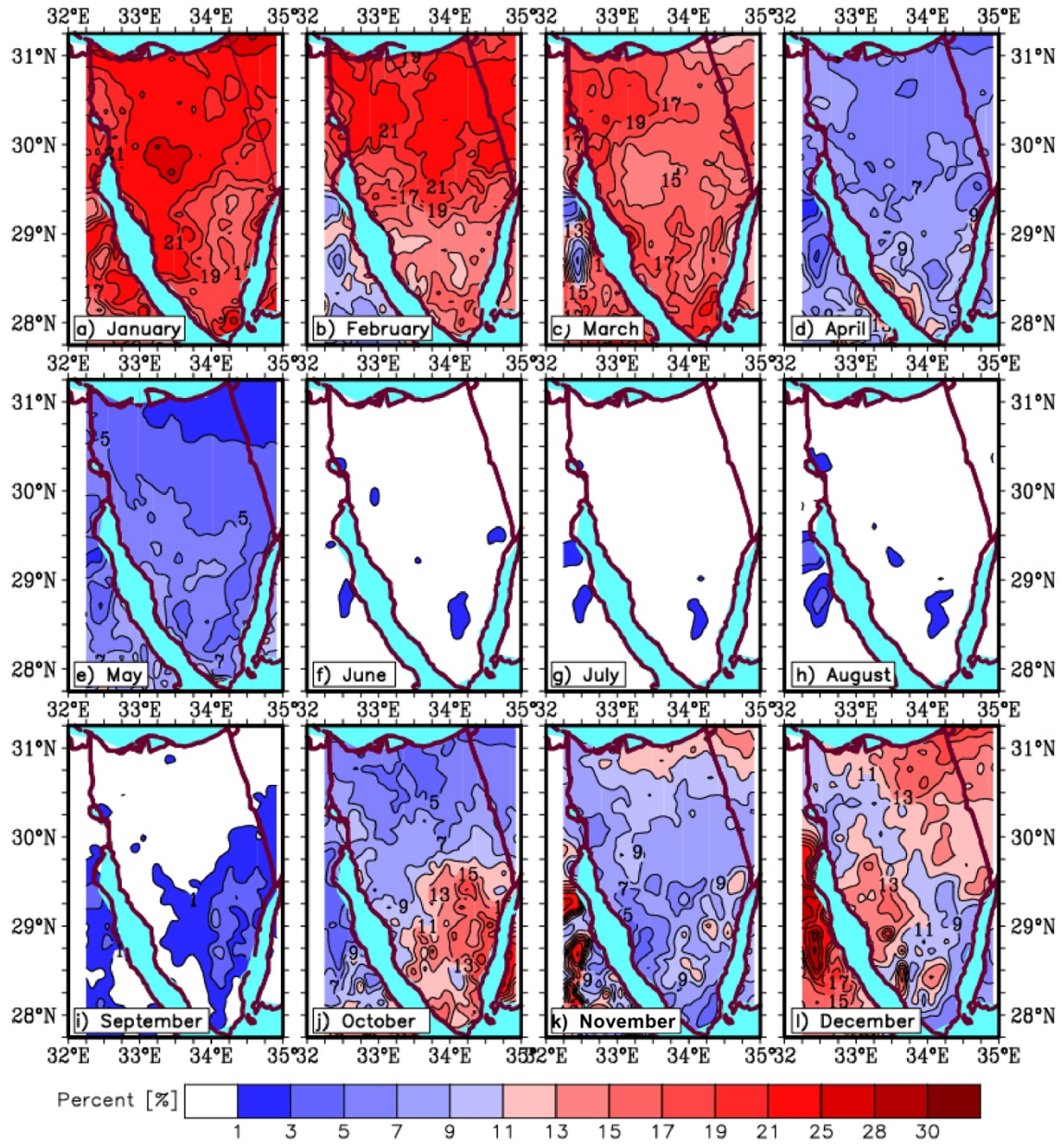


Supplement of

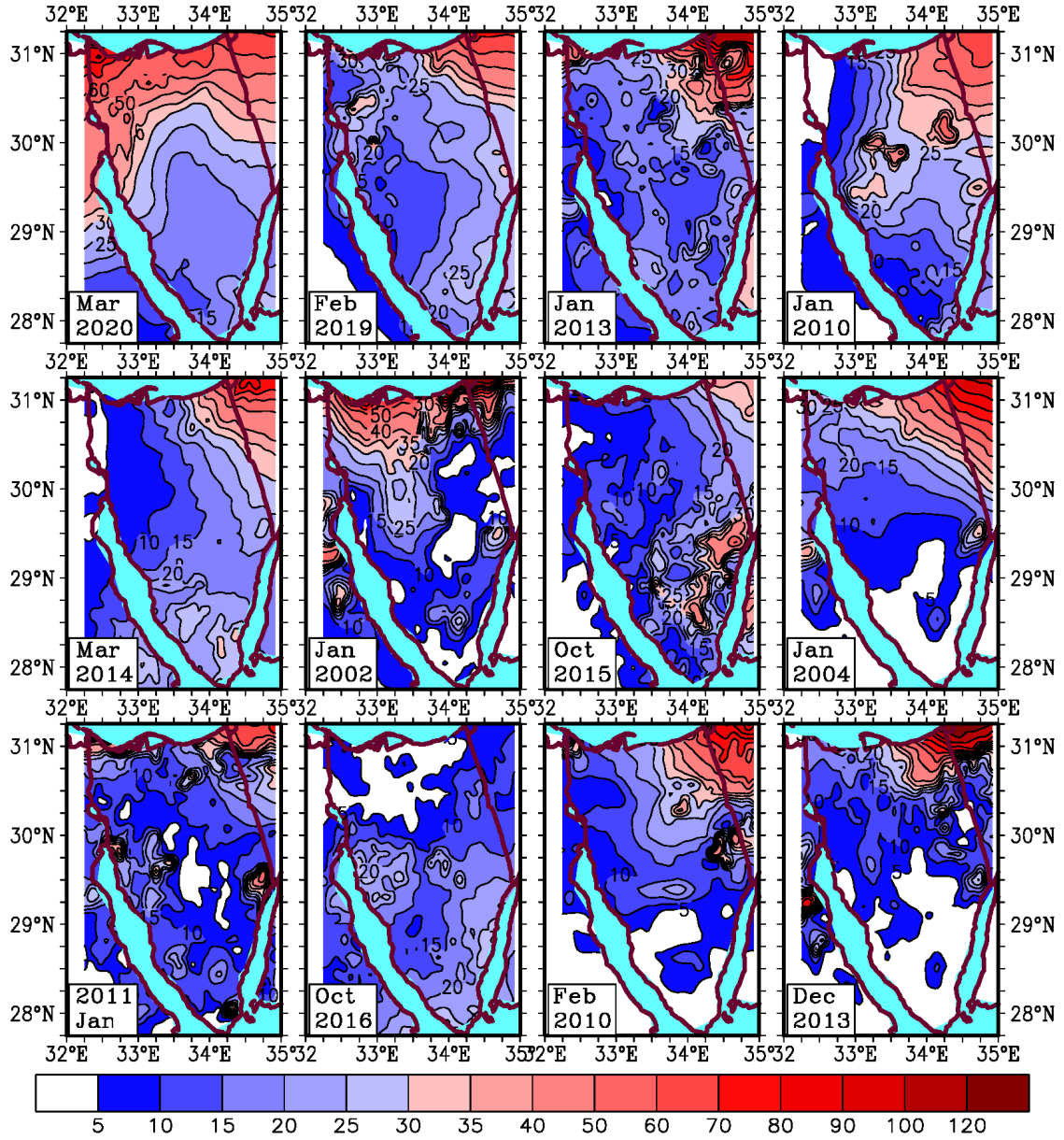
**A 20-year satellite-reanalysis-based climatology of extreme precipitation characteristics over the Sinai Peninsula**

