GloFAS - The Global Flood Awareness Systems
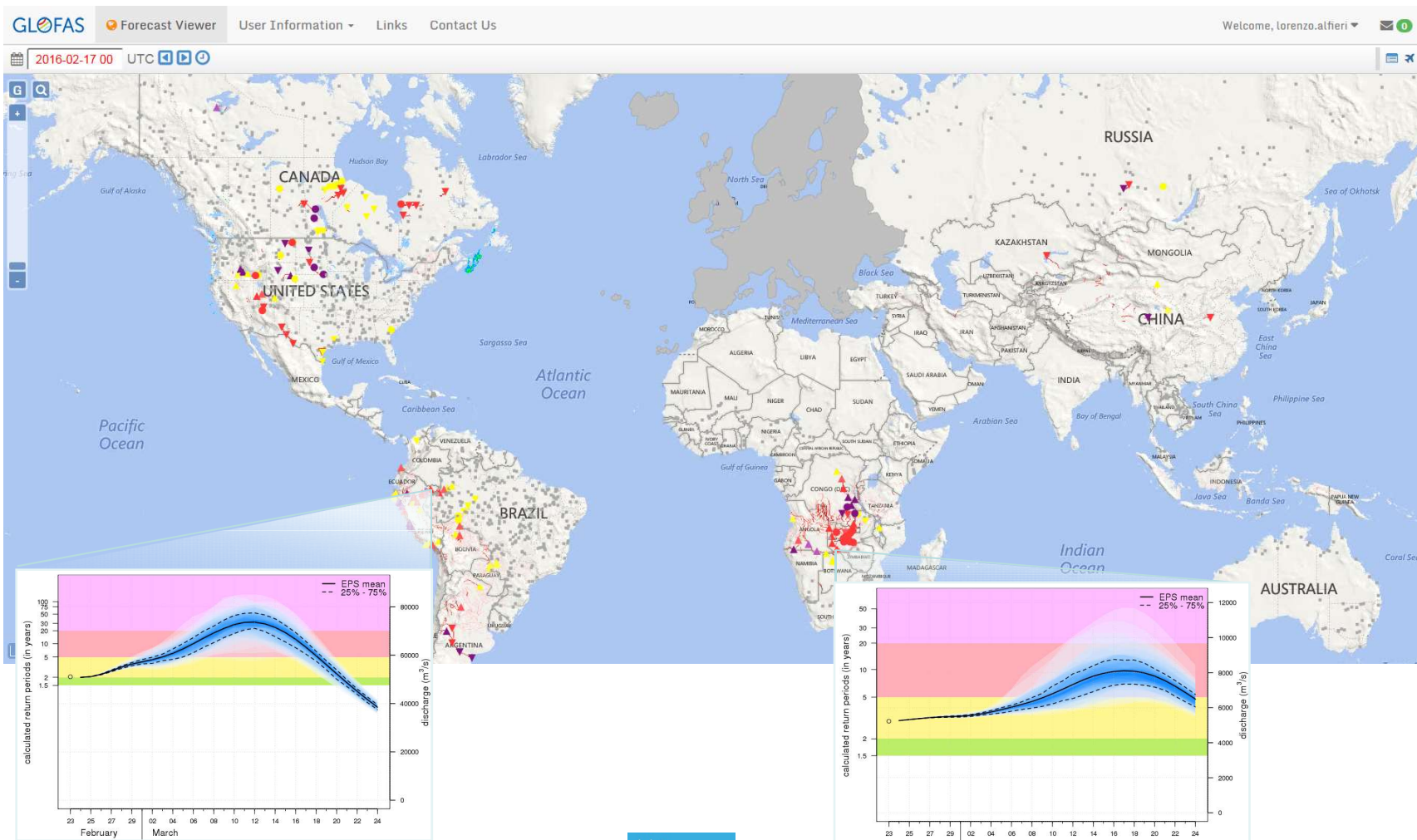
System overview

