Assignment 7

Abdullah Alyamani

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Group members:
Abdullah Alyamani

Simulation period:
- Spin up: 1/1/1999 - 1/1/2000
- Simulation period: 1/1/2000 - 31/12/2002

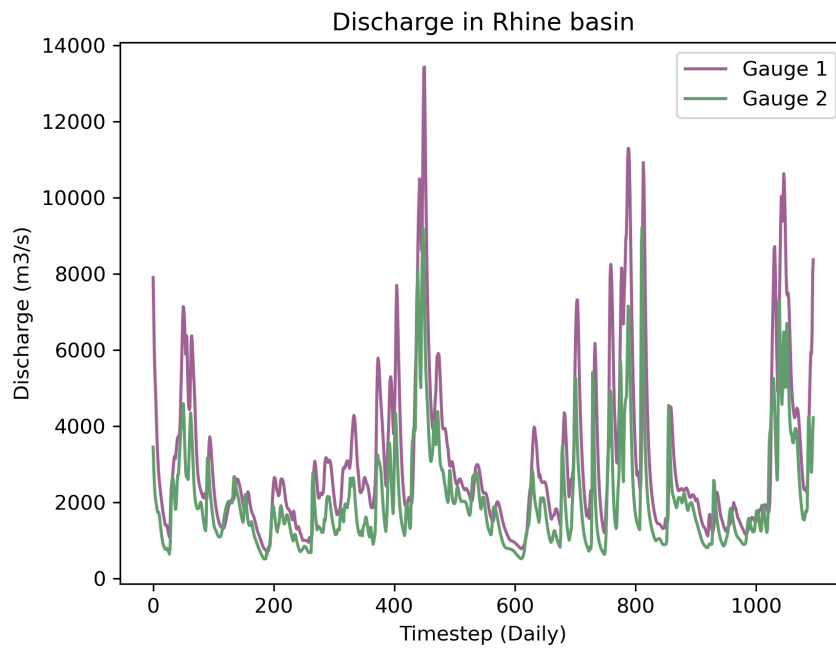Gauging station coordinates:
- 6.25 51.75
- 7.75 49.75

Figure 1: Daily time steps of simulated discharge values in Rhine Basin at the Gauge 1: 6.25 51.75 AND Gauge 2: 7.75 49.75; From 1/1/2000
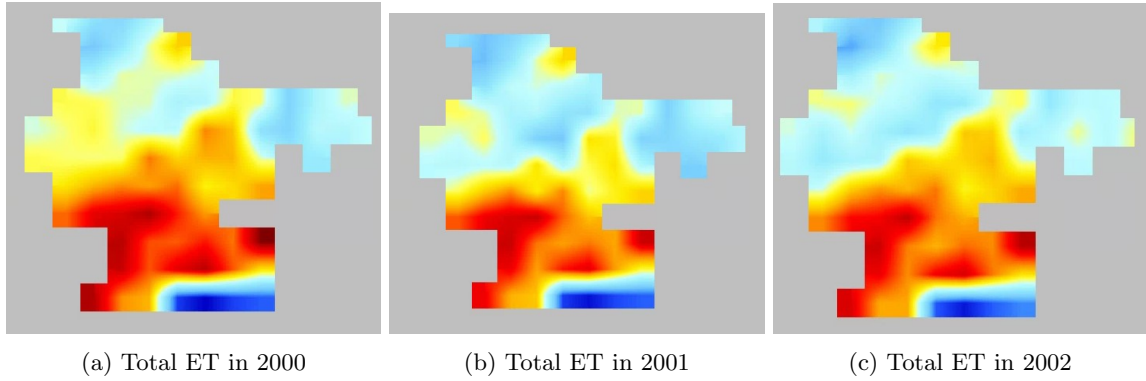
(a) Total ET in 2000   (b) Total ET in 2001   (c) Total ET in 2002

Figure 2: Total yearly average of the simulated evapotranspiration data measured in [m] for Rhine basin