**Mohsen Soltani et al.**

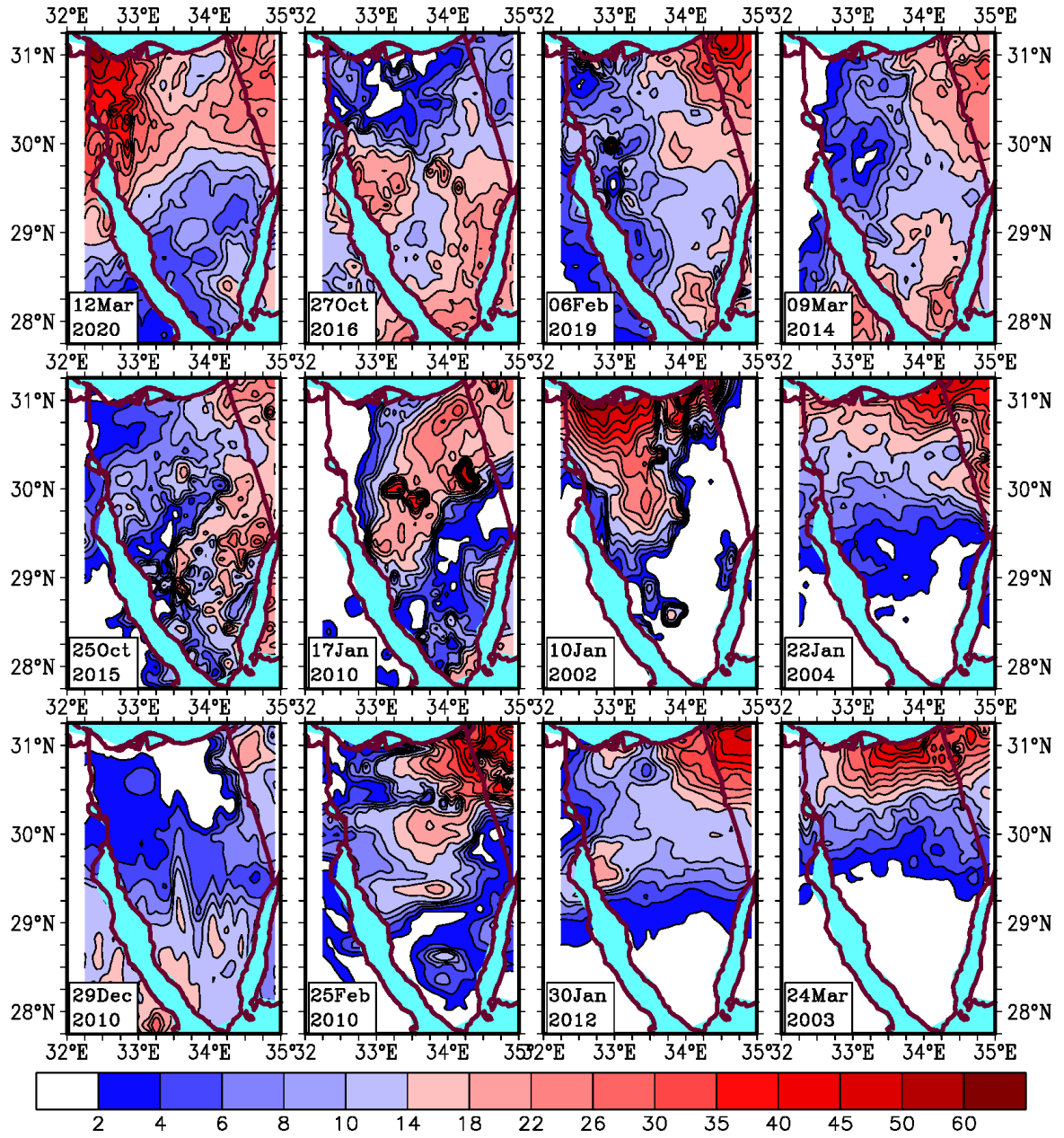
Correspondence to: [mohsen.soltani@wetsus.nl](mailto:mohsen.soltani@wetsus.nl)



