

Comprehensive Global Assessment of 23 Gridded
Precipitation Datasets Across 16,295 Catchments
Using Hydrological Modeling

Abbas et al., 2025

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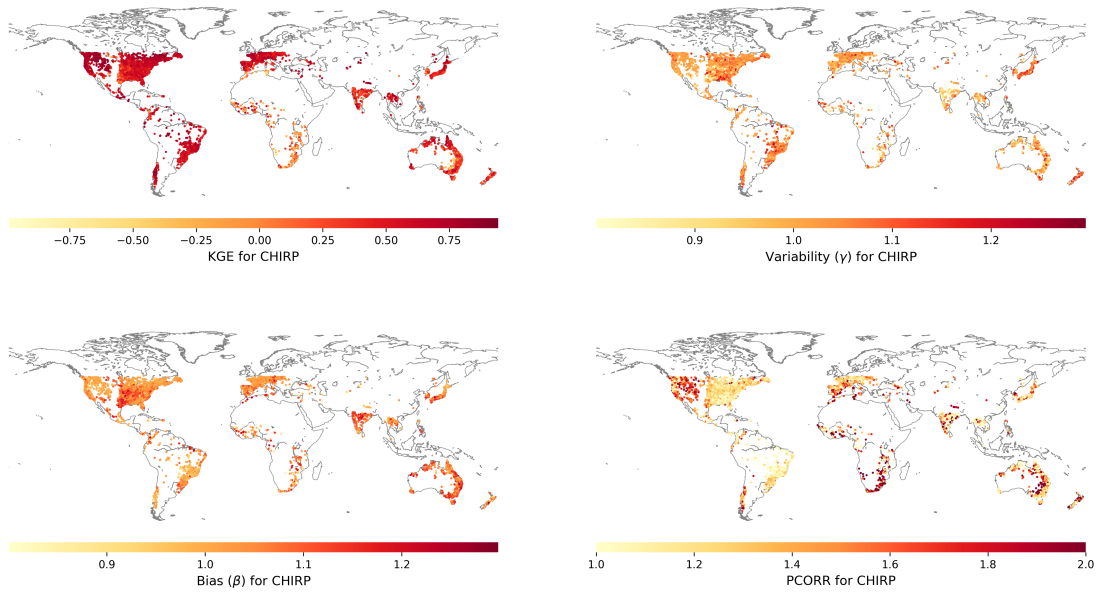


Figure S1: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for CHIRP dataset.

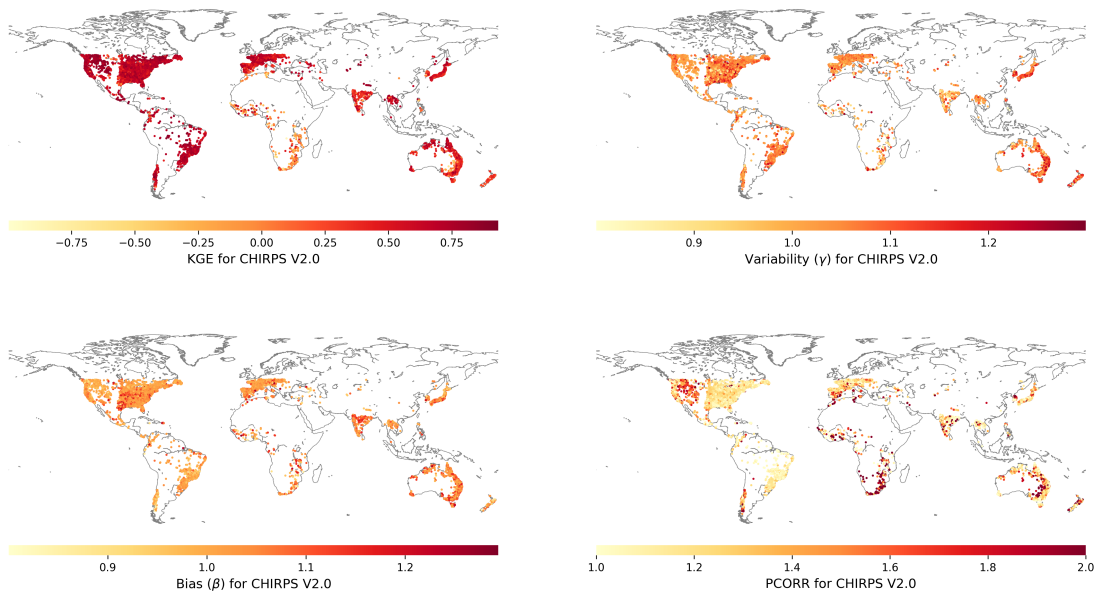


Figure S2: Calibration performance (KGE, Variability and Bias) and PCORR values achieved CHIRPS V2.0 dataset.

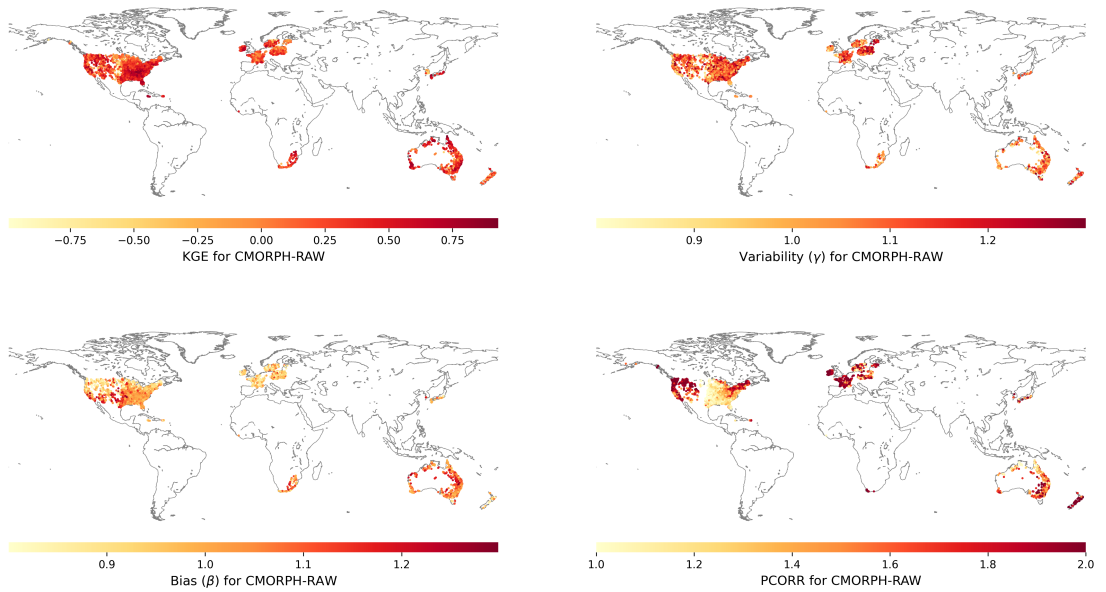


Figure S3: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for CMORPH-RAW dataset.

