

ENHANCING WEATHER-WATER-CLIMATE SERVICES IN TAJIKISTAN

BACKGROUND

Tajikistan faces harsh climate conditions and widespread land degradation, increasing vulnerability to natural hazards, especially in rural agricultural communities. Despite the importance of Weather-Water-Climate Services (WWCS) for disaster preparedness and food security, this project address a robust system due to weather observation networks.

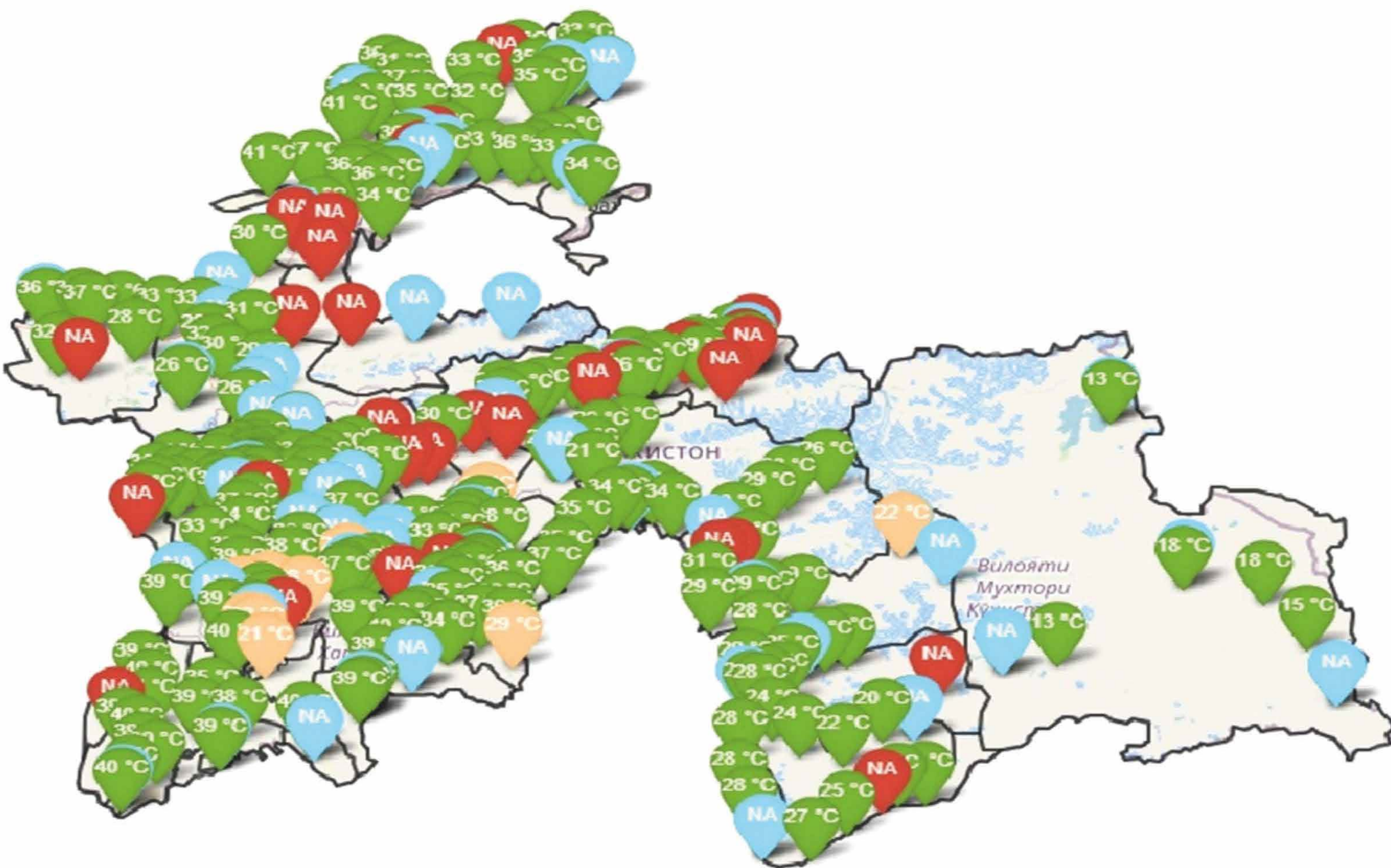
APPROACH

A low-cost, citizen-driven WWCS is being developed using 300 locally operated weather stations transmitting real-time data to Tajik Hydromet. Partnerships with international agencies (MeteoSwiss, WMO, ICARDA, BOKU) strengthen technical capacity, while private telecom companies enable data flow and subscription-based WWCS access, fostering a public-private innovation model.

Key Achievements

- **Accurate Forecasts:** 3–5-day weather forecasts improved by 5–10°C over freely available data.
- **Efficient Irrigation:** 30% less water usage with double crop yield through weather-based advisory services.
- **Optimal Planting:** Early planting strategies protect crops from frost, ensuring stronger harvests.

Tajikistan is pioneering **citizen-driven WWCS**, building **climate resilience** and agricultural sustainability.

