

Agrisage – Unified Digital Platform for Farmers

Agrisage is an **all-in-one agricultural support platform** that assists farmers through every stage of farming—from **seed purchase, crop planning, planting assistance, yield prediction, and market selling, to stubble/waste management and additional income opportunities.** Farmers can also earn rewards or subsidies by delivering agricultural waste to authorized collection centers, and may receive **organic fertilizers** at discounted or no cost. Additionally, we help farmers generate **extra income** by utilizing unused land for plantation-based carbon offset partnerships with companies seeking to reduce their carbon footprint.

Homepage (New UI 2.0)

Design Philosophy:

Clean, Google-like simplicity + color-coded icons + multilingual (Hindi + regional languages) + voice-enabled chatbot.

Top Section

- **Language Picker:** English | Hindi | Tamil | Punjabi | Marathi etc.
- **Farmer Mode:**
 - Voice Search
 - Offline Lite Mode
 - High-Contrast Mode for senior farmers

Central Area

- **Voice + Text Smart Chatbot** (reads answers aloud)
- **Search Bar:** "Ask anything... crop, weather, seeds, prices, diseases..."

Five Main Feature Cards (with icons + colors):

1. **Farming Help**
2. **Agri Market (Selling Help)**
3. **Stubble / Waste Management**
4. **Earn Extra Income**
5. **Financial Services**

Additional- **Quick Safety** button connecting to local authorities(like if snake or any dangerous animal comes in field)

Below cards, a small **Tutorial Carousel** guides new users through platform features.

Farming Help – UI Structure

The Farming Help section includes the following primary modules:

1. **Crop Suggestion (Based on Soil & Geography)**
 2. **Seeds & Fertilizers Acquisition**
 3. **Planting Details**
 4. **Climate Alerts**
 5. **Water Management**
 6. **Pest & Disease Control / Weed Detection (Premium)**
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Detailed Module Descriptions

1. Crop Suggestion (Soil & Location-Based)

Provides personalized crop recommendations based on the farmer's **soil type, geographical conditions, and environmental factors**.

(1. Intelligent Crop Suggestion

- Soil-type scanner (manual + sensor-based input)
 - Location-based cropping window
 - Seed variety recommendation
 - Water requirement forecast)
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2. Seeds & Fertilizers Acquisition

Upon selecting this module, farmers are directed to a new page featuring:

- **Types of seeds**, each displayed as individual cards
- Each card contains **shops/sellers, product details, and prices**
- A similar structure is used for **fertilizers**, showing available options and seller-wise pricing

(2. Seeds & Fertilizers Marketplace

- Price comparison

- Digital subsidy integration (government APIs)
 - Farmer reviews
 - Online + nearby shop purchases
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3. Planting Details

This section opens a page with a **Google-style search bar**.

Farmers can search for any crop and receive:

- Seed-sowing guidelines
- Water requirements (daily/weekly)
- Fertilizer plans (regular/weekly)

Premium Plan Features:

- Installation of moisture sensors on farmland
 - Real-time moisture-level monitoring
 - Advanced planting and watering recommendations optimized for higher yield
- (• Step-by-step planting calendar
- Water schedule
 - Fertilizer plan
 - Offline version accessible during low network)
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4. Climate Alerts

Provides accurate, location-specific weather updates including:

- Current weather conditions
 - Hourly and daily forecasts
 - Weekly climate expectations
 - Alerts to guide irrigation and crop protection decisions
- (• Extreme weather alerts

- Disease outbreak probability
 - Heatwave, coldwave, flood warnings)
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5. Water Management

Standard Features:

- Best watering method for each crop(Irrigation method selector)
- Recommended irrigation equipment with purchase links from online platforms or nearby stores

Premium Features:

- Real-time water-level tracking (via sensors)
 - Precise, sensor-based irrigation recommendations
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6. Pest & Disease Control / Weed Detection (Premium)

Provides early detection and monitoring through:

- Weekly drone surveillance- Camera-based disease identification (AI) (shared among groups of farmers) and Severity heatmap along with Targeted chemical usage plan
 - Identification of weed-infested or disease-affected areas
 - Pinpoint markers on the field map to guide targeted treatment
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Selling Help (Agri Market) – UI Structure

This section uses a **search interface similar to Google**.

Farmers can search for any crop and access:

- Current market prices/ Live market price search and Animated price trend graphs
 - Nearby buyers and firm locators (Buyer directory + verified procurement centres)
 - Historical price trends (graph view)
 - Future price predictions based on past data and market
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Stubble / Waste Management Help – UI Structure

This module provides:

1. Waste Center Locator

- A map showing **nearby waste-management centers**
- Real-time availability or capacity indicators
- Navigation support similar to Google Maps, guiding farmers directly to the nearest approved recycling plant

2. Credit & Subsidy Details

- Clear calculation of **credits, subsidies, or rewards** based on stubble quantity delivered
- Redemption options such as discounted seeds, fertilizers, or organic products

3. Recycling & Reuse Information

A chatbot explains:

- Recyclable products that can be created from crop residue
 - Alternate ways to utilize stubble instead of burning
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4. ⚡ Stubble Burning Detection & Government Alerts (New Feature)

Agrisage integrates **real-time stubble-burning detection** using satellite observations or drone-based monitoring.

