acknowledgements

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EXECUTIVE SUMMARY

Agricultural finance in India is currently facing a crisis of high interest rates leading to higher debt percentages, lack of insurance financing for risk mitigation and unreported capital flows. Understanding these gaps will lead to the achievement of bigger opportunities and objectives such as increasing farmers' income, promoting resource efficiency, enhancing business opportunities and enabling food security.

Actors across the value chain (from input suppliers to exporters/wholesalers) have different financial needs, leading to the emergence of pivotal entry points for formal financial actors. **Input suppliers** require working capital for **R&D, Sales Optimisation, Transportation, and Maintenance.** **Producers** including farmers and FPOs have varying credit needs for **market linkage, farm mechanisation** and other operations. **Aggregators, processors, and distributors require credit** **for storage, warehousing and distribution** and exporters/wholesalers require credit for business **registration and optimisation.**

Actors such as **private entities, philanthropic funders and the government** enable financing mechanisms within the agriculture value chain and also provide financial assistance outside the value chain for startups and other agricultural companies. **Private Actors** include **commercial banks, non-banking financial institutions and fintech startups** investing in agricultural finance. **Philanthropic funders** comprise **international foundations, domestic foundations, CSRs, multilaterals and bilaterals,** each investing their capital with larger goals of capacity building, sustainability food security and nutrition. The government is involved through a set of techniques, mechanisms and investment in public schemes, policies and programmes.

Challenges across the value chain can be categorised differently for **demand-side value chain players and financial institutions.** A major challenge faced by the **demand side** is **high interest rates from NBFCs and formal financial institutions.** This, combined with complex credit application procedures, results in **40% of agricultural households** in India still **borrowing from informal institutions.** To facilitate credit access in India, agricultural finance needs to be made more accessible to small and marginal farmers, and less complex with strong credit delivery mechanisms.

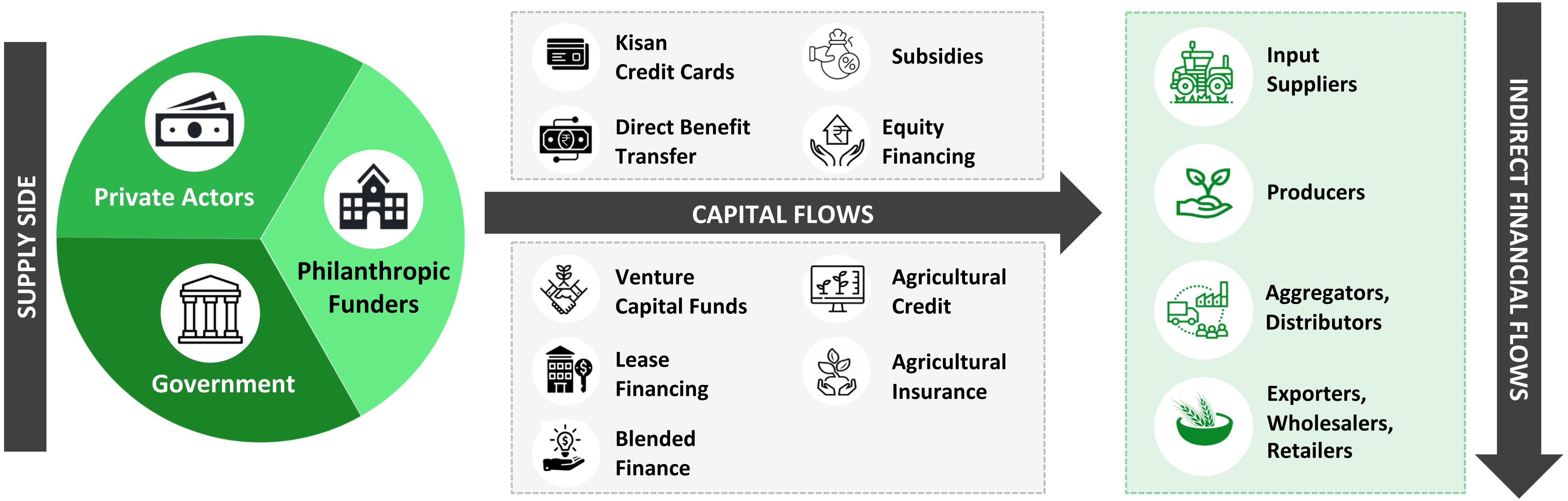
Supply-side challenges are more complex. Philanthropic funders see lower profitability rates in the agriculture sector, making it less attractive for them to fund agricultural operations. Limited access to credit histories of small and marginal farmers also make it less attractive for commercial banks to extend credit.

Upcoming trends such as blended finance models, tech and innovation in agriculture and increased capital flows towards innovative models have the potential to change the landscape of agricultural finance in India.

Key takeaway

Much of agricultural lending procedures are carried out by informal actors highlighting the urgency for public and private sector banks, philanthropic funders, NBFCs and other financial enablers to formalize lending procedures in agriculture.

Supply-side actors offer different financial instruments and channels to meet the financial requirements of actors in the agricultural value chain.



Enabling financial institutions become key players in agri-value chain. Apart from these players, ag-tech and fin-tech startups indirectly support the agricultural economy.

Financial instruments become enabling tools in conducting a smooth transfer of funds across the agri-value chain.

Actors across the value chain require funding for agricultural activities

Context/Challenges

01

Farmers rely heavily on informal lending in India, with Smallholder Farmers borrowing >70% total informal credit

02

Credit demand for FPOs is estimated to be at **Rs. 600 Crores** and would grow at an annual rate of 50%.

03

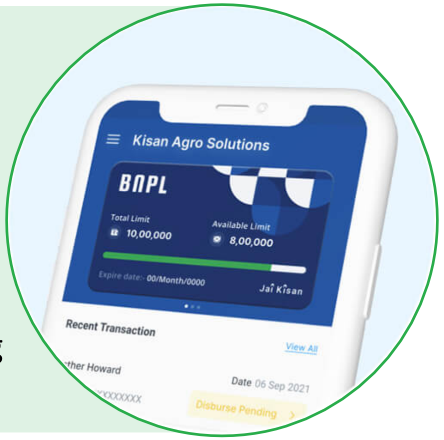
Indian seed market is expected to grow at ~5% CAGR, creating huge **demand for credit by input suppliers**

04

Most **banks** resorted to PSLCs and lent nearly **50% of their credit to large farmers** unable to meet the criteria of 8% for Small and Marginal Farmers.

Solution spotlight

- Introduced in: 2017
- Jai Kisan provides India's first ever fully digital Buy Now, Pay Later solution for rural businesses to provide formal credit to their customers and enable them to buy high quality products.
- Their services also include crop loans, working capital loans and equipment financing.



Impact

- **Registered and analysed 5500+ farmers**
- **Ease of repayment via EMIs has led to better financial inclusion**
- **Has reduced collection efforts as e-mandates automatically debit payments on due dates.**

INTRODUCTION TO AGRICULTURAL FINANCE

Agricultural Finance addresses multiple opportunities and objectives.

Agricultural financing refers to the **flow of funds** across **various actors** linked to a value chain. It relates to any or all of the **financial services, products and support services** used to address the needs and constraints of those involved in agriculture. It involves obtaining financing to secure sales, to procure products or reduce risk and improve efficiency.

Enhancing Business Opportunities

Generation of **business opportunities** through investment in agricultural infrastructure, strengthening of FPOs and ag-tech startups.

Increasing Farmers' Income

In India, farmers earn Rs. 10,218 (per month) which is 20% of the national per capita income (SAS 2021). Investment in agricultural finance through innovative credit schemes can help increase farmer incomes.

