



www.farmily.com



EMPOWERING FARMERS: ELIMINATING MIDDLEMEN FOR FAIR TRADE

TEAM - 15



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Abstract



- Farmily is a multilingual digital mandi and farmer's assistant web platform connecting farmers directly with buyers, eliminating middlemen exploitation
- Integrates 14 decision-support tools (AI price advisor, crop doctor, mandi prices, etc.)
- Developed with community partner Palle Srujana based on farmer surveys (72% depend on middlemen)
- Aligns with SDGs 1 (No Poverty), 2 (Zero Hunger), and 9 (Innovation)
- Built with HTML, Tailwind CSS, JavaScript, and government APIs (data.gov.in)



Problem Statement Overview

Farmers in rural regions. They were chosen because they are affected by reduced profits due to middlemen. Farmers in India often struggle to get fair prices for their produce due to the involvement of multiple middlemen and Farmers often depend on middlemen to sell their produce.

This results in lower income for farmers and inflated prices for consumers.

Aim: Build a platform that enables direct interaction and trade between farmers and consumers, increasing profitability and transparency. The verified Sell Page is Farmily's core differentiator.

Survey Table:

PARAMETER	PERCENTAGE (%)	Description
Farmers dependent on agents	72%	Rely on Middlemen for selling crops
Low profit margins	76%	Farmers earn less due to unfair pricing and limited market access.
Unaware of Market rates	63%	No real-time pricing information
Smartphone usage	70%	Have smartphones with internet



Ground reality of Indian Smallholder farmers

- **86 % of India's 146 million farm holdings are < 2 ha, making scale & profit margins razor-thin.**
- **Income volatility is high: ~60 % earnings come just twice a year at harvest time.**
- **Farmers juggle production, transport, and sales with limited digital literacy and poor market access.**
- **Weather shocks, rising input costs, and post-harvest losses together erode up to 20 % of net income annually.**
- **Digital tools exist, but most are single-service apps or only in English, failing to reach rural users at scale.**

Middlemen Exploitation Loop

- Typical supply chain:
Farmer → Village Trader → Commission Agent → Wholesaler → Retailer.
- Each layer adds fees (2–8 %) plus transport & handling, slashing the farmer's share to < 30 % of retail price.
- Middlemen often extend high-interest credit, creating debt-price dependency cycles.
- Quality is undervalued; farmers receive a single “lump” price regardless of grade.
- Youth exit farming seeing no profit, accelerating rural out-migration and knowledge loss.

Fragmented Advisory & Language Barriers

- Agronomy advice is scattered across YouTube, PDFs, WhatsApp groups—hard to validate for accuracy.
- Government scheme details are posted on portals in English/Hindi; regional farmers miss benefits.
- Voice-to-text or chatbot support in Telugu, Marathi, Tamil, etc., is rarely integrated with market tools.
- Offline villages (2G/3G) need lean, low-bandwidth solutions, but most apps are heavy and ad-driven.
- Net effect: information exists, but discoverability and usability remain shockingly low.



Summary of What's missing? and Opportunity Gap

- **Economic:** Low, unpredictable farm-gate prices; high input and logistic costs.
- **Informational:** Real-time data (prices, weather, schemes) unreachable in local languages.
- **Operational:** No single platform blends selling, learning, and government support in one place.
- **Social:** Heavy dependence on middlemen breeds mistrust and erodes farmer autonomy.
- **Opportunity:** A multilingual, mobile-first, low-data web platform can collapse information silos, give transparent price discovery, and lay groundwork for future IoT / fintech integrations—empowering farmers while fitting first-year project scope.



Need Statement from Community partner

Community partner Mr. Venkat Reddy, an irrigated-paddy farmer from Nalgonda, Telangana:

