Figure 1. Space-based observations of NO\textsubscript{2} columns, fires, precipitation and lightning over Africa for January, June, and August 2000. (a) Monthly mean GOME NO\textsubscript{2} tropospheric columns in 10\textsuperscript{15} molecules cm\textsuperscript{-2}. (b) Total active fires observed by the Visible and Infrared Scanner (VIRS) on board the TRMM satellite. (c) Monthly precipitation from the TRMM merged analysis in mm month\textsuperscript{-1}. (d) Monthly lightning activity from the lightning imaging sensor (LIS) on board TRMM. GOME observations are averaged over a 2\textdegree latitude by 2.5\textdegree longitude horizontal grid, while all TRMM observations are averaged over a 1\textdegree \times 1\textdegree grid. The NO\textsubscript{2} enhancements over the Sahel region during June are highlighted with a dotted rectangle in the top panel.