Supplement File

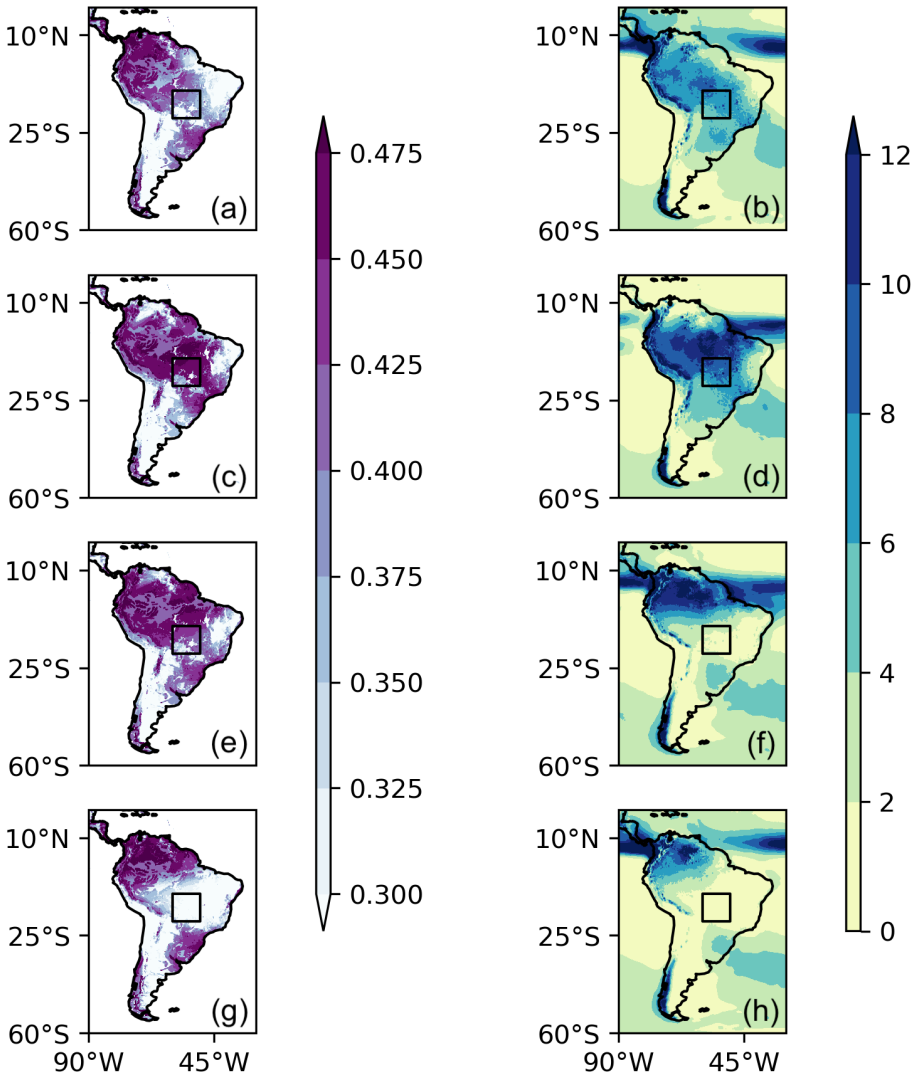

Figure S1. Climatology of 1991-2021 for volumetric soil moisture at 0-7 cm (column a-g), in $m^3.m^{-3}$, and average daily precipitation (column b-h), in $mm.day^{-1}$, for the quarters of September-October-November (SON, line a-b), December-January-February (DJF, line c-d), March-April-May (MAM, line e-f) and June-July-August (JJA, g-h)

