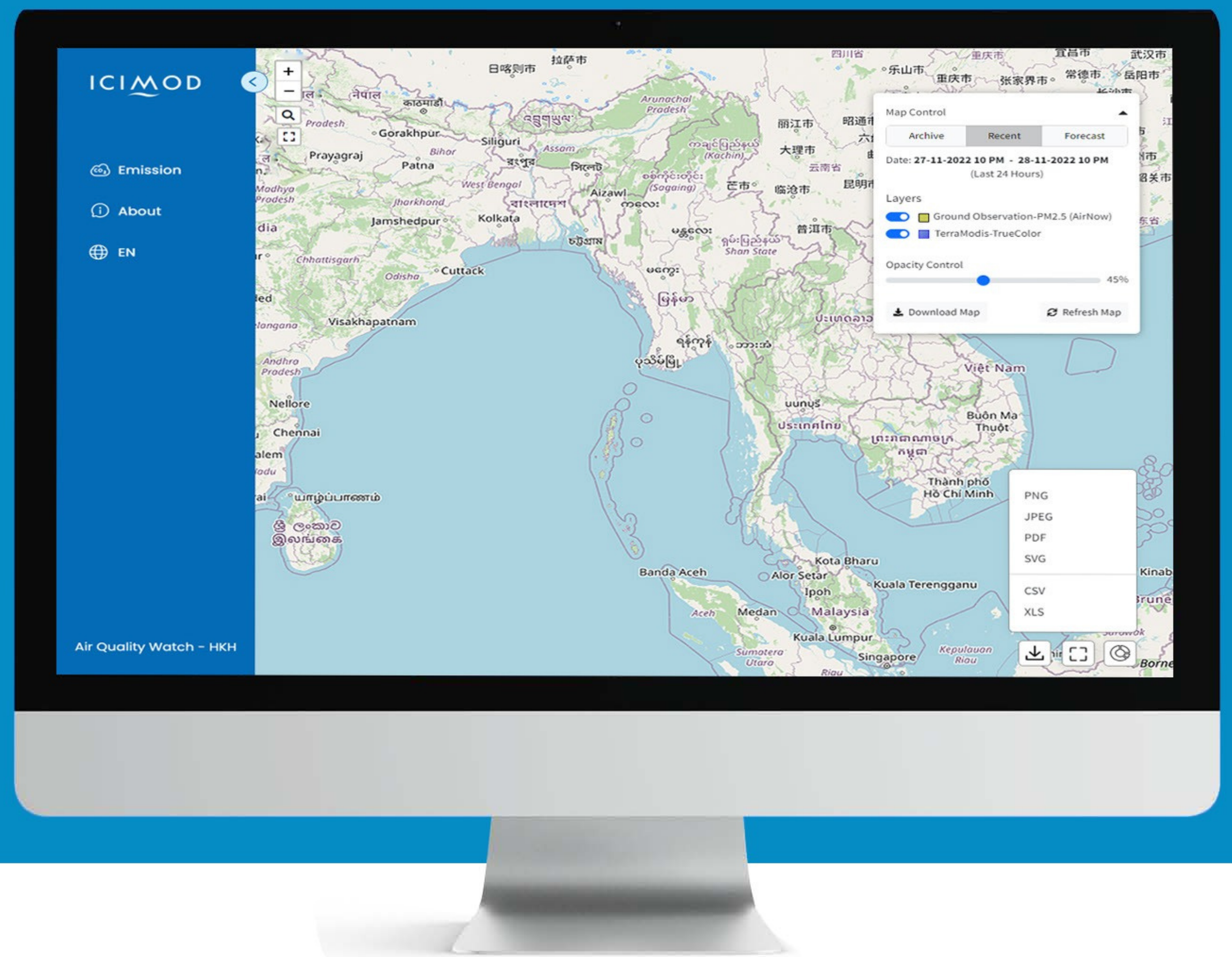


Executive summary

NASA SERVIR's main goal in this project was to create a mobile app and a full-feature website that was meant to improve the existing user interface for the ICIMOD Air Quality Explorer tool, which currently combines ground, satellite, and model outputs to enable monitoring and forecasting of air quality in the HKH region.