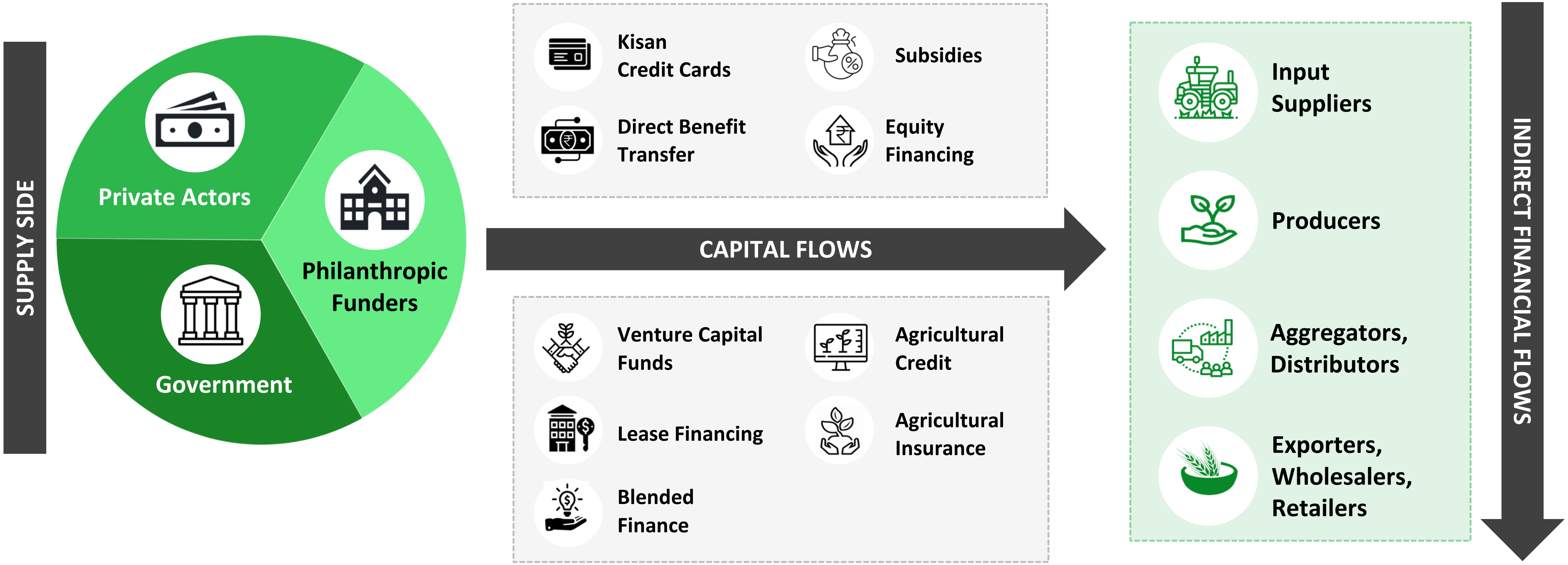
Promoting Resource Efficiency

India is a water-scarce country, with small and fragmented land holdings. The use of technology and farm mechanisation can improve **resource utilisation.**

Enabling Food Security

Rise in food demand indicates that climate-smart technology, **agri-food logistics and agri-processing** are areas of opportunity for financing by **philanthropic funders and private actors.**

Supply-side actors offer different financial instruments and channels to meet the financial requirements of actors in the agricultural value chain.



Enabling financial institutions become key players in agri-value chain. Apart from these players, ag-tech and fin-tech startups indirectly support the agricultural economy.

Financial instruments become enabling tools in conducting a smooth transfer of funds across the agri-value chain.

Actors across the value chain require funding for agricultural activities

Agricultural finance can be steered by increasing access to formal finance mechanisms, improved priority sector lending and investment in innovative financing models.

Agricultural Finance in India can be driven by three major needs.

01 Formal Financing Mechanisms for Small-Holder Farmers

Of the **small and marginal farmers (SMF)**, who comprise 86.2% of the total farmer population, approximately half were unable to borrow from either formal or informal sources (Microsave 2020).

02 Incentives for Priority Sector Lending

Most banks resorted to Priority Sector Lending Credit and lent nearly 50% of their credit to large farmers, unable to meet the criteria of 8% for small and marginal farmers (RBI 2017).

03 Innovative Agriculture Financing Models

Innovative Finance Models like 'buy now, pay later' schemes or artificial intelligence (AI) integration with value chain finance tailored to address unique challenges can enhance the finance sector in India.

Agriculture Finance in India involves a number of instruments, techniques and processes.

AGRICULTURE CREDIT

Agricultural credit refers to the **financial support and loans provided to farmers, agricultural businesses, and rural communities to meet their credit needs and support agricultural activities.** It plays a crucial role in the development of the agricultural sector by providing funds for various purposes, **such as purchasing seeds, fertilisers, agricultural equipment, livestock, and other inputs,** as well as investing in farm infrastructure and agribusiness projects.

AGRICULTURE INSURANCE

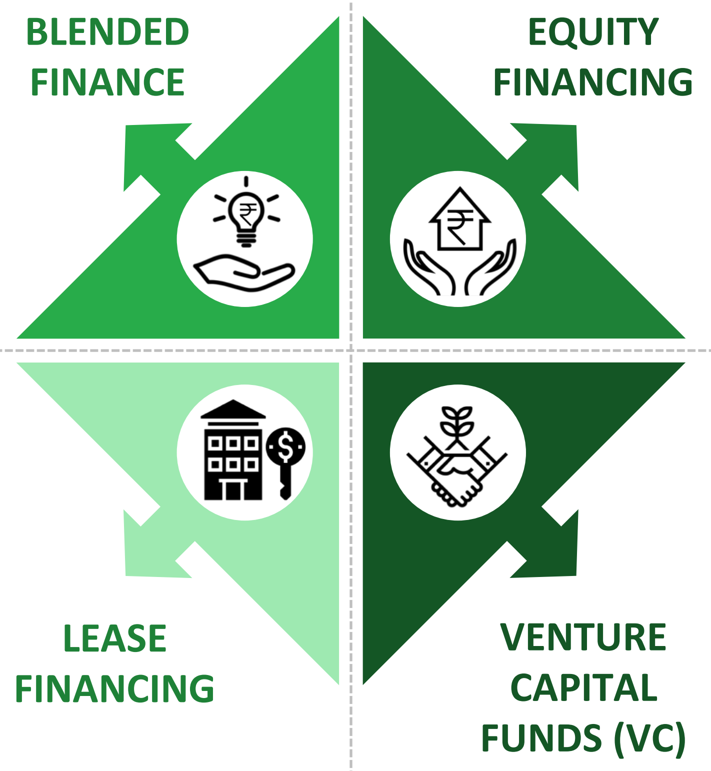
Agricultural insurance, also known as **crop insurance** or **farm insurance**, is a type of insurance coverage designed to protect farmers and agricultural producers from **financial losses** caused by various perils and risks that can affect their crops, livestock, and farming operations. It provides a **safety net** for farmers by compensating them in the event of crop failure, yield reductions, or damage to livestock due to covered events.

AGRICULTURE SUBSIDIES

Subsidies in agriculture refer to **financial support or incentives provided by governments to farmers or the agricultural sector.** These subsidies such as DBT transfers aim to promote agricultural development, ensure food security, and support farmers in times of economic hardship. Subsidies in agriculture can take various forms, and their implementation may vary from country to country.

Venture Capital, Blended Finance and Equity Financing are some emerging finance models.

Blended finance in agriculture refers to the strategic use of public and private funds, along with **other forms of support,** to finance agricultural projects and initiatives that have positive social, economic, and environmental impacts. It involves **blending different sources of capital, such as concessional funding, philanthropic investments,** development finance, and commercial investments, to address **financing gaps** and scale up agricultural projects that contribute to sustainable development.



Equity financing provides agricultural enterprises with **access to funds without incurring debt or interest payments.** It allows them to bring in external investors who share their vision and provide not only financial resources, but also expertise, networks, and support to drive growth and success in the agricultural sector.

