

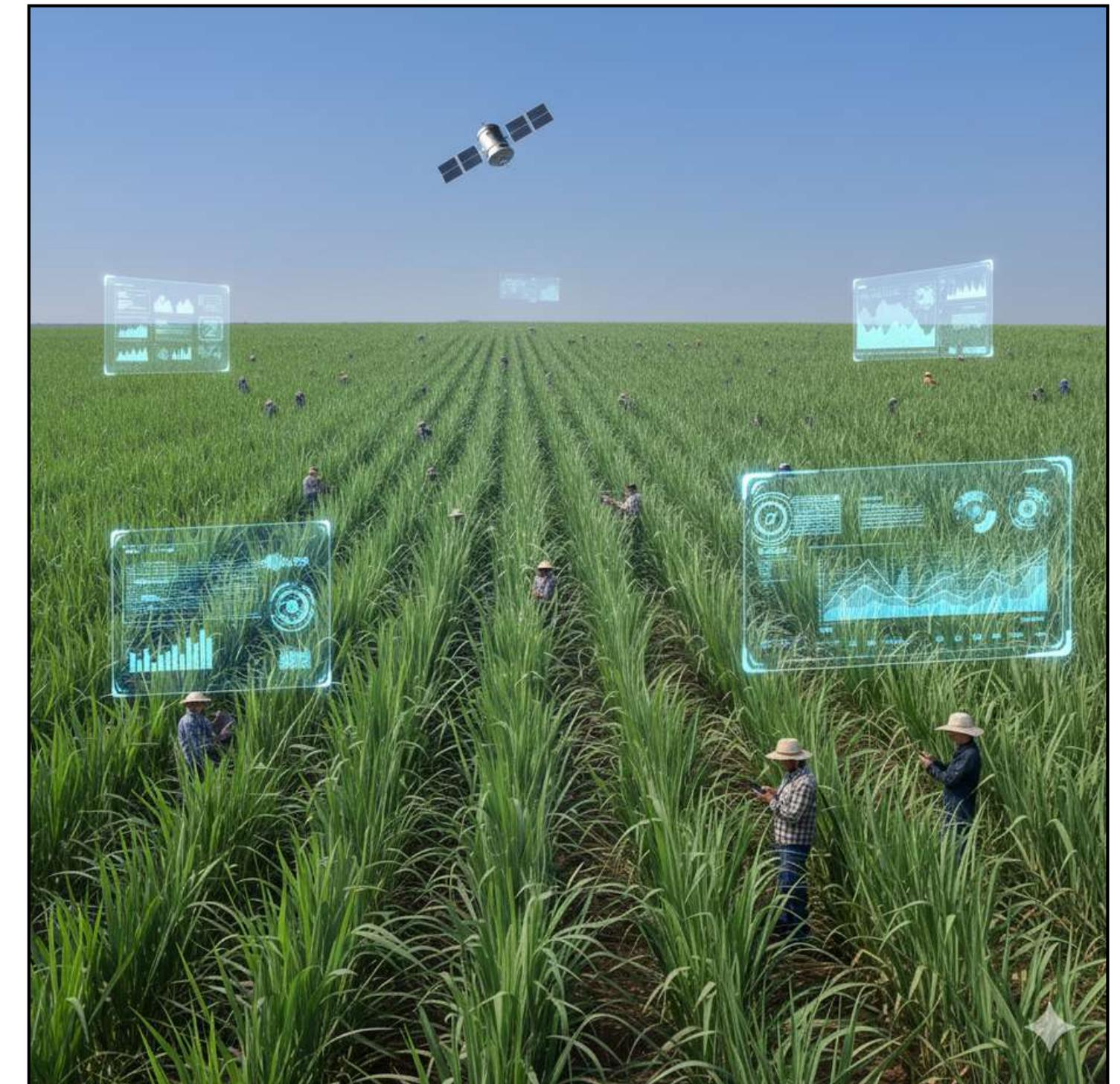
# Smart Sugarcane Farming with Technology

Organized by- PlanetEye Farm-AI Limited

**CROPEYE**<sup>TM</sup>

# Why Sugarcane ?

- Grown in 100+ Countries
- Source of Sugar, Ethanol, Biofuel, and Green Energy
- Supports livelihood of millions of farmers
- Significant role in food security and sustainable energy



# Why Technology in Farming ?

- Traditional practices face climate and resource challenges
- Technology enables precision farming
- Improves efficiency, productivity, and sustainability
- Bridges gap between farmer practices and global demand



# Technology in Farming

- **Drones:** Localized imaging, field scouting
- **Satellite Imagery:** Large-scale monitoring, weather and crop health insights, from fields to regions
- **AI & Machine Learning:** Predictive analytics, early alerts, decision support