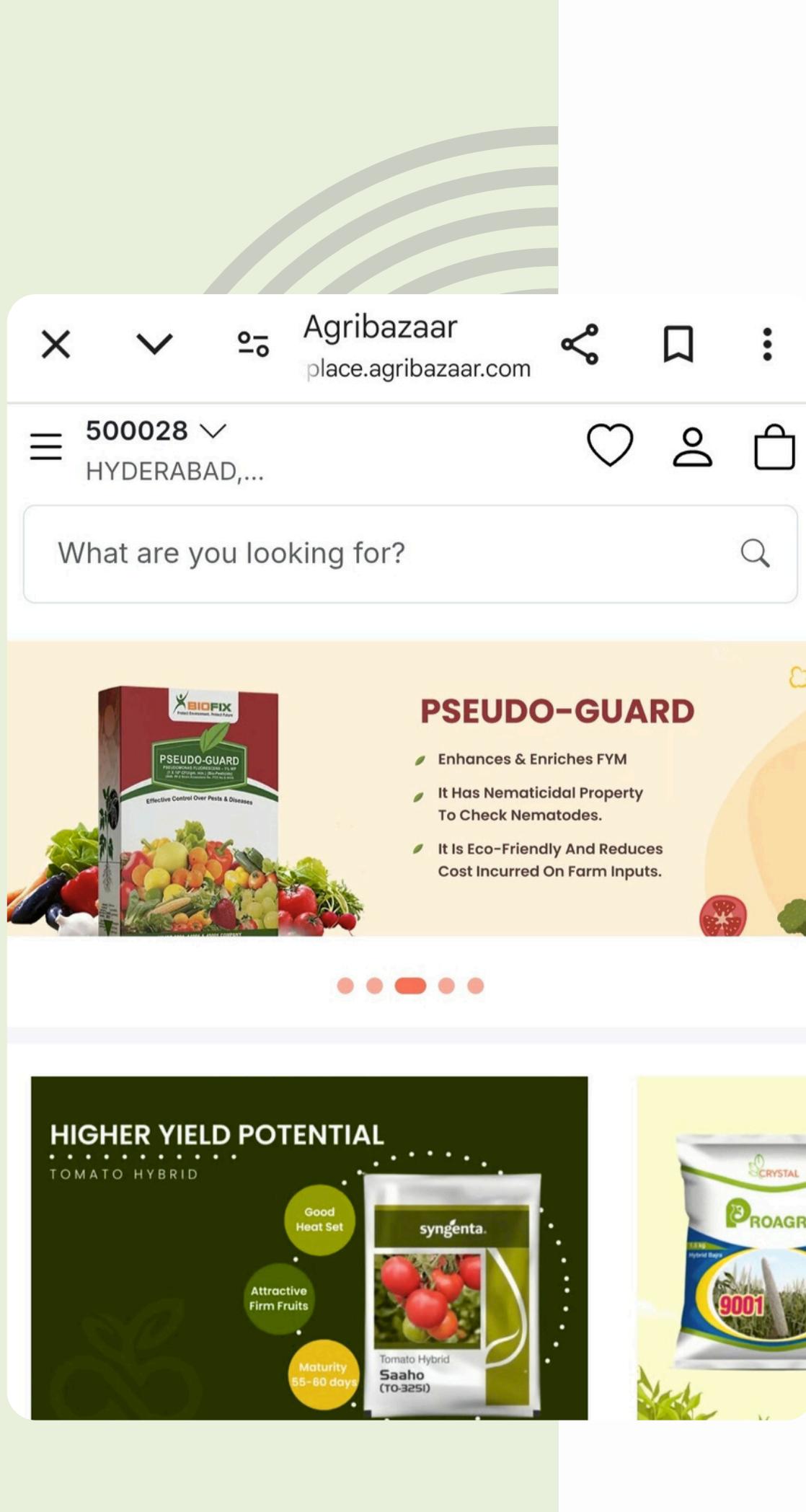
**“We simply want fair prices and trusted buyers without leaving the village.
Give us an app we can use in Telugu even if the network is weak.”**

Requirements extracted:

1. Real-time, trustworthy price discovery.
2. Direct listing & order confirmation by phone.
3. Telugu/Hindi UI + voice search.
4. Works on ₹6-k Android handsets (2 GB RAM).



Research on Existing Solutions



AgriBazaar:

Offers an online marketplace for crops with mandi price listings and logistics. But it lacks transparency in price setting and isn't fully accessible in rural regions.

eNAM:

Online mandi system that enables price discovery and trading. However, it's region-limited and lacks farmer support features.

Ninjacart:

Connects farmers to retailers, but service is unavailable in many rural areas. It also lacks advisory tools and price insights.



Flaws in Existing Solutions



AgriBazaar:

Limited rural reach and lacks price transparency.

eNAM:

Unreliable listings—users post random prices (e.g., almonds at ₹1/kg), reducing trust.