Lease financing, also known as equipment leasing or capital leasing, is a financial arrangement where a company or individual obtains the right to use an asset (such as equipment, machinery, vehicles, or real estate) from a lessor in exchange for **regular lease payments.** Instead of purchasing the asset outright, the lessee (the party acquiring the asset) pays a **series of rental payments** over a specific period. Lease finance in agriculture is particularly beneficial for small and medium-sized farmers, who may have limited resources to purchase expensive farming equipment outright.

A venture capital fund is a type of **investment fund** that invests in early-stage startup companies that offer a high return potential but also come with a high degree of risk. The fund is managed by a venture capital firm, and the investors are usually institutions or high-net-worth individuals. In agriculture, these funds are managed by venture capital firms that specialise in agriculture, and seek to identify and invest in promising startups and companies with innovative solutions and technologies.

Since Independence, agricultural finance has observed a shift towards formalisation of finance institutions, formal credit policies and schemes.

1951 - 1969 — Phase I

- The RBI set up the Agricultural Refinance Corporation(ARC) in 1963 to provide medium and long term agricultural credit.
- The first phase of the nationalisation of banks took place in 1969 with 6,955 public sector bank branches.

1970 - 1990 — Phase II

- Regional Rural Banks were set up in 1976 to develop agricultural activities.
- Functions of RBI and ARC were merged to form NABARD in 1982 to carry out innovations smoothly.

1991-2010 — Phase III

- Kisan Credit cards were issued in 1998.
- The Interest Subvention Scheme was launched for short term crop loans in 2006.
- The Weather-based Crop Insurance Scheme was launched in 2007 to provide insurance protection to farmers

2010 Onwards — Phase I

- The PM Kisan Samman Nidhi was launched by the government in 2018 for minimum income support..
- The PM Kisan Maan Dhan Yojana, a voluntary and contributory pension scheme was launched in 2019.

Future Need

Despite efforts, only 29% farmers of India enjoy access to formal credit. High cost of service in formal banks and low creditworthiness of farmers hinder banks from providing credit. For better financial access to farmers, better implementation of schemes is essential.

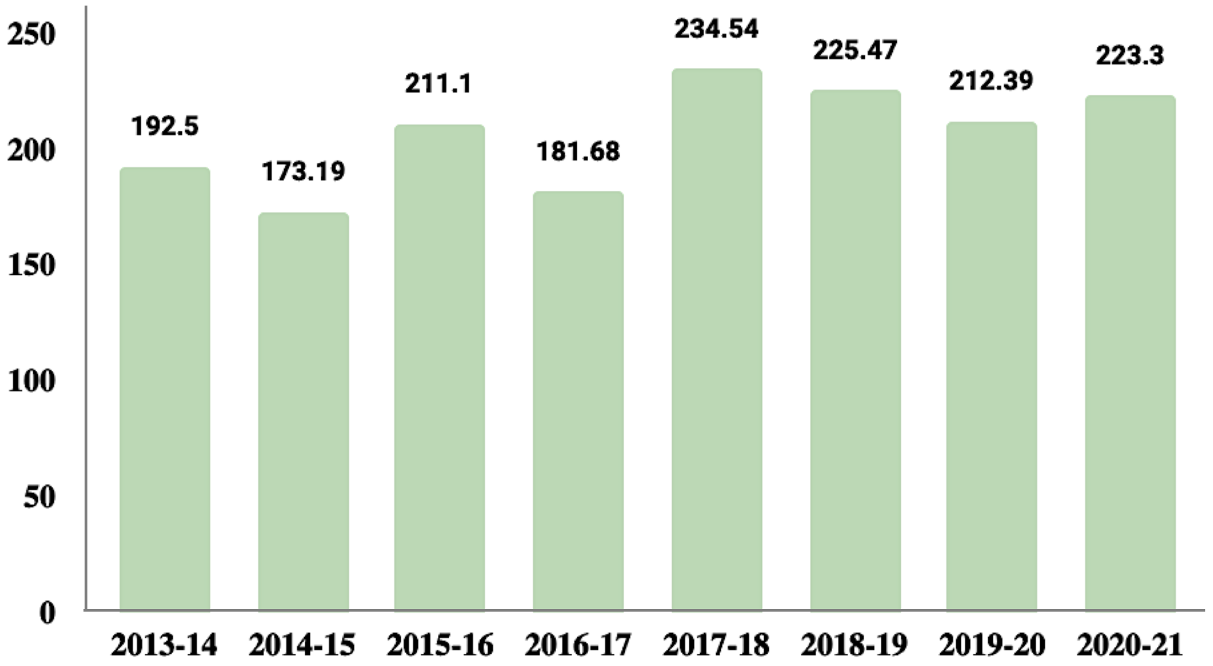
CREDIT REQUIREMENTS ACROSS VALUE CHAIN

Different financial instruments are required across the value chain for multiple financial needs.

	Value Chain Stages	Financial Needs	Financial Instruments	Major Financial Actors
Pre-Production	Input Suppliers	R&D, sales optimisation, transportation, marketing	Working capital, payments transfers, credit and bank transfers	Corporate banks, impact agencies, rural banks
Production	Producers	Infrastructure, labour, market linkage, farm mechanisation, operations costs	Short-term working capital for marketing, mid-term loans for equipment, loans for business development	Non-banking financial companies (NBFCs), rural and cooperative banks
Post-Production	Aggregators and Processors	Warehousing, storage, risk management costs, transportation costs	Warehouse receipt financing, lease payments, storage and transportation costs	Fin-tech startups, impact agencies, NBFCs
	Distributors	Transportation, labour costs, tech and e-commerce, marketing costs	Term loans for business development, working capital for marketing of processed products, credit for branding/certification, insurance capital for sisk with storage and warehousing	NBFCs, rural and cooperative banks
	Exporters, Wholesalers	Registration, business optimisation, credit requirements for direct sourcing	Credit for selling produce to retailers and agribusinesses, capital for providing to traders who buy the produce for wholesalers	Venture capitalists, supply chain tech companies, fin-tech companies

The Indian seed market is expected to grow at ~5% CAGR, creating a huge demand for credit by input suppliers.

High Quality Seed Requirement (in thousand tonnes)



Source: Agricultural Statistics at a Glance 2021

Key Facts related to input supply market in India:

Emerging Market for Seeds:

There is an emerging need for high quality seeds, with a cumulative average growth rate of **3.21%** (DES 2021).

Fertiliser Subsidies:

The estimates in subsidies (both urea and nutrient-based) have increased by **INR 1250 Crores** in FY24, from FY23 (MFBD 2023).

Agricultural Technology:

The estimates for **ag-tech and entrepreneurship** have seen a **growth by INR 300 crores in FY24**, from FY23 (MFBD 2023).

Input suppliers raise credit demand primarily for seeds and farm equipments.