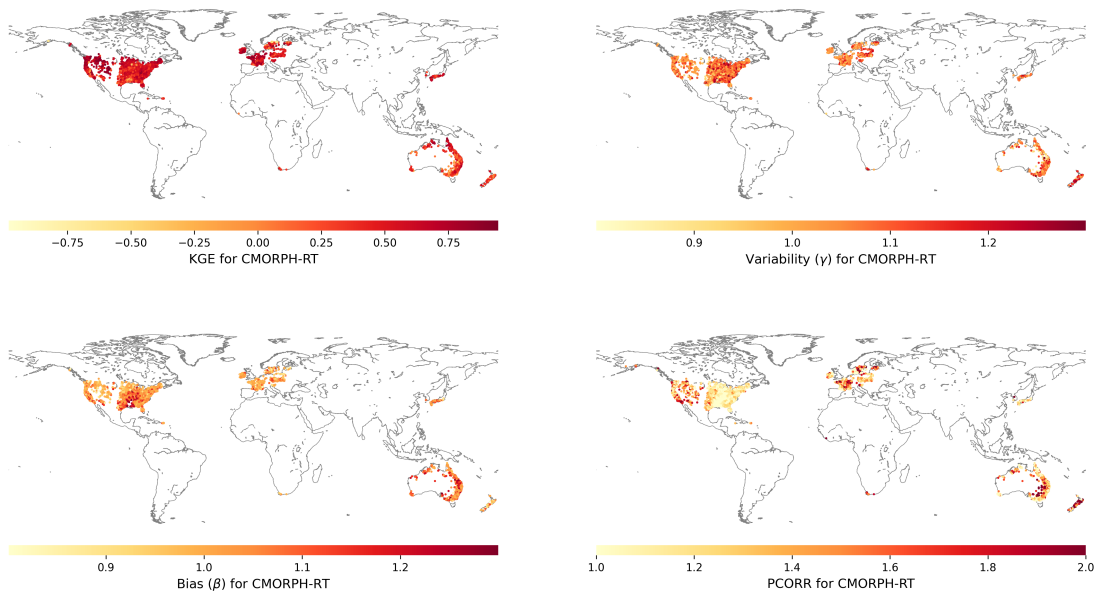


Figure S4: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for CMORPH-RT dataset.

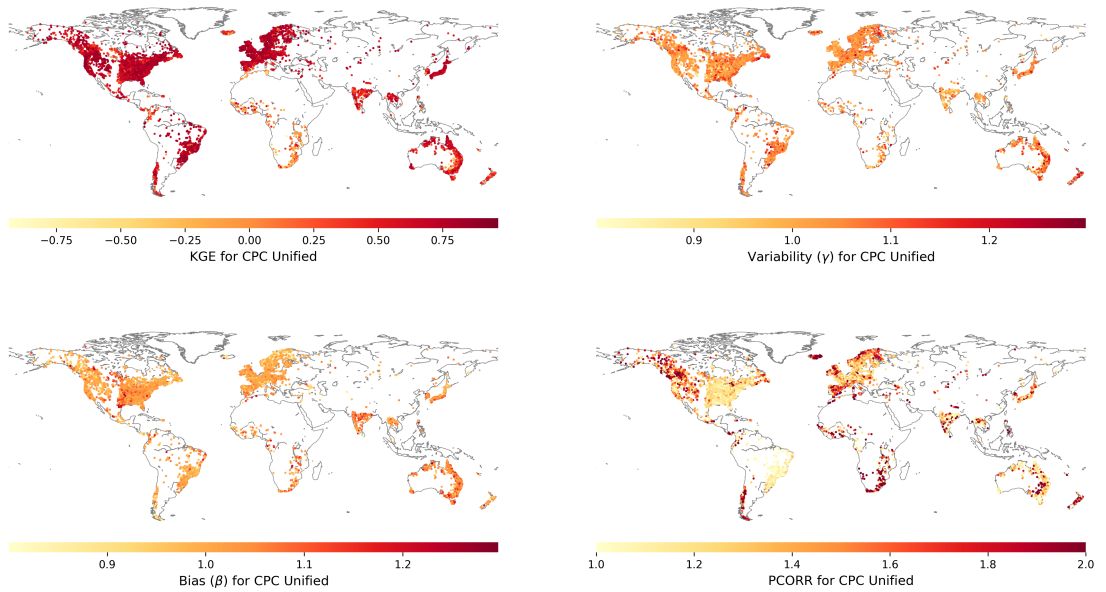


Figure S5: Calibration performance (KGE, Variability and Bias) and PCORR values achieved CPC Unified dataset.

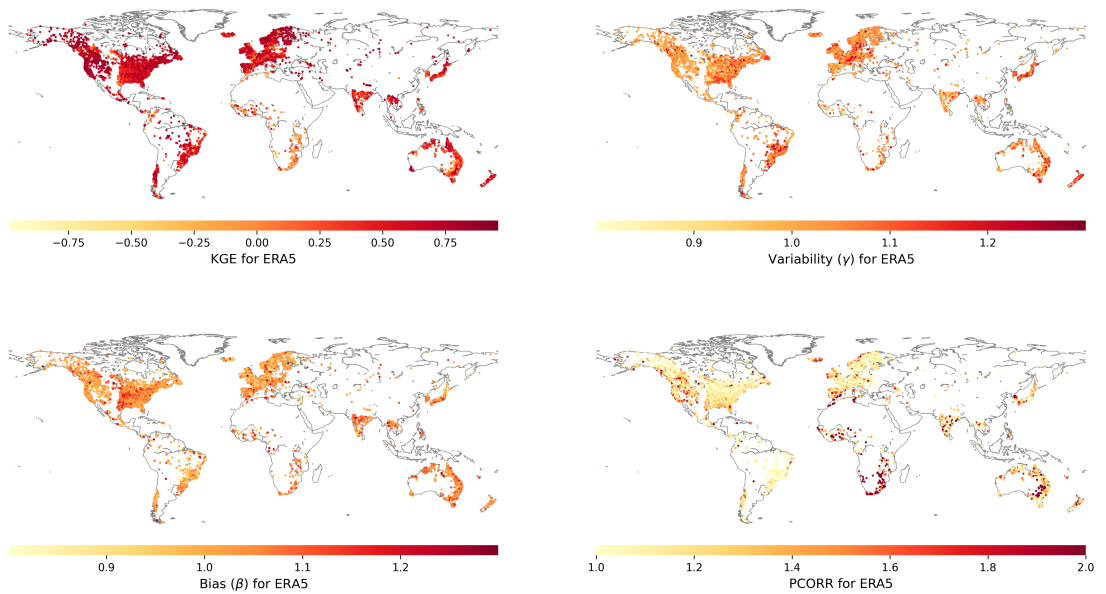


Figure S6: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for ERA5 dataset.