# Drones and Satellite in Farming

## Drone

- Small Coverage
- High Cost
- Weather-dependent



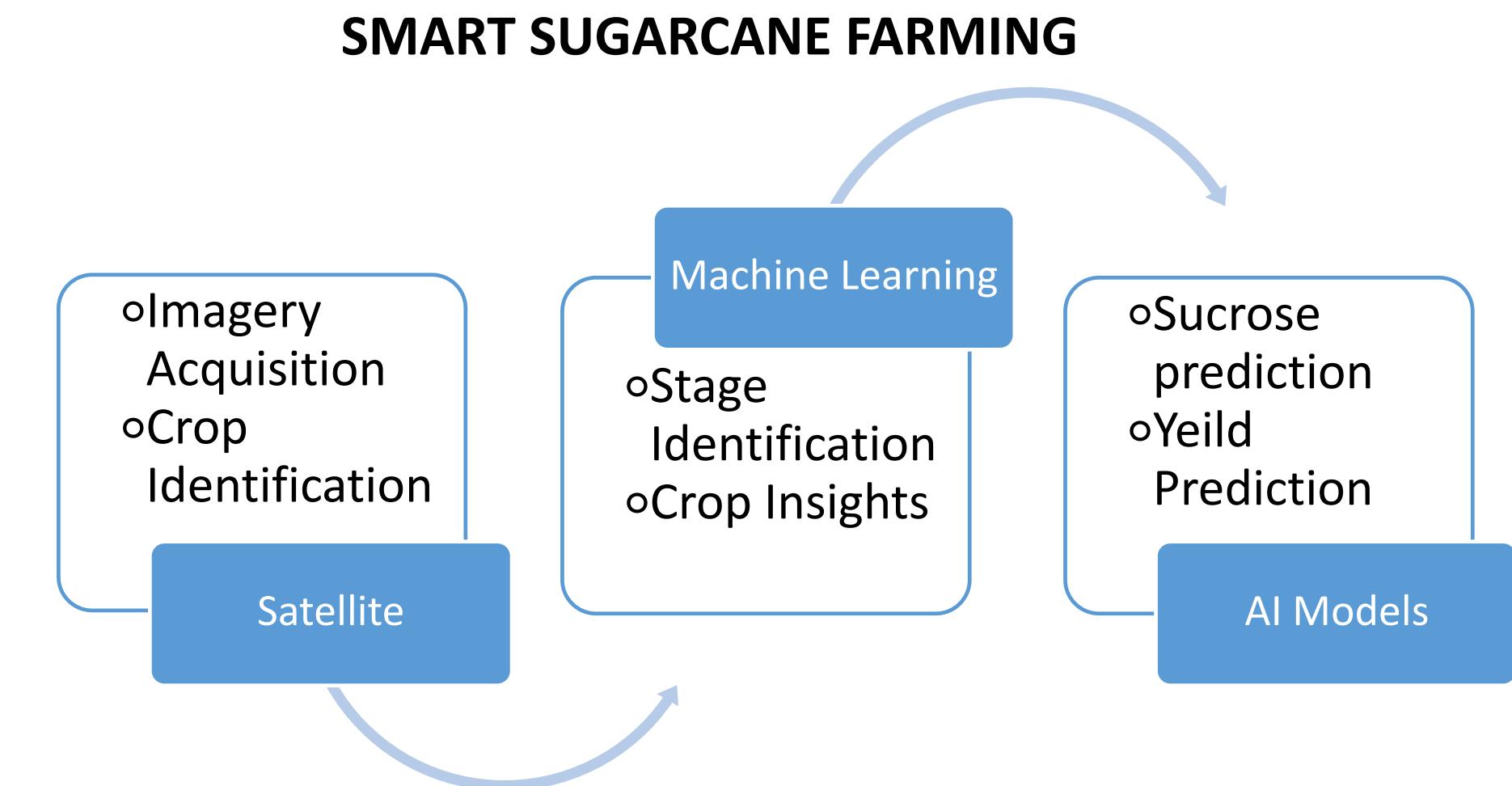
## Satellite

- Wide Coverage
- Frequent updates
- Cost-effective
- Historical data access



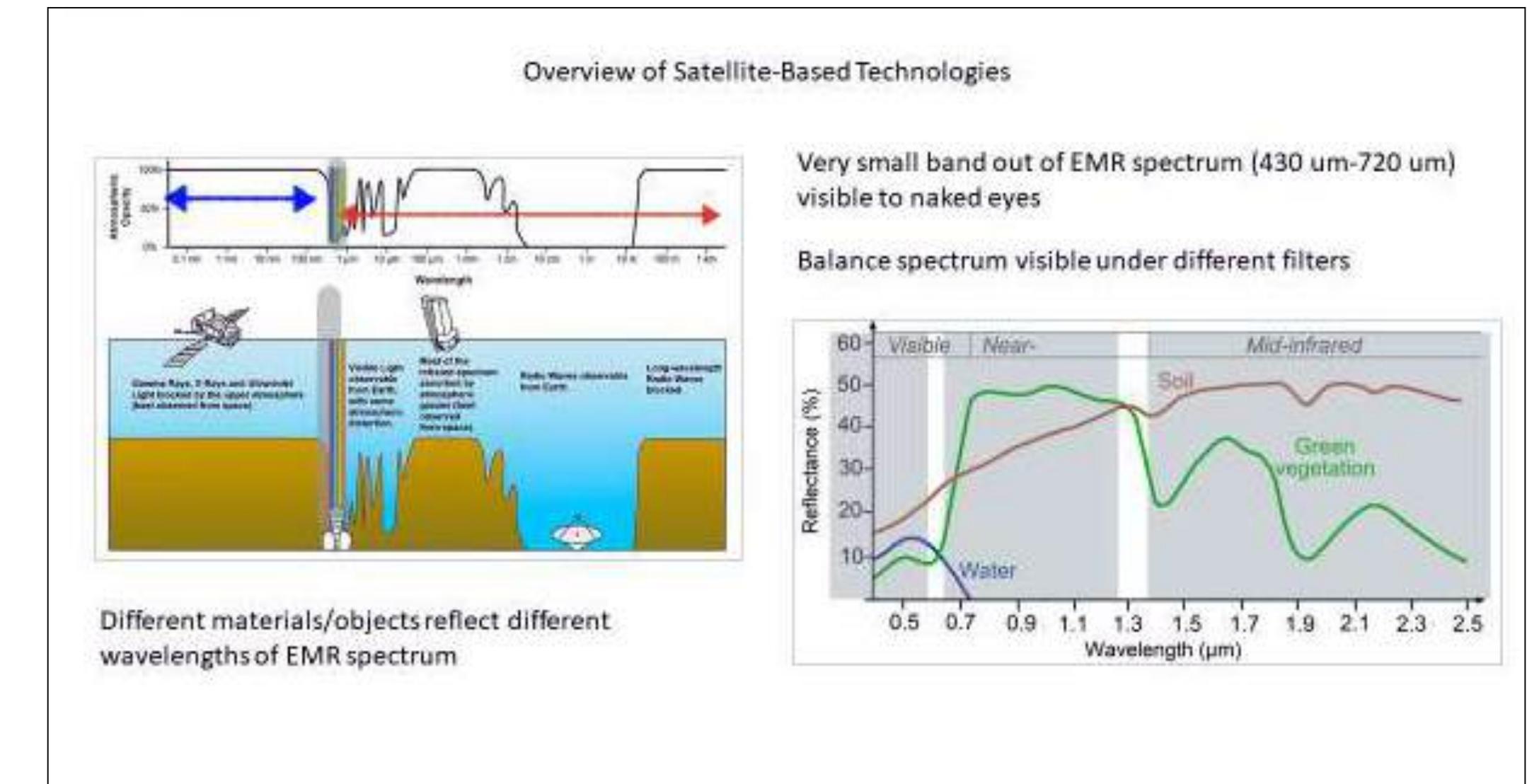
# Role of AI in Agriculture

- Reduces losses via early detection & prediction
- Increases profits with resource optimization
- Forecast yield, pest, irrigation & market trends
- Provides data-driven decision-making for farmers & industries



