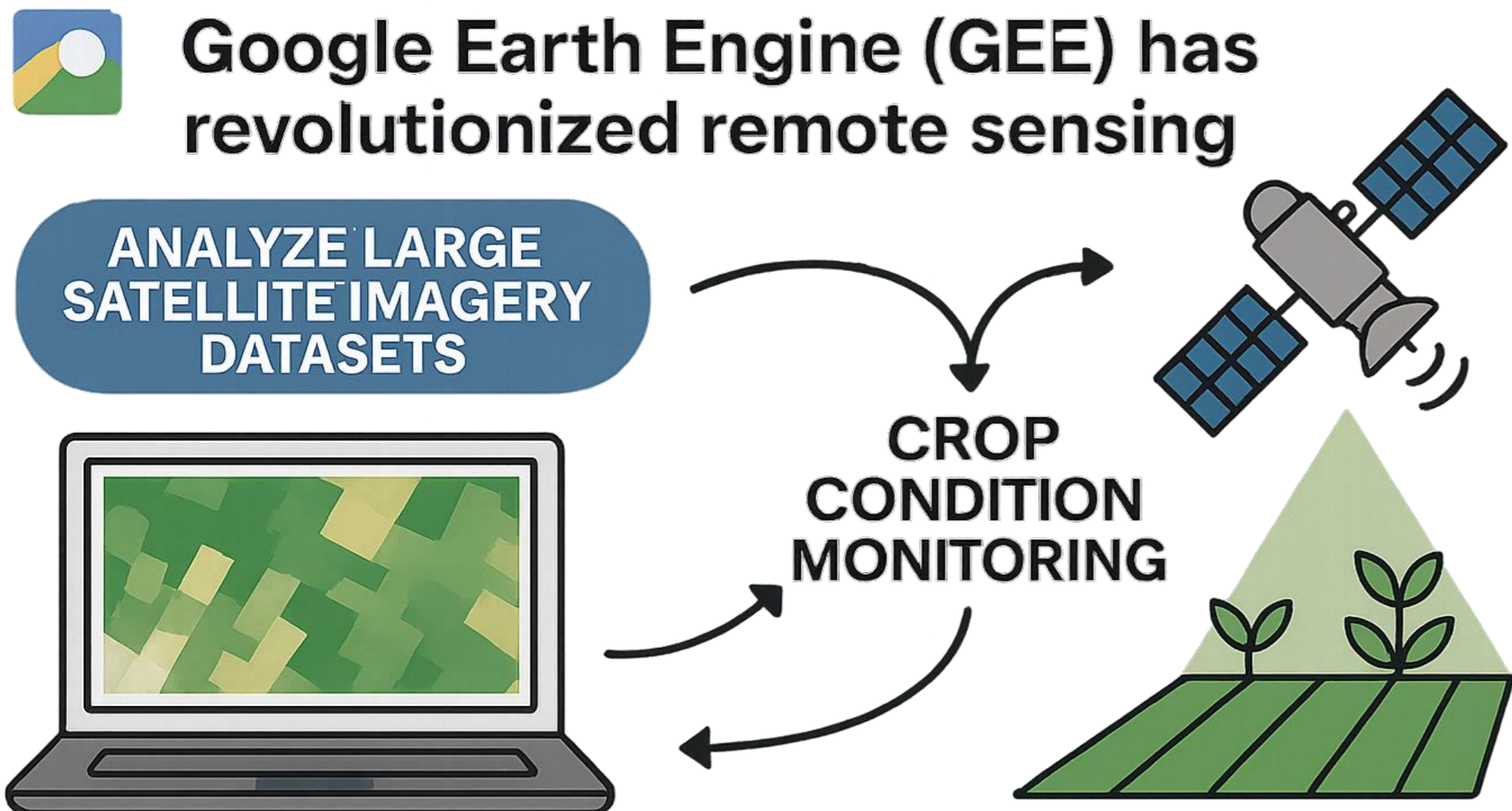


Scaling Crop Water Status Monitoring with a PROSAIL–GPR Hybrid Model on Google Earth Engine