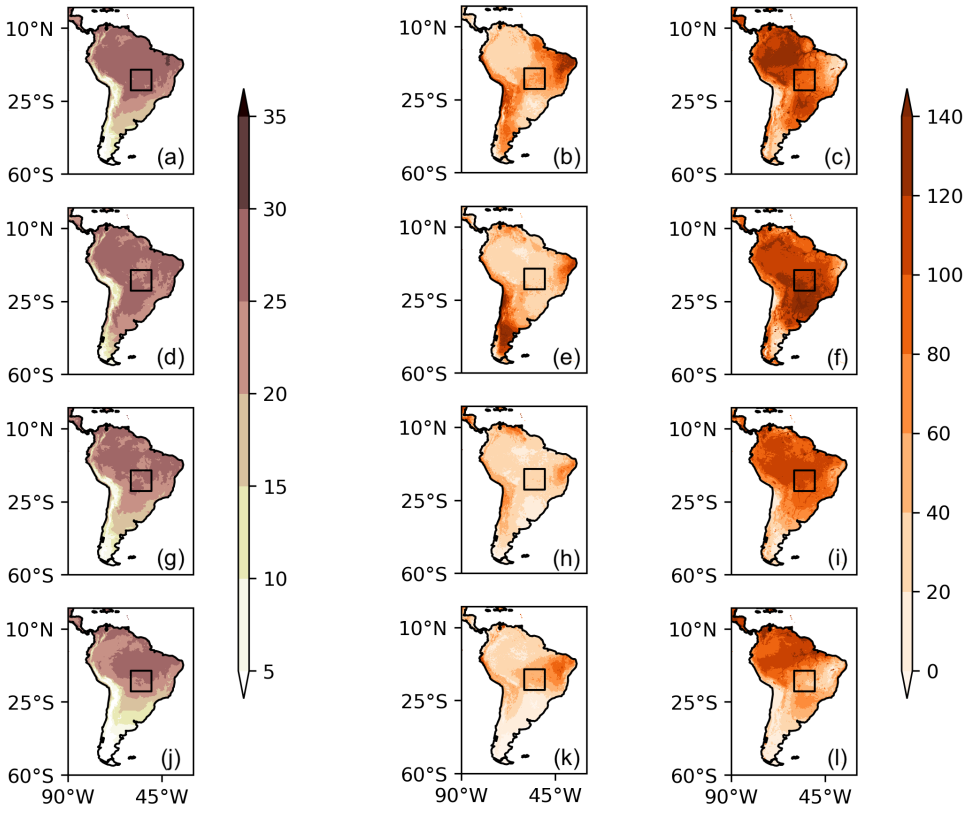

Figure S2. Climatology of 1991-2021 for air temperature at 2 meters (column a-j), in °C, and sensible (column b-k) and latent (column c-l) heat fluxes at the surface, in W.m^{-2}, for the September-October-November (SON, line a-C), December-January-February (DJF, line d-F), March-April-May (MAM, line g-i) and June-July-August (JJA, j-l) quarters.