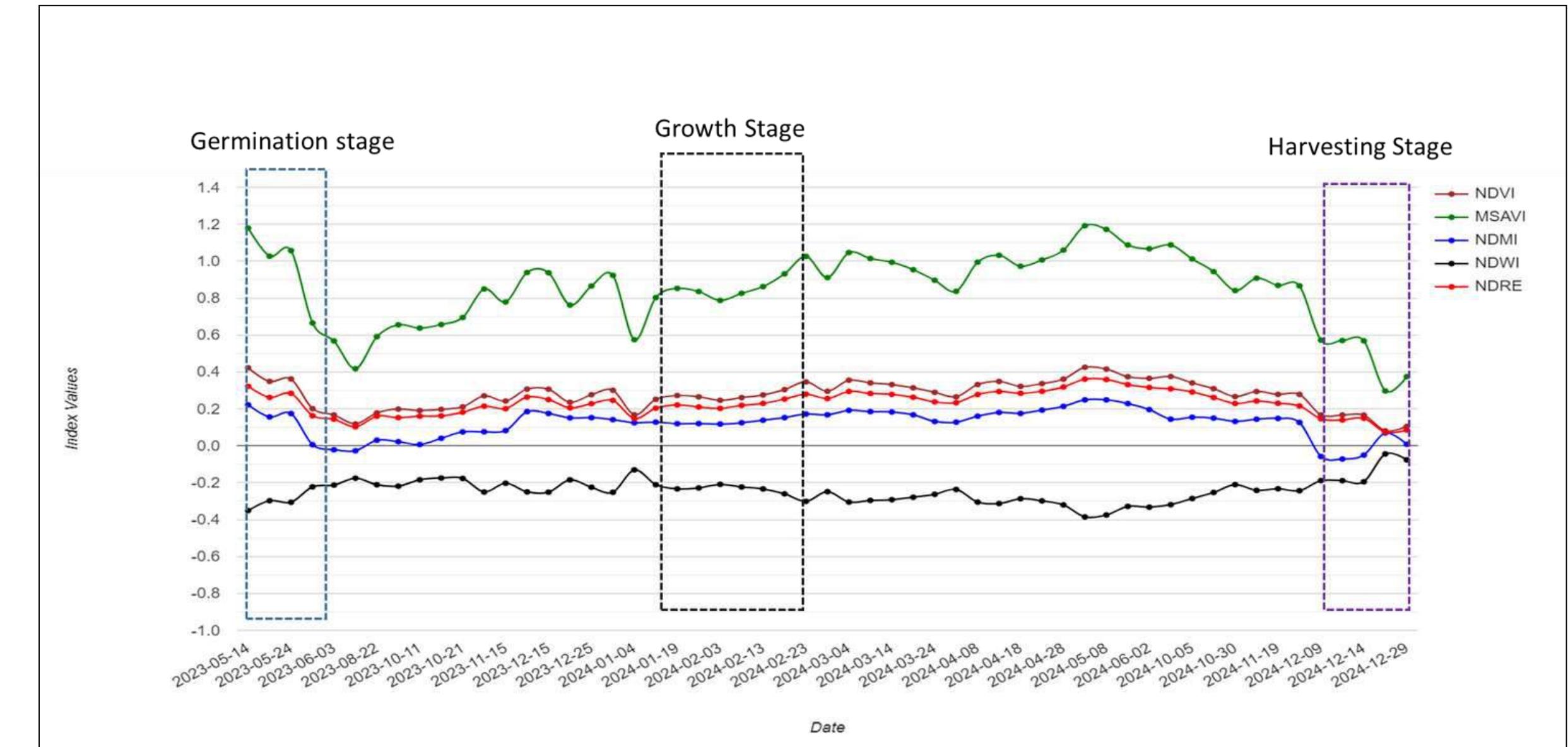
# Technology for Forecasting

- Predicts crop growth & harvesting timelines
- Anticipate disease outbreaks & pest risks
- Estimates water demand & soil health trends
- Helps in climate-resilient farming strategies



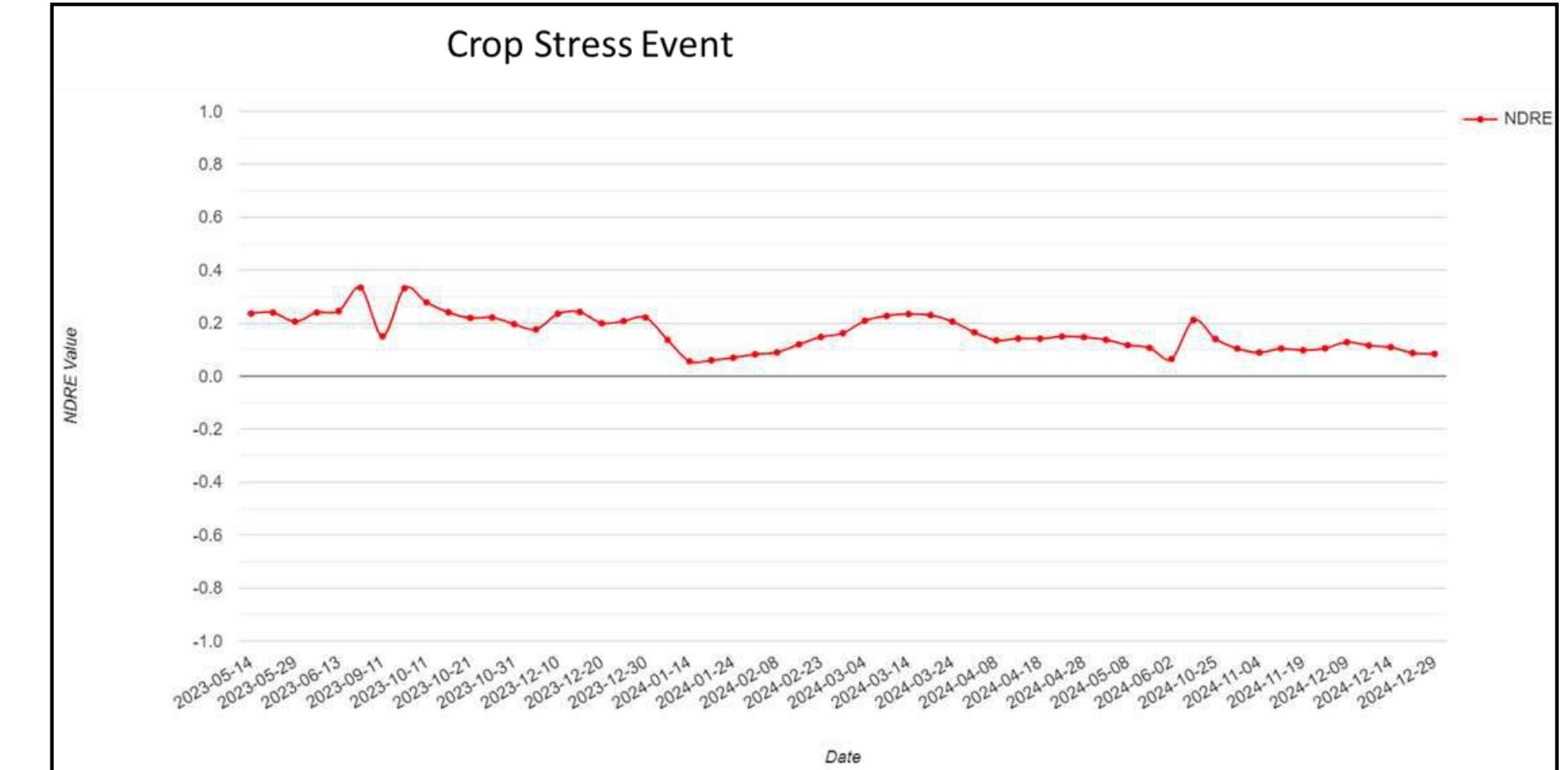
# Sugarcane Growth Monitoring

- Satellite tracks growth stages of cane
- Detects stress areas in fields
- Monitors biomass & canopy development
- Enables timely interventions for better yield