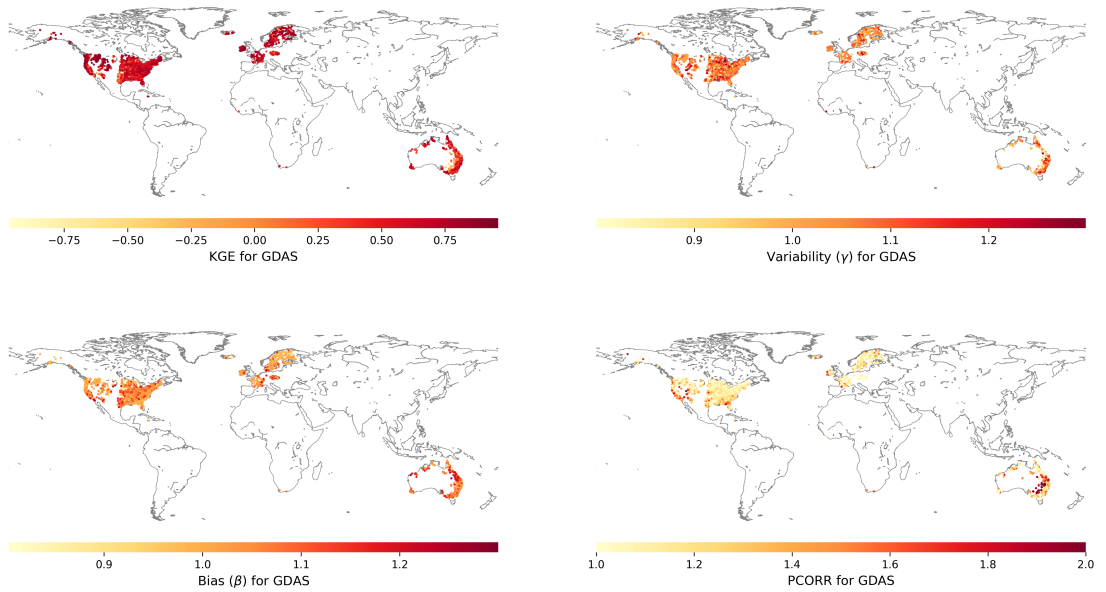


Figure S7: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for GDAS dataset.

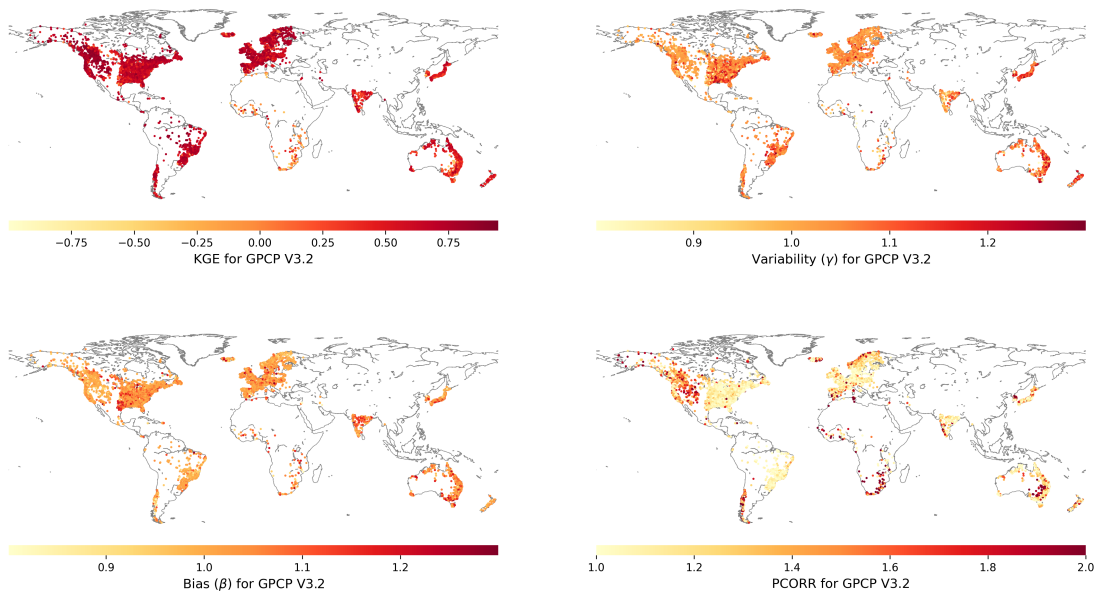


Figure S8: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for GPCP V3.2 dataset.

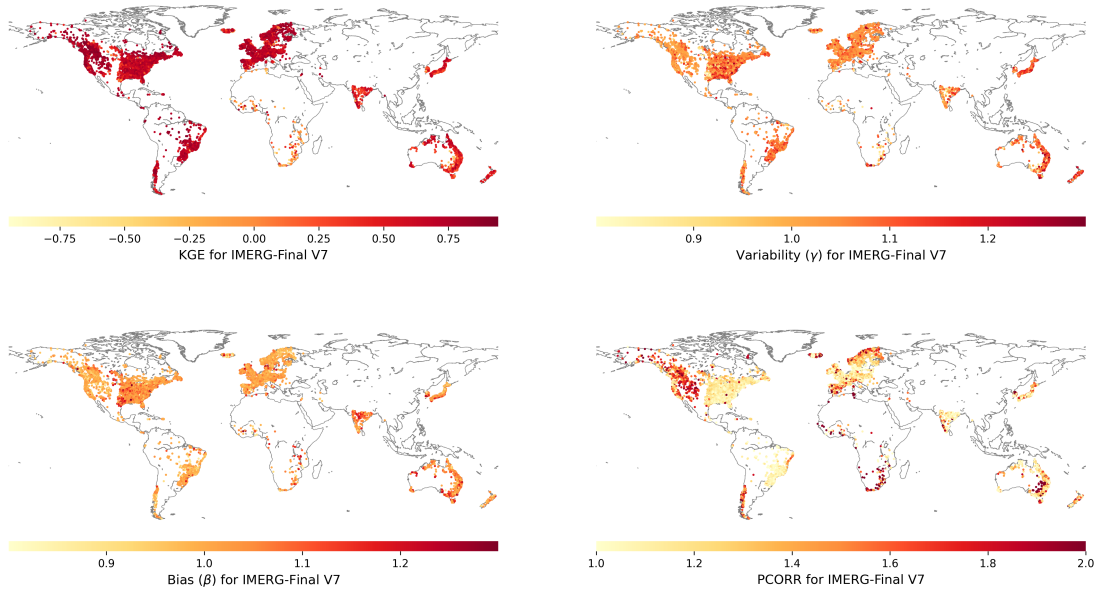


Figure S9: Calibration performance (KGE, Variability and Bias) and PCORR values achieved IMERG-Final V7 dataset.