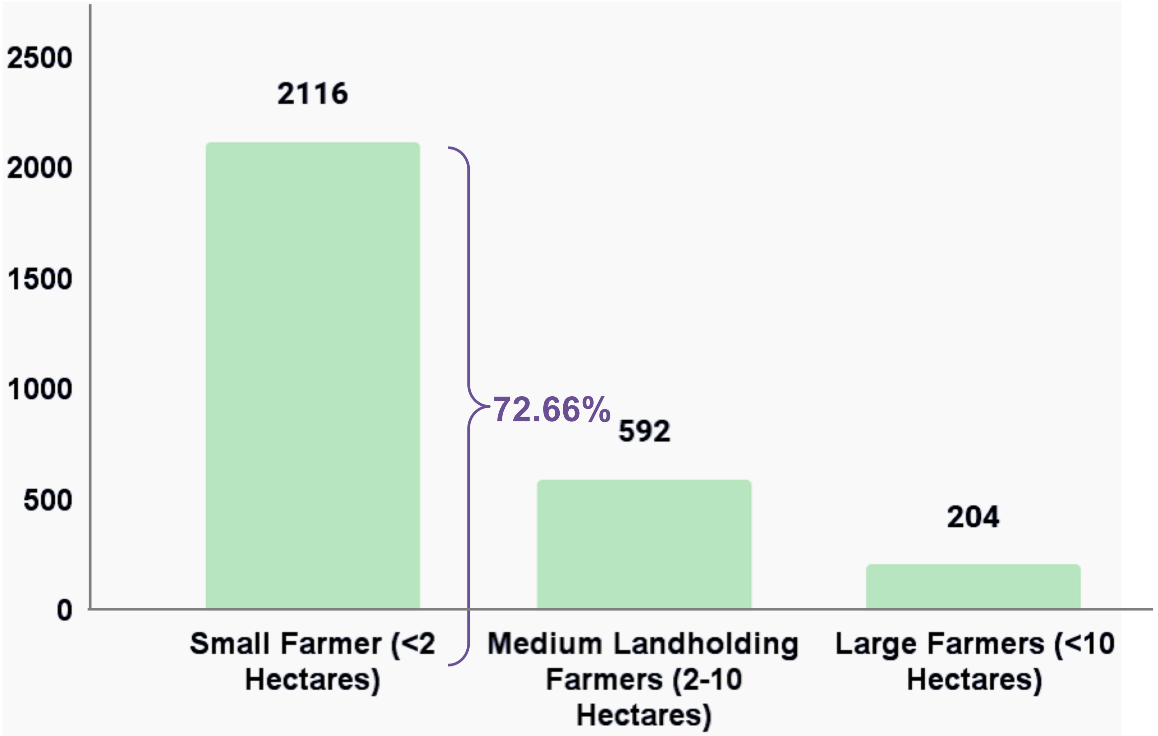
Input Suppliers provide farmers with the inputs necessary for production. These include seeds, chemicals, fertilisers and equipment, as well as technical assistance. They often vary in size, and have different and individualised financial needs.

INPUT SUPPLIERS

	Financial Needs	Financial Instruments	Financial Actors
SEED SUPPLIERS, CHEMICAL FERTILISER COMPANIES	• Research and development costs • Transportation costs • Marketing costs • Fintech costs	• Subsidies for scientific research in seeds and seed varieties. • Digital Financing for financial records and credit transfers to farmers.	**Government, Venture Capital Firms, Commercial Banks** pnb, ICICI Bank, Jai Kisan, IDBI BANK
FARM EQUIPMENT COMPANIES, (Irrigation, Pre- and Post-production techniques)	• Business optimisation, Market linkages • Farm mechanisation costs • Maintenance costs for farm equipments	• Working capital, credit and bank transfers for maintenance purposes. • Priority sector lending for input supplier companies • Digital financial services for market linkage to farmers	**Ag-tech companies** SAFL Sustainable Agro-commercial Finance Ltd., AGRIM, Mahindra AGRI BUSINESS, omnivore

Farmers rely heavily on informal lending in India, with SHFs borrowing >70% total informal credit.

Credit borrowed from Informal Institutions (in INR Crores)



Source: MoSPI 2012-2013

Informal Institutions include informal money lenders, relatives and friends.

Borrowing behaviour of SMFs in India

What is the debt percentage for small and marginal farmers?

On an average, 72% of small and marginal farmers are unable to pay back their loans when borrowed from formal institutions (MoSPI 2013).

Why do they borrow from informal institutions?

Small and marginal farmers end up borrowing from informal institutions due to flexible credit repayment options and inaccessibility of formal institutions due to higher interest rates.

What can be done?

Commercial banks need to relax credit criteria for SMFs and offer better lending opportunities under the Priority Sector Lending Scheme.

Small and marginal farmers seek credit primarily for working capital, asset financing and insurance.

SMALL AND MARGINAL FARMERS

	Financial Needs	Financial Instruments	Financial Actors
PRE-PRODUCTION STAGE	• Soil Preparation • Seeds, fertiliser application • Irrigation and mechanisation	• Working Capital for purchase of chemical fertilisers, seeds, irrigation equipments	pnb; ICICI Bank; बैंक ऑफ़ बड़ौदा Bank of Baroda; HDFC BANK; Jai Kisan; arya.ag; Cropin; BIJAK
PRODUCTION STAGE	• Pesticide and insecticide application • Labour, crop nutrient application	• Credit services for crop maintenance, working capital for hiring labour • Credit for investment in technology for crop-risk assessment.	
POST-PRODUCTION STAGE	• Harvesting, mechanisation • Market linkage costs • Storage and transportation costs	• Insurance capital for mitigating weather based risks • Warehouse receipt financing	

Note: 'Farmers' include everyone engaged in primary production including farmers, their families and seasonal/part-time workers.

Credit demand for FPOs is estimated to be INR 600 crores, growing at an annual rate of 50%.

FARMER PRODUCER ORGANISATIONS

	Financial Needs	Financial Instruments	Financial Actors
EARLY GROWTH/ INCUBATION STAGE	• Infrastructure development • Capacity building • Registration and operations	• Working capital loans used to finance the day-to-day operations of FPOs • Term loans for purchasing inputs	**Financial Actors: NBFCs, Commercial and Rural Banks** Samunnati, Kissandhan, NETAFIM™, NABKISAN, ANANYA Going Beyond Finance, caspian, केनरा बैंक Canara Bank, सिंडिकेटबैंक SyndicateBank, YES BANK, ANDHRA BANK
MID-STAGE	• Logistics: Storage and transportation • Market linkage, forging partnership with other POs, -Processing/ grading/ sorting	• Term Loans for business development • Working capital for marketing of processed products	
MATURE STAGE	• Market Engagement • Innovation, value addition - Agribusinesses connection	• Require credit for scaling up technology, quality and certification check	

Note: This estimate excludes large sized corporate FPOs such as Sahyadri, whose credit needs are larger, and should be assessed as a corporate loan rather than as a loan to an FPO.

Downstream actors within the value chain require credit for operations, machinery, storage and logistics.

		Financial Needs	Financial Instruments	Financial Actors
PROCESSORS AND DISTRIBUTORS	**TRADERS, AGGREGATORS**	• Procurement cost • Registration and operations	• Require credit for registration/ warehousing • Credit for hiring, business expansion.	**Impact Agencies, Agritech-Startups, NBFCs**
	PROCESSING UNITS	• Market Linkage, partnership with distributors - Processing/Grading/Sorting • Warehousing/Storage • Certification/Branding • Risk Management Cost	• Term Loans for business development • Working capital for marketing of processed products • Credit for branding/ certification • Insurance capital for risk with storage and warehousing	
	DISTRIBUTORS	• Transportation and distribution costs • Market engagement: Connections with exporters, wholesalers, retailers	• Working capital for purchasing, transportation, distribution • Market engagement cost	

Note: Processing and distribution stage includes the a) Local traders who will bundle products for onward sale into the domestic market; b) Commodity traders, which can either be local or multinational firms, that intend to sell primarily into the export markets; or c) Processors who require farmer production as a key input. All these actors have different financial needs across the value chain.

Exporters and wholesalers require credit for the formalisation of business and entering into retail contracts with agribusinesses.

EXPORTERS AND WHOLESALERS	Financial Needs	Financial Instruments	Financial Actors
	• Formal registration, business optimisation • Credit for buying from aggregators, or directly sourcing from FPOs/farmers	• **Short-term Credit:** For selling produce to retailers and agribusinesses • **Mid-term Capital:** For providing to traders who buy the produce for wholesalers • **Digital Financing Services:** For payments and bank transfers	ninjacart, crofarm, FarMart, SBI, HDFC BANK, IDBI BANK, unnati

Note:

a) These actors include all formal and informal enterprises involved in selling the produce to global or local retailers, smaller store-front retailers or to the supermarkets chain, which in turn sell the products to consumers.

b) Wholesalers often manage their credit relations in two directions. They provide the funding to the trusted traders so they may buy the product on their behalf, and they may provide products to retailers on credit, expecting to be paid after the products are sold.

AGRI-FINANCE INSTITUTIONS ACROSS THE VALUE CHAIN

Agricultural finance comprises a diverse range of stakeholders enabling financing options within and outside agricultural value chain.