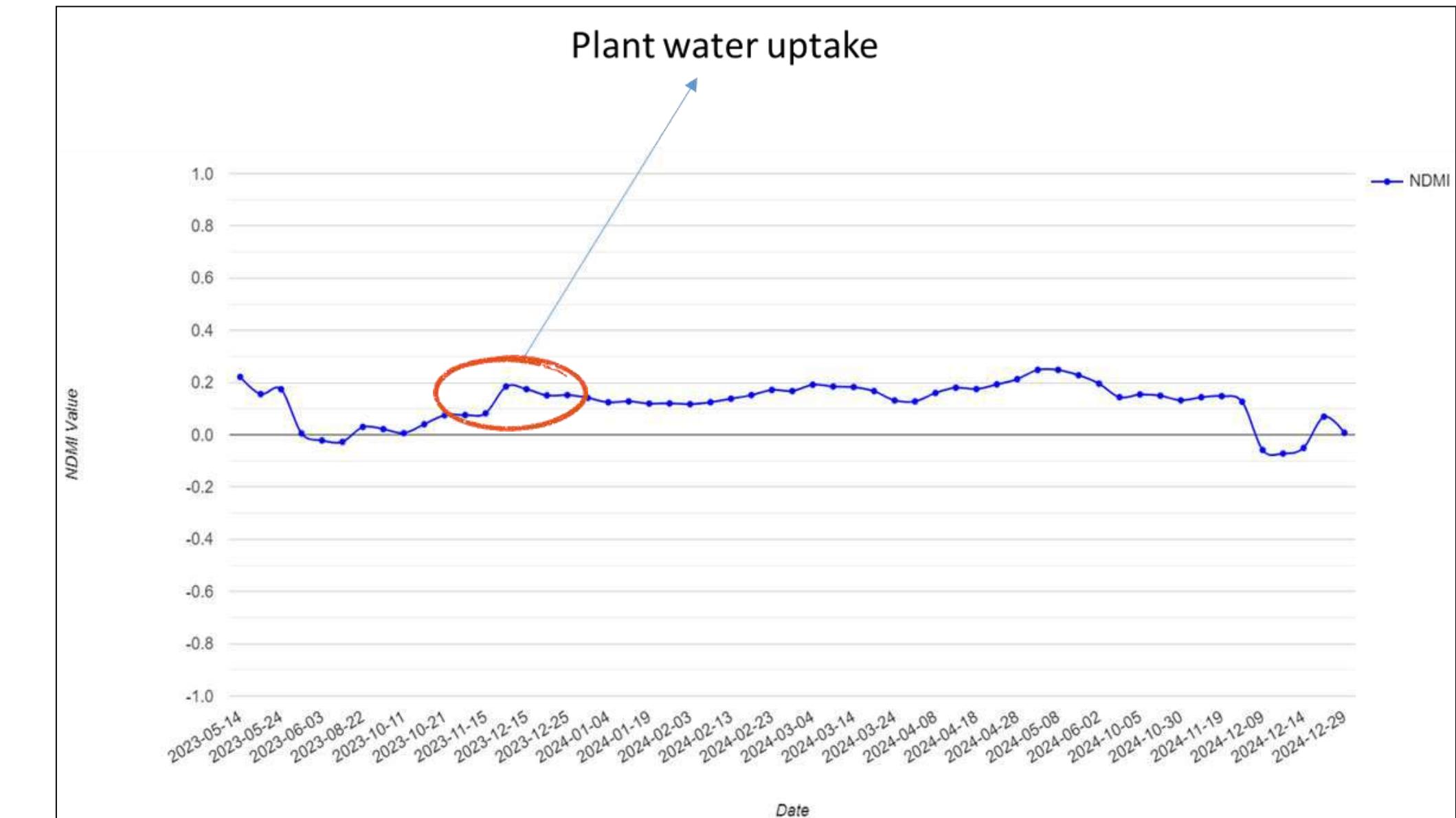
# Pest & Disease Detection

- Red rot Disease detection using spectral indices
- White Grub Infestation identified via vegetation changes
- Early alerts prevent large-scale crop damage
- Supports integrated pest management strategies



# Irrigation Monitoring

- Satellites assess soil moisture & water stress
- Identify under-irrigated & over-irrigated zones
- Sensor limitations (local + condition dependent)
- Satellite (Regional + scalable)
- Promotes efficient water resource management