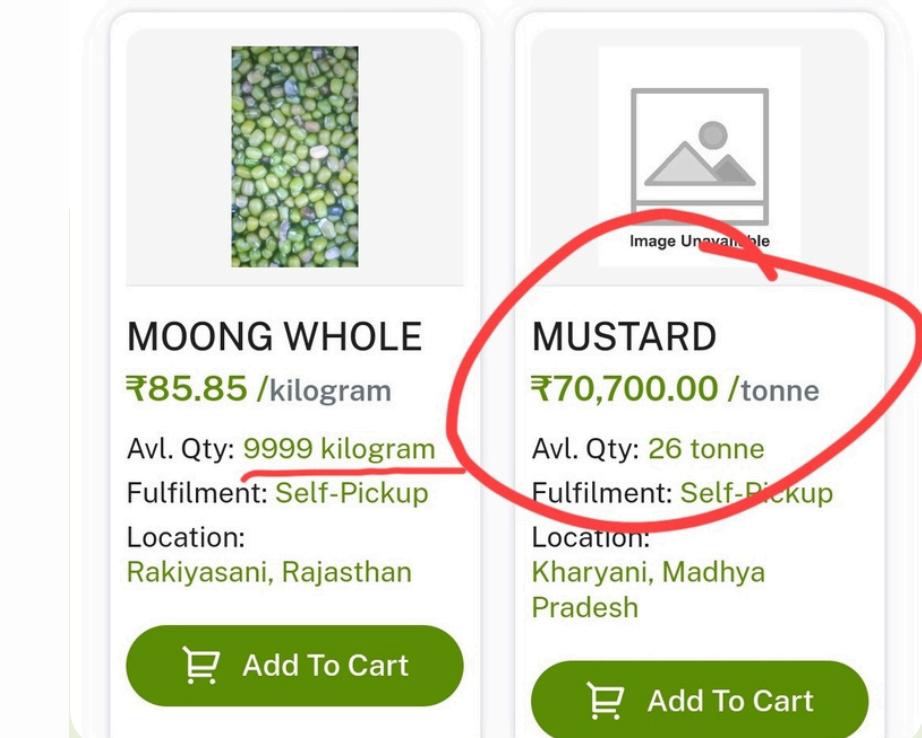
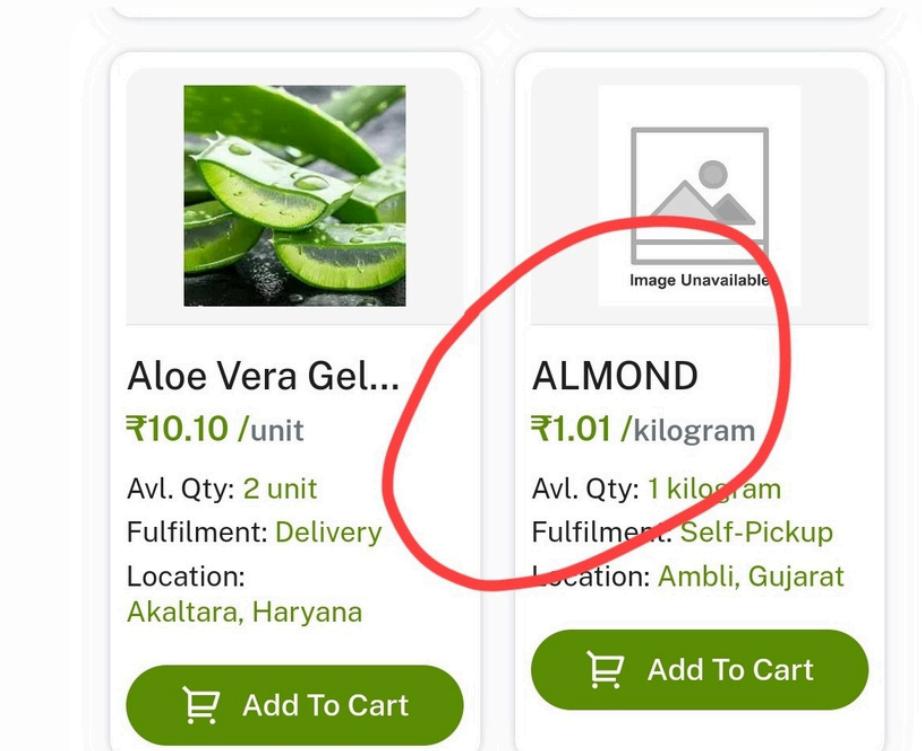
Ninjacart:

Not available in many rural areas; lacks farmer-focused features.

WhatsApp/Telegram Groups:

Unorganized, no quality control or verified buyers.

Incorrect Price Tags



Available in Only Few Regions



Mehdipatnam, Hyderabad



Sorry, we are currently not serving in this area.
Please select another area.

Community Partner:

Palle Srujana

- It is an organization that works closely with farmers and rural innovators.
- Grassroots Innovation platform.
- Provided insights and validation to build the solution.



Raj varshith
Mehdipatnam,
Telangana

Farmily

English

Proposed Solution

Main Solution:
Farmily Website
(under development)

Unique Selling Point:

Farmily is a website where farmers can list and sell products directly to buyers - removing middlemen.

How it works:

1. Farmer signs up and creates product listings
2. Buyer places an order
3. Logistics team collects and delivers product

Applications:

- Better decision-making through the weather and pricing tools
- Educating farmers on crop health and fertilizer usage (crop guide)
- Platform for direct selling

Features Developed:

- Weather Forecast
- Real-Time Mandi Price (via data.gov.in API)
- Crop Care Guide
- Fertilizer Calculator
- Product Categories
- Cart Functionality
- Translation Support