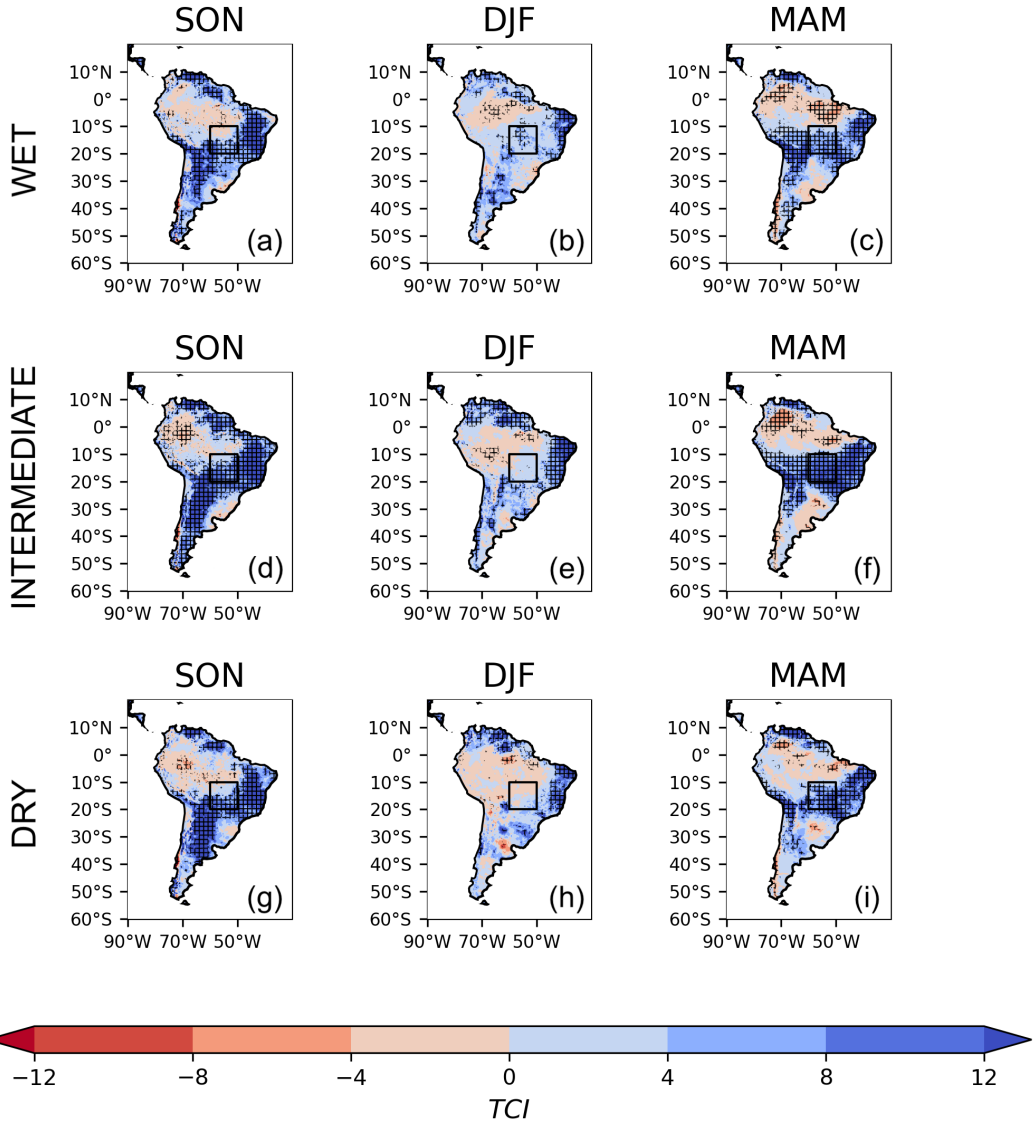

Figure S3. TCI (W.m^{-2}) over the development (SON, column a-g), maturity (DJF, column b-h), and weakening (MAM, column c-i) quarters of the SMAS rainy season for three soil moisture conditions; wet (line a-c), intermediate (line d-f), and dry (line g-i). The hatched area shows statistical significance when the p-value was less than 0.05.

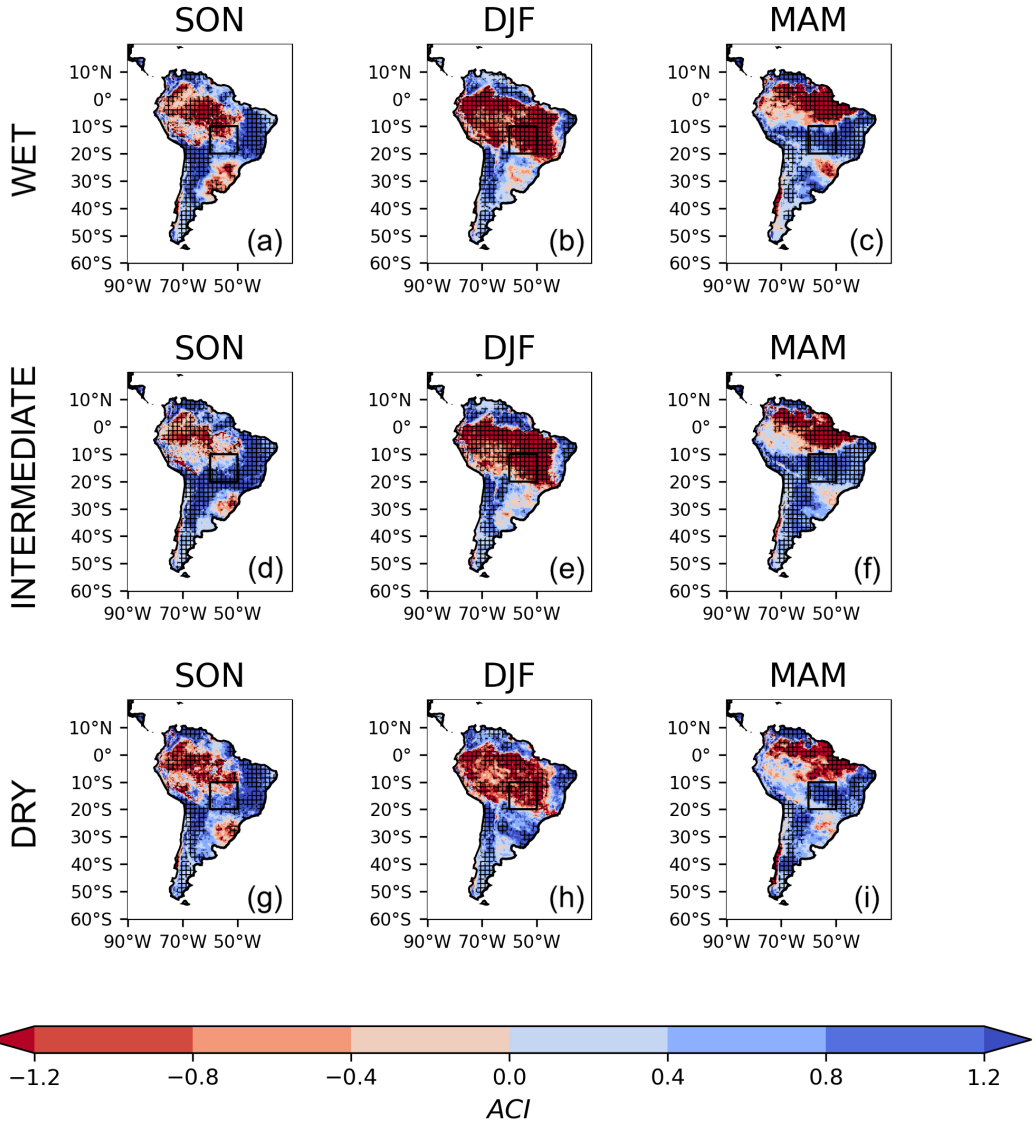

Figure S4. ACI (mm.day^{-1}) over the development (SON, column a-g), maturity (DJF, column b-h), and weakening (MAM, column c-i) quarters of the SMAS rainy season for three soil moisture conditions; wet (line a-c), intermediate (line d-f), and dry (line g-i). The hatched area shows statistical significance when the p-value was less than 0.05.

