1) We used python scripts to download the ERA5 data, the guidance of which can be found in the following link: https://retostauffer.org/code/Download-ERA5/
2) Install version 6.6.2 of the NCAR Command Language (NCL)
3) Put contributed.ncl to the following directory ncl/lib/ncarg/nclscripts/csm/ Calculation of the 95th percentile needs at least 1000 data, while 1000 rainfall events do not generally happen in arid areas. As such, to calculate the 95th percentile, we changed this part of the script in the contributed.ncl file. Search for "lower 95%" to see the changes.
4) You need at least 128 GB of free RAM on your supercomputer.
5) For plotting rainfall plots, please run the following scripts, respectively:

    a) TP_daily_SWASIA.ncl (calculate daily rainfall)

    b) Dtrend_Tp_1979_1999_daily_SWASIA.ncl (detrend daily rainfall)
    c) Dtrend_Tp_2002_2022_daily_SWASIA.ncl (detrend daily rainfall)
    d) Dtrend_Tp_1979_2022_daily_SWASIA.ncl (detrend daily rainfall)
    e) ClimExtInds_rainfall_SWASIA_1979_1999.ncl (calculate SDII, Rx1day, R10mm, R20mm, CDD, CWD, R95pTOT and PRCPTOT)
    f) ClimExtInds_rainfall_SWASIA_2002_2022.ncl (calculate SDII, Rx1day, R10mm, R20mm, CDD, CWD, R95pTOT and PRCPTOT)
    g) R10mm_R20mm_Dtrend.ncl (create picture 1)
    h) CDD_CWD_Dtrend.ncl (create picture 2)
    i) R95PT_Rx1day_Dtrend.ncl (create picture 3)
    j) SDII_PRCPTOT_Dtrend.ncl (create picture 4)

6) For plotting Figure 5, run the following scripts, respectively:
    a) RosbyWavePocket_Pre.ncl (calculate Rosby Wave Pocket Probability)
    b) RosbyWavePocket_Pos.ncl (calculate Rosby Wave Pocket Probability)
    c) IMWMFC_SWASIA_00_Pre.ncl (calculate Mass Weighted Integrated Mass Flux at 00)
    d) IMWMFC_SWASIA_00_Post.ncl (calculate Mass Weighted Integrated Mass Flux at 00)
    e) IMWMFC_SWASIA_12_Pre.ncl (calculate Mass Weighted Integrated Mass Flux at 12)
    f) IMWMFC_SWASIA_12_Post.ncl (calculate Mass Weighted Integrated Mass Flux at 12)
    g) IMWMFC_SWASIA_Attch_Pre.ncl (calculate the monthly mean of Mass Weighted Integrated Mass Flux)
    h) IMWMFC_SWASIA_Attch_Pos.ncl (calculate the monthly mean of Mass Weighted Integrated Mass Flux)
    i) MoistureFlux_WavePocket_U250_Rainfall_SWASIA.ncl (create picture 5)

7) For plotting Figures 6 to 9, run the following scripts, respectively :

a. T2M_daily_Min_Max_SWASIA.ncl (calculate the daily minimum and maximum of 2m temperature)
b. Dtrend_T2M_1979_1999_max_SWASIA.ncl (detrend daily maximum 2m temperature)
c. Dtrend_T2M_2002_2022_max_SWASIA.ncl (detrend daily maximum 2m temperature)
d. Dtrend_T2M_1979_2022_max_SWASIA.ncl (detrend daily maximum 2m temperature)
e. Dtrend_T2M_1979_1999_min_SWASIA.ncl (detrend daily minimum 2m temperature)
f. Dtrend_T2M_2002_2022_min_SWASIA.ncl (detrend daily minimum 2m temperature)
g. Dtrend_T2M_1979_2022_min_SWASIA.ncl (detrend daily minimum 2m temperature)
h. Max_t2m_SWASIA_1979_1999.ncl (calculate the Warmest day (TXx) and the Coldest day (TXn)
i. Max_t2m_SWASIA_2002_2022.ncl (calculate the Warmest day (TXx) and the Coldest day (TXn)
j. Min_t2m_SWASIA_1979_1999.ncl (calculate Warmest night (TNx) and Coldest night (TNn)
k. Min_t2m_SWASIA_2002_2022.ncl (calculate Warmest night (TNx) and Coldest night (TNn)
l. High_Low_Dec_ts_SWASIA_1981_2020.ncl (calculate 90th and 10th percentile of daily minimum and maximum of 2m temperature in the base period 1981-2010)
m. ClimExtInds_Day_Night_Cool_Warm_SWASIA_1979_1999.ncl (calculate TX90p, TX10p, TN90p and TN10p)
n. ClimExtInds_Day_Night_Cool_Warm_SWASIA_2002_2022.ncl (calculate TX90p, TX10p, TN90p and TN10p)
o. Tas_Yearly_Max_Dtrend.ncl (create picture 6)
p. Tas_Yearly_Min_Dtrend.ncl (create picture 7)
q. TX90p_TX90p_Dtrend.ncl (create picture 8)
r. TN90p_TN90p_Dtrend.ncl (create picture 9)