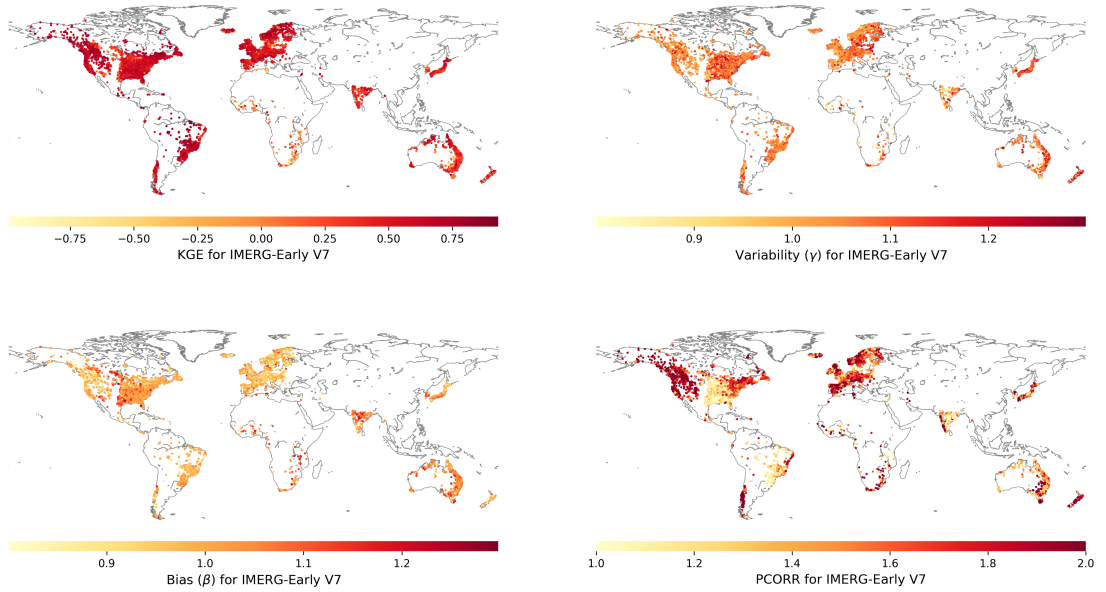


Figure S10: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for IMERG-Early V7 dataset.

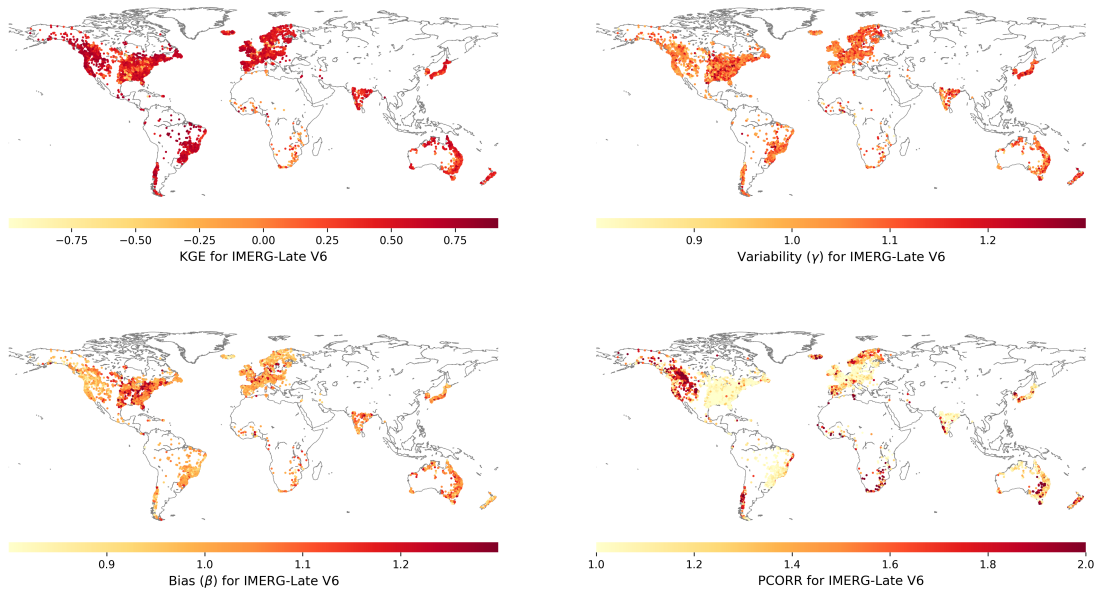


Figure S11: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for IMERG-Late V6 dataset.

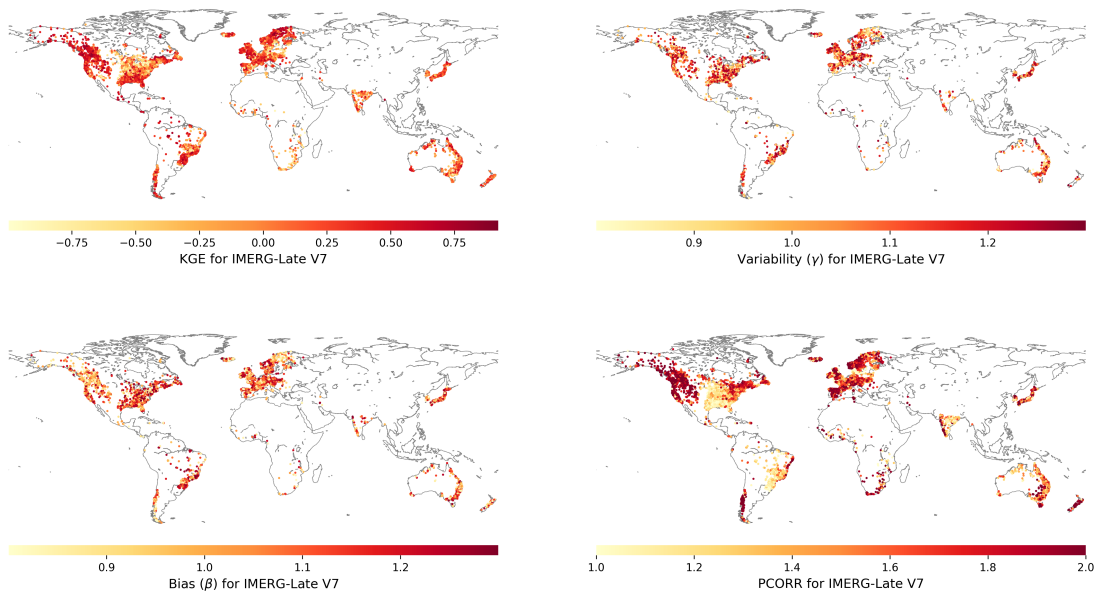


Figure S12: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for IMERG-Late V7 dataset.

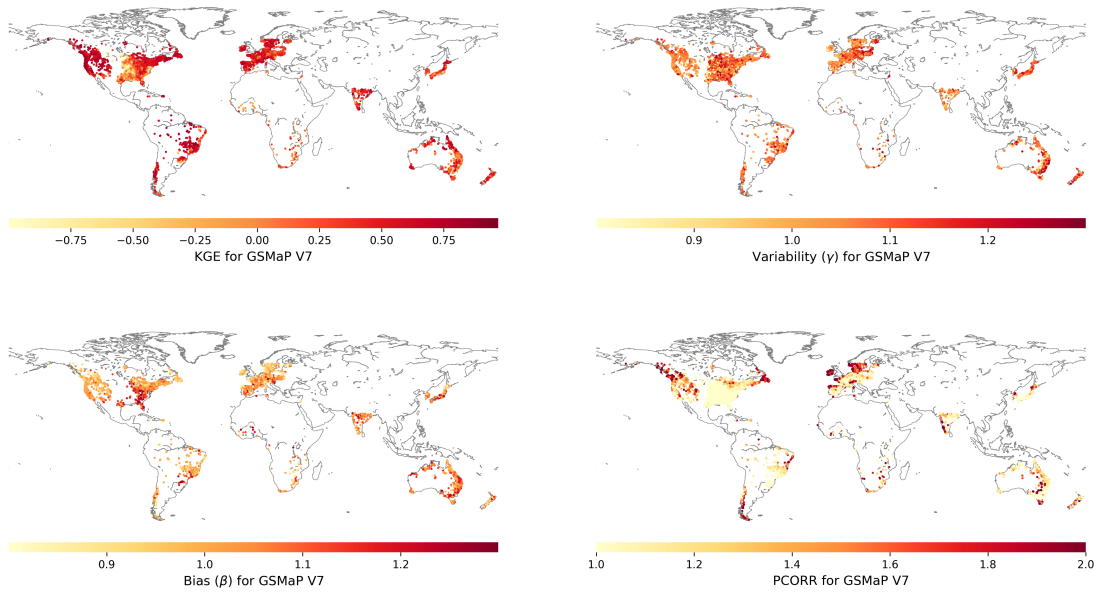


Figure S13: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for GSMaP V7 dataset.

