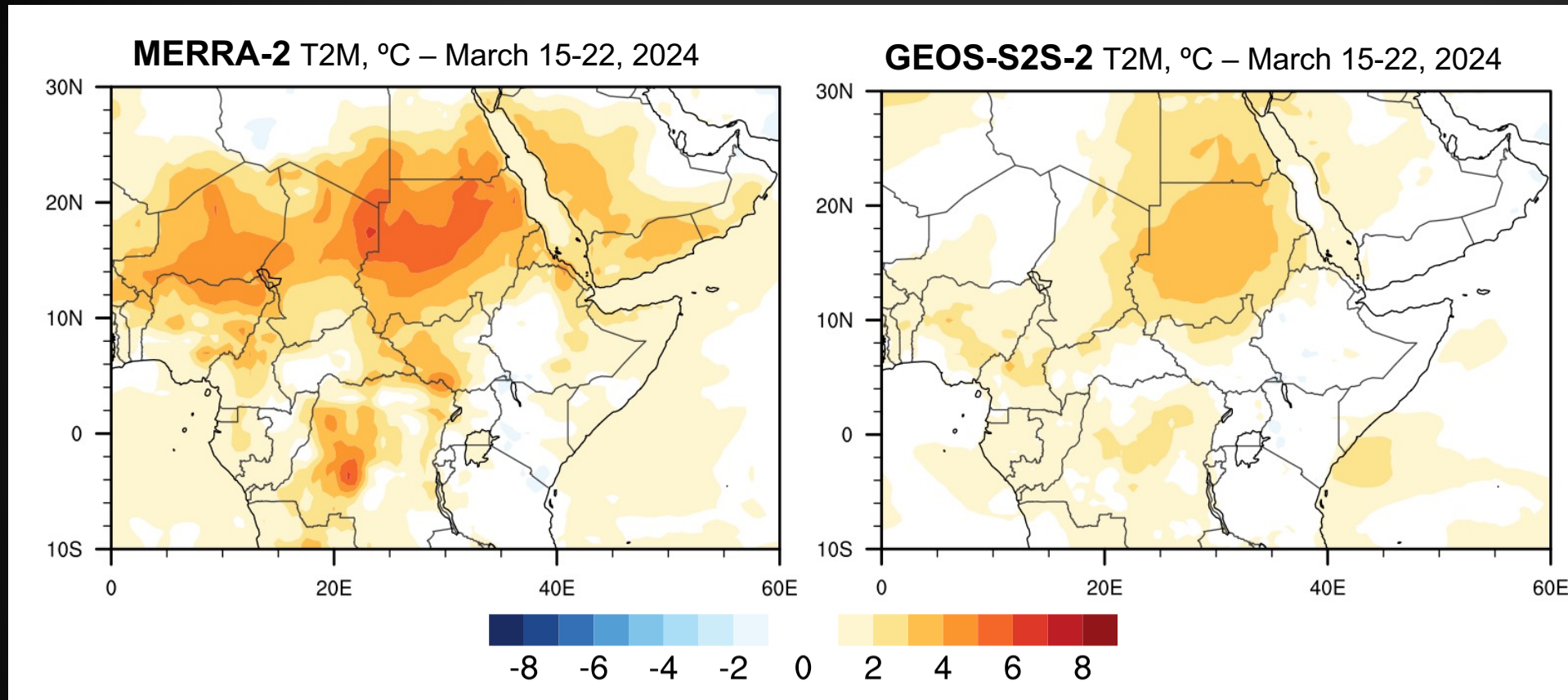


March 2024 Sudan Heat Wave Through GEOS-S2S-2



MERRA-2 data (left panel) of the observed 2-meter temperature (T2M) for the week of March 15, 2024 verified the 3-week forecast of the GEOS-S2S-2 model (right panel). The amplitude of temperature anomalies in the model is less than the observations, but the spatial patterns are similar.

South Sudan, Sudan, and the surrounding region experienced abnormally hot weather the week of March 15, 2024, with temperatures reaching 45°C. This heat wave, which prompted the Ministry of Health and Ministry of Environment and Forestry to issue a joint public advisory on March 15 and close schools for two weeks, was accurately predicted three weeks in advance by the 2m temperature sub-seasonal forecast of GEOS-S2S-2 model, initialized on February 25, 2024.