

Farming Mitra

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Problem Statement

Title:

Gamified Farm Scanning & Advisory with Incentive Rewards

Theme:

Agriculture & Rural Development

Problem Description:

Indian farmers often face challenges in adopting **scientific farming practices** such as timely irrigation, fertilizer use, and pest management. Existing advisory platforms provide text or voice-based instructions, which many farmers find difficult to follow or unengaging.

This results in:

- Low adoption of best practices,
- Reduced crop yields, and
- Limited awareness of modern farming techniques.

At the same time, farmers lack **direct incentives** for following recommended practices.

There is a need for a **smart, engaging, and rewarding system** that not only guides farmers but also motivates them to adopt sustainable practices consistently.

Proposed Solution

We propose a **Gamified Agricultural Advisory Platform** that transforms real-world farming into an **interactive digital farm experience**:

◇ Key Features

1. Farm Scanning:

- Farmers scan/upload images of their fields via mobile app.
- The system generates an **animated digital version** of their farm.

2. Task-Based Advisory:

- Based on crop type, soil, and stage, the app assigns **simple tasks** (e.g., “Irrigate today”, “Add fertilizer this week”).
- Tasks appear as “game missions” in the digital farm.

3. Gamification & Progress Tracking:

- Each completed task **levels up** the digital farm (e.g., crops grow in animation).
- Farmers re-scan their field to update progress.

4. Credit & Reward System:

- Successful task completion gives **credits/points**.
- Points can later be **redeemed as discounts, agri-input vouchers, or cash support** through government/marketplace tie-ups.

5. Buyers and Sellers:

provide the digital platform for farmers to
advertise and sell their crops to the buyers .

6. Future Integrations:

- AI-based crop detection & disease diagnosis.
- Integration with **PM-Kisan, eNAM, NABARD** for subsidies & credit redemption.
- Multilingual support for inclusivity.

Expected Outcomes

→ Farmers get continuous guidance in a fun, easy

- **Higher Adoption of Best Practices** → Farmers get continuous guidance in a fun, easy-to-follow format.
- **Increased Productivity** → Better crop health & yields through timely actions.
- **Financial Motivation** → Credit rewards incentivize farmers, reducing dropout from advisory programs.
- **Digital Agriculture Push** → Contributes to **Smart Villages & Digital India** initiatives.

Hackathon Feasibility (MVP)

Within hackathon time, we can prototype:

- A mobile app with farm scanning (image upload).
- Animated farm view (basic 2D crop growth).
- Task allocation & progress update.
- Credit system with mock redemption shop.

This format fits **SIH expectations**: clearly defined **Problem → Solution → Outcomes → Feasibility**.