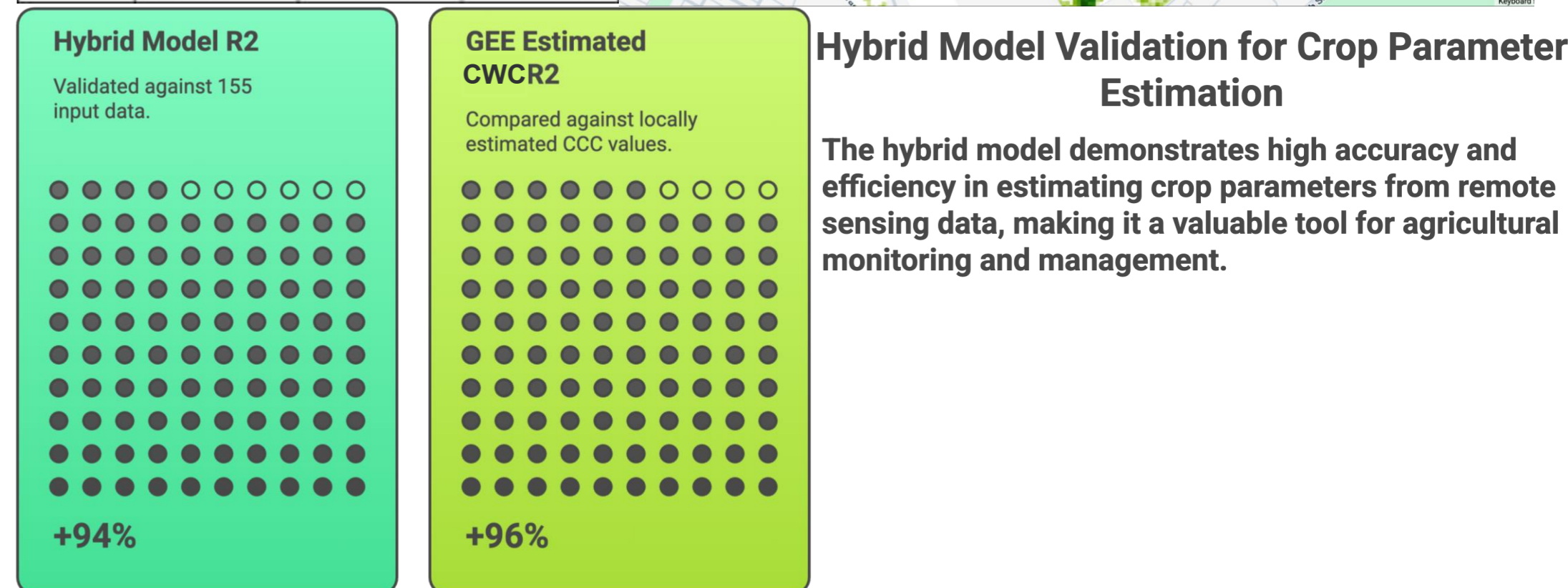
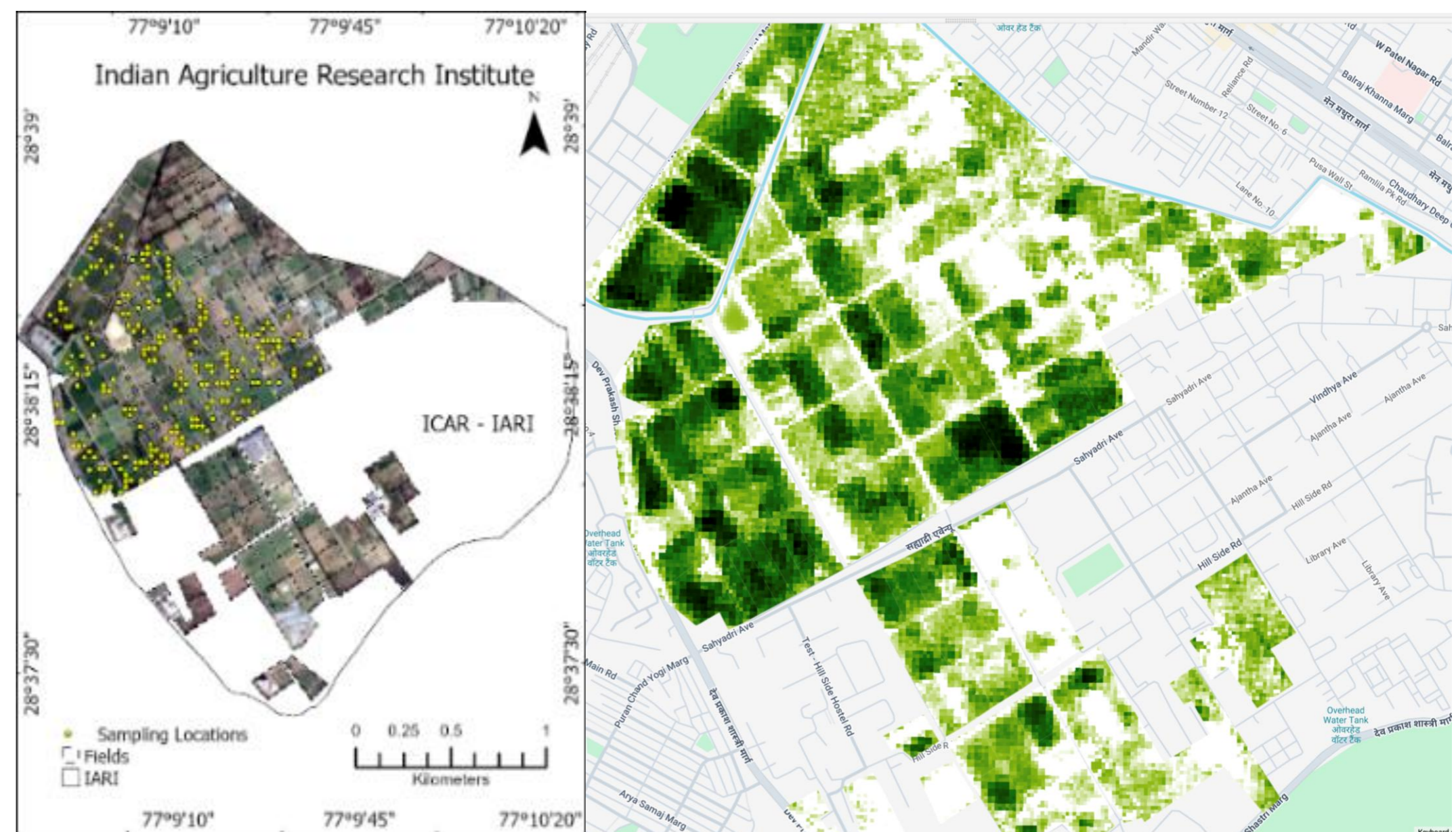
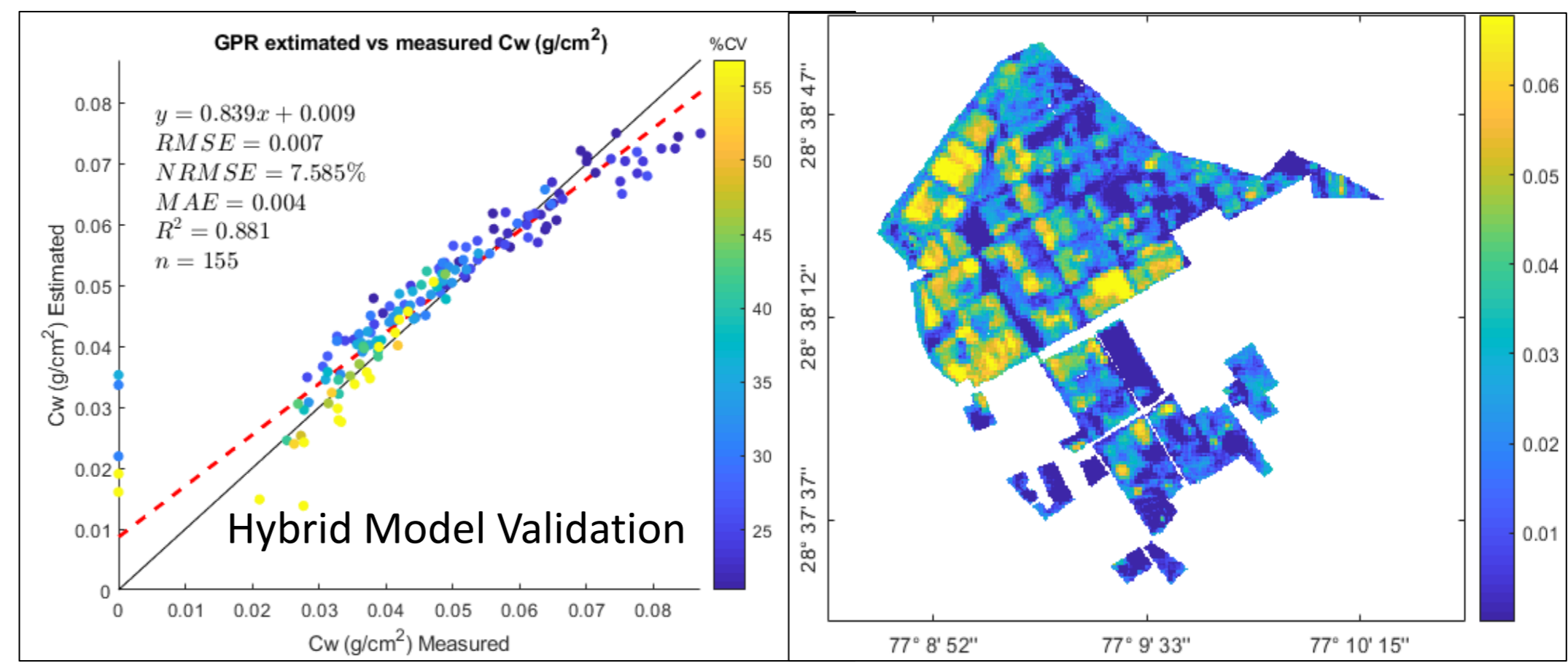
Tarun Teja Kondraju^{1*}, Rabi N. Sahoo¹, R.G.Rejith¹, Amrita Bhandari¹, Rajeev Ranjan¹
ICAR-Indian Agricultural Research Institute; New Delhi; 110012; India

