Quick reply re extreme rainfall. The current approach is a simple exceedance of historical percentile values.

Non zero precip values for each day in the historical record (about 40 values) are taken and values of empirical P75, P90 and P95 derived. The resulting percentile time series is fairly noisy (sp at the beg and end of seasons) and goes through a smoothing filter to derive a continuous smoothly varying percentile thresholds. You could get the same result I guess by lumping all days in the historical record within a rolling bracket of say 10 or 30 days and derive the percentiles from this larger sample.

So, done pixel by pixel, for each day (but then smoothed) and we used as much data as we had, so 1981 to 2019 (give or take a year, I’d need to check).

Since you’re working with admin averages of rainfall, this will smooth things over a bit and you’ll have more non-zeroes. Maybe you can take a sample admin and derive some P90s for each day and see how noisy this gets?

Note that strictly speaking we prefer to look at these indicators during the core season. You may have an extreme in June or in October in the Sahel that might amount to 15-20mm

Best regards, Rogerio