# SOIL ANALYSIS AI BASED

pH, Organic Carbon, Soil Type

## Soil analysis in depth

### Artificial Intelligence Based



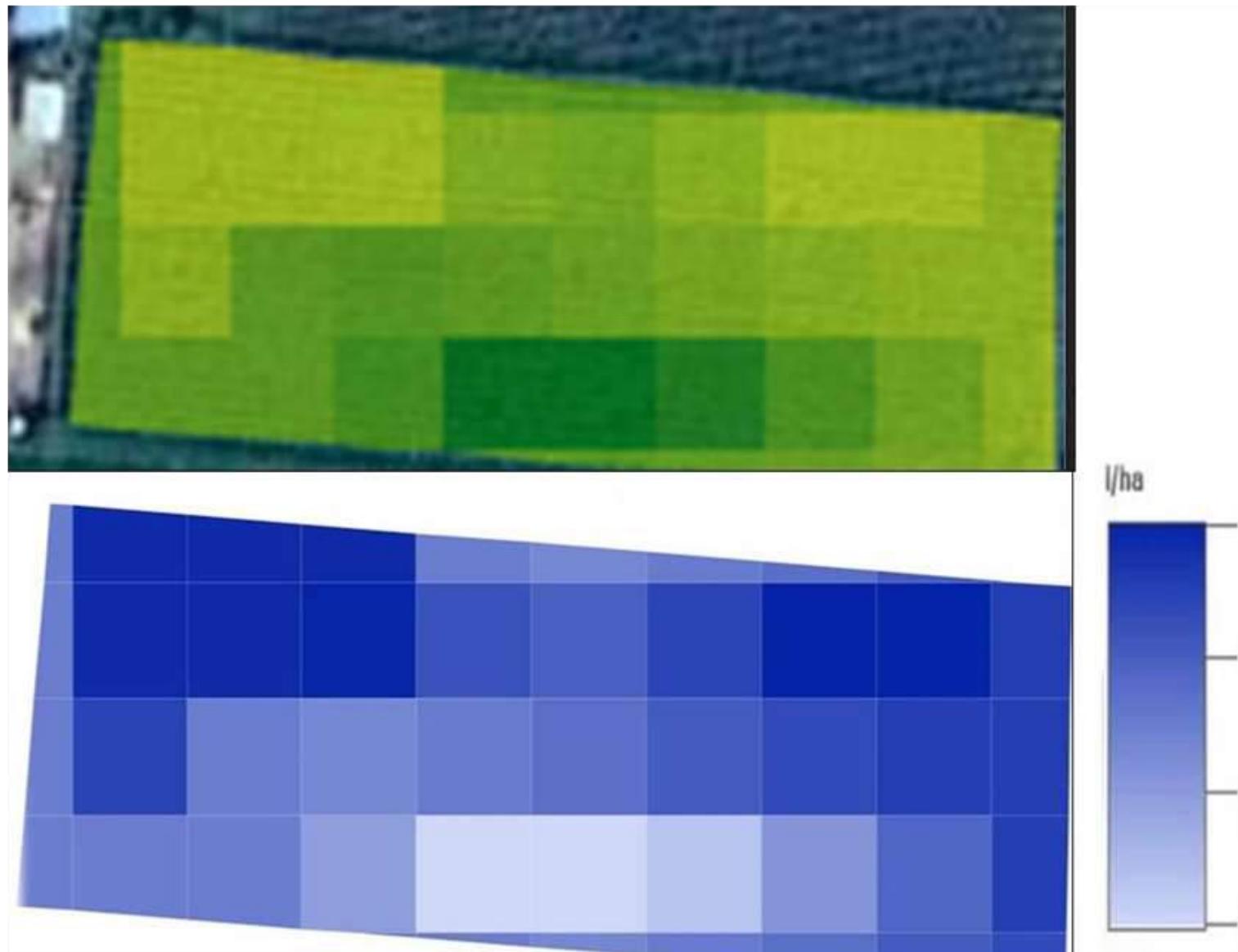
### Analysis Points

- Bulk density
- Cation exchange capacity
- Clay content
- Coarse fragments
- Soil PH in water and KCl
- Silt content
- Sand content
- Soil class
- Soil organic carbon

- Satellite data with AI enables farmers to assess soil conditions on a large scale.
- By analyzing imagery and other geospatial data, farmers can identify variations in soil properties such as nutrient levels, moisture content, and soil structure.
- This information helps farmers apply fertilizers and irrigation precisely based on the specific needs of different areas within their fields.
- Soil mapping through satellite technology also aids in identifying areas at risk of soil erosion and helps implement preventive measures.

# SUGARCANE FERTILIZER PREDICTION

## Macronutrients



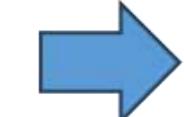
### Macronutrient Under Process

- Nitrogen
- Phosphorus
- Potassium
- Soil organic carbon

Nutrient wise Field scan



Nutrient status confirmation



Nutrient status recommendation

# Mudhol

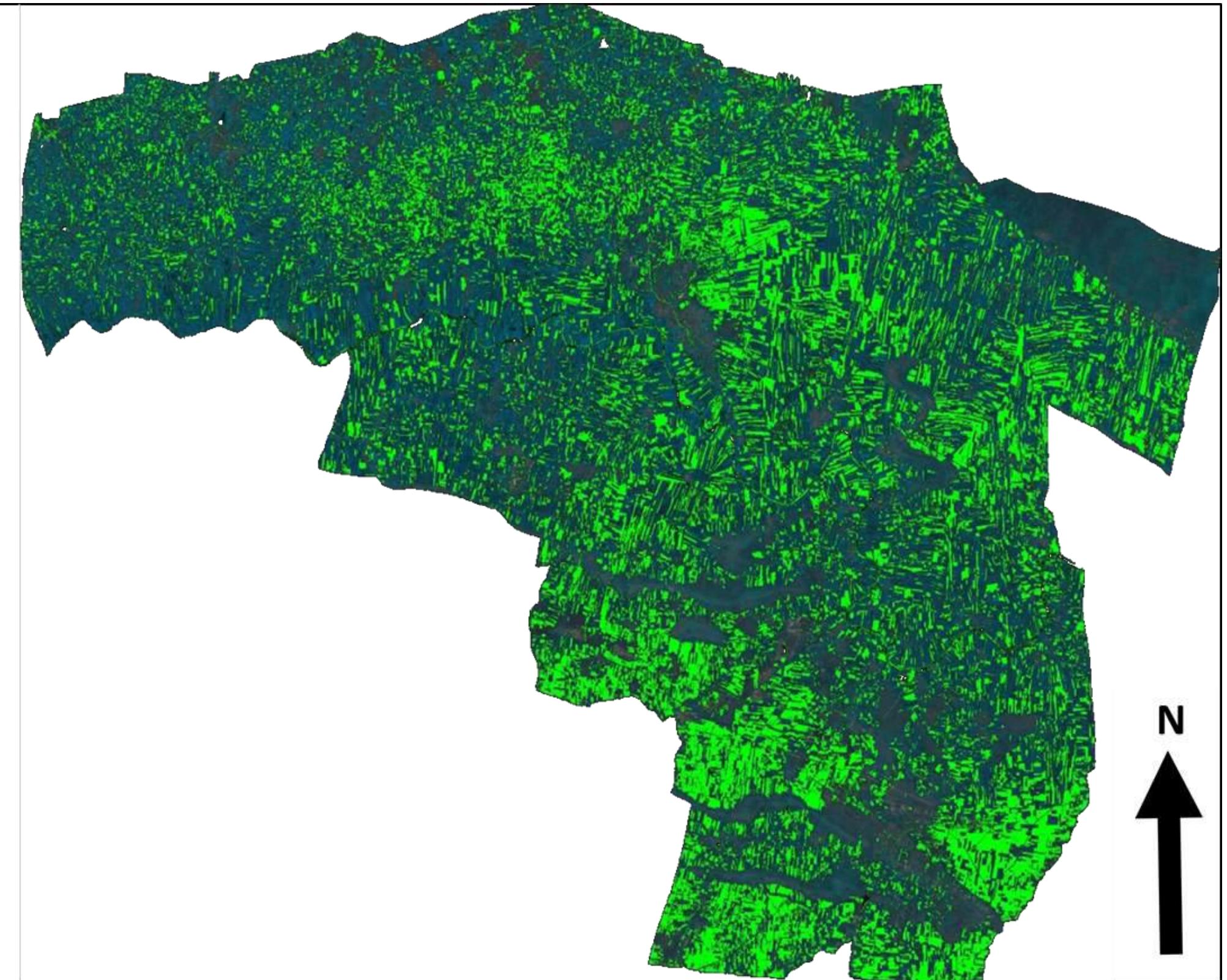
## LEGENDS



Sugarcane



Other Crops  
/Forest/Urban



Classified sugarcane cover Image of Mudhol Taluka

## Government Schemes and Support

- National and International level urge to incorporate AI in agriculture
- Digital Agriculture Mission encouraging smart farming
- Subsidies & policies supporting precision farming tools
- Indian Govt. unveiled **₹ 6,000 Crore** Digital Agriculture Plan under Special Central Assistance with states including Maharashtra