INTRODUCTION & AIM



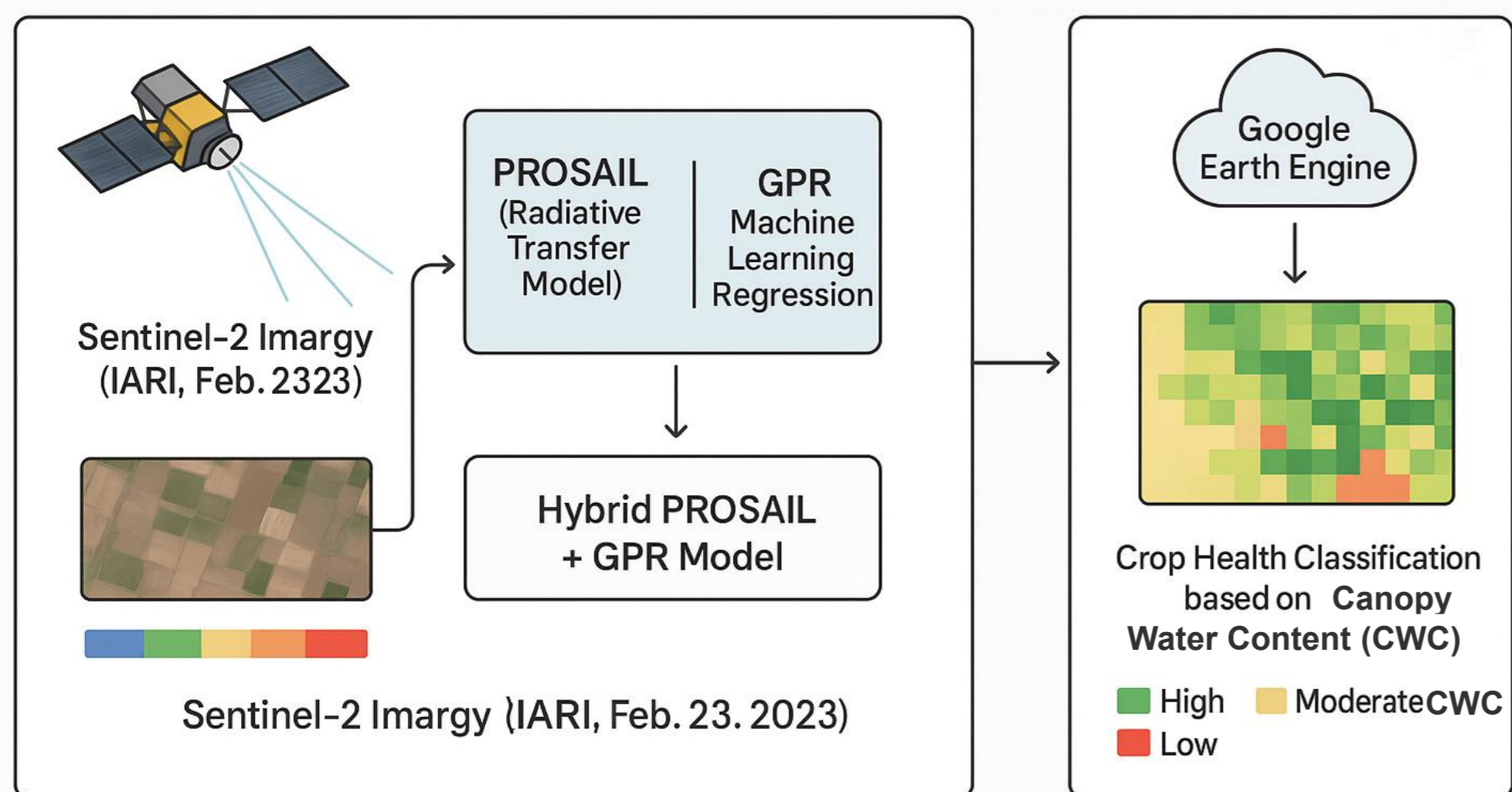
Estimating Canopy level Water Content (CWC) is an effective method for monitoring crops through Remote Sensing