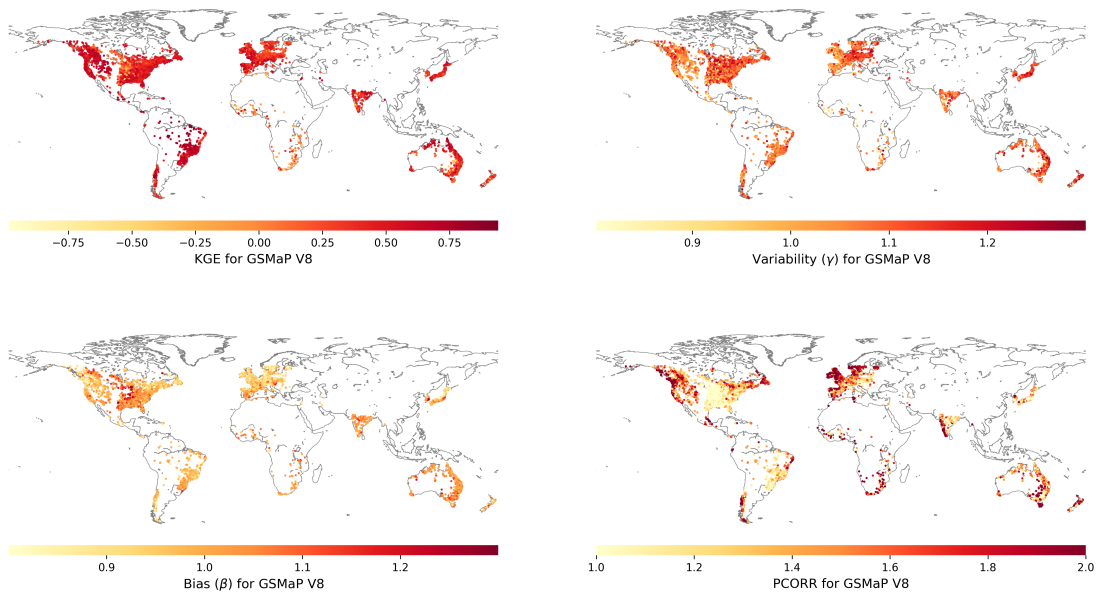


Figure S14: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for GSMaP V8 dataset.

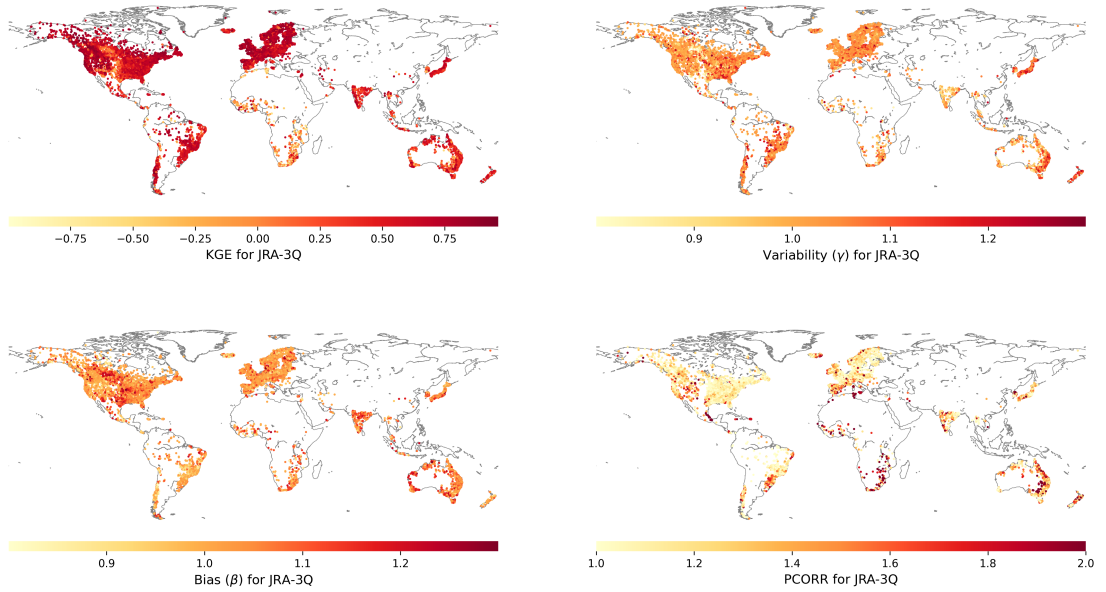


Figure S15: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for JRA-3Q dataset.

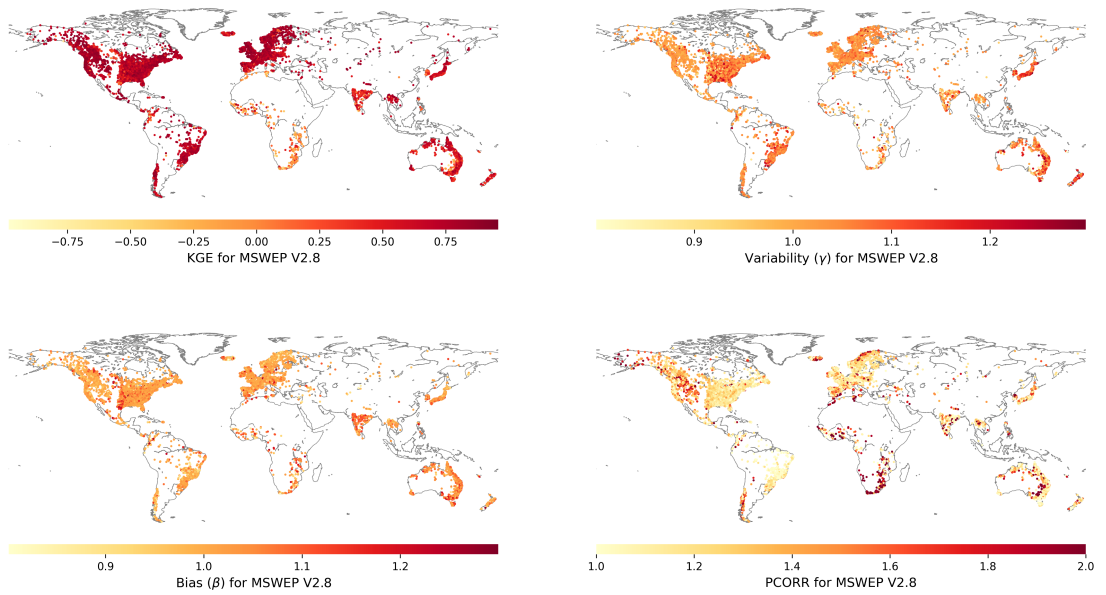


Figure S16: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for MSWEP V2.8 dataset.