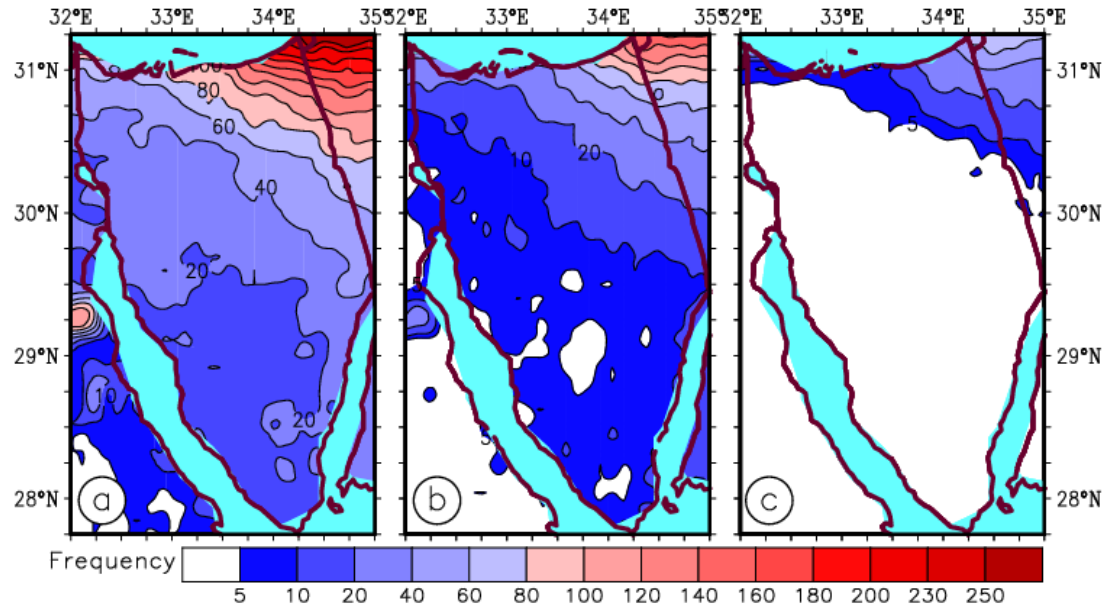
**Figure S1.** Monthly precipitation regime: the ratios of monthly sum precipitation to the annual total precipitation (%) in the Sinai Peninsula for the climatology period of 2001-2020. Units are in percentage.



**Figure S2.** The twelve wettest months (out of 240 months) in the Sinai Peninsula for the climatology period of 2001-2020. The panels are ranked in order from top-left to bottom-right. Units are in mm.