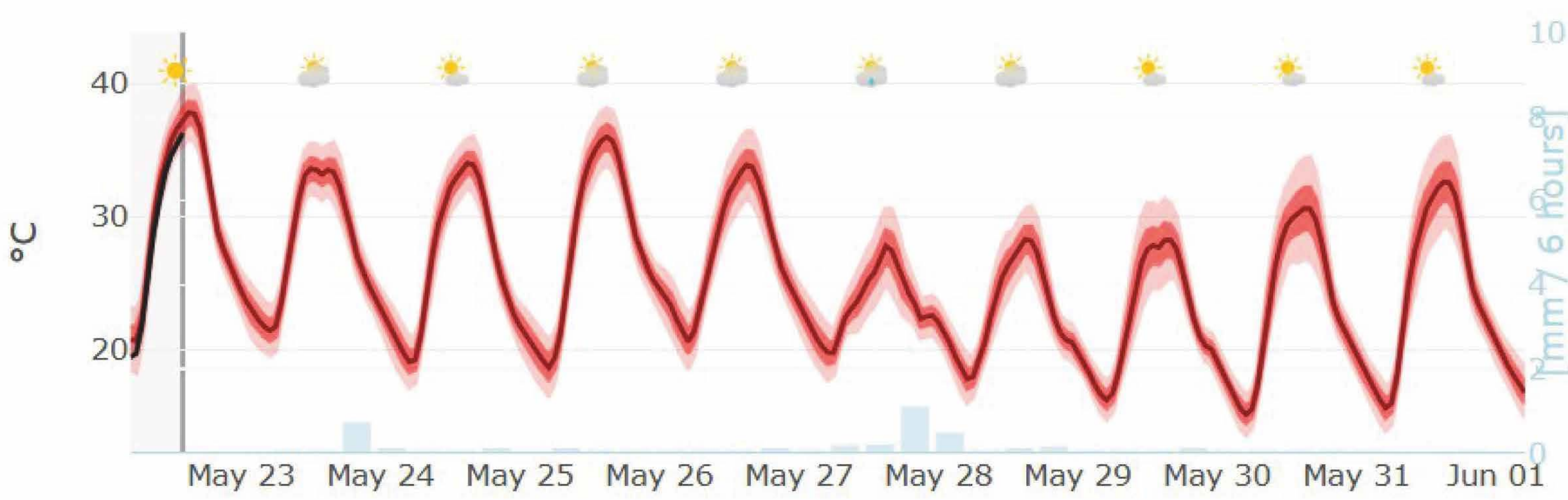


301 WWCS stations - 255 on time stations - 12 late stations - 34 very late stations

Map forecast / Прогноз по карте

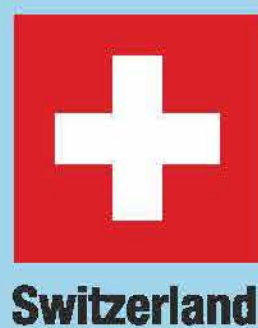
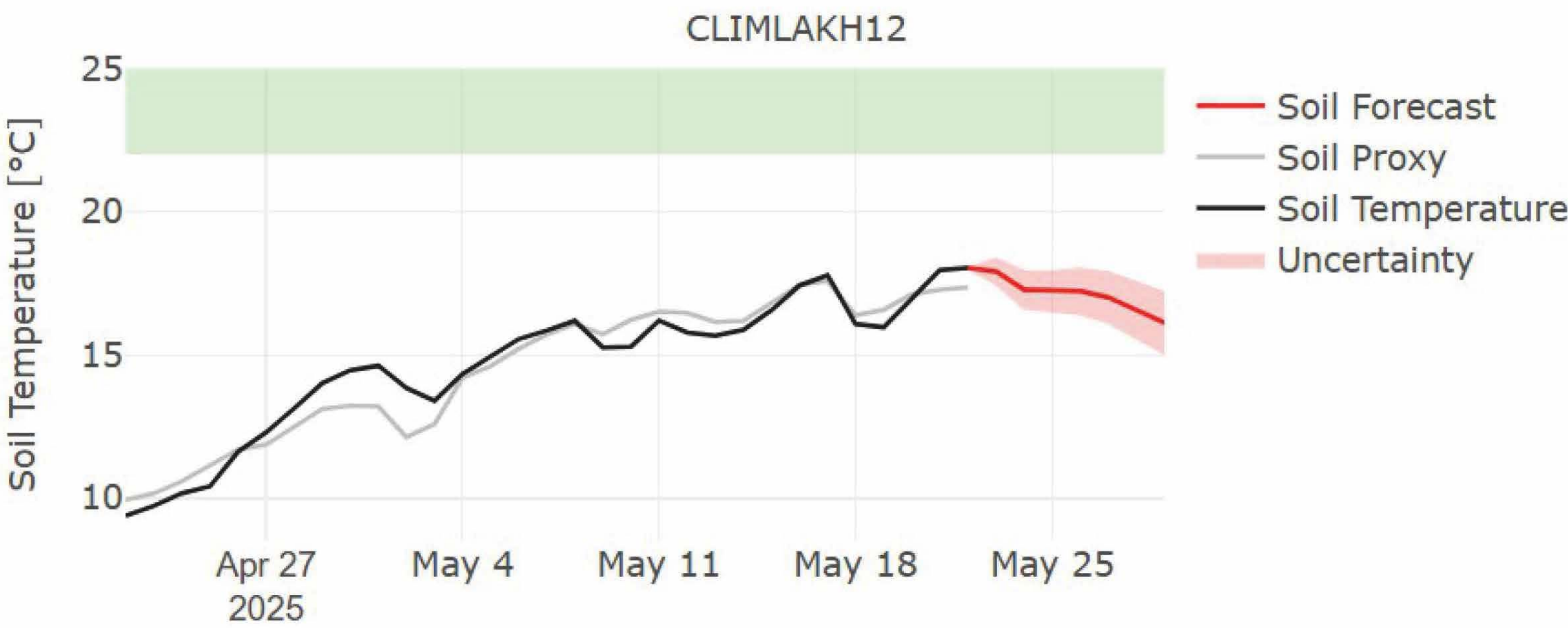
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SOIL TEMPERATURE



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CARITAS

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