Directly connected by providing and availing services

Value Chain Actors

Includes all actors within the agricultural value chain - from input suppliers to exporters and wholesalers

Private Actors | **Philanthropic Funders** | **Government Actors**

Financial Institutions

Provide resources, financial assistance and enable policies for corporates, start-ups and end users

Enabling Institutions

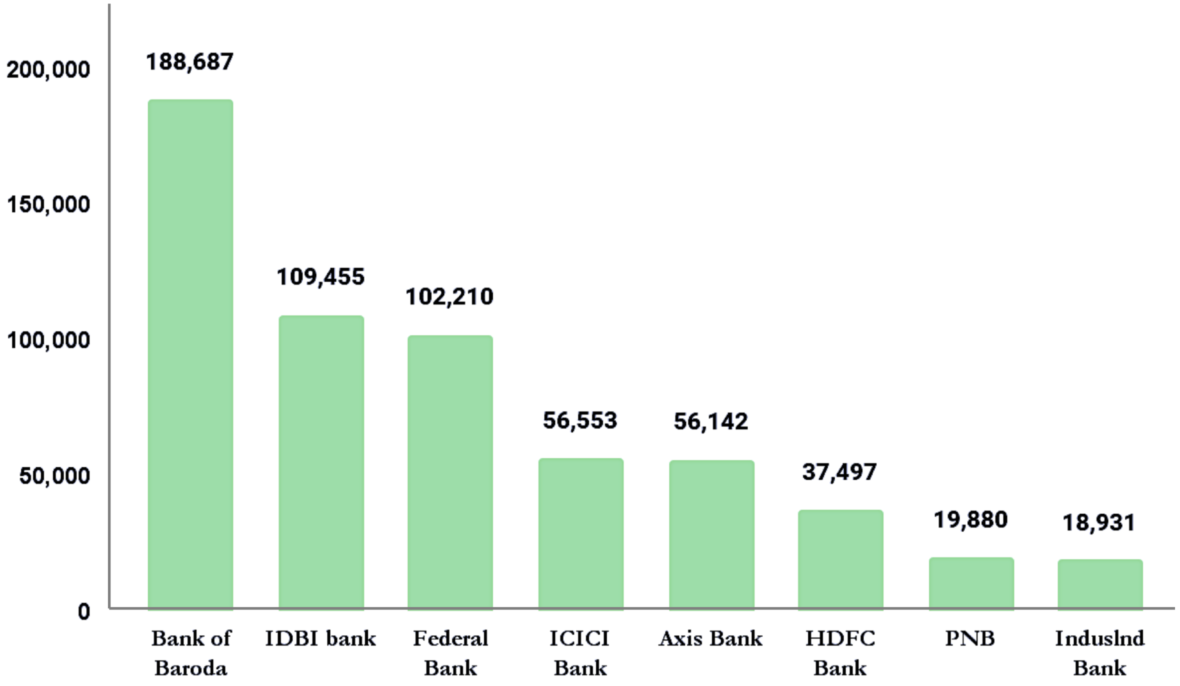
Facilitating access to funding, providing market insights, mentorship and guidance for investment

Financial institutions invest in agriculture through programmes in rural infrastructure, irrigation, fintech and FPO financing.

	Stakeholder Type	Type of Funding	Value Chain Engagement	Investment Focus Areas	Examples
PRIVATE ACTORS	COMMERCIAL/ CORPORATE BANKS	**Direct Funding:** Working capital and short term loans	Input supply and production	Rural infrastructure, irrigation facilities, farm development, market linkage in agriculture	ALLAHABAD BANK, payAgri, ValueFin, बैंक ऑफ़ बड़ौदा Bank of Baroda, pnb, FEDERAL BANK, NETAFIM, agribazaar, Cropin, StarAgri, Kissandhan, BIJAK, arya.ag, agriwise, Samunnati
	NON-BANKING INNOVATIVE ACTORS	Indirect investments	Value chain agnostic	Digital fintech models for standardising value chain, market linkage, price/risk assessment	
	NON-BANKING FINANCIAL COMPANIES	Direct Funding: Equity capital, term financing	Production Stage for FPOs, farmer groups	Tech and innovation support, risk management, infrastructural development	

In 2022, public and private sector banks gave credit worth Rs. 6 lakh crores under Priority Sector Lending for agriculture and allied activities.

PSL in Agriculture & Allied Activities (in INR Crores, till FY 2022)



Source: Annual Reports of Commercial Banks, 2021-2022

Priority Sector Lending (PSL) in India

National Targets by RBI towards PSL in Agriculture and Allied Activities:

18 per cent (RBI, 2021) of Adjusted Net Bank Credit or CEOBE, whichever is higher; out of which a target of 10 percent is prescribed for SMFs.

Priority Sector Lending (including loans to Small and Marginal Farmers):

Bank loans up to **₹2 lakh to individuals solely engaged in allied activities** without any accompanying land holding criteria are entitled for classification under SMF category of priority sector lending.

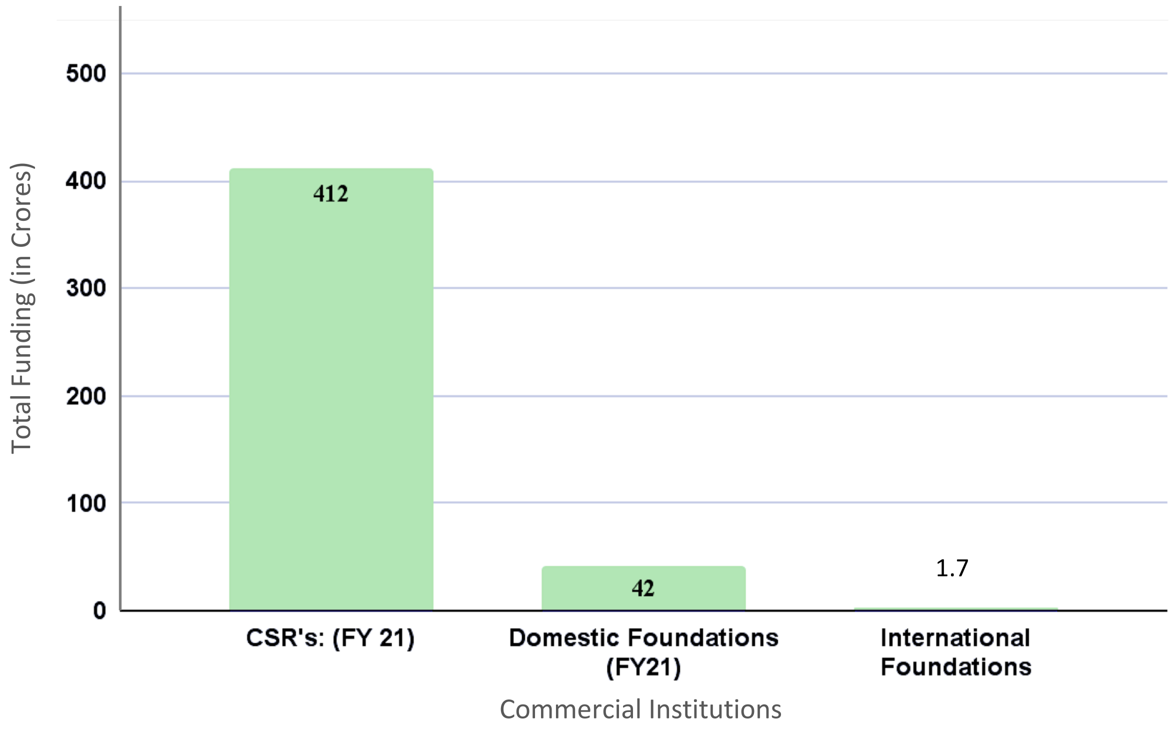
Bank of Baroda: PSL Credit to Agriculture and Allied Activities

Bank of Baroda has the highest priority sector credit directed towards agriculture and allied activities and has exceeded national PSL targets.