The UI includes:

- Heat-map visualization of **stubble-burning hotspots**
- Alerts automatically shared with **local government authorities**
- A government dashboard showing:
 - High-risk zones
 - Frequency of burning incidents
 - Suggested locations for setting up **new stubble waste recycling centers**

This feature allows authorities to:

- Proactively act on stubble-burning events
- Deploy mobile collection units
- Plan new recycling centers in underserved locations
- Promote Agrisage to farmers as the **official channel** for proper waste disposal

5. Government-Assisted Waste Routing

If a farmer is in an area with limited recycling facilities, the system will:

- Suggest **temporary collection points** supported by government teams
- Highlight planned or upcoming recycling centers
- Provide turn-by-turn navigation to the appropriate waste location

This ensures farmers always have a **clean, legal, and rewarded method** to manage stubble, reducing burning incidents significantly.

Earn Extra Income / Beyond Normal Farming – UI Structure

This section showcases **companies seeking carbon-offset partnerships** with farmers.

Farmers can view:

- A list of companies participating in tree-plantation partnerships
- Compensation offered for growing and maintaining plants on unused land
- Duration-based payment details
- Income opportunities requiring minimal maintenance

This allows companies to achieve carbon-neutral goals without managing plantations directly, while enabling farmers to earn steady additional income—even if they choose not to engage in traditional farming.

Financial Services – UI structure

Optional but extremely impactful:

- Crop insurance comparison
- Loan eligibility & subsidy scanner
- Smart EMI calculator

Future works-

Low-Literacy Support (NEW)

- Icon-only mode
- Full audio navigation
- One-tap help

For Business-

Sensor rental model (₹99/month)

Similarly charging for Drone

Add Impact Metrics (For Investors(Farmers, etc.)

Add these points:

Expected Impact (NEW Section)

- Up to 30% increase in farmer income
- 40–60% reduction in stubble burning
- 20% reduction in water misuse via smart irrigation
- 10–25% yield improvement via disease early detection

This makes your project look measurable.

Improve CTA (Call-to-Action) Buttons

You listed:

- “Buy Now”
- “Call Buyer”
- “Navigate to Waste Center”
- “Scan Disease”

You can add clarity:

Better CTA additions

- “**Compare Prices**” – shows mandi, FPO, online buyer rates
- “**Book Drone Survey**” – on-demand disease scouting
- “**Request Subsidy**” – auto-filled subsidy forms
- “**Find Nearest Government Office**” – GPS-based
- “**Download Compliance Report**” – for stubble management
- “**Smart Irrigation Advice**” – sensor + weather-based guidance.

OR

Action Buttons (Improved)

- **Scan Disease Now**
- **Sell at Best Price** (auto price comparison)
- **Book Drone Survey**
- **Request Subsidy**
- **Navigate to Collection Center**
- **Download Government Compliance Report**

These additions strengthen **usability + business adoption**.

For government-

Auto-generated PDF & dashboard reports for

- stubble disposal
- water usage
- fertilizer usage
- emission reduction

Submitted directly to government portals (if APIs available).

Fraud Prevention in Subsidies

PM-KISAN database (for verified farmer identity) and

Secure Farmer Identity

- Aadhaar/ABHA compliant optional identity
- Masked farmer ID for government reporting
- No raw personal data shared—only anonymized insights.

(Security & Compliance (NEW Section)

- End-to-end encrypted farmer data
- Aadhaar-masked identity for government usage
- Fraud-prevention for subsidies
- No raw personal data shared

Makes the platform **trustworthy + scalable.**)

Extra-

For managing AQI impact on plants-

Agroforestry: Planting pollution-tolerant trees (like bamboo or neem) around farm edges can act as a buffer to improve local air quality.

- Air pollutants, such as ground-level ozone, sulfur dioxide, nitrogen oxides and particulate matter (PM), interfere with essential plant processes
- **Crop Management:** Select early-maturing or pollution-tolerant crop varieties (e.g., barley is more resistant to ozone than spinach) to avoid peak pollution periods.(as per the area)
- Use precision agriculture technologies to apply the right amount of fertilizers and pesticides at the optimal time, reducing the generation of pollutants like ammonia and VOCs.
- Dense vegetation creates a physical barrier that intercepts concentrated clouds of pollutants, dispersing them and diluting their concentration before they reach the crops.

