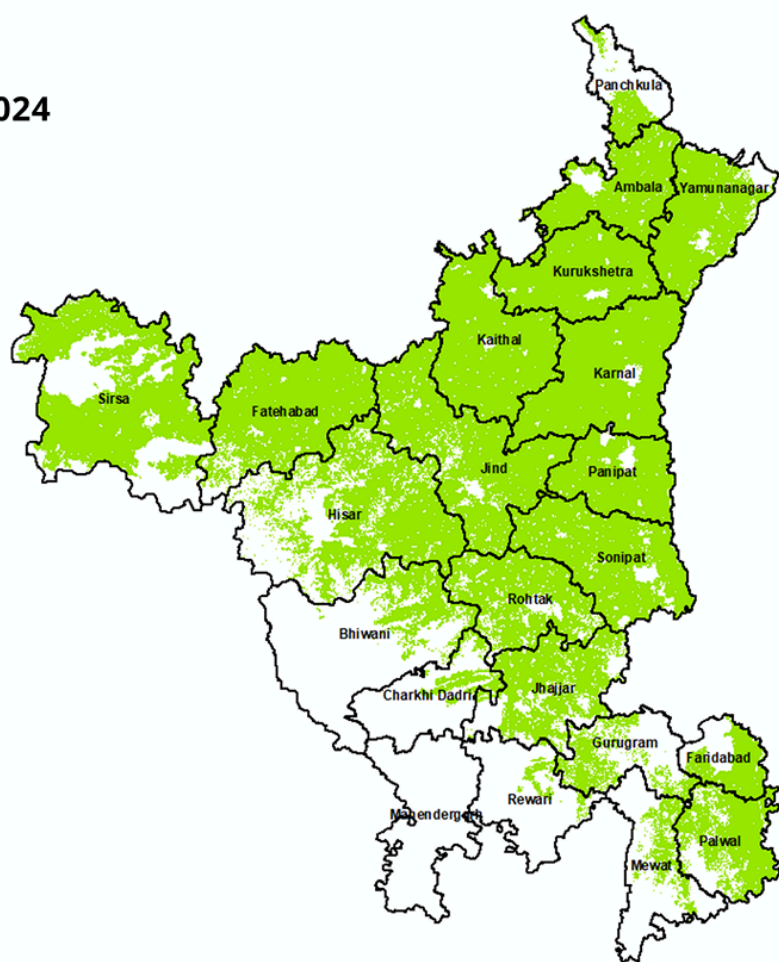


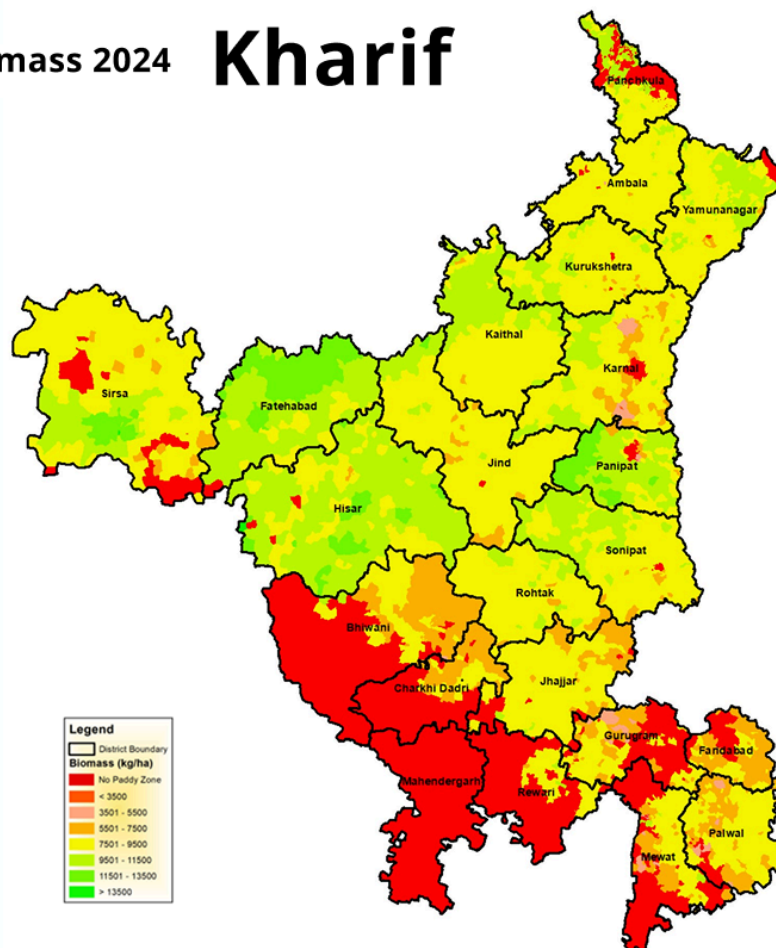
GeoSpatial Technology for Crop yield Estimation (YES-TECH)