# PRODUCTS



## Value Proposition

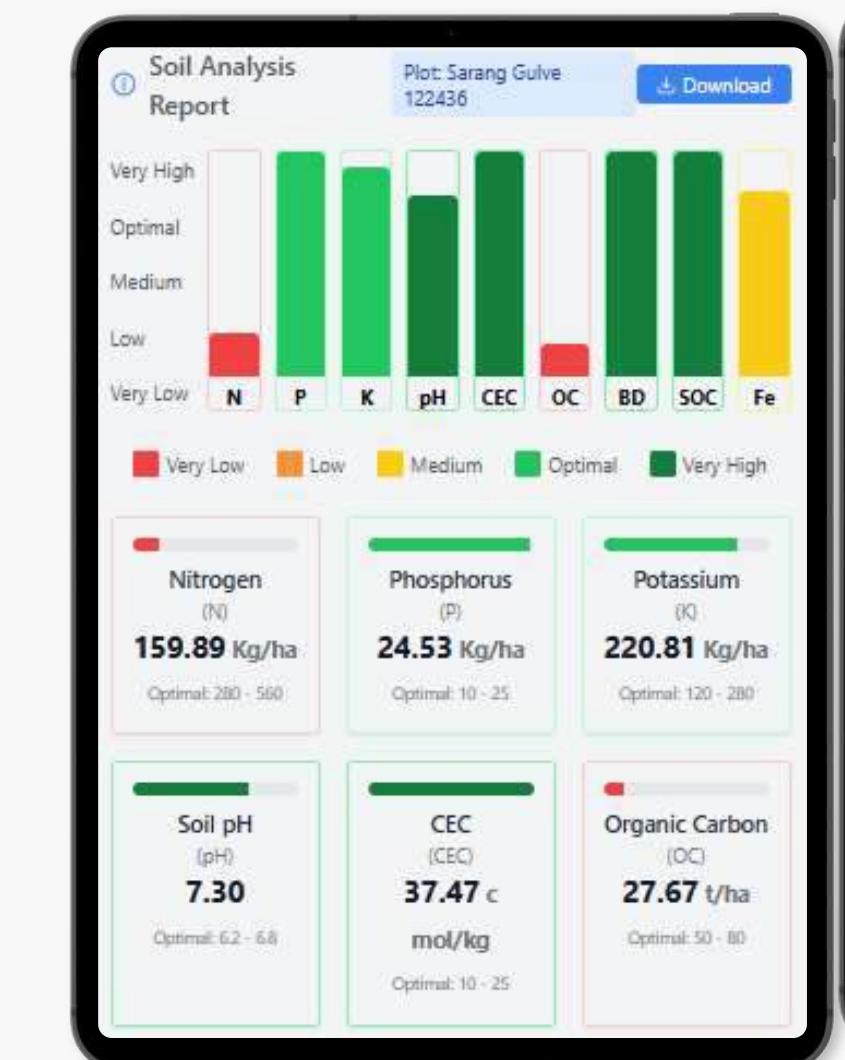
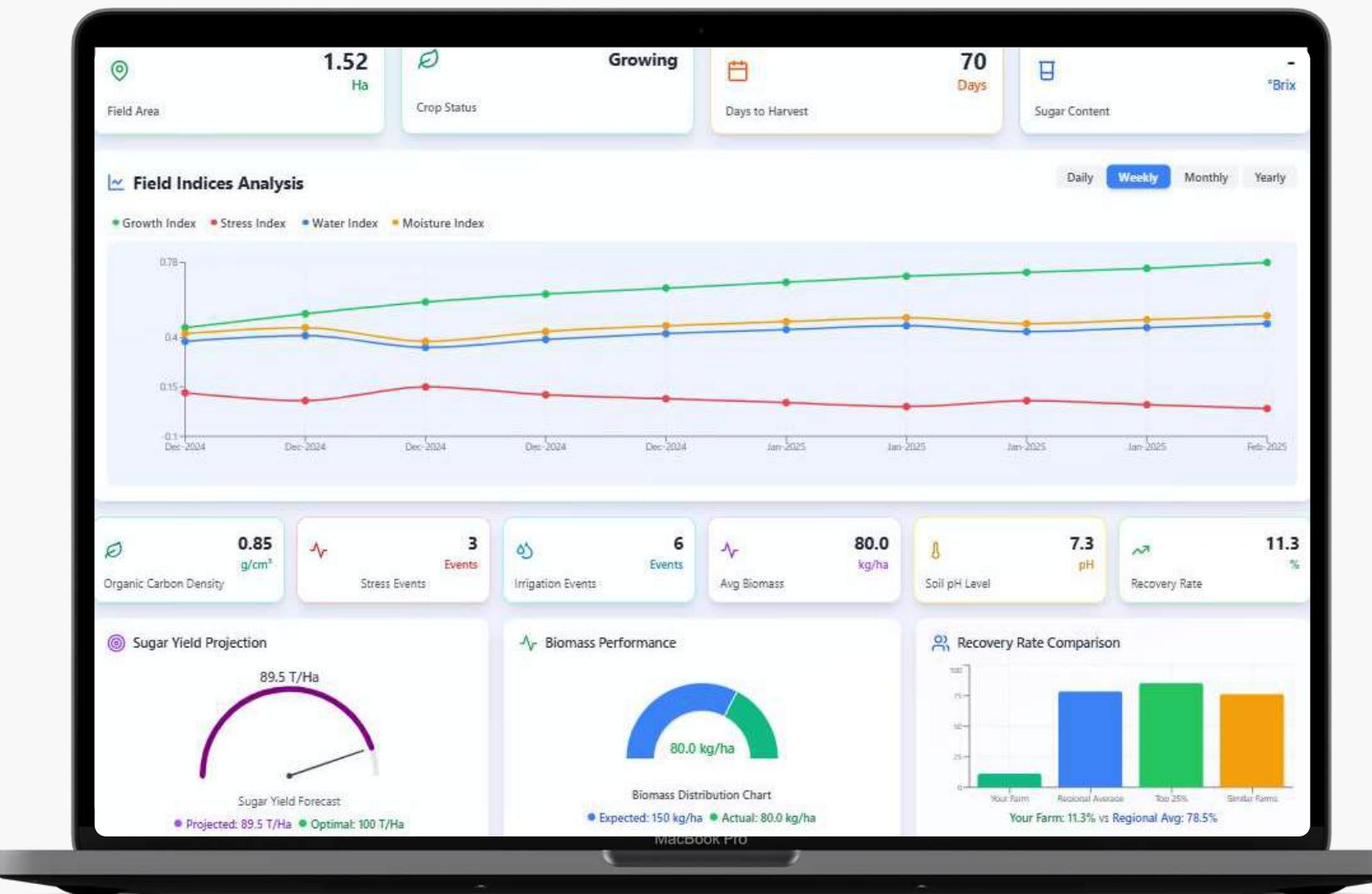
- ✓ *AI-Powered Crop Monitoring*
- ✓ *Hyperlocal Weather Forecasts*
- ✓ *Early Pest & Disease Detection*
- ✓ *Smart Insights Dashboard*
- ✓ *Actionable Field Analytics*
- ✓ *Predictive Yield Modeling*
- ✓ *Optimized Irrigation Planning*