Input data
Global spatial information

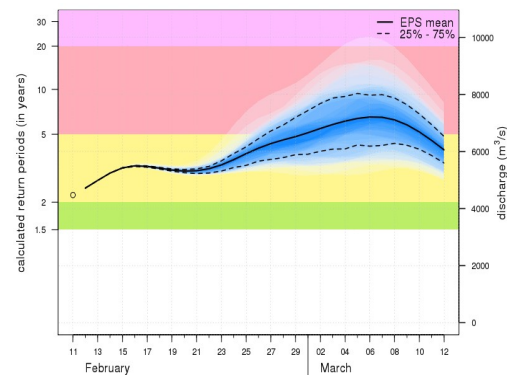**Weather observations/predictions**
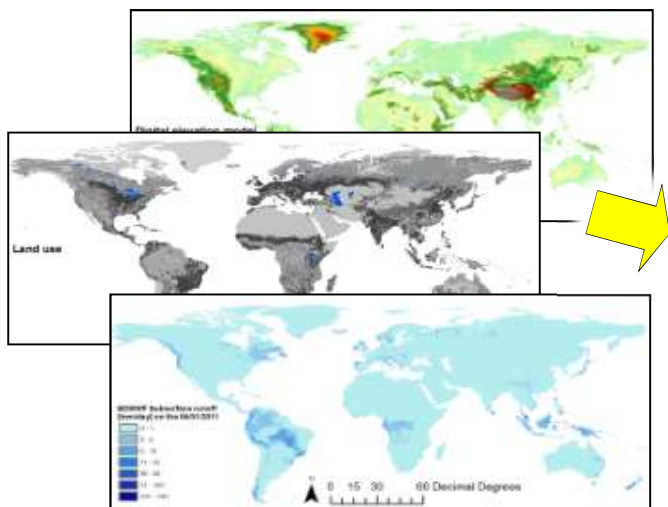
Hydrological model
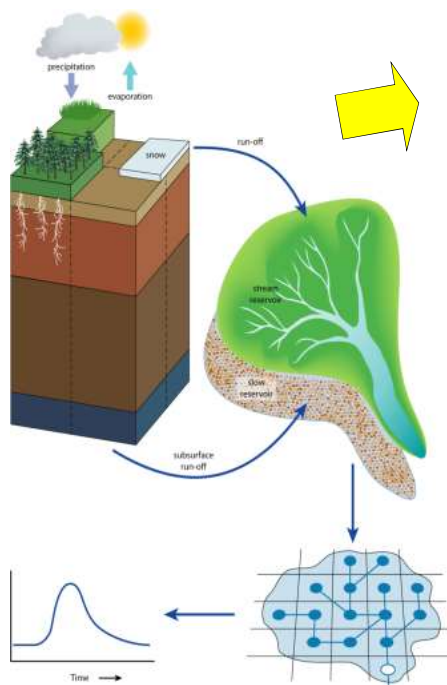
Grid resolution: 0.1° (~ 10 km)

Temporal resolution: 1 day

Output
River flow forecast

Flood warning

Calibration and Evaluation of GloFAS
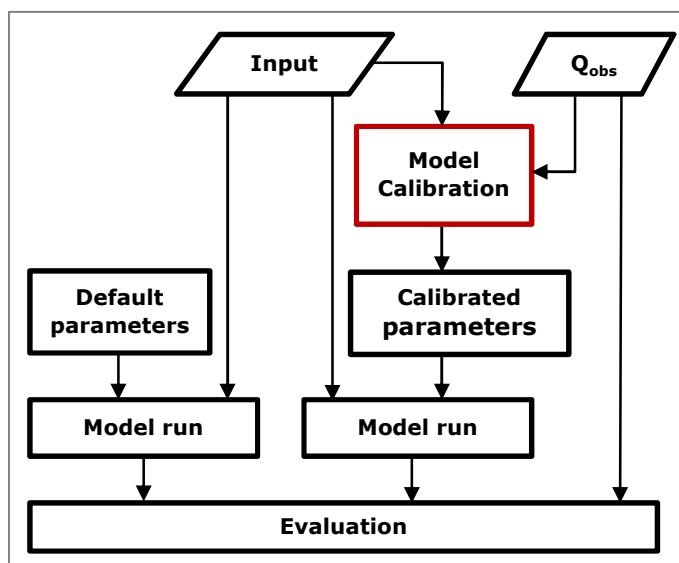
ERA-Interim as forcing dataset