Crop yield estimation under YES-TECH is a crucial component of the Pradhan Mantri Fasal Bima Yojana (PMFBY), as it helps determine actual crop losses and ensures timely compensation to farmers. Under the scheme, crop cutting experiments (CCEs), modern technologies such as remote sensing, drones, and satellite imagery and advance models such as semi-physical, AI/ML, simulation etc. are used to accurately assess yield.

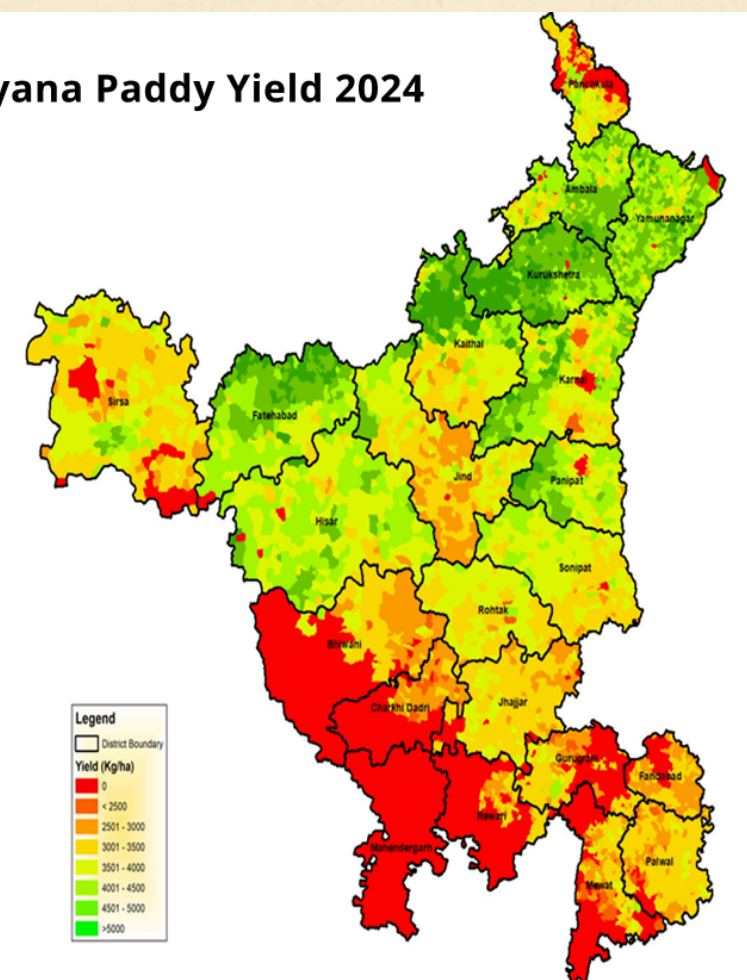
2024



Kharif Biomass 2024 **Kharif**



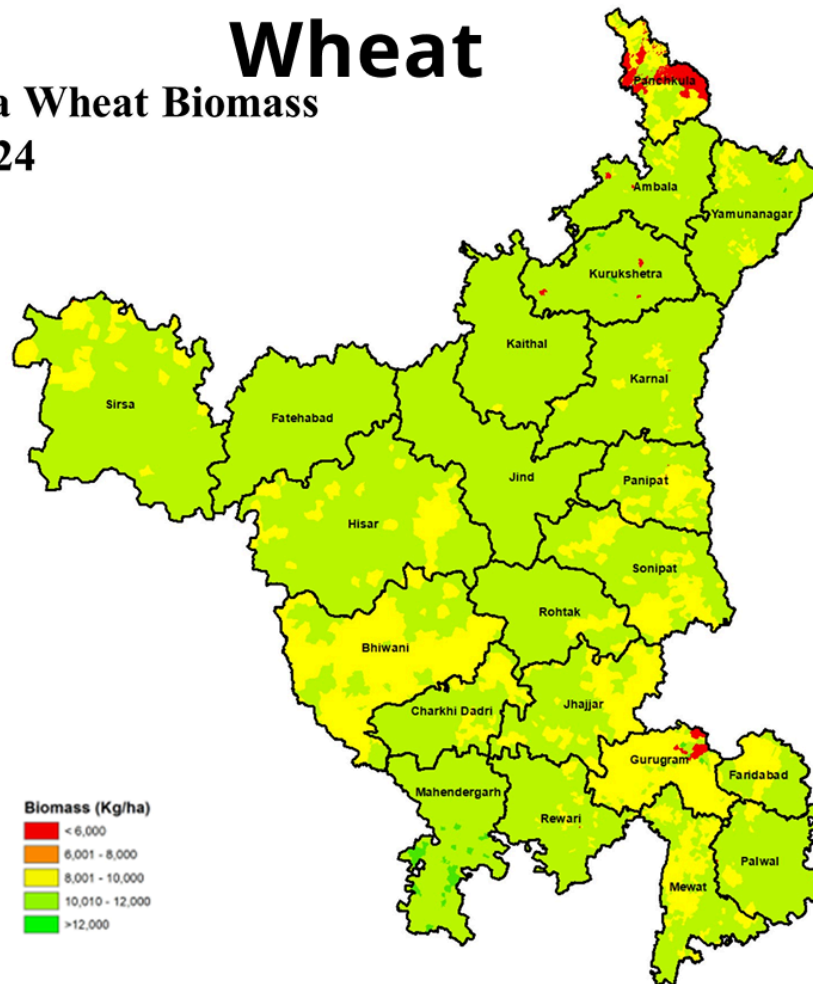
Haryana Paddy Yield 2024