28°C
Partly Cloudy

Today's Market

↑ Tomato ₹135/kg

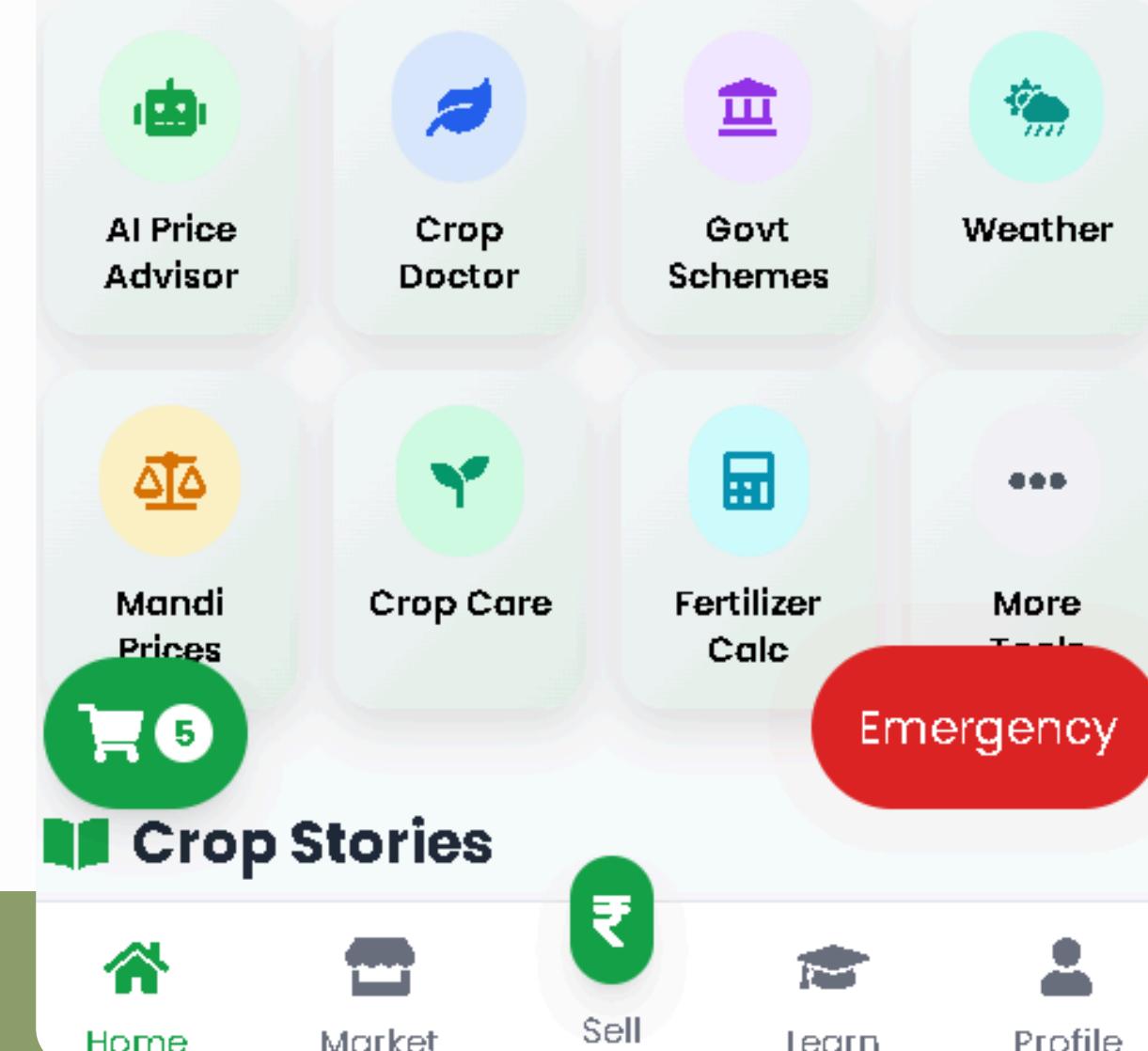
₹ 8,240
This Month

AI Suggested Fair Price

Your tomatoes could get ₹135/kg (22% more)

Sell Now

Farmer's Toolkit





₹120/kg
₹133.33 10% OFF

Description
Fresh organic mangoes from our farm. Grown without chemical pesticides. Alphonso variety with sweet taste and rich aroma.

Delivery
Same day harvest

Sold by Raju Farms
Nalgonda, Telangana
★ 4.5 | Member since 2021

Available: 150 kg - 1 +

Add to Cart **Buy Now**



Provides real-time mandi prices from trusted government sources using APIs. Helps farmers make informed selling decisions, track price trends, and avoid exploitation by middlemen.

← Sell Your Produce

1 Upload Photos



Add clear photos from different angles (max 4)

- 1 +



An upcoming module where farmers can list their produce directly for consumers or local buyers. Promotes fair pricing, transparency, and a direct farm-to-market ecosystem.

← Farmer's Learning Center

Search for farming techniques, crop

1 Featured Video Tutorials



Organic Farming Techniques for Small Farms
Learn sustainable practices to increase yield with no chemicals.



Includes crop care guides, weather-linked recommendations, fertilizer calculators, and visual learning content. Helps farmers improve productivity, adopt climate-smart practices, and prevent losses.

Eligible Government Schemes

PM-KISAN

₹6,000/year income support

Status: Eligible

[Apply Now](#)

Soil Health Card

Free soil testing

Status: Eligible

[Apply Now](#)

Crop Insurance

Premium subsidy available

Status: [Check eligibility](#)

[Learn More](#)

Live Mandi Prices

Search crops...