Finance through grants and subsidies is directed towards sustainability, capacity building and food security.

	Stakeholder Type	Type of Funding	Value Chain Engagement	Investment Focus Areas	Examples
PHILANTHROPIC FUNDERS	INTERNATIONAL FOUNDATIONS	Indirect Funding: Through grants, subsidies	Value chain agnostic	Sustainability in farming, food security, capacity building, FPO support	
	CSR	Indirect Funding: Through grants	Value chain agnostic	Rural livelihood, livestock enhancement, farmer's training and capacity building, irrigation	
	DOMESTIC FOUNDATIONS	Indirect Funding: Through grants	Production Stage: Farmers' Funding	Capacity building/ knowledge sharing, livelihood promotion, FPO support, market linkages	

CSR and domestic foundations are some of the major sources of philanthropic capital directed towards agriculture.

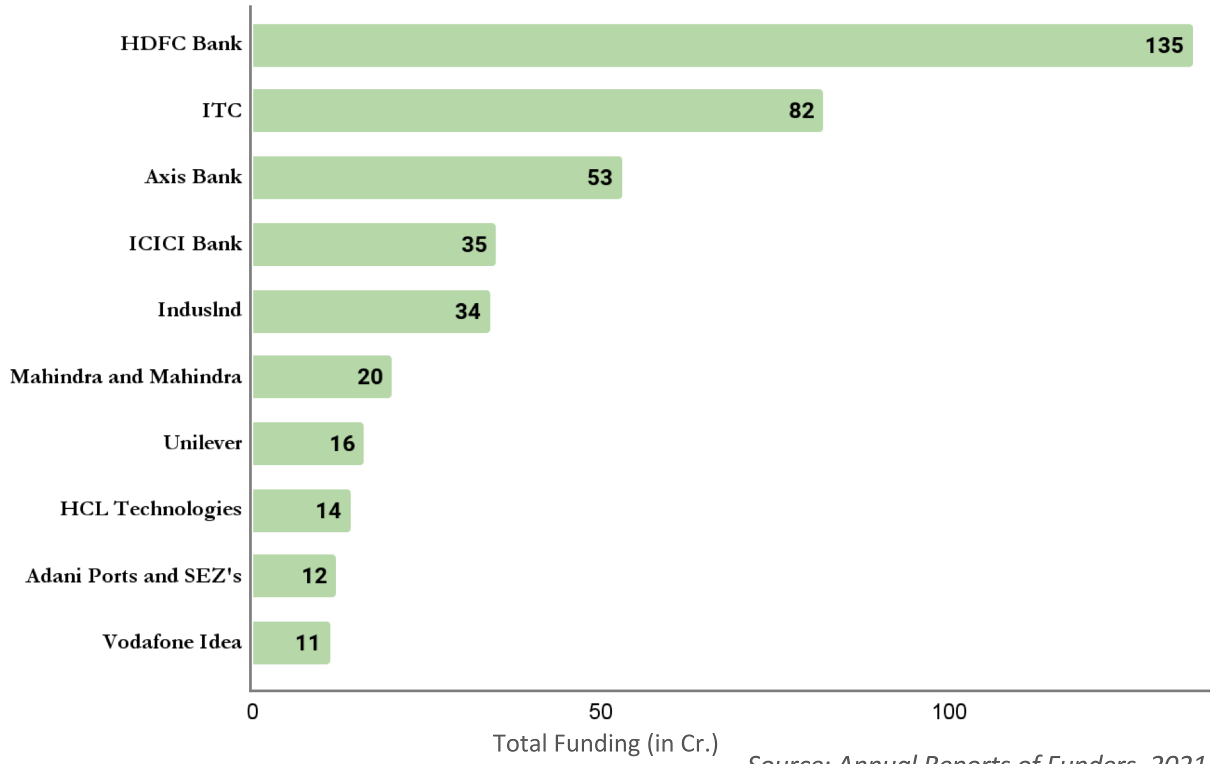


Source: SKI Research

- Companies report their agricultural spending under various broad sectors and had a total spending of Rs. 412 crores in FY 2021.
- Domestic foundations spent a total of Rs. 42 crores in FY 2021.

Top CSRs in agriculture include HDFC Bank and ITC; Banking, Financial Services and Insurance is the highest spending industry.

Total Funding (in Crores) **vs. CSR's: Top 10** (FY 2022)



Source: Annual Reports of Funders, 2021

	Vocational skills/ Skill development	Livelihood enhancement	Environmental sustainability	Disaster management	Women empowerment	Rural development	Eradicating hunger/ poverty	Education
HDFC Bank	✓	✓				✓		
ITC		✓	✓			✓		
Axis Bank	✓	✓	✓			✓		
ICICI Bank						✓		
IndusInd	✓	✓	✓					
Mahindra and Mahindra			✓	✓	✓	✓		
Unilever			✓					
HCL Technologies	✓		✓			✓	✓	✓
Adani Ports and SEZ's		✓						✓
Vodafone Idea								

- Vocational skills/ Skill development
- Livelihood enhancement
- Environmental sustainability
- Disaster management
- Women empowerment
- Rural development
- Eradicating hunger/ poverty
- Education

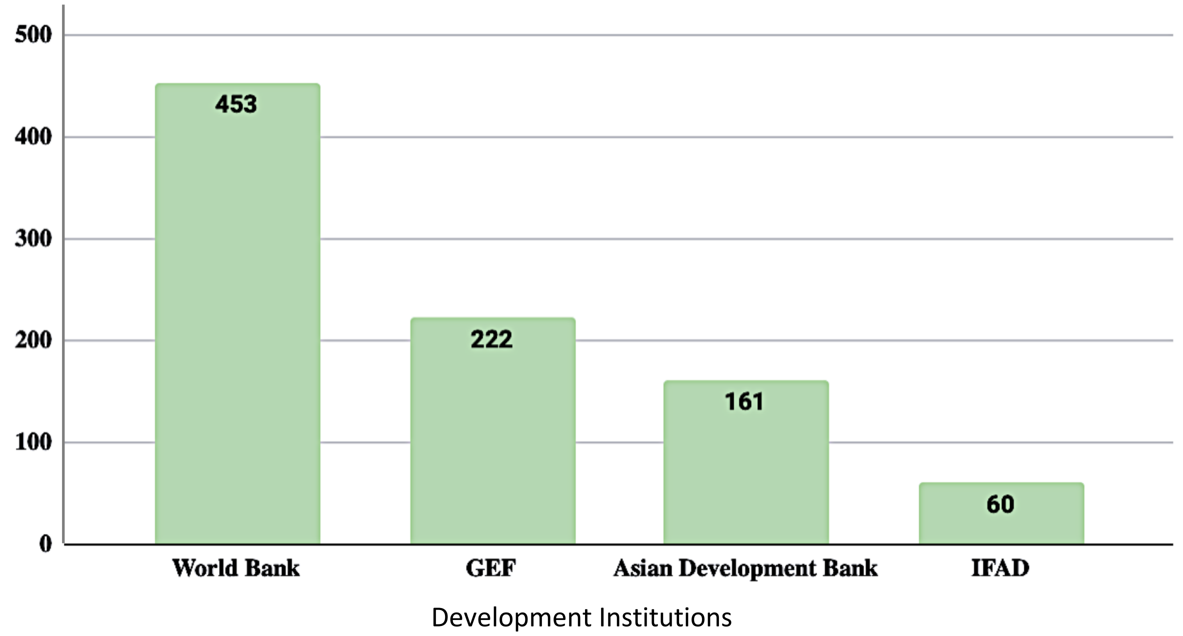
- Companies report their agriculture activities under various broad sectors – aligned with Schedule 7 of the Companies Act 2013
- HDFC Bank – Holistic Rural Development Program alone accounts for INR 118 crores of the total spend

Investment by multilaterals and bilaterals through grants and subsidies is directed towards agricultural innovation and employment generation.