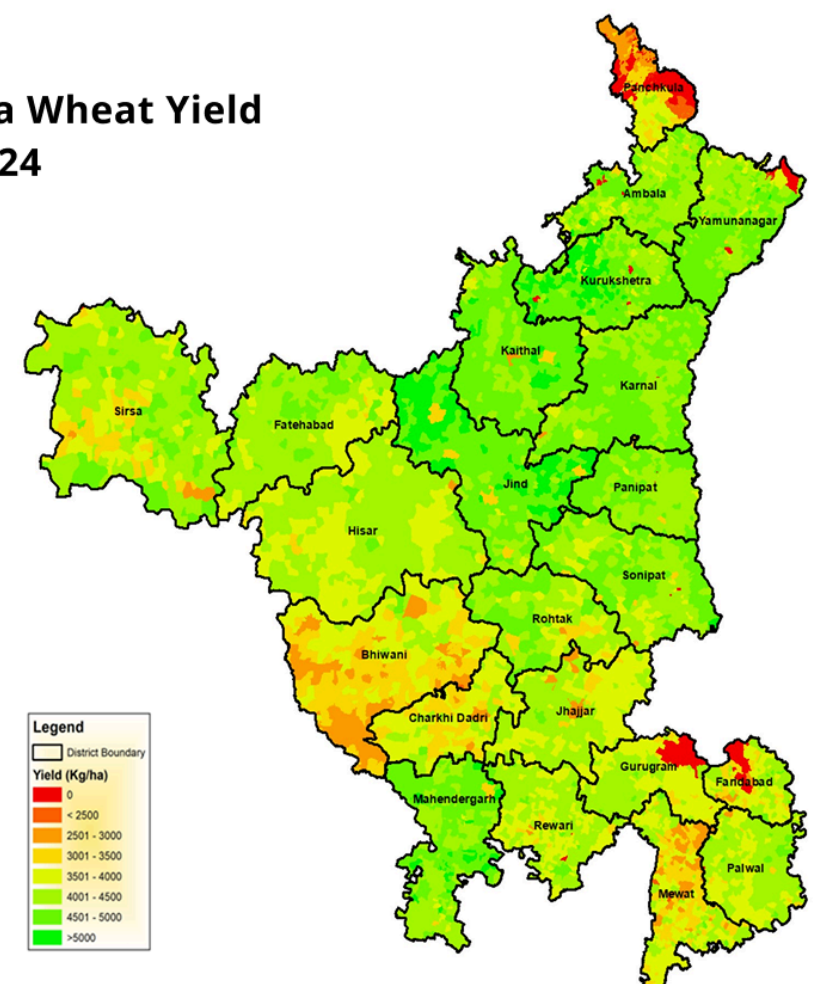
Haryana Wheat Mask 2023-2024



Wheat
Haryana Wheat Biomass 2023-2024



Haryana Wheat Yield 2023-2024



Key Outputs

- Paddy Biomass Range = 5000 - 13500 (kg/ha)
- Paddy Yield Range = 2500 - 5000 (kg/ha)



- Wheat Biomass Range = 8000 - 12000 (kg/ha)
- Wheat Yield Range = 3000 - 5000 (kg/ha)



- Accuracy ranged from 75% to 95%
- Compliance with national standard = 78% to 99%



- Accepted blending percentage = 70: 30 (CCEs Yield: Tech Yield)
- Willingness to adopt Tech Yield with 100% weightage