Crop	Market	Min Price	Max Price
Tomato	Nalgonda	₹110/kg	₹135/kg
Paddy	Nalgonda	₹1850/q	₹2100/q
Cotton	Nalgonda	₹5750/q	₹6300/q
Chilli	Nalgonda	₹120/kg	₹150/kg

Price Trends

- Tomato prices up 12% this week due to reduced supply
- Paddy prices stable with government MSP support
- Cotton expected to rise 5-8% in coming weeks

Fresh Tomatoes

₹50 per unit



-

1

+

Organic Apples

₹120 per unit



-

1

+

Wheat Flour

₹80 per unit



-

1

+



₹250

Total:

[Proceed to Checkout](#)

GOVERNMENT SCHEMES

Aims to provide easy access to scheme information like PM-KISAN, insurance plans, and subsidies.

Guides farmers with simplified eligibility, benefits, and how-to-apply steps in local languages.

REAL-TIME MANDI PRICES

Farmers can instantly access real-time mandi (market) prices for their crops, helping them make better selling decisions and avoid exploitation by middlemen.

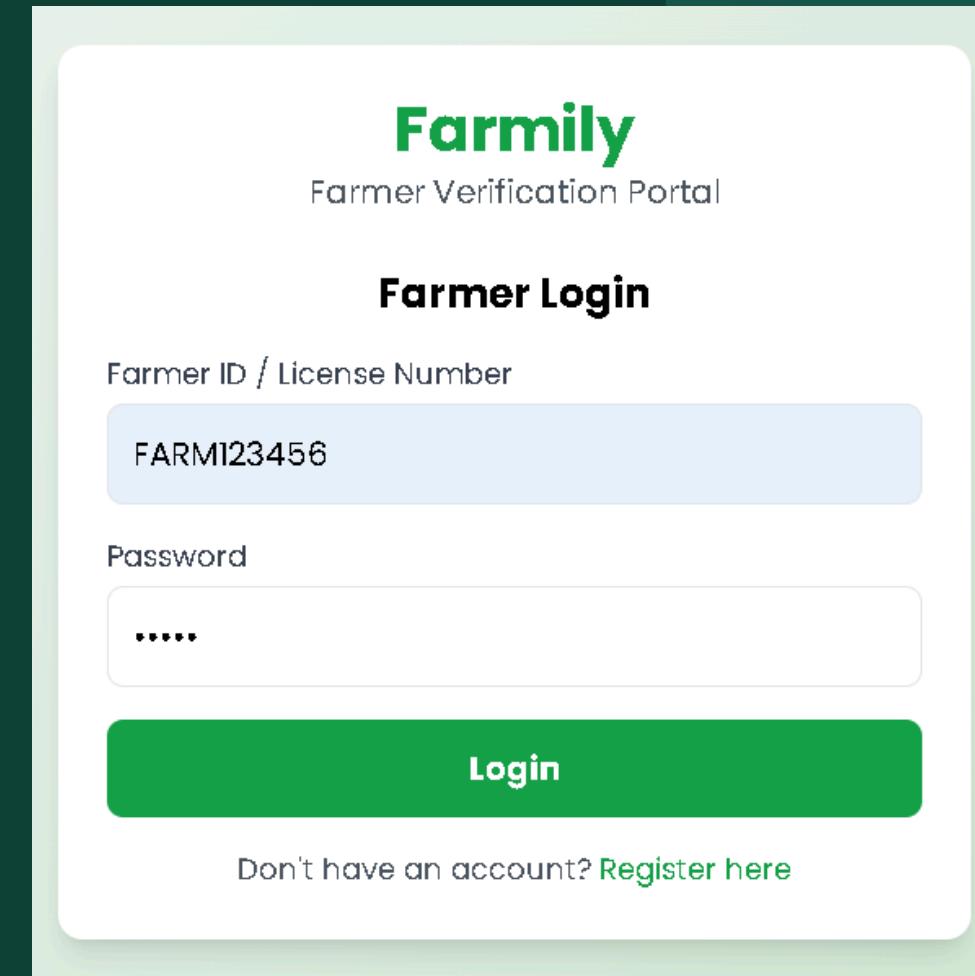
CART SYSTEM

A user-friendly cart feature lets farmers list their produce or purchase items with ease, just like any modern e-commerce platform—ensuring smooth transactions.

Sell Page - Verified Farmer Marketplace

Login & Verification:

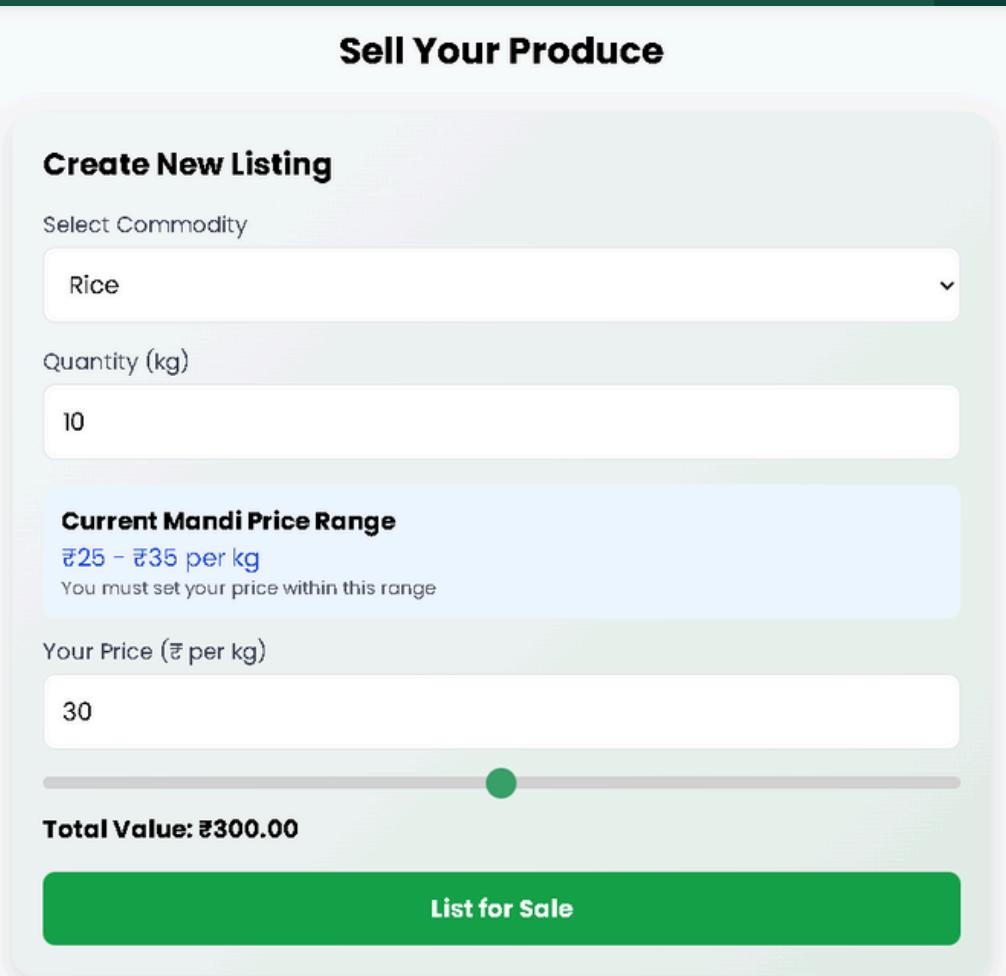
Only registered farmers with valid government-issued Farmer ID (e.g., Kisan ID / Aadhaar-based verification) can login. Ensures trust and prevents fake sellers.



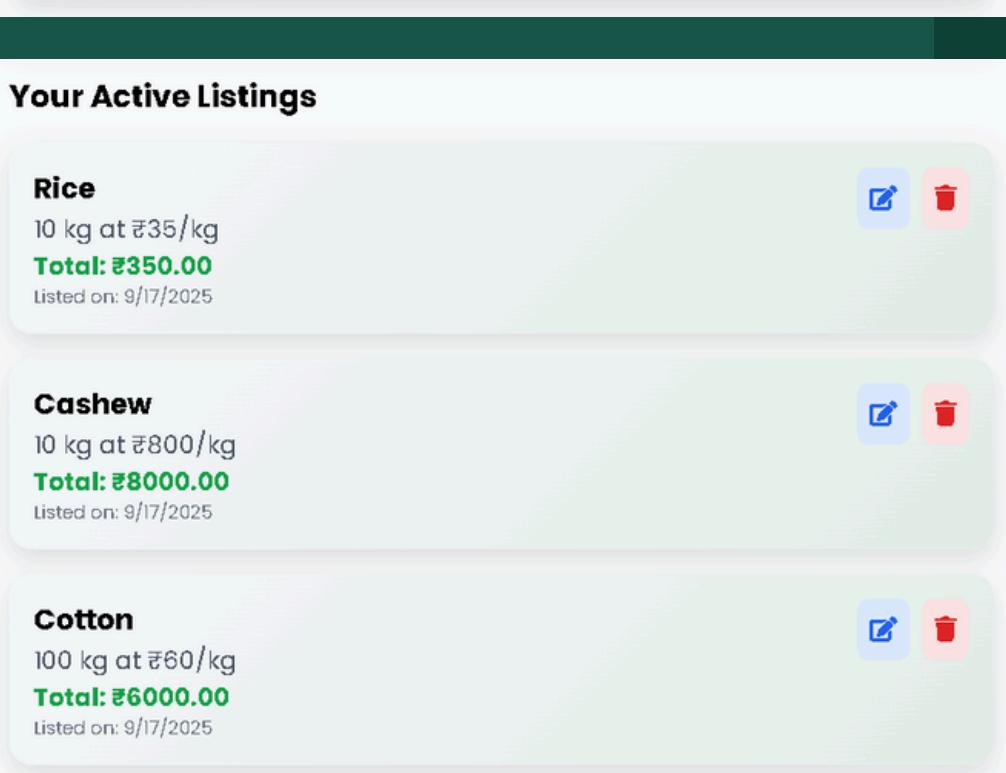
The screenshot shows the 'Farmer Login' page of the Farmily portal. At the top, it says 'Farmer Verification Portal'. Below that is a 'Farmer Login' section with fields for 'Farmer ID / License Number' containing 'FARM123456' and 'Password' containing four asterisks. A large green 'Login' button is centered below the fields. At the bottom, there's a link 'Don't have an account? [Register here](#)'.