	Stakeholder Type	Type of Funding	Value Chain Engagement	Investment Focus Areas	Examples
PHILANTHROPIC FUNDERS	**MULTILATERALS**	Indirect Funding: Blended Finance, grants, policy-based lending	**Value chain agnostic**	Agriculture transformation, food security, climate resilient agriculture, employment generation	gef; IFAD Investing in rural people; WORLD BANK GROUP; ADB ASIAN DEVELOPMENT BANK
PHILANTHROPIC FUNDERS	**BILATERALS**	Indirect Funding: Partnerships and collaborative measures, grants	**Agricultural innovation, processing and export**	Food security, climate resilience, nutrition interventions	USAID FROM THE AMERICAN PEOPLE; Sida SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY; Foreign & Commonwealth Office

The World Bank is the top funder among multilaterals, followed by Global Environment Facility.

Funding by Multilateral organisations towards agriculture and allied activities in India in FY '21 (in Rs. million)



# count of grants	14	4	9	3

Source: Press Releases, Reports of Multilaterals, 2021

Total grants = 30*

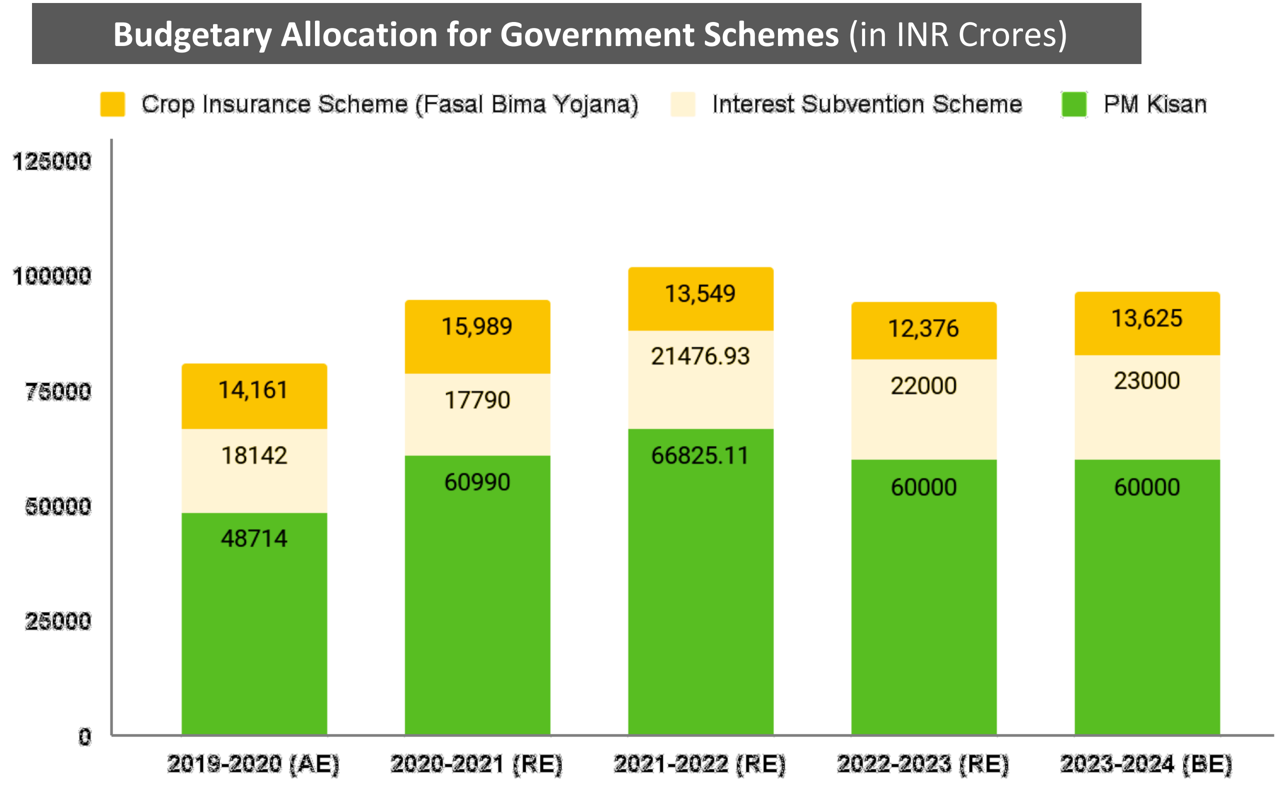
- World Bank has the highest # count of grants (14) and highest spend towards agriculture and allied activities ($453 M) (World Bank 2021).
- Fund amount for USAID was not found and hence it has been omitted from the chart – includes one programme to support farmers during the COVID-19 pandemic.

Source: Multilaterals website

The government leverages agricultural finance to increase farmers' incomes and generate employment.

	Stakeholder Type	Type of Funding	Value Chain Engagement	Investment Focus Areas	Examples
GOVERNMENT ACTORS	**GOVERNMENT BANKS**	Direct Funding: Subsidies, Term Loans, Insurance	Value chain-agnostic	Insurance Programmes for Farmers and FPOs, Short and Long Term Loans	SBI; सेन्ट्रल बैंक ऑफ़ इंडिया Central Bank of India; NABARD National Bank for Agriculture and Rural Development
	MINISTRIES AND GOVERNMENT DEPARTMENTS	Direct and Indirect Funding: Subsidies, Investments, Schemes	Value chain-agnostic	Irrigation, Crop Insurance, Price Support, R&D, Agricultural Technology, Capacity Building, Agricultural Mechanisation	कृषि एवं किसान कल्याण मंत्रालय Ministry of Agriculture and Farmers Welfare; कृषक यत्न रक्षणम्; पीएम किसान सम्मान निधि; NAFED 60 Years in Service
	IMPLEMENTING AGENCIES	Indirect Funding	Value chain-agnostic	Formation of FPOs, employment generation, sustainable farming	राष्ट्रीय सहकारी विकास निगम NCDC Assisting Cooperatives, Always!; NERAMAC North Eastern Regional Agricultural Marketing Corporation Limited; SFAC लघु कृषक कृषि व्यापार संघ

The Ministry of Agriculture and Farmers' Welfare, spent Rs.1.3 lakh crores in FY 23 to assist smallholder farmers for input procurement, crop insurance and short-term agricultural loans.



Source: Budget Releases (2019-2023)

- PM Kisan, PM Fasal Bima Yojana and Interest Subvention Scheme account for 80% of the total budgetary allocation in agriculture.
- PM Kisan Yojana accounts for 55% of the total budget, that is, Rs. 60,000 crores.
- All other programmes of the Ministry, including interest subsidy and crop insurance, have been allocated Rs. 64,514 crores in 2022-23 (MoAFW 2023).

DEMAND AND SUPPLY CHALLENGES IN AGRICULTURAL FINANCE

Low quality insurance, financial compliance and higher interest rates are severe challenges faced by input suppliers and producers.

INPUT SUPPLIERS

Inadequate Funding for Long-Term Capital

Inadequate funding for **establishing and maintaining business operations** is a major challenge faced by informal input suppliers.

Higher Cost for equipment and After-Sale Services

High risk of depreciation leads to higher demand for working capital. Input suppliers struggle to borrow working capital for after-sale services.

GST, Standards and Other Financial Compliance Challenges

Manufacturers face issues of **GST, excise and other tax duties** that need to be paid for **intermediate parts** which are imported and used for assembling the final product.

PRODUCERS

Lack of high-quality insurance for Smallholder Farmers

Sophisticated instruments, such as derivatives and high-quality **insurance credit are unavailable to smallholder farmers, as their farms are often too small to be economically verifiable.**

Lack of Documentation, Statutory and Compliance Measures

Banks mandate **strict legal compliances** for FPOs including **audited balance sheets** for three or more years.

High Interest Rates from Formal Institutions

Interest rates of formal NBFCs for lending to FPOs are as high as 14%. (Sammunati, 2020) This limits **early stage FPOs** (having low profitability) to draw loans from formal institutions.