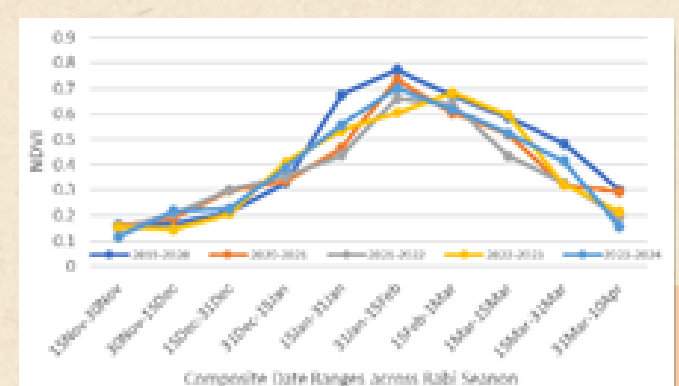
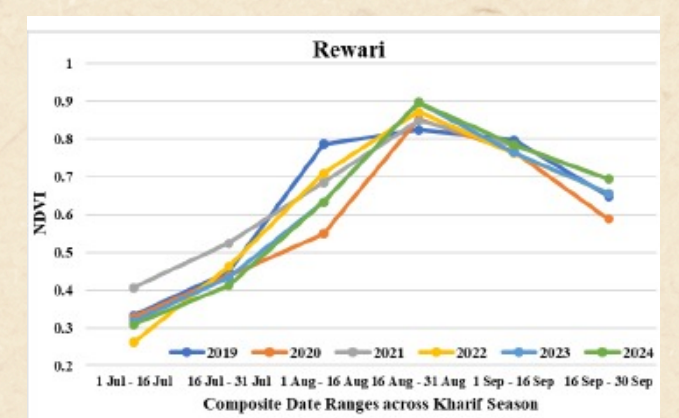
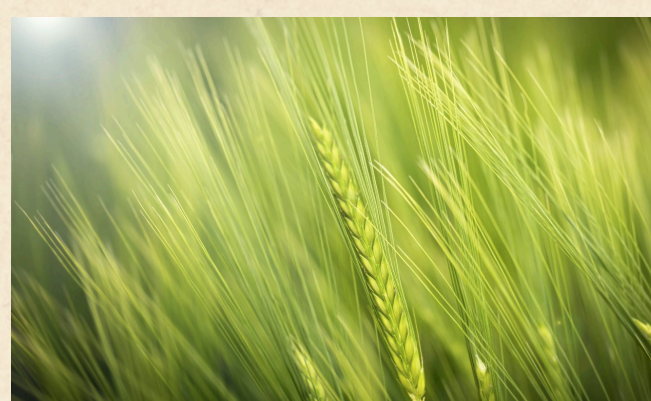
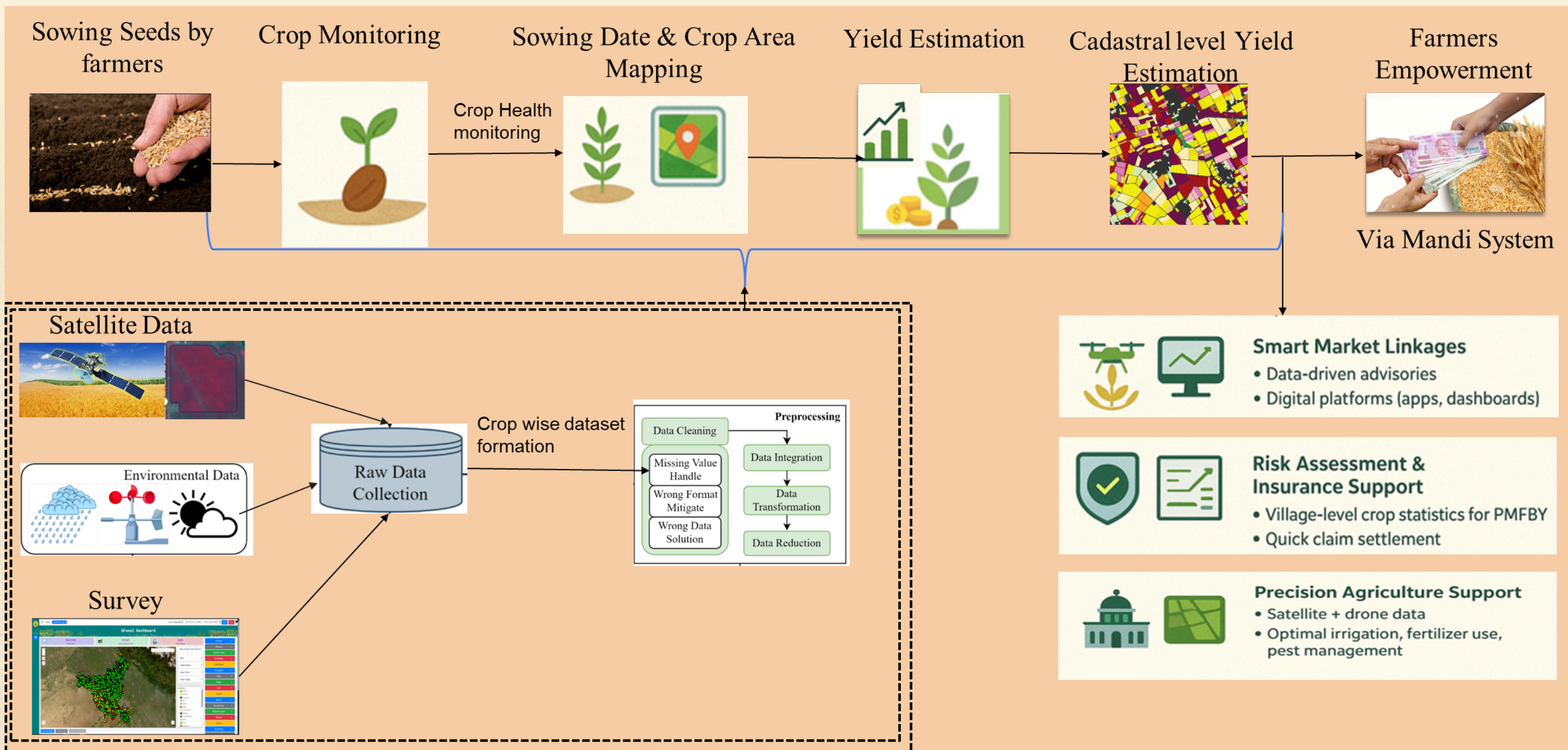
- Eliminates manual dependency
- Planned to involve all 10 PMFBY crops in Haryana



Benefits of using Technology in Agriculture

- Faster Claims Settlement
- Timely payouts to farmers
- Transformation of Agriculture
- Affected Area Identification
- Addressing Food Security

- Yield Estimation
- Resource Scarcity Solutions
- Yield Loss Estimation
- Agricultural Automation
- Smart Agricultural Practices



Conclusion

To assess crop yield, integrating diverse modeling techniques and data sources to provide a robust basis for developing accurate crop insurance schemes. By leveraging the power of AI, ML, and remote sensing, the framework enhances risk assessment, improves payout efficiency, and empowers farmers with greater financial security. Collaboration between government, agricultural professionals, and insurance companies for successful implementation and to ensure that the benefits of YES-TECH reach to all farmers.