

Supplementary Materials: Assessment of GPM-IMERG and Other Precipitation Products against Gauge Data under Different Topographic and Climatic Conditions in Iran: Preliminary Results.

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