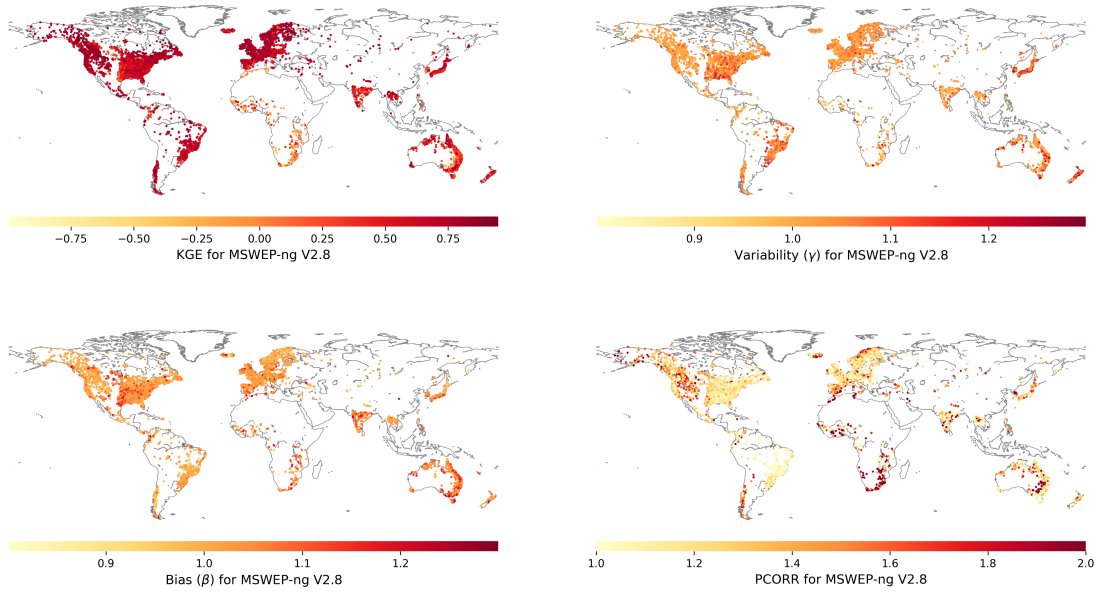


Figure S17: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for MSWEP-ng V2.8 dataset.

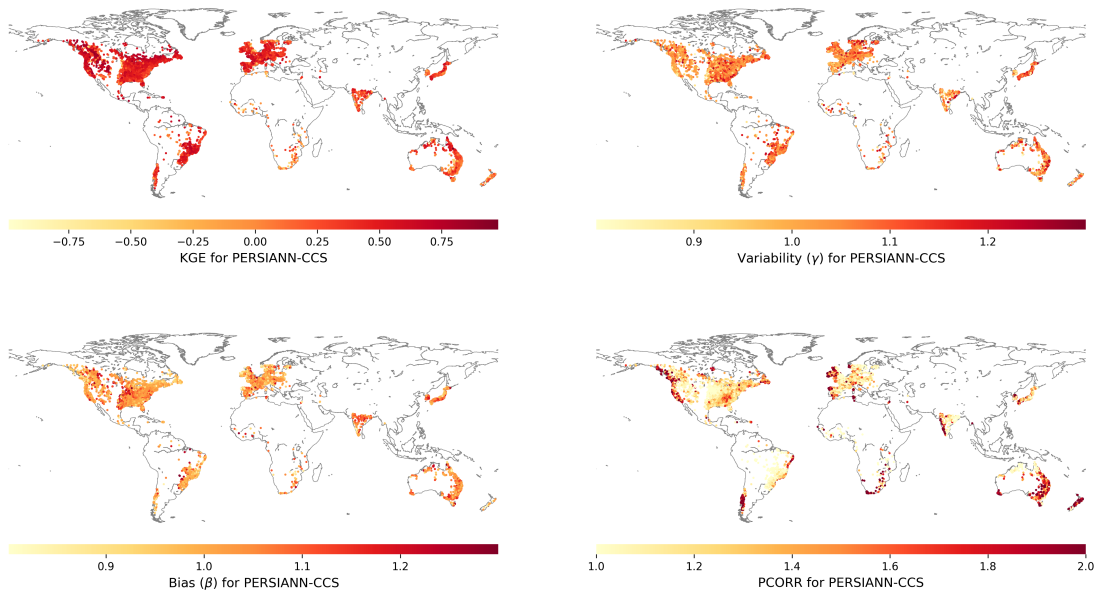


Figure S18: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for PERSIANN-CCS dataset.

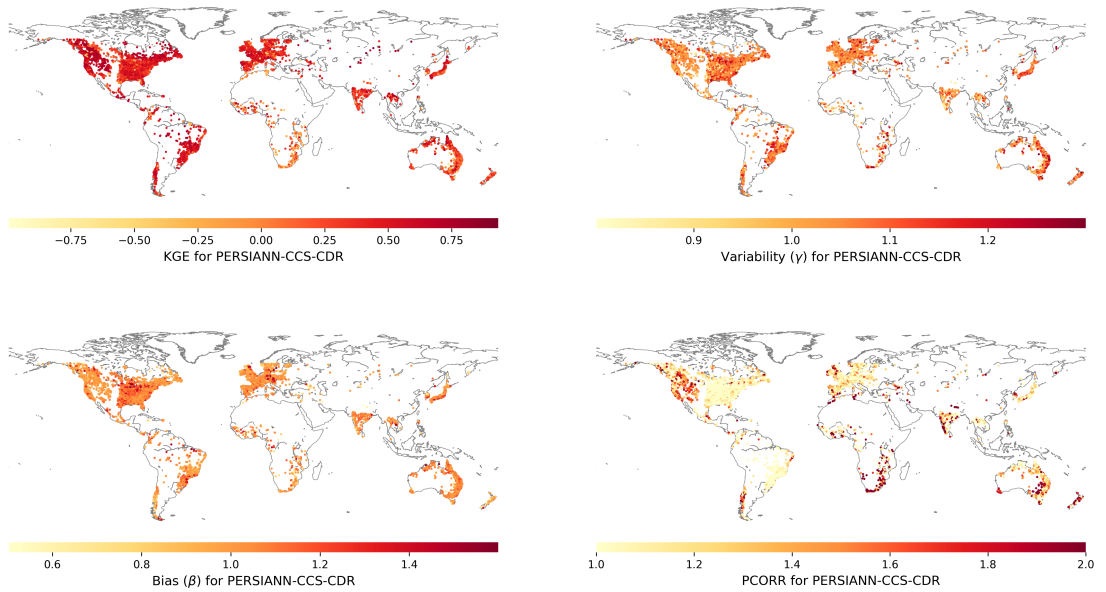


Figure S19: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for PERSIANN-CCS-CDR dataset.