CrowdPlat's assembled and managed a team of freelancer experts to accomplish project goals and delivered top quality work product to meet and exceed expectations.



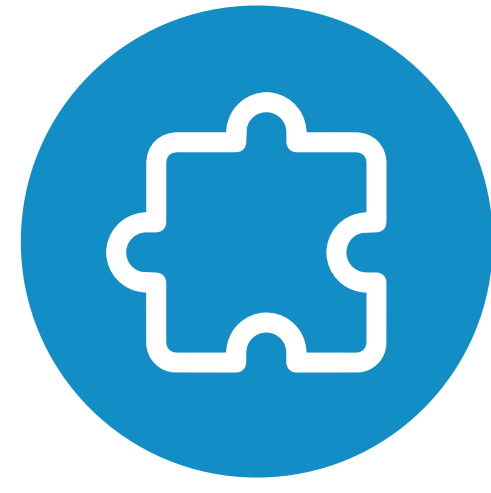
Client overview

A joint initiative of NASA, USAID, and leading geospatial organizations in Asia, Africa, and Latin America, SERVIR partners with countries and organizations to address critical challenges in climate change, food and water security, water related disasters, land use, and air quality. Using satellite data and geospatial technology, SERVIR co-develops innovative solutions through a network of regional hubs to improve resilience and sustainable resource management at local, national and regional scales.



Challenge

Air quality is fast becoming a critical challenge across SERVIR regions. The SERVIR-ICIMOD Air Quality Explorer tool combines ground, satellite data, and model outputs to enable monitoring and forecasting of air quality in Nepal. This information helps authorities devise data-driven policies and strategies to tackle air pollution. The Air Quality Explorer allows users to intercompare historic, near real-time satellite observations, ground-based air quality observations, and forecasted conditions to assess how well they intercompare and perform. While the existing Air Quality Explorer provides useful information, developing a mobile application and improving the UI/UX (user interface and user experience) of the existing SERVIR-ICIMOD website could create greater public awareness of the tool and increase usage.



Solution

CrowdPlat team discussed with SERVIR-ICIMOD team the programming stack required for the project; it was mutually decided to develop the web application using VueJS, mobile application using Flutter, and backend using Python/Django. CrowdPlat used its freelance network and quickly sourced the designer, developers and quality assurance personnel with the right set of skillset required to execute the project.

At the same time, CrowdPlat assigned a project coordinator based in the United States to act as the single point of contact for the client and manage all deliverables. The project was executed over a period of nine months using an iterative development approach and delivered to meet and exceed expectations. SERVIR-ICIMOD team not only had a new and improved website, but also a mobile application that could be deployed on the Apple Store and Google Play, unique and first of its kind, to provide useful information to the public and researchers alike.

The team was thrilled with the results and thanked CrowdPlat for delivering a solid work product.



CrowdPlat Advantage

Iterative development

CrowdPlat used an iterative development approach which resulted in the creation of a simple, interactive web interface that met all client goals.

