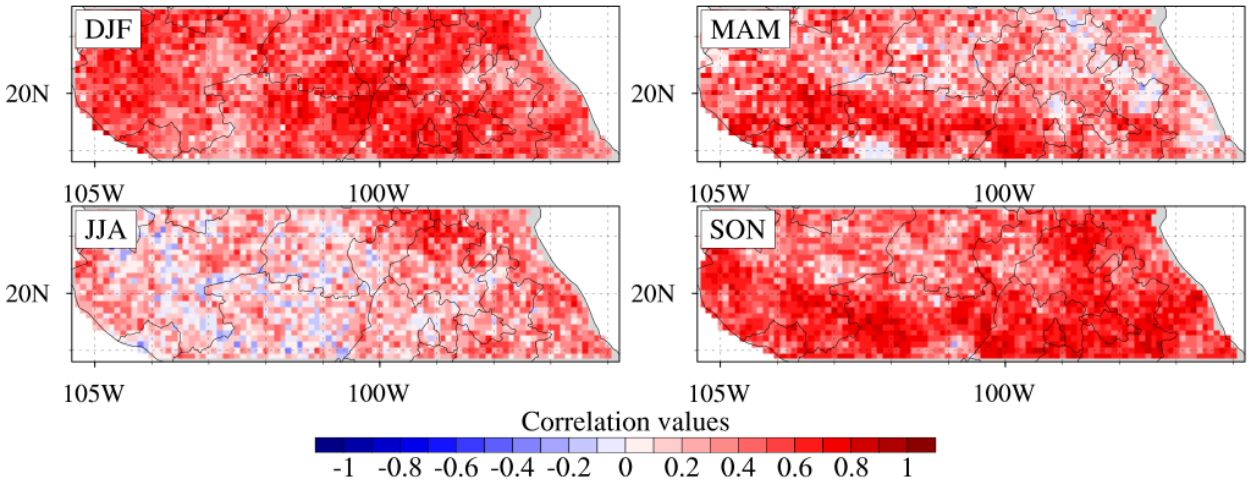

Figure S1. Spatial distribution of temporal correlation computed for MODIS (frequency of deep, convective clouds) and CHIRPS (accumulated precipitation) for four seasons (December-February DJF; March-May MAM; June-August JJA; September-November SON). Highest correlation values are found for SON (domain-average 0.93) , especially over larger terrain elevations. For JJA (domain-average 0.81), the correlation values vary much more within the study area, which can at least partly be explained by the generally very high observed variability (std) of DCC frequency for those months (also seen in Fig 8 in the manuscript). For DJF (domain-average 0.79) and MAM (domain-average 0.77), the spatial distribution looks smoother again. Here, DCC frequency and precipitation amounts are generally much lower as well as the variability. However, for MAM, with already increased DCC frequencies in May, higher correlation values can be clearly observed along the TMVB. The maps are added as supplementary material including a short description.