## Benefits

- 01 *Reduce Crop Losses by 20–30%* ✓
- 02 *Accurate Weather Alerts Save Inputs* ✓
- 03 *Minimize Pest & Disease Impact* ✓
- 04 *User-Friendly Digital Platform* ✓
- 05 *Real-Time Decision Support* ✓
- 06 *Higher Yield, Lower Costs* ✓
- 07 *Sustainable Water Usage* ✓

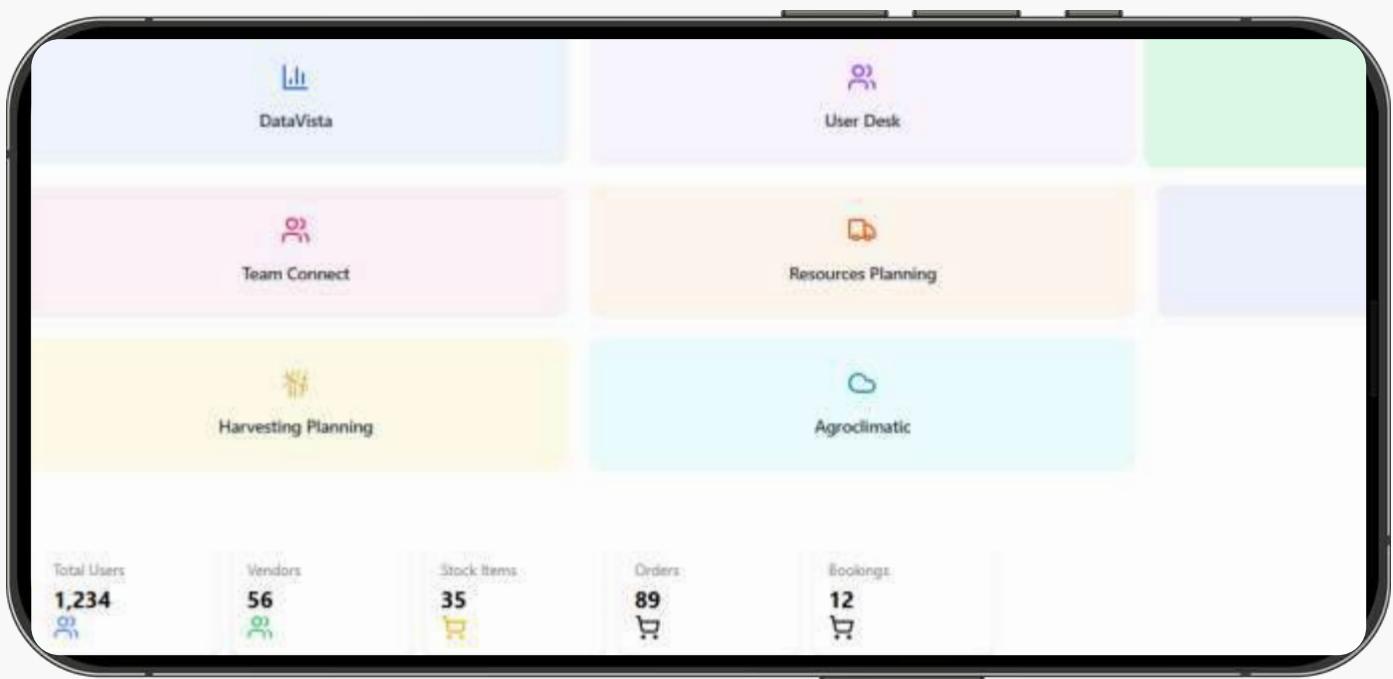
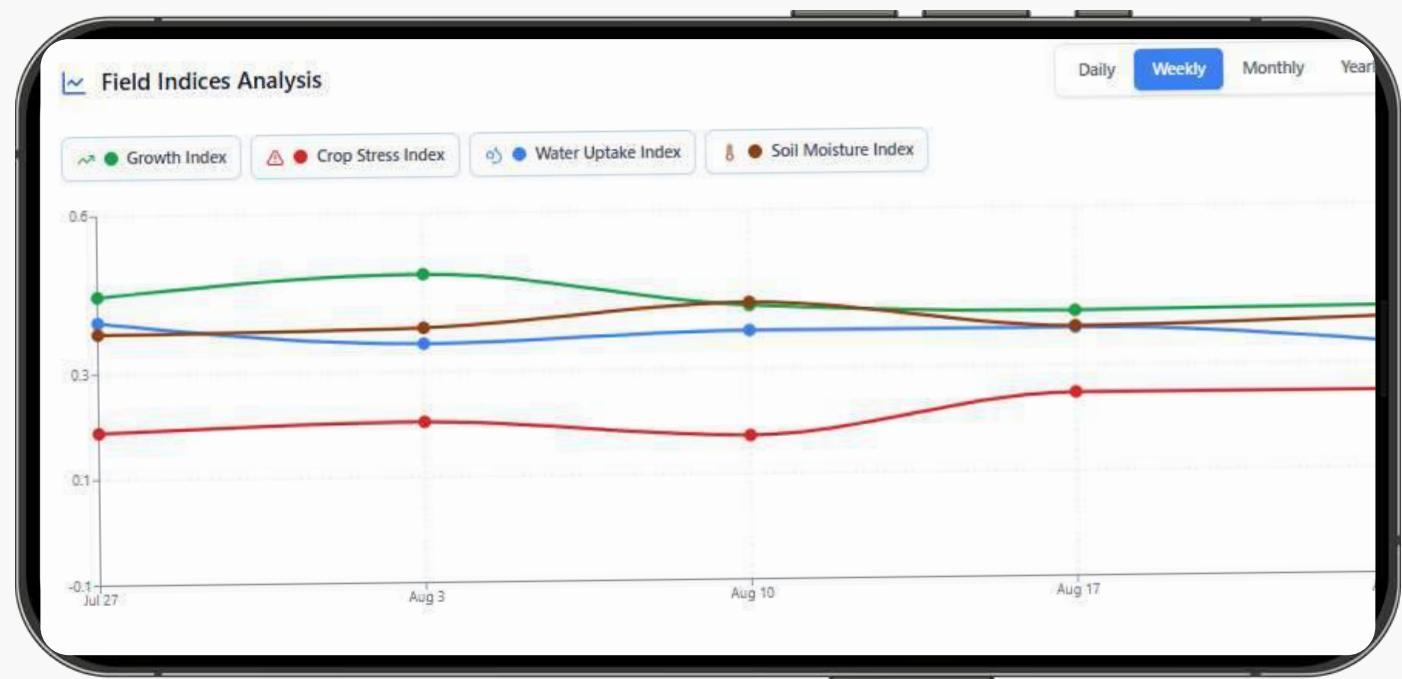