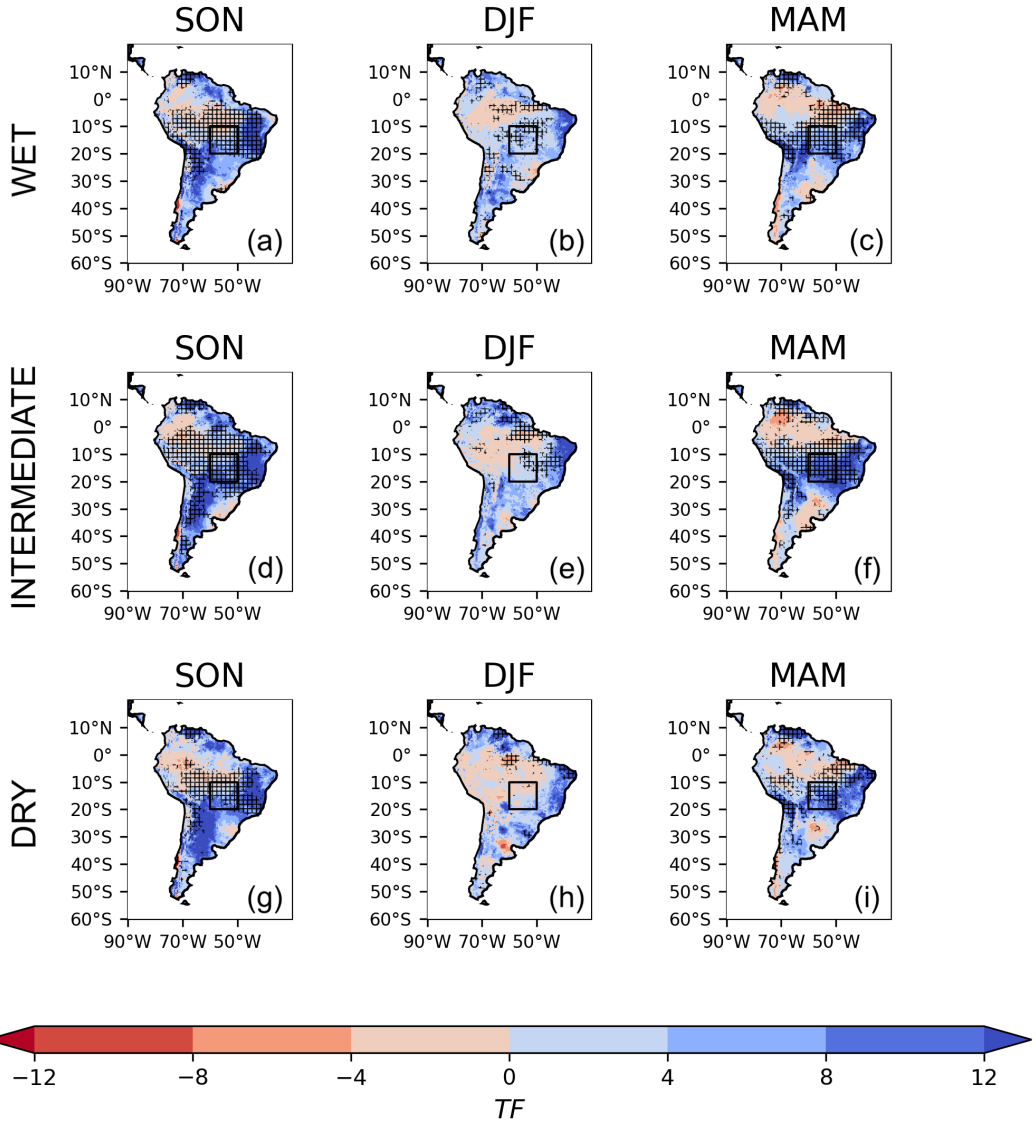

Figure S5. TF ($W.m^{-2}.mm.day^{-1}$) over the development (SON, column a-g), maturity (DJF, column b-h), and weakening (MAM, column c-i) quarters of the SMAS rainy season for three soil moisture conditions; wet (line a-c), intermediate (line d-f), and dry (line g-i). The hatched area shows statistical significance when the p-value was less than 0.05.