Reducing Soil Erosion:

By reducing wind speed at ground level, windbreaks also significantly decrease wind erosion of the soil, preventing soil particles from becoming airborne and contributing to the overall particulate matter load in the air

2. TABLE: FEATURE → SDG MAPPING

Highly professional and perfect for reports or pitches.

Feature	Description	SDGs Supported
Crop Suggestion	Soil-based smart crop recommendation	SDG 2, SDG 12, SDG 15
Seeds & Fertilizers Marketplace	Affordable inputs, price comparison	SDG 1, SDG 2, SDG 8
Planting Details	Scientific planting calendar	SDG 2, SDG 4, SDG 12
Climate Alerts	Weather, extreme risk alerts	SDG 3, SDG 11, SDG 13
Water Management	Efficient irrigation, sensors	SDG 6, SDG 12, SDG 13
Pest & Disease Control	Drone & AI-based detection	SDG 2, SDG 9, SDG 12
Agri Market	Market prices, predictions	SDG 1, SDG 8, SDG 9
Waste Center Locator	Stubble recycling support	SDG 11, SDG 12, SDG 13
Credits & Subsidies	Rewards for waste delivery	SDG 1, SDG 12
Satellite/Drones Burning Detection	Real-time hotspot mapping	SDG 3, SDG 11, SDG 13, SDG 15
Govt. Stubble Dashboard	Policy-level monitoring	SDG 9, SDG 11, SDG 13
Earn Extra Income (Plantation)	Carbon-offset plantations	SDG 1, SDG 8, SDG 13, SDG 15
Voice & Multilingual Support	Accessibility for all farmers	SDG 4, SDG 10
Offline Mode	Inclusivity in remote villages	SDG 10
Financial Module	Loans, insurance, subsidies	SDG 1, SDG 8

Total SDGs Covered: 12 SDGs



Total SDGs Covered: 12

List With Numbers + Names

1. SDG 1 – No Poverty
2. SDG 2 – Zero Hunger
3. SDG 3 – Good Health and Well-Being
4. SDG 4 – Quality Education
5. SDG 6 – Clean Water & Sanitation
6. SDG 7 – Affordable & Clean Energy (Indirect)
7. SDG 8 – Decent Work & Economic Growth
8. SDG 9 – Industry, Innovation & Infrastructure
9. SDG 11 – Sustainable Cities & Communities
10. SDG 12 – Responsible Consumption & Production
11. SDG 13 – Climate Action
12. SDG 15 – Life On Land

3. INVESTOR / JURY EXECUTIVE SUMMARY (1 PAGE)

Agrisage – Transforming Agriculture Through AI, Sensors, and Sustainable Ecosystems

Executive Summary

Agrisage is an integrated digital ecosystem designed to transform Indian agriculture using AI-driven decision-making, drone and satellite analytics, sensor-based irrigation, and sustainable waste management. The platform supports farmers through the *entire agricultural lifecycle*—from crop planning to selling produce, managing stubble, and earning additional income through plantation-based carbon partnerships.

Our objective is to modernize farming, reduce environmental damage, and significantly increase farmer income while enabling government bodies and corporations to meet sustainability goals.

Problem

Indian farmers face major challenges:

- Poor crop planning due to lack of scientific guidance
- High losses from pests, diseases, and unpredictable climate
- Market price fluctuations
- Stubble burning leading to massive air pollution
- Low income opportunities outside traditional farming
- Difficulty accessing subsidies, loans, and crop insurance

These problems remain unsolved due to fragmented systems and low digital adoption.

Our Solution

Agrisage unifies all agricultural needs into a single, smart, accessible platform.

Key Innovations

- **AI Crop Recommendation** based on soil and location
- **Drone + Satellite Monitoring** for disease and stubble detection
- **IoT Soil Moisture Sensors** for smart irrigation

- **Agri Marketplace** with live prices and predictions
 - **Government-integrated Waste Management System**
 - **Carbon Offset Plantation Partnerships** enabling extra income
 - **Multilingual + Voice Assistance** for full accessibility
 - **Offline Lite Mode** for rural network conditions
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Impact

Economic

- Higher yield through optimized cropping
- Better market prices using predictions
- New income via stubble recycling and plantation partnerships

Environmental

- Major reduction in stubble burning
- Increased plantation cover
- Efficient water use

Government

- Real-time stubble alerts
- Location intelligence for new recycling plants
- Digital subsidy distribution

SDGs

The platform advances **12 UN SDGs**, including Zero Hunger, Climate Action, No Poverty, Clean Water, and Sustainable Cities.

Business Model

- Freemium model for farmers
 - Premium subscription for sensor and drone analytics
 - B2B revenue from companies for plantation-based carbon credits
 - B2G partnerships for stubble management
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Why Agrisage Will Succeed

- Combines AI, IoT, drones, and satellite data into one system
- Eliminates the biggest environmental problem—stubble burning

- Provides farmers with the simplest UI they have ever used
- Strong government, ESG, and corporate collaboration potential