RESULTS & DISCUSSION



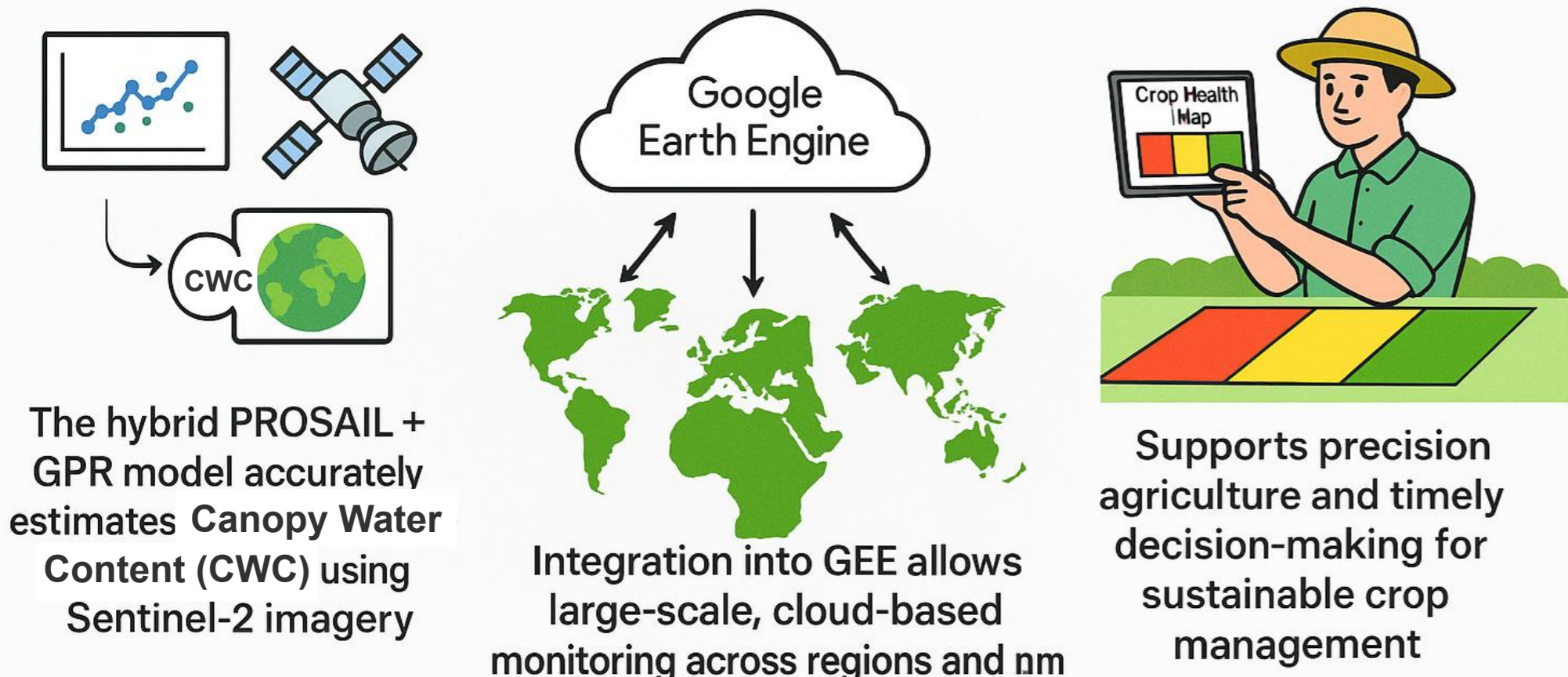
METHOD

Methodology: Hybrid PROSAIL + GPR Model Integrated in Google Earth Engine (GEE)



