



Bloom Watch

By The Flowers

GOAL



Visualize and analyze global blooming patterns using satellite -based environmental data.

CORE IDEA



Plants bloom differently across regions and time; tracking this reveals patterns in biodiversity, climate shifts, and ecosystem health.

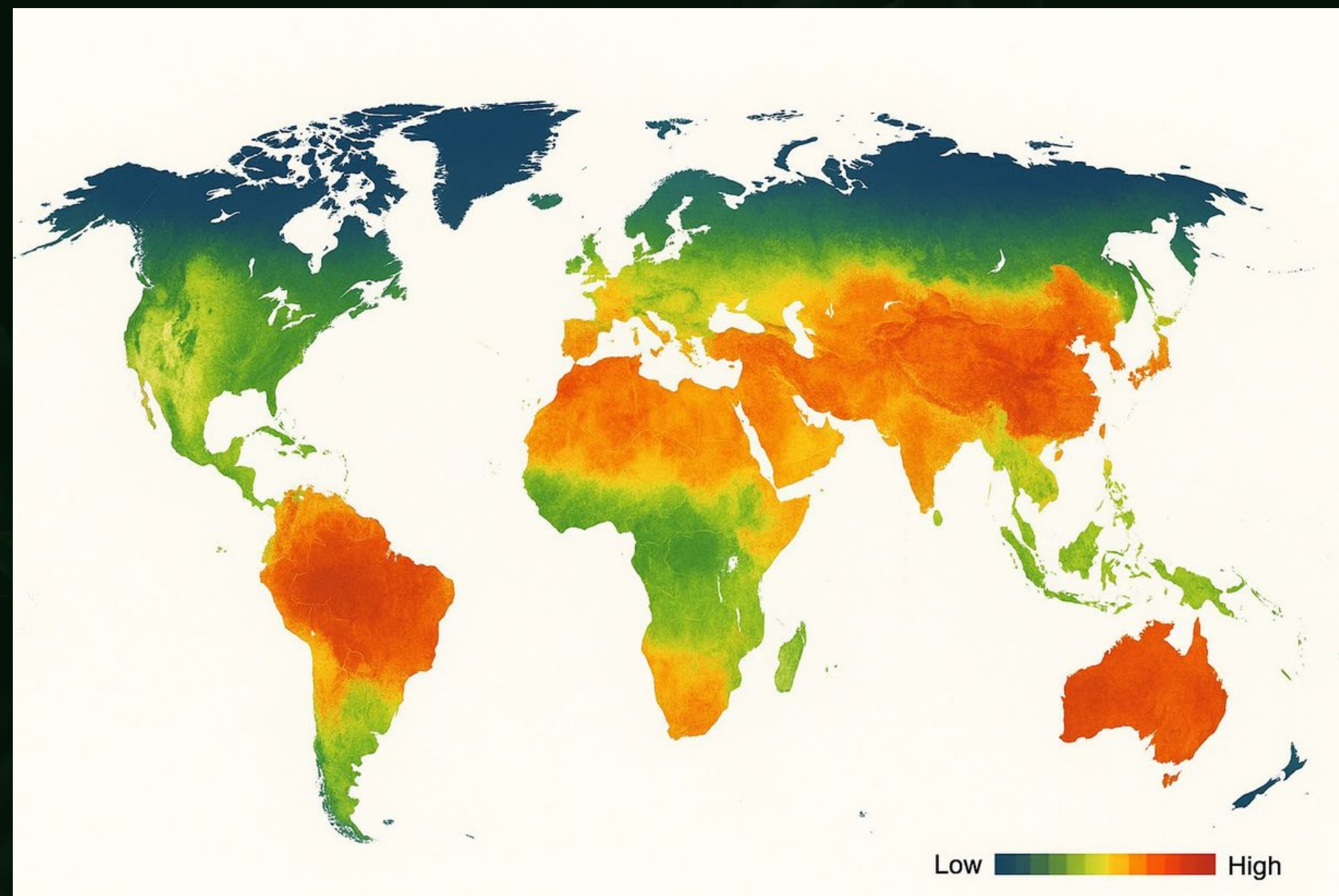
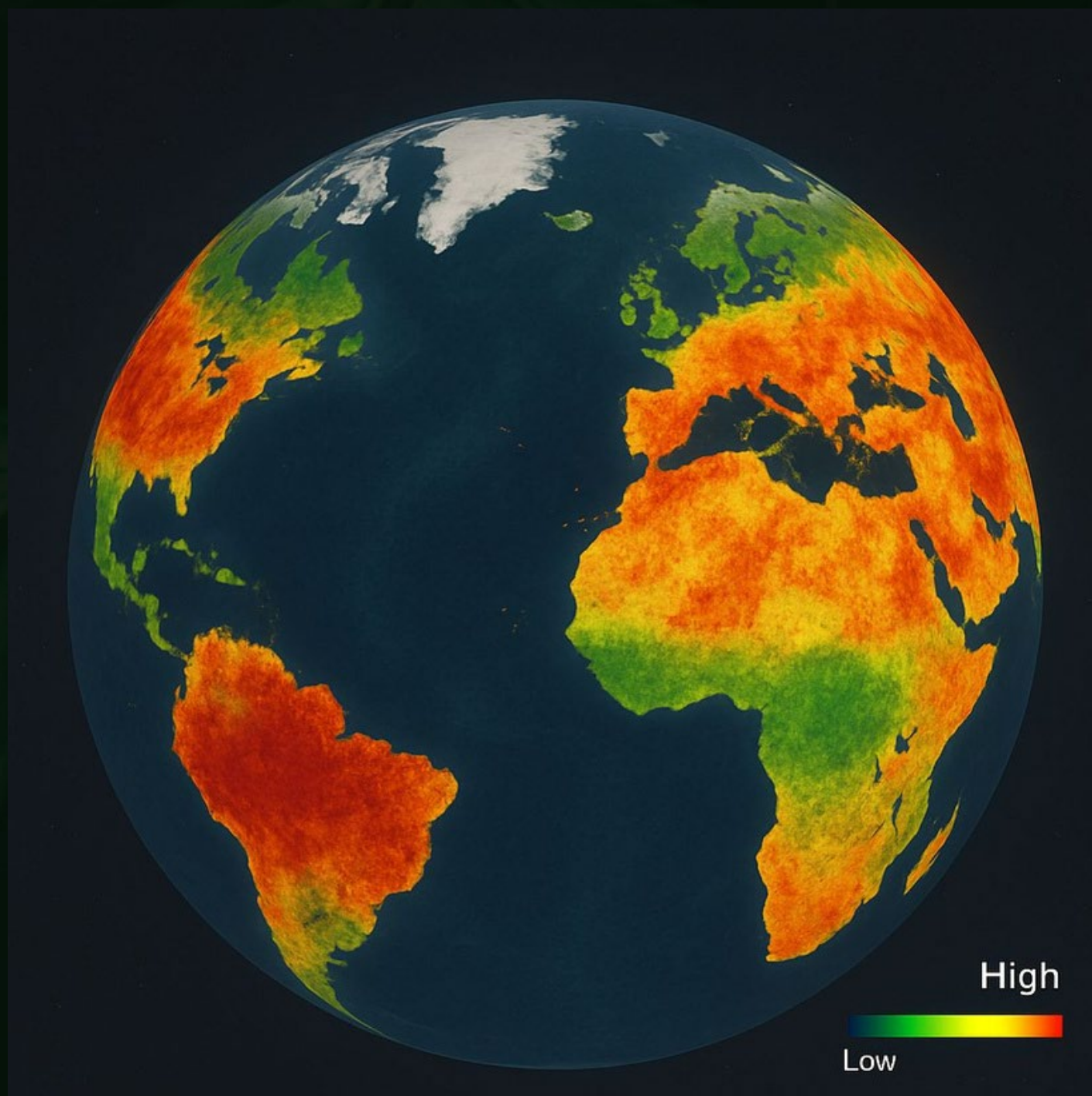
VISUALIZATION AND STORYTELLING

Narrative Flow

- Uses pacing and storytelling to visualize bloom evolution.
- Transitions from a global 3D view to detailed regional 2D heat maps.
- Themes and colour shifts reflect bloom lifecycle.

3D Visualization

- Interactive Earth model.
- Shows real -world coordinates for bloom events.
- Overlay of temporal bloom intensity via heatmap layers



DASHBOARD AND DUAL USAGE

SEARCH

We also have a dashboard which reflects numbers and nerdy data about

conditions of bloom, it's factors and predictions about the next bloom.

Apart from this, we also have a feature to submit reports according to a certain

format to submit reports for real-time surveillance and data-integration.

FUTURE ENHANCEMENTS and USAGES

- Authentication system : JWT login/signup pages.
- AI driven Insights: Predict bloom trends based on historical data.
- Narrative Mode: Guided storytelling timeline of Earth's phenology.
- Preparation: After implementation of prediction feature, governments and tourists can see predictions of blooms and other data like crop cultivation or forest fires to prepare early for emergency situations.

KEY LEARNINGS

Search

- Combining science, art and technology for environmental awareness.
- Using narrative structure to enhance data comprehension.
- Implementing scalable MERN architecture for real - time visualization.
- Importance of UI/UX harmony in scientific visualization.



THANK YOU