Listing Produce:

After login, farmers can list their crops for sale. Price setting is linked to real-time mandi API → farmers must choose a price within the min-max range (like FIFA card market system).



The screenshot shows the 'Sell Your Produce' section of the portal. It starts with a 'Create New Listing' header. Under 'Select Commodity', 'Rice' is chosen. The 'Quantity (kg)' is set to '10'. A note says 'Current Mandi Price Range ₹25 – ₹35 per kg' with a sub-note 'You must set your price within this range'. The 'Your Price (₹ per kg)' is set to '30'. A slider shows the 'Total Value: ₹300.00'. A large green 'List for Sale' button is at the bottom.



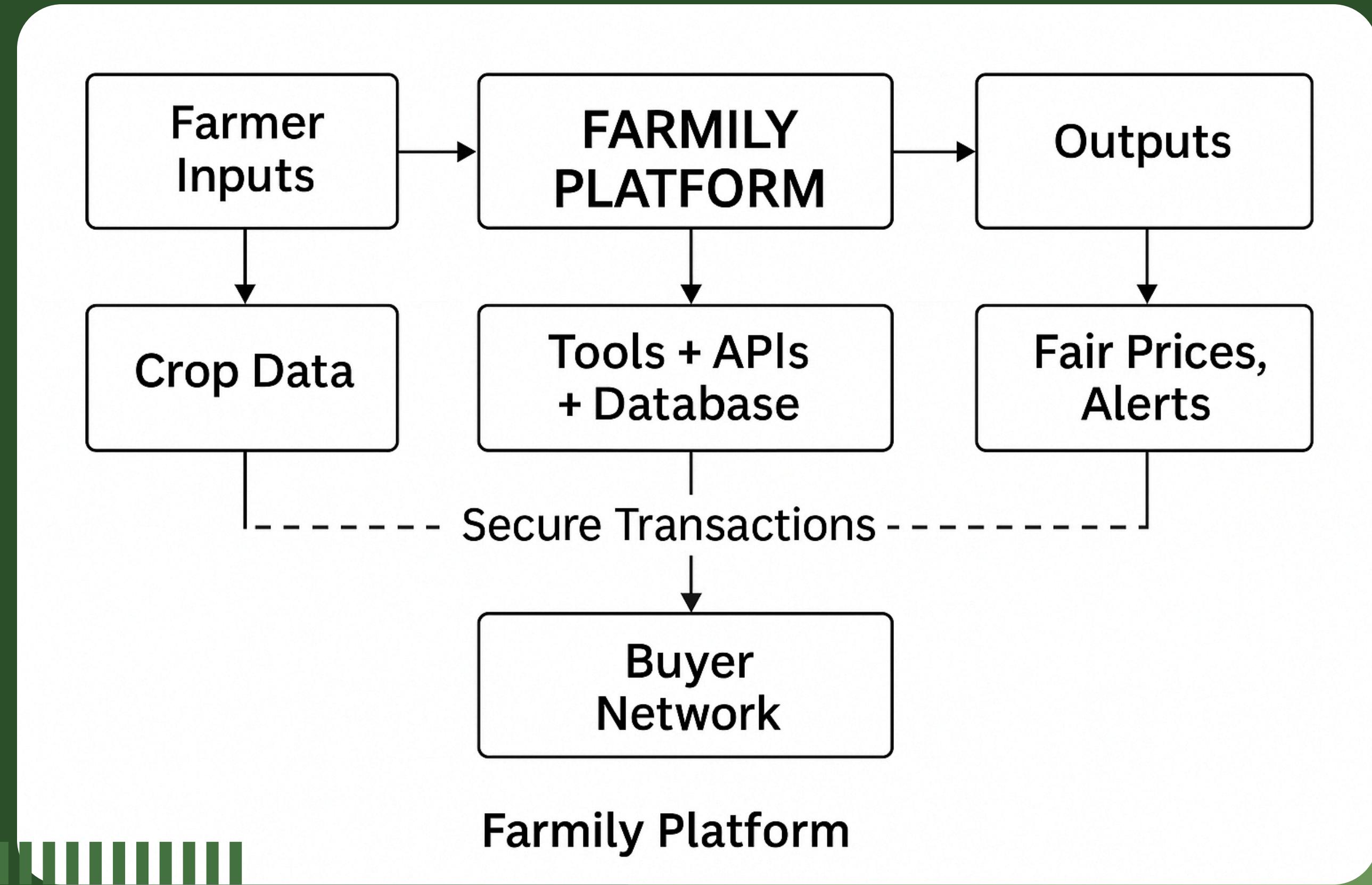
The screenshot shows the 'Your Active Listings' section. It lists three items: 'Rice' (10 kg at ₹35/kg, Total: ₹350.00, Listed on: 9/17/2025), 'Cashew' (10 kg at ₹800/kg, Total: ₹8000.00, Listed on: 9/17/2025), and 'Cotton' (100 kg at ₹60/kg, Total: ₹6000.00, Listed on: 9/17/2025). Each item has edit and delete icons to its right.