(a) Runoff in 2000   (b) Runoff in 2001   (c) Runoff in 2002
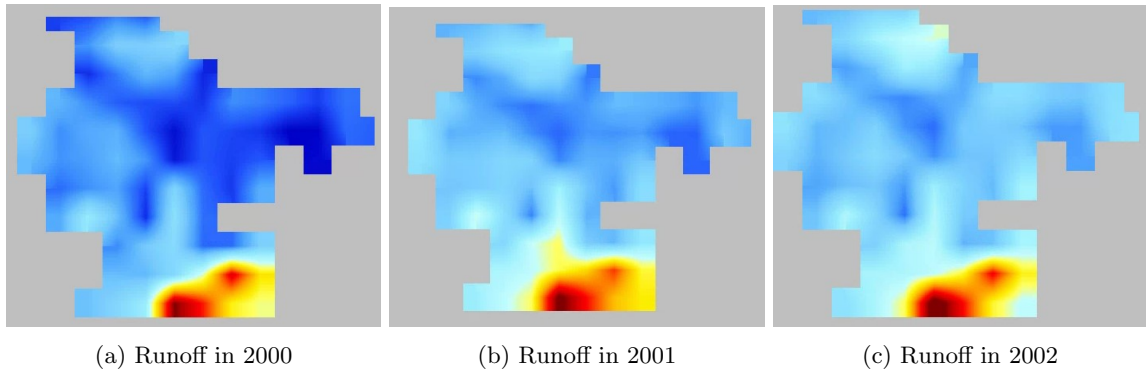
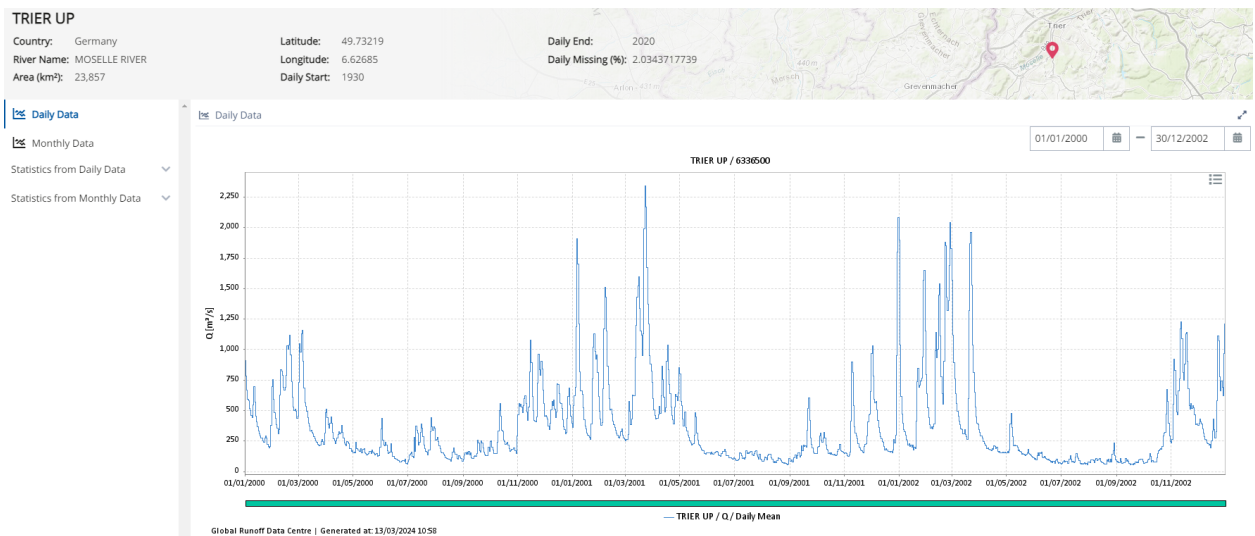Figure 3: Yearly average of the simulated run off data for Rhine basin

Figure 4: In-situ measurements of discharge data in rhine basin for validation purposes

1 Reflection

After visually examining the simulated discharge data and comparing it to an in-situ measurements (Figure 4), it seems that the model captures the variability quite well–i.e. the peaks semi-align. However, the model seems to overestimate discharge values, going up to 14,000 m3/s. This can be explained by the lack of having measurements at the exact location of the gauging station. However, values should be somewhat close. Further examination should be done on whether these values are overestimating because of calibration issues or because of having different gauging station.

Source for validation data:

GRDC Data Portal

Additional information and the code provided can be found on my Github account.

Github