b) KGE skill score after calibration

Legend:
- < -0.75
- -0.75 - -0.50
- -0.50 - -0.25
- -0.25 - -0.01
- -0.01 - 0.01
- 0.01 - 0.25
- 0.25 - 0.50
- 0.50 - 0.75
- 0.75 - 1.0
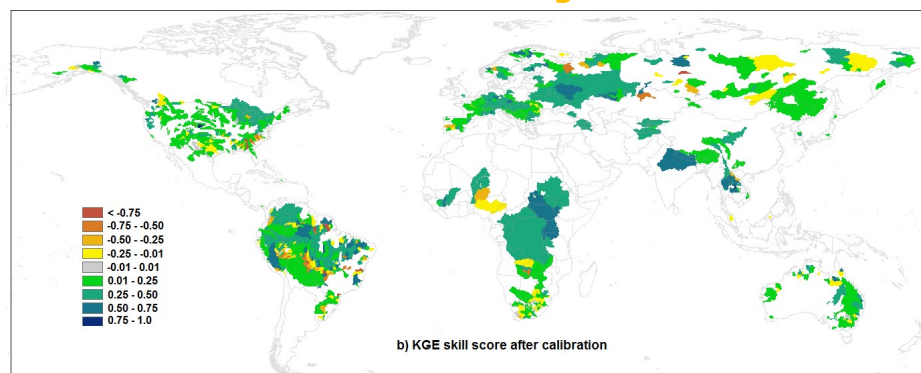
Reforecasts as forcing dataset

Legend:
- < -2.0
- -2.0 - -1.0
- -1.0 - -0.5
- -0.5 - -0.01
- -0.01 - 0.01
- 0.01 - 0.2
- 0.2 - 0.4
- 0.4 - 0.6
- 0.6 - 0.8
- 0.8 - 1.0

e) Tokantins River, at Maraba, BR

KGE= 0.44, NSE = −0.53, R = 0.90, B = 42.71 %
KGE= 0.80, NSE= 0.82, R = 0.92, B = −12.29 %

Q Sim default
Q Sim calibrated
Q Observed
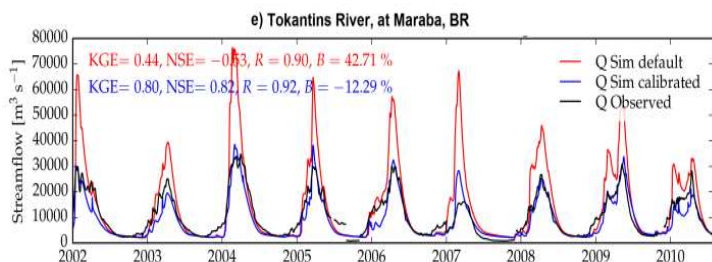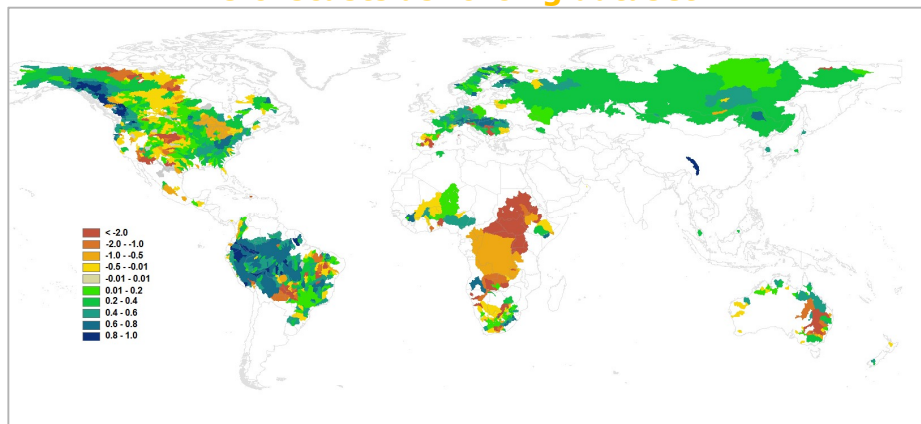
Lake & reservoir data assimilation in GloFAS