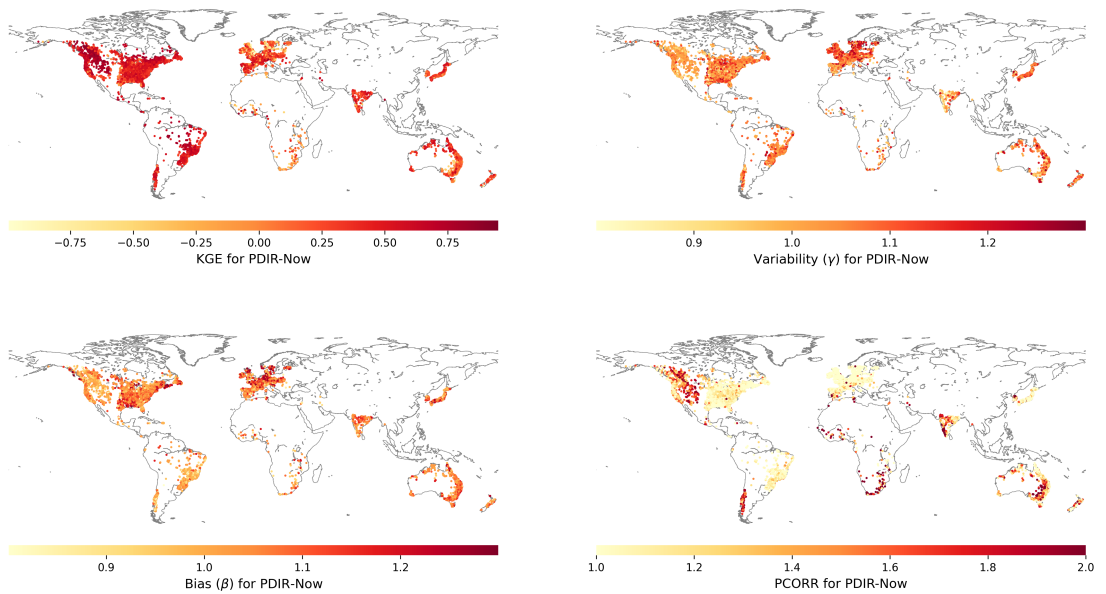


Figure S20: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for PDIR-Now dataset.

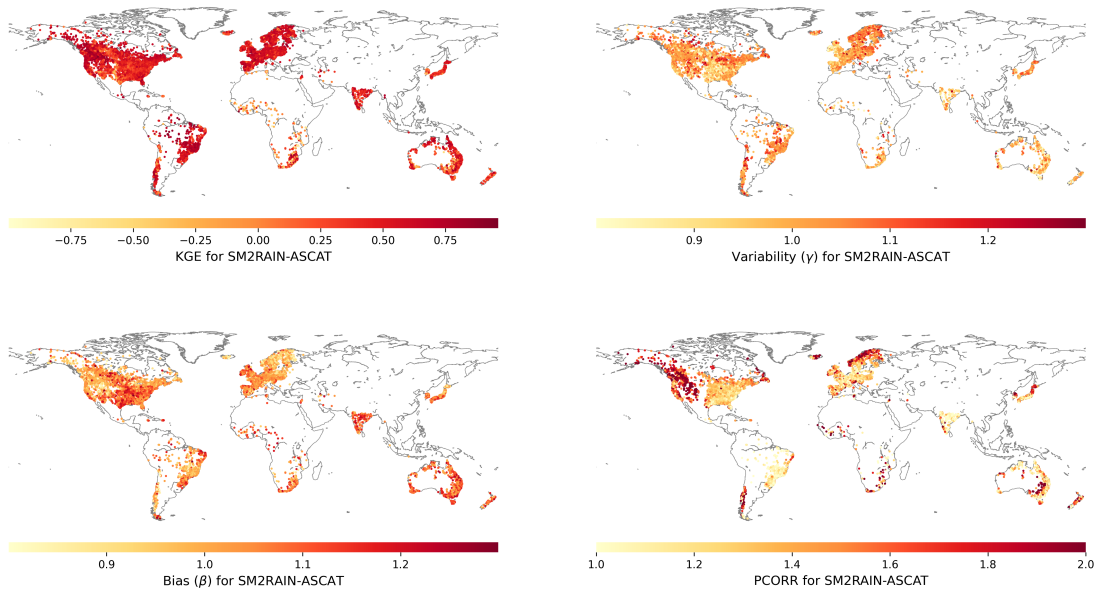


Figure S21: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for SM2RAIN-ASCAT dataset.

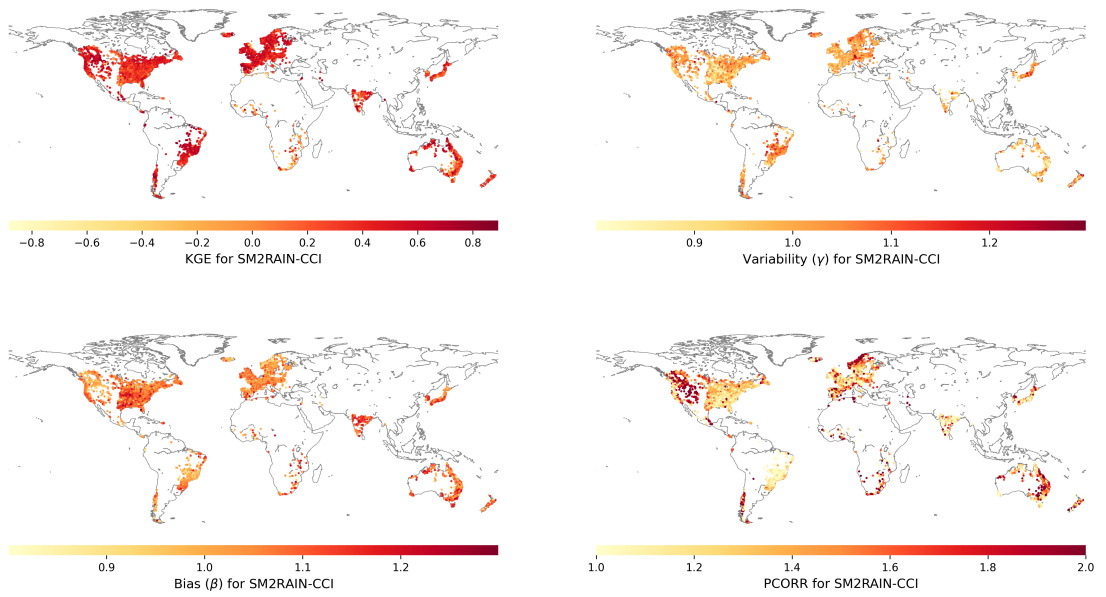


Figure S22: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for SM2RAIN-CCI dataset.