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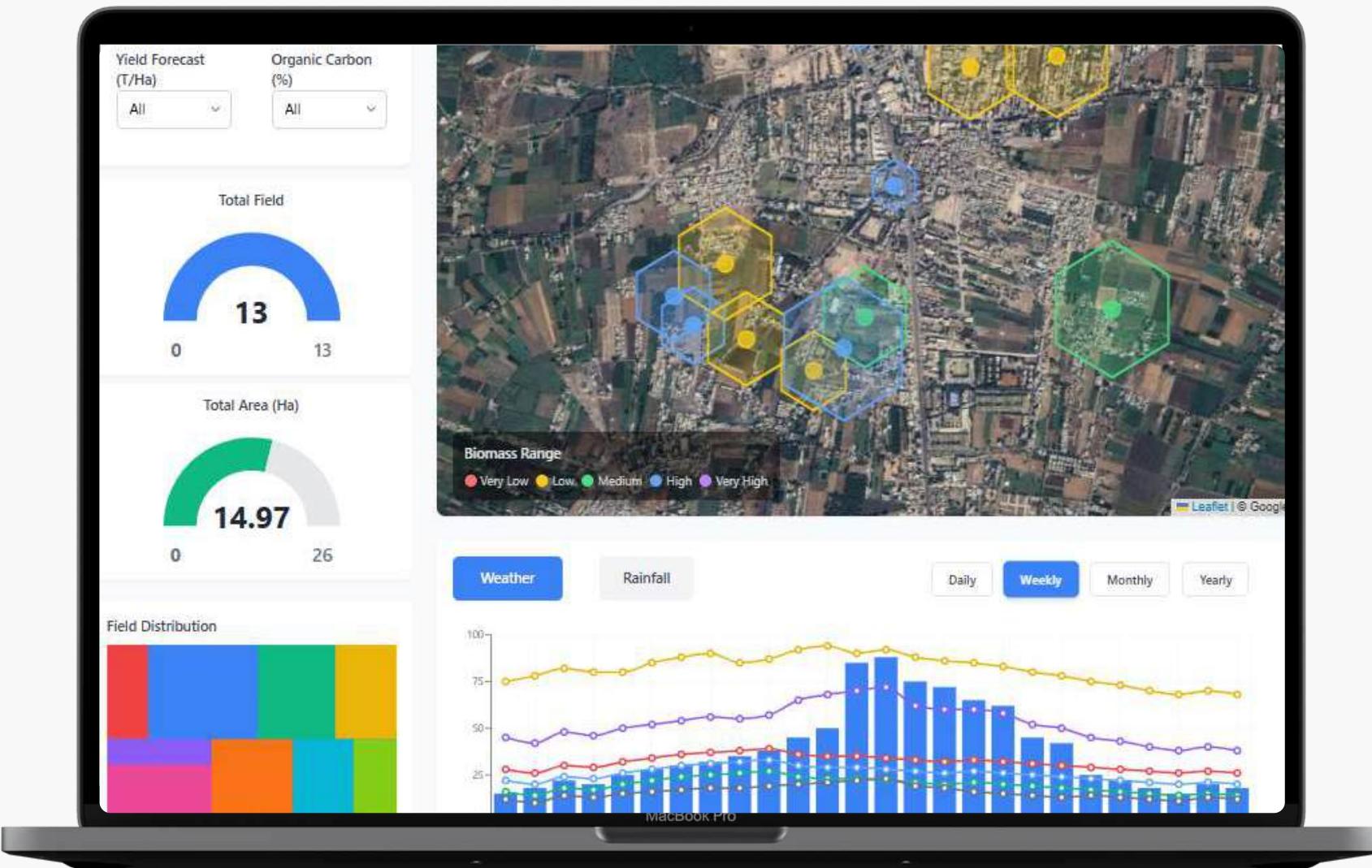
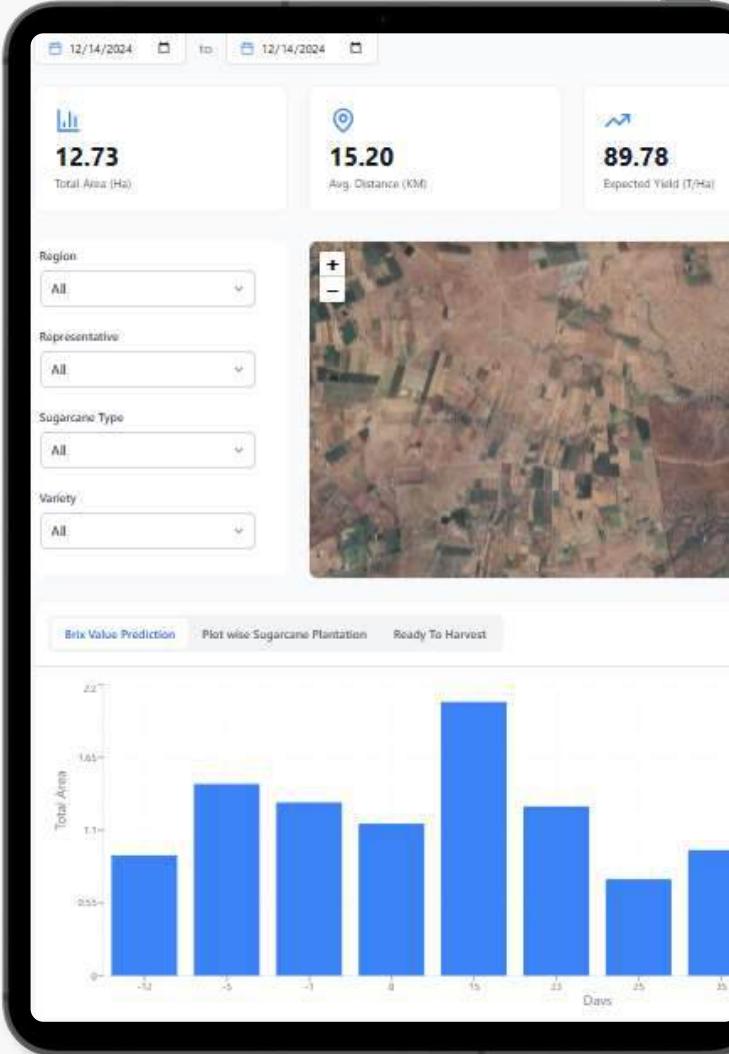


### Farmer Registration

Please fill in your details below

User Profile: Username, Email, Phone number, Address, State, District, Taluk, Documents

Farm Location & Plots: Add Plot, Share My Location, Save My Locations





# Planeteye Farm AI Limited

## WE LOOK FORWARD TO ASSOCIATE WITH YOU..

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