User friendly design

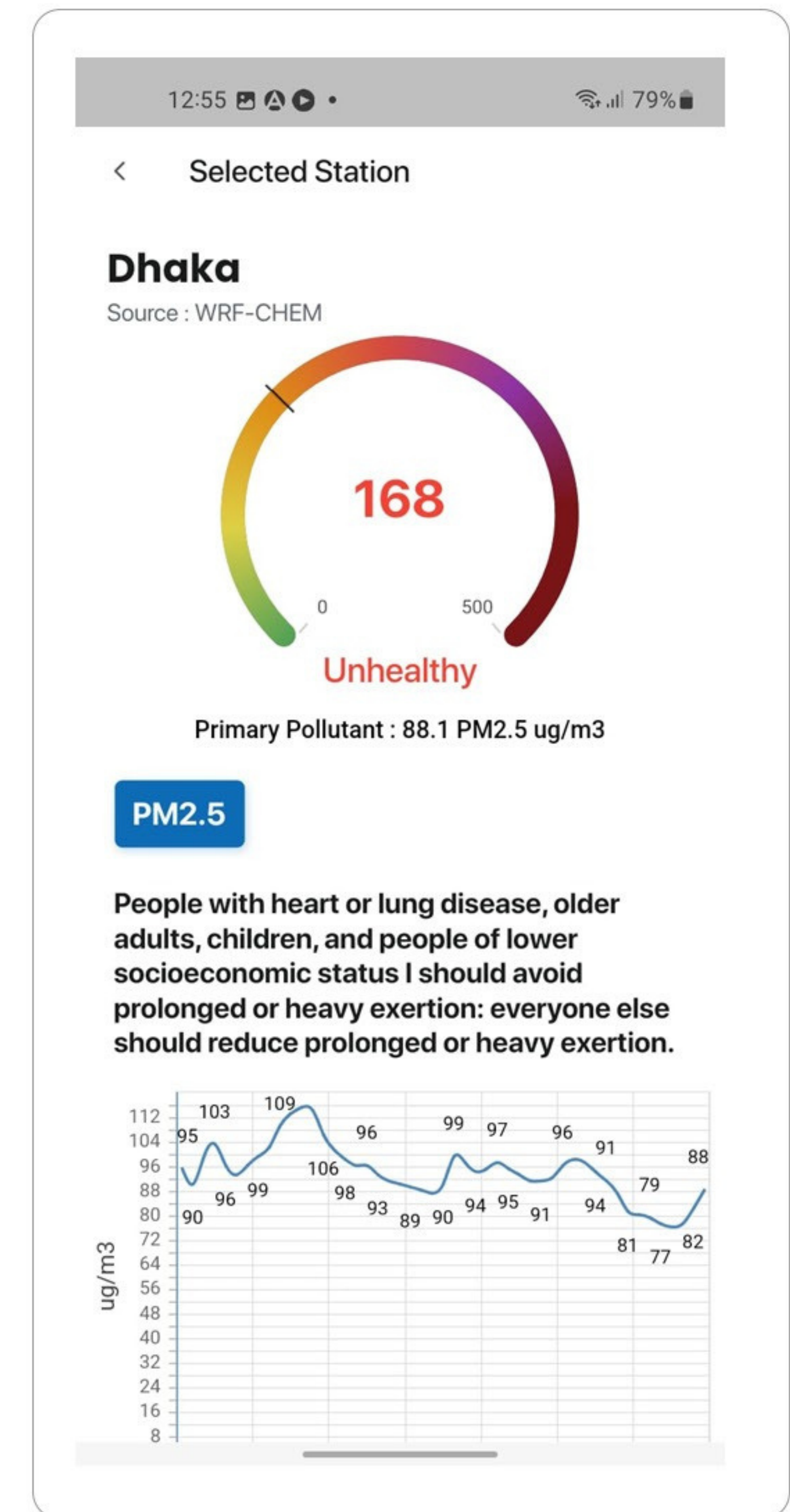
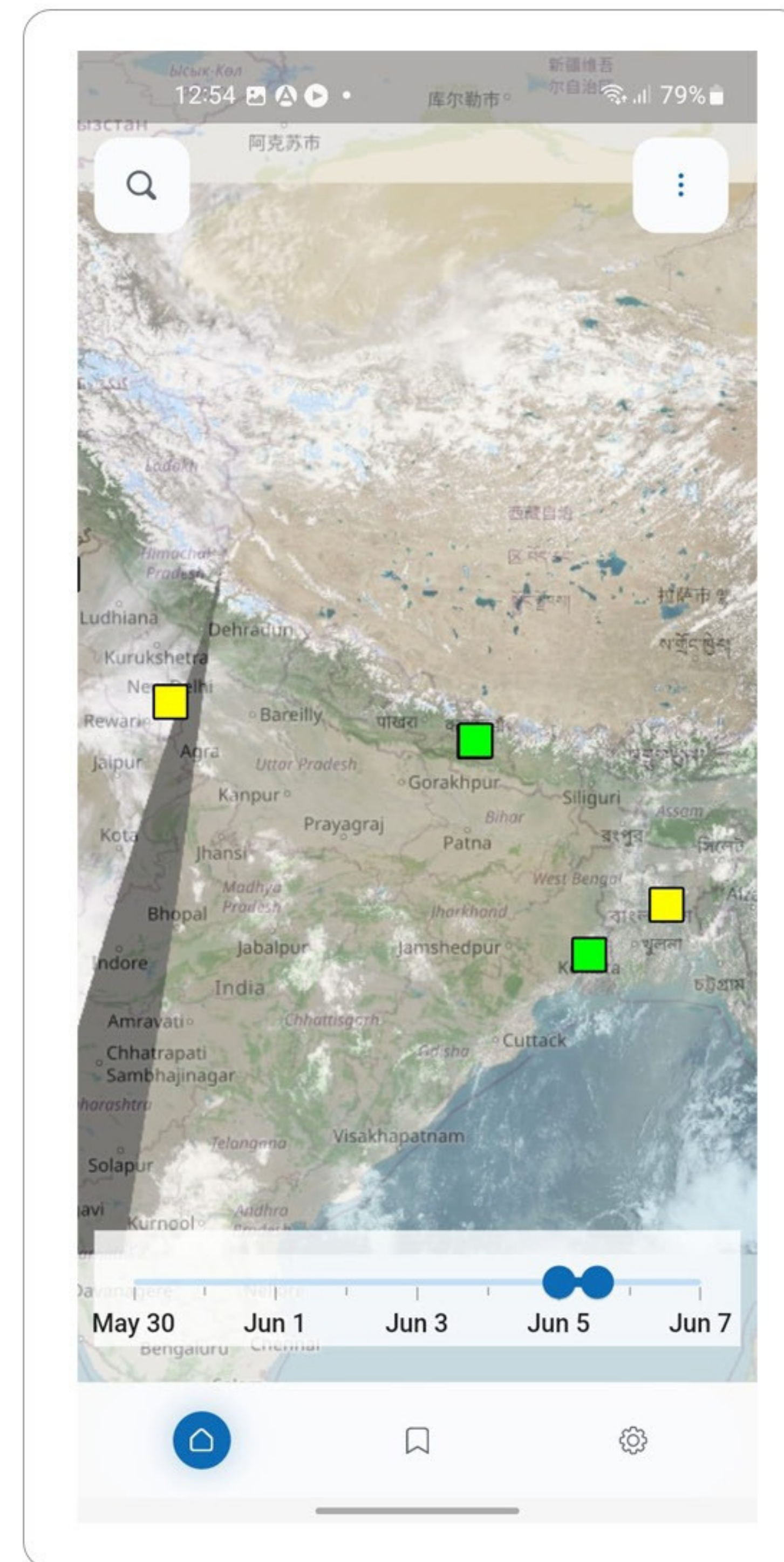
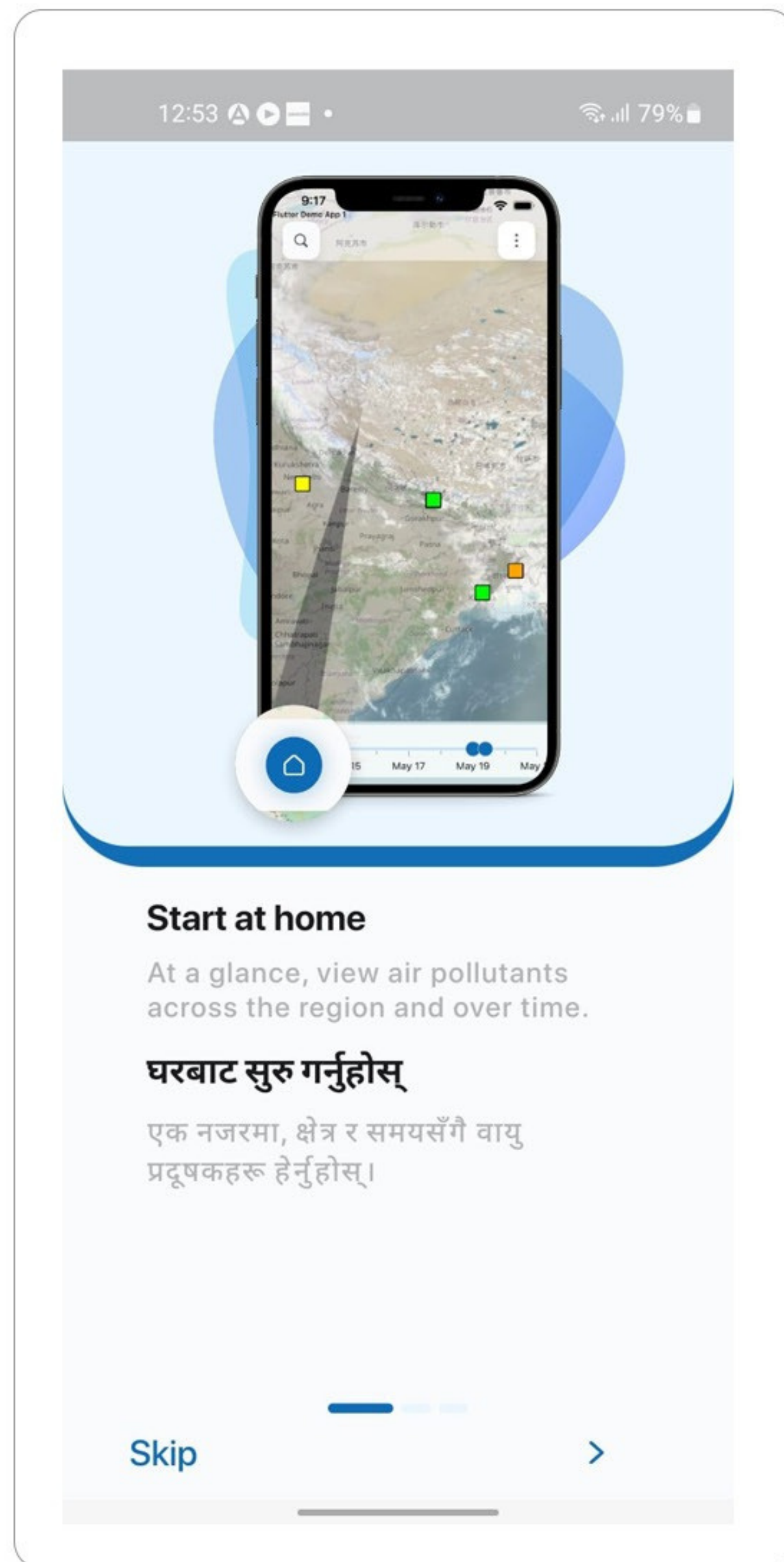
The mobile application was built using native controls that offered a seamless user experience.

If needed, both web and mobile applications could easily be expanded to other SERVIR regions in the future with minimal customization.

Top-notch delivery

CrowdPlat assigned multiple US-based project coordinators to work closely with the NASA SERVIR team to ensure the application was built to requirements. Meetings were held in different time zones so all stakeholders could participate and provide their respective input. Training and knowledge transfer sessions were conducted at the end of the project with everyone involved so that stakeholders could maintain the applications going forward.

Mobile application screens



New and improved full feature website

Current website