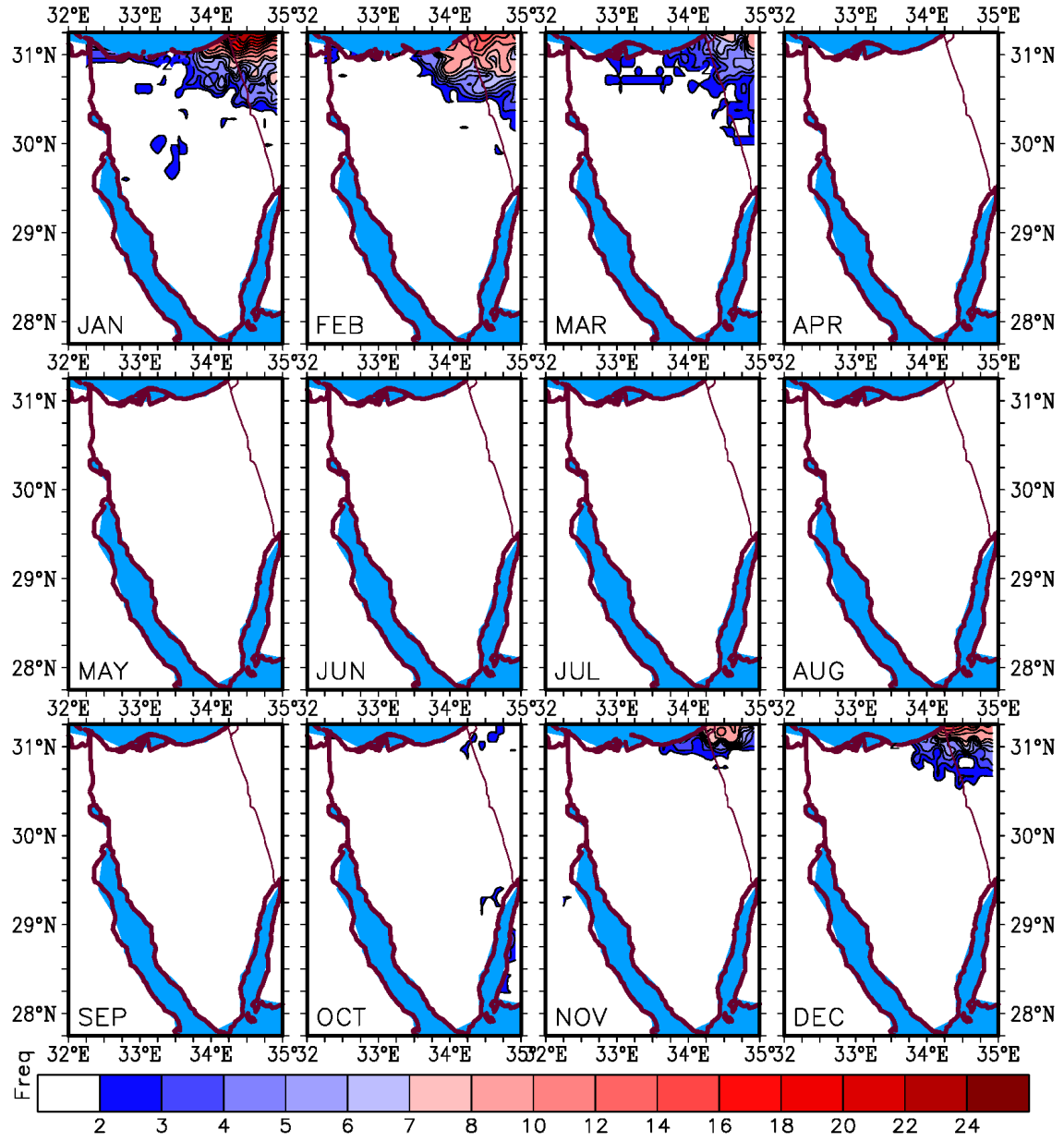


**Figure S3.** The twelve wettest days (out of 7305 days) in the Sinai Peninsula for the climatology period of 2001-2020. The panels are ranked in order from top-left to bottom-right. Units are in mm.

