



# Agro Connect

## Smart E-Farming





# Problem Statement

## Challenges Faced by Farmers

Farmers struggle with unpredictable weather, inefficient irrigation, pest threats, and lack of access to market data — leading to low productivity and income.





## Our Solution

Agro-Connect is a web-based platform that helps farmers monitor crops, automate irrigation, and make informed selling decisions using data and technology.



# Key Features

01

-  Weather Forecasting
-  Smart Notifications

02

-  JUL 17 Farming Reminders
-  Automated Irrigation System

03

-  Market Insights & Price Trends
-  Government Schemes Dashboard

04

-  Buyer-Seller Marketplace
- 

# How It Works

- 1.** **Monitor:** Soil sensors detect real-time conditions
- 2.** **Analyze:** System evaluates when to water
- 3.** **Act:** Automated irrigation is triggered
- 4.** **Inform:** Market & crop data updates guide decisions
- 5.** **Assist:** UI dashboard shows daily farming tasks





# Impact & Benefits

## Empowering Farmers, Driving Change

- ✓ Improved crop yield through data-driven care
- ✓ 40% water savings with smart irrigation
- ✓ Direct access to fair pricing and buyer networks
- ✓ Supports sustainable & scalable farming practices

## Future Roadmap



- Integrate real-time IoT sensors
- AI-based irrigation & crop suggestions



Multi-language rural accessibility



SMS/WhatsApp alerts for offline users



Farmer onboarding & help system

# Web Platform Overview

## Smart UI, Smart Decisions

An intuitive web app with card-based UI for weather, reminders, alerts, and market prices.  
Accessible on any device - even in rural regions.

Home | Smart Crop Monitoring | Automated Irrigation | Market Insights | About Us | Contact Us

### Market Insights

Stay informed with the latest price trends, government schemes, and crop demand forecasts to make smarter farming decisions.

- Crop Price Trends**  
Check the latest crop prices, changes, and insights for key produce.  
[View Details](#)
- Demand Forecast**  
Know which crops will be in high demand based on market projections.  
[View Forecast](#)
- Government Schemes**  
Explore subsidies, MSP updates, and schemes like PM-KISAN and more.  
[Explore Schemes](#)
- Buyer-Seller Connect**  
Connect directly with buyers and mandis to sell your crops smartly.  
[Get Started](#)

Home | Smart Crop Monitoring | Automated Irrigation | Market Insights | About Us | Contact Us | Profile

## Agro Connect - Smart E-Farming

Empowering farmers with cutting-edge technology to enhance productivity, conserve resources, and foster sustainable agricultural practices for a brighter future.

[Learn More](#)

### What We Offer

- Smart Crop Monitoring**  
Track your crop health in real-time using sensors and analytics for better yield.  
[Explore](#)
- Automated Irrigation**  
Optimize water usage with intelligent irrigation systems powered by AI.  
[Discover](#)
- Market Insights**  
Stay ahead with live market data, crop trends, and smart pricing tools.  
[View Trends](#)

**Drive Mammals**

- Improved yield and reduced costs using data-driven decisions.
- Conserved water through optimized irrigation strategies.

### Automated Irrigation

**What is Automated Irrigation?**  
Automated irrigation is a smart agricultural technique that automates the watering process using sensors, timers, and controllers. It ensures optimal water usage, saving both water and labor costs.

#### How It Works

- Step 1: Soil Monitoring**  
Soil moisture sensors detect dryness levels.
- Step 2: Data Analysis**  
Controllers analyze data to determine watering needs.
- Step 3: Automated Watering**  
Water is released via pipes based on conditions.

**Types of Automated Irrigation Systems**

- Drip Irrigation: Directs water to plant roots slowly and precisely.
- Sprinkler Irrigation: Mimics rainfall for even water coverage.
- Sensor-based Systems: Activate watering based on real-time data.
- App-controlled Systems: Use mobile apps to schedule and monitor irrigation remotely.

**Benefits of Automated Irrigation**

- Reduces water wastage
- Saves labor and operational costs
- Improves crop yield and health
- Real-time monitoring and control
- Eco-friendly farming solution

**Smart Kit Components**

- Soil Moisture Sensors

# Tech Stack

- 1. Frontend: HTML, CSS, JS**
- 2. Backend: Node.js + Express.js**
- 3. APIs: Weather, Market, Notification**
- 4. Security: Signup/Login with user-based dashboard**

# THANK YOU!

**Together, let's cultivate innovation and grow a smarter,  
sustainable future for every farmer.**