Aggregators, traders, and retailers lack access to insurance and working capital.

AGGREGATORS AND DISTRIBUTORS

Lack of Insurance Capital for day-to-day Risks in Storage and Distribution

Aggregators and Distributors lack the access to insurance capital from formal institutions.

Lack of working capital for bulk borrowing, processing

Small-scale processors often lack the capital required to borrow in bulk from producers, or working capital required for equipments.

Increased Price Fluctuations in Domestic and International Market

Price fluctuations in the international and domestic market leads to volatility in price allocation, credit return and result in debt traps for processors and aggregators.

RETAILERS, WHOLESALERS

Issues of Compliance, Safety Standards

Formal institutions do not provide credit to wholesalers due to non-adherence to safety standards or other compliance issues.

Inadequate Funding for Business Operations

Exporters and Retailers face issues with funding for business operations. Much of the working capital for business operations is financed through informal lending channels.

Challenges for financial institutions emerge due to unfavourable risk-reward dynamics, high servicing cost due to limited access of creditworthiness of smallholder farmers to funders

	01 Commercial Banks	02 Government	03 Philanthropic Funders
FOCUS AREAS	Lending towards Small and Marginal Farmers	Decline in Subsidies and Price Support Scheme (MIS-PSS)	Low Returns for Impact Agencies and Philanthropic Funders
KEY CHALLENGES	**Limited Access to creditworthiness of farmers and early-stage FPOs, informal actors:** Financial actors have **limited information** about **cash flows** and **credit history** of agricultural producers and are unable to verify income information provided by SMFs.	**Policy Schemes in Agricultural Finance have largely focused on agricultural technology, with a decline seen in Price Support Scheme and Agricultural Subsidies:** Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM AASHA) scheme also went down from INR 1 crore to INR 1 lakh. (MIS-PSS)	**Lower profitability and productivity** in the agricultural sector makes it less attractive for investors, donors and impact agencies to fund agricultural operations. **Systemic, side-selling and other value-chain risks** inhibit the agencies from investing in the sector.

Priority Sector Lending, Public Private Partnership and Blended Finance has potential to increase uptake of agricultural credit among key financial institutions

	01 Commercial Banks	02 Government	03 Philanthropic Funders
FOCUS AREAS	PRIORITY Sector Lending	Public-Private Partnership	Climate Finance
PATHWAYS FOR ADOPTION	**Co-Lending between Commercial Banks and NBFCs:** NBFCs and MFIs play a pivotal role in **last-mile connectivity,** and additionally possess the capacity to understand borrowers' needs and ability to repay in rural areas. **Co-lending agreements** between NBFCs and major commercial banks **(for examples, Samunnati and SBI)** are paving the way for increased access to low-interest loans for SMFs.	**Establishment of a healthy credit structure through Public-Private Partnership:** Initiatives like JAM Trinity (Jan Dhan, Aadhaar, Mobile) allow seamless linkages that not only increases creditors' chances of repayment but also increases borrowers' access to formal credit.	**Sustainability Linked Loans and Blended Finance:** Symbiotics, the leading market access platform in collaboration with Samunnati has arranged its **Green Bond financing,** whereby the proceeds in local currency equivalent are fully allocated towards climate-smart agriculture. **Tropical Landscape Finance Facility (TLFF)** consists of a loan facility that funds projects using credit-enhancing instruments of development investors to leverage private finance.

FUTURE OF AGRI-FINANCE IN INDIA: UPCOMING TRENDS IN AGRICULTURAL FINANCE

Gender, Climate and Technology will become key levers driving innovation in Agricultural Finance.

Major Tailwinds for the Future

01	**Increased Focus on Gender and Minorities**	85% of rural women in India are engaged in agriculture and grow 60% of our food.(SKI Research) There has been an increased interest of investors and donors targeting women smallholder farmers, many of whom rely on only agriculture for their livelihoods.
02	**Positive policy push and increased Priority Sector Lending**	Total Credit to Agri under PSL: increased with CAGR of 16.81 per cent. (NABARD, 2021). Priority Sector Lending (PSL) enables better credit penetration to credit deficient areas, increased lending to small and marginal farmers and weaker sections and allied sectors that need credit boost.
03	**Advancements in financial technology and innovation**	Emerging innovations that facilitate data collection and decision-making using technology, data analytics and IoT models are being used by Agtechs to build models around price forecasting and the management and monitoring of crops.
04	**Increasing capital flows through Innovative Financing Models**	The total blended finance flows directed towards agriculture globally have reached nearly US$13.4 billion as of 2021. (Convergence, 2021) This is partly due to the emergence of blended finance mechanisms, where concessional funding is used strategically to catalyse commercial capital.
05	**Visible effects of climate crisis on Climate Finance**	With the emergence of climate crisis, there has been a need for Climate Financing and Sustainability-Linked Loans, which aim to facilitate and support environmentally and socially sustainable economic activity in agriculture.

ANNEXURE: INNOVATIVE MODELS OF FINANCING AGRICULTURE

01 Jai Kisan is a digital lending platform that provides credit to farmers and agri-entreprises

Value-Chain Agnostic

- Introduced in: 2017
- Jai Kisan provides India's first ever fully digital Buy Now, Pay Later solution for rural businesses to provide formal credit to their customers and enable them to buy high quality products.
- Their services also include crop loans, working capital loans and equipment financing.

Key Highlights

1. Jai Kisan offers Bharat Khata app to track expense and provide loans, and credit cards to rural businesses and individual financial needs.
2. It enables interest rate cuts by 50% in collaboration with NBFC's and Commercial Banks.

Impact

- **Registered and analysed 5500+ farmers**
- **Ease of repayment via EMIs has led to better financial inclusion**
- **Has reduced collection efforts as e-mandates automatically debit payments on due dates.**

02 Stellapps is an end-to-end food value chain platform that provides efficient animal insurance, dairy linkages and loans at reduced interest rates.

Production Stage: Livestock

- Introduced in: 2011
- **Stellapps** introduced the **moopay platform,** which brings loans and insurance to rural population and provides instant payments for milk pouring. It **aids in end-to-end digital lending services** ensuring digital inclusion of dairy farmers and offers reduced premium for animal insurance.

Key Highlights

1. It collects data via sensors embedded in animal wearables etc which is stored in cloud systems and then analysed by SmartMoo app.
2. Through its dairy management, it offers dairy insurance plan with minimal premium.

Impact

- More than **65%** customers are farmers with no banking experience
- Impacted **3.1M+** farmers across India
- More than **68%** women farmers impacted

03 Bijak helps exporters and wholesalers across India to buy or sell top-quality agricultural commodities at best rates, using price-risk management and technological interventions.

Producers, Suppliers

- Introduced In : 2019
- **Bijak** Limit allows quick and real-time disbursal of loans to buyers, enabling immediate payment to suppliers via its app.
- Gives access to the largest network of reliable and trustworthy agriculture buyers and suppliers.

Key Highlights

1. Acts as a B2B marketplace allowing producers and suppliers to check mandi prices and trade at real time prices via the app.
2. Bijak Credit helps farmers take credit and pay to suppliers directly. They repay to Bijak credit later.

Impact

- **Operates in 28 States/UTs**
- **Operational across 2000+ Mandis**
- **Has 200 + commodities like grains, fruits, onions etc listed on the app**

04 Arya.ag, India's largest grain commerce platform, provides a one-stop shop for FPOs ensuring easier financing with lower interest rates

Across Value Chain

AryaMitra provides **loans to Farmer Producer Organisations** with a line of credit to make quick and hassle-free payments to its farmers and input suppliers for any transaction.

It is an **easy-to-use platform,** with fast serving operations.

Key Highlights

1. Arya also uses low interest, with no hidden fees to process lending to FPOs.
2. Arya uses easy documentation processes, with faster processing and quick disbursement of loans against FPOs

Impact

- **Loans sanctioned within 24 hours**
- **Loans with low-interest rates and no hidden charges**
- **Operates in 350+ locations**

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