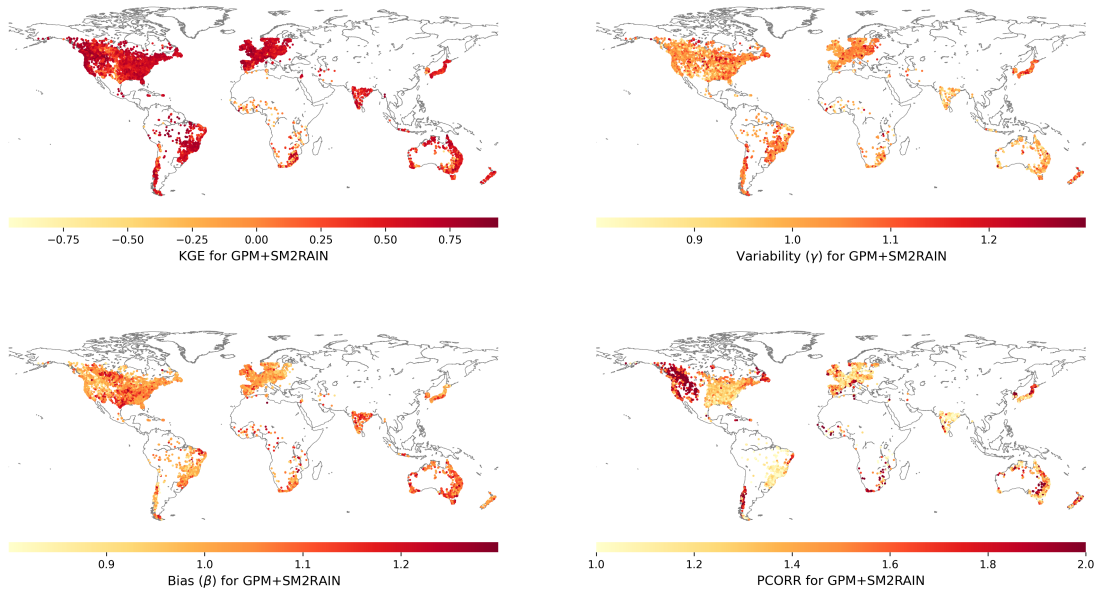


Figure S23: Calibration performance (KGE, Variability and Bias) and PCORR values achieved for GPM+SM2RAIN dataset.

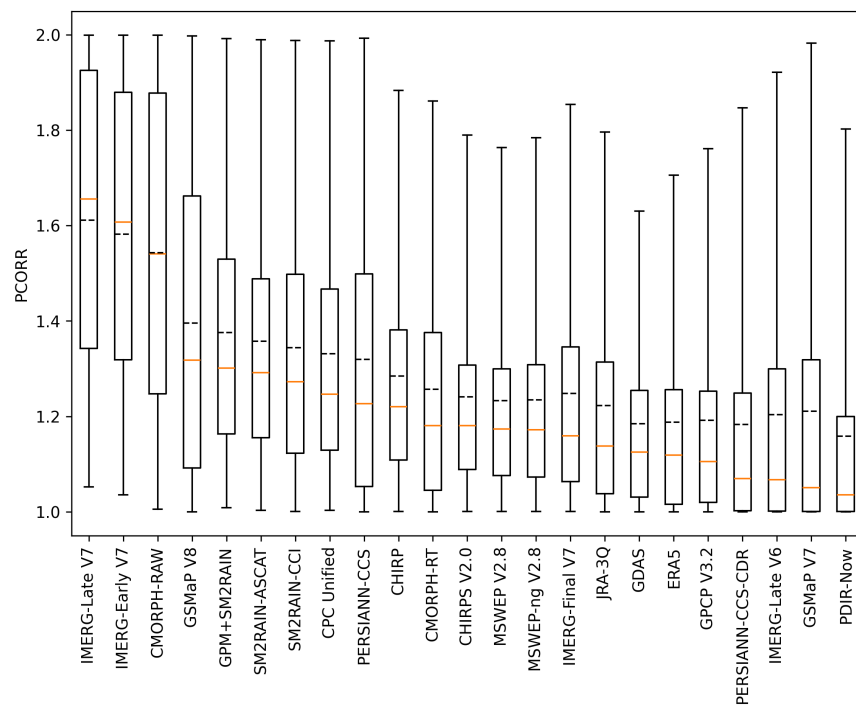


Figure S24: Distribution of PCORR values achieved after calibration for different P products.

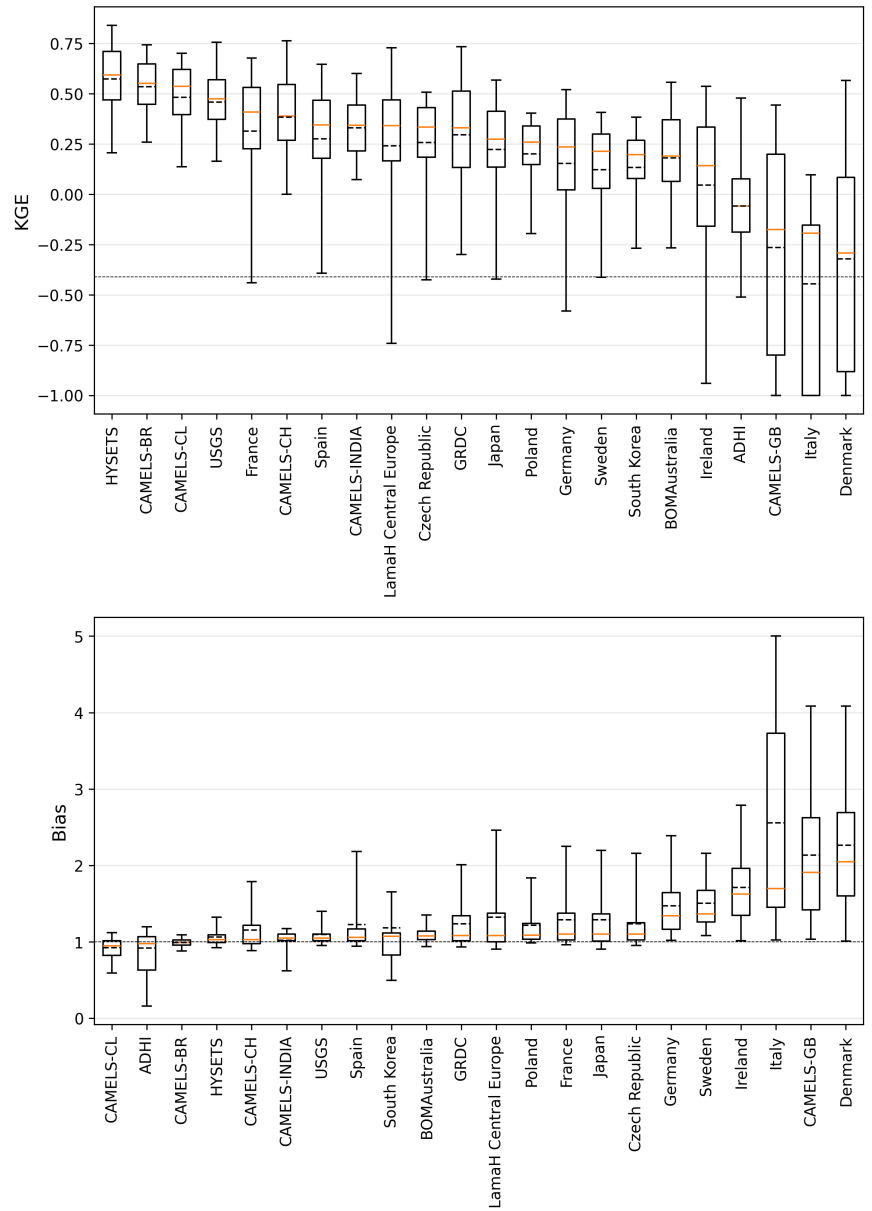


Figure S25: Distribution of calibration KGE and Bias for different streamflow data sources for PDIR-Now.