Purpose:

Builds trust for buyers by avoiding unrealistic prices.

Gives fair pricing power to farmers while keeping transparency.

Working of Model



SOLUTION STATUS:

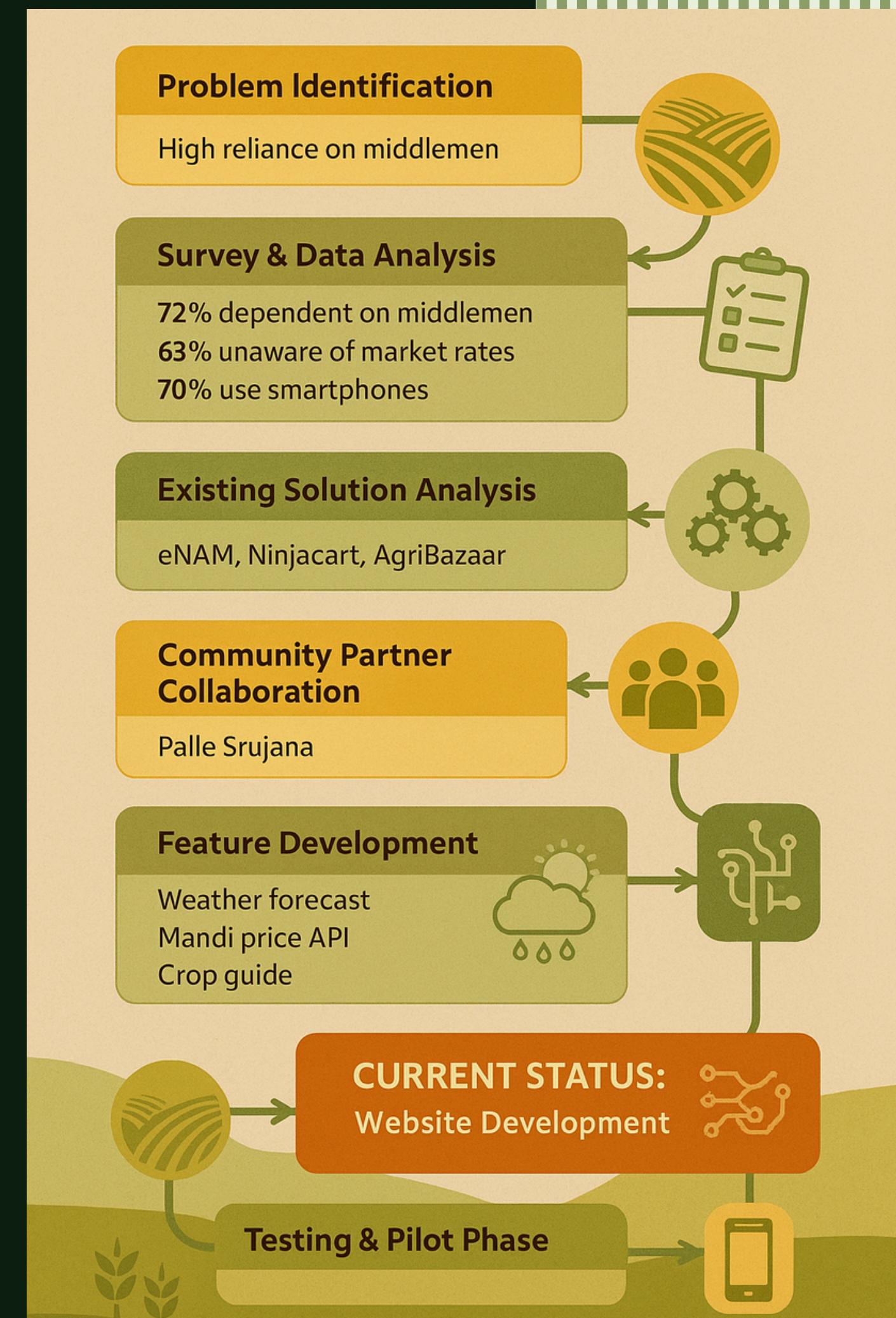
Current Stage:
Website Development In Progress

What We've Done:

- Designed core UI and structure
- Added real-time mandi prices (API)
- Implemented cart, translation & crop tools

Future Work:

- Add more tools (AI crop advisory, feedback, disease detection upload)
- Backend integration & user login system
- Pilot testing with farmers and improve based on feedback



SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



8 DECENT WORK AND ECONOMIC GROWTH



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



SDG 1: No Poverty



SDG 2: Zero Hunger



SDG 8: Decent Work and Economic Growth



SDG 12: Responsible Consumption and Production

CONCLUSION

- **Farmily addresses middlemen exploitation through technology**
- **Demonstrated feasibility of integrated farmer tools**
- **Potential for scaling with government/NGO partnerships**
- **Learning Outcome: User-centric design for rural communities**



THANK YOU!