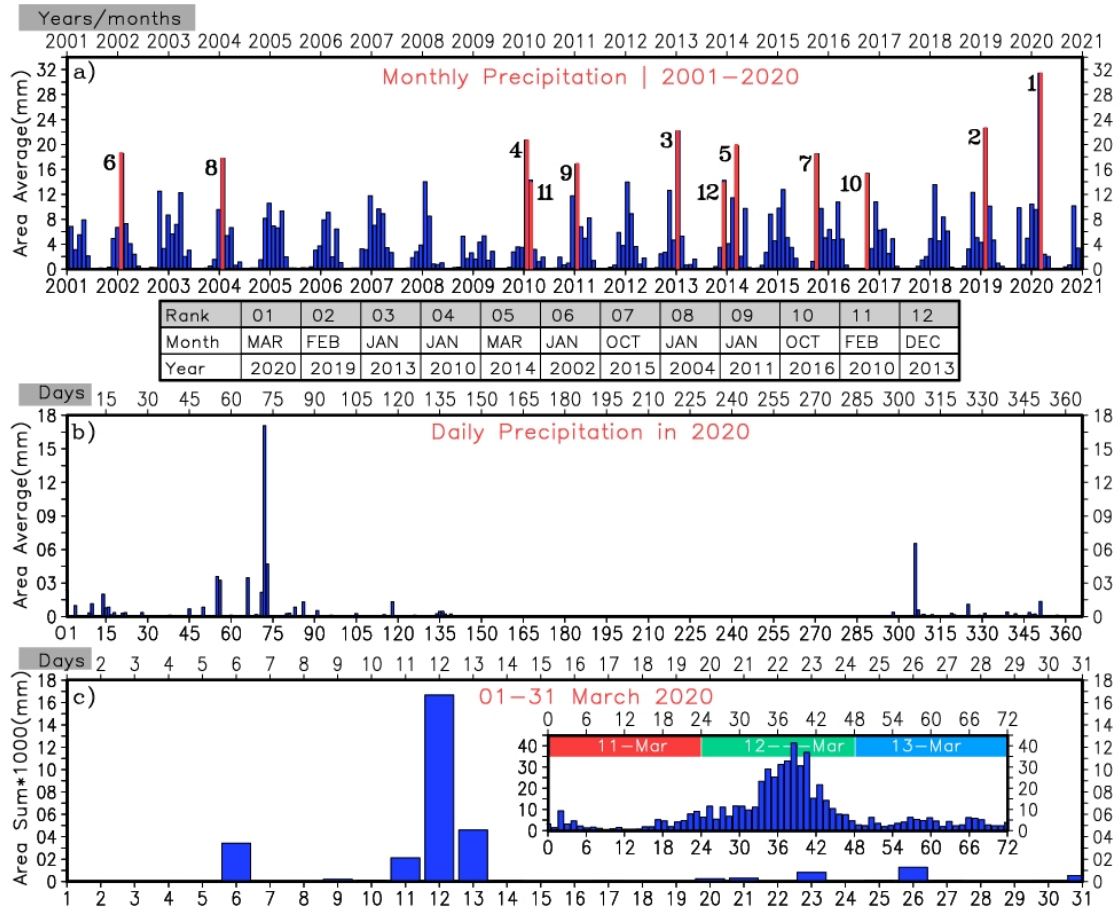


**Figure S4.** Frequency occurrence of the precipitation events with thresholds of a)  $\geq 5$  mm/day, b)  $\geq 10$  mm/day and c)  $\geq 20$  mm/day in the Sinai Peninsula for the climatology period of 2001-2020. Units are in days.

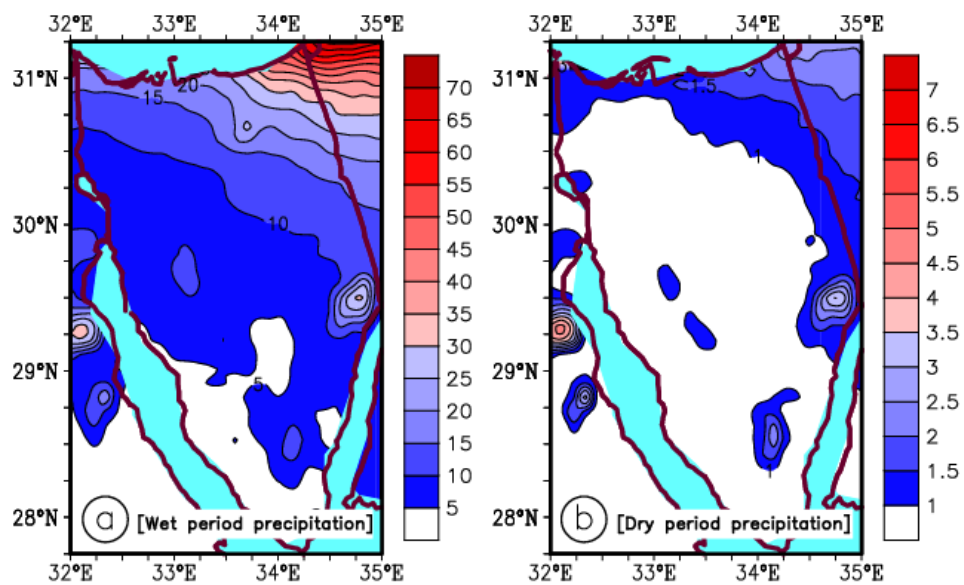




**Figure S5.** Frequency occurrence of the monthly precipitation events with a threshold of  $\geq 20$  mm/day in the Sinai Peninsula for the climatology period of 2001-2020 (7305 days). Units are in days.



**Figure S6.** The regional averaged precipitation amounts over the of Sinai Peninsula: a) areal averaged monthly precipitation timeseries for the climatology period of 2001–2020 (240 months), and the table ranks 12 months/years with the highest rainfall received over the past two decades; b) daily precipitation timeseries in 2020; c) daily precipitation of the period 1–31 March 2020, and the subplot indicates the rainfall event of 11–13 March in hourly interval.



**Figure S7.** Mean monthly precipitation (mm/month) for: (a) wet period from October to March, and (b) dry period from April to September in the Sinai Peninsula for the climatology period of 2001-2020. Units are in mm.