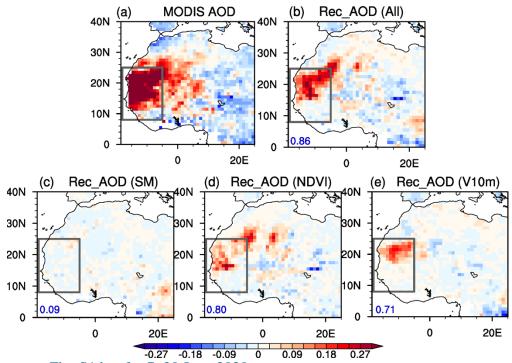


Figure S1. Observed and reconstructed AOD anomalies (with reference to the 2003-2022 climatology) averaged over 3–16 June 2015. (a) MODIS AOD, (b) reconstructed AOD and its components contributed by (c) soil moisture (SM), (d) NDVI, and (e) surface wind speed (V10m). The pattern correlations (uncentered) between the reconstructed and MODIS AOD anomalies over western North Africa (grey box) are shown at the bottom left of each plot.



-0.27 -0.18 -0.09 Figure S2. Same as Fig. S1 but for 7–20 June 2020.