CONCLUSION

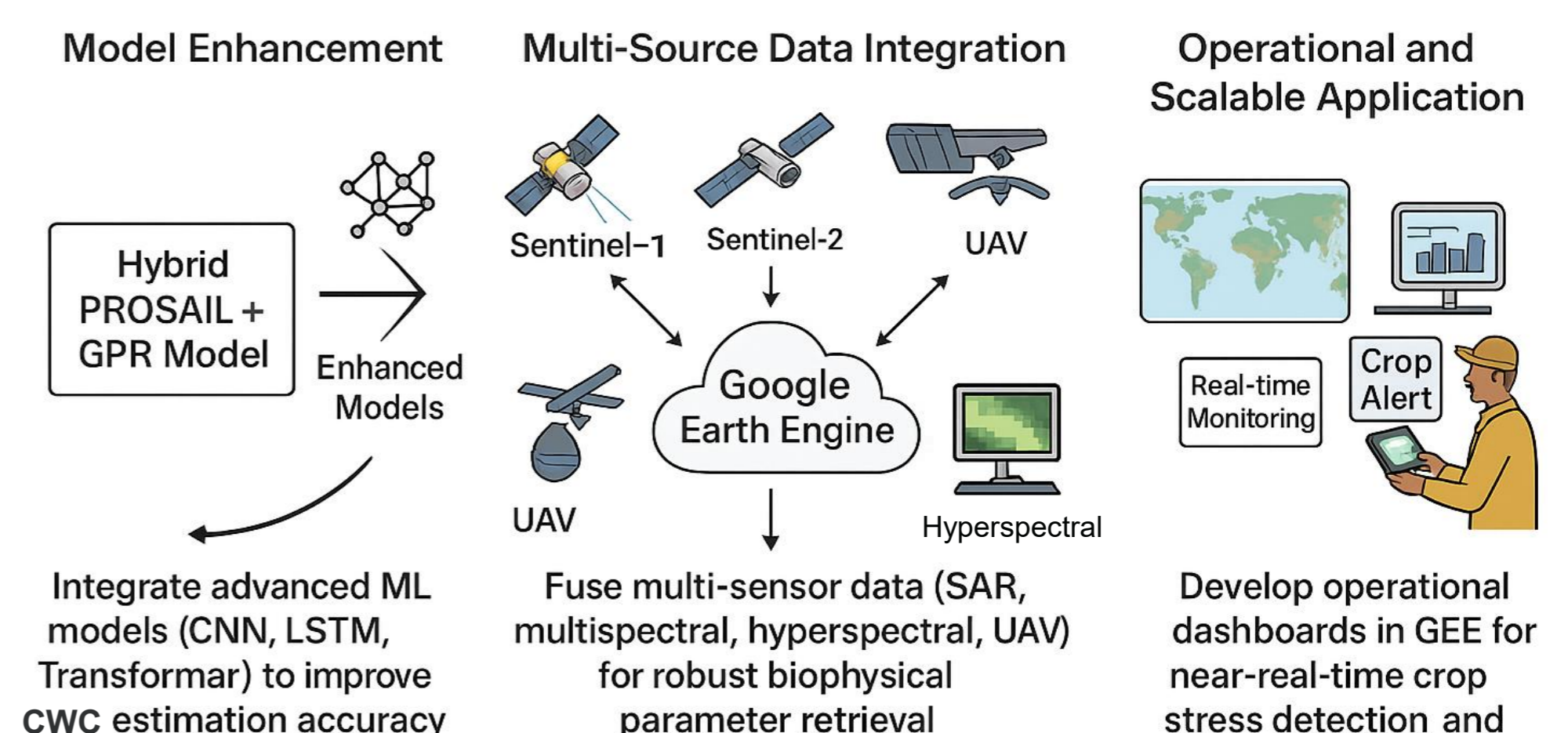
Conclusion



GEE-based CWC estimation using PROSAIL + GPR provides an effective and accurate framework for long-term, large-scale vegetation monitoring.

FUTURE WORK / REFERENCES

Future Work: Advancing GEE-Based Crop Monitoring through Model Optimization and Multi-Source Integration



Future work will focus on enhancing model scalability, integrating diverse data sources, and developing real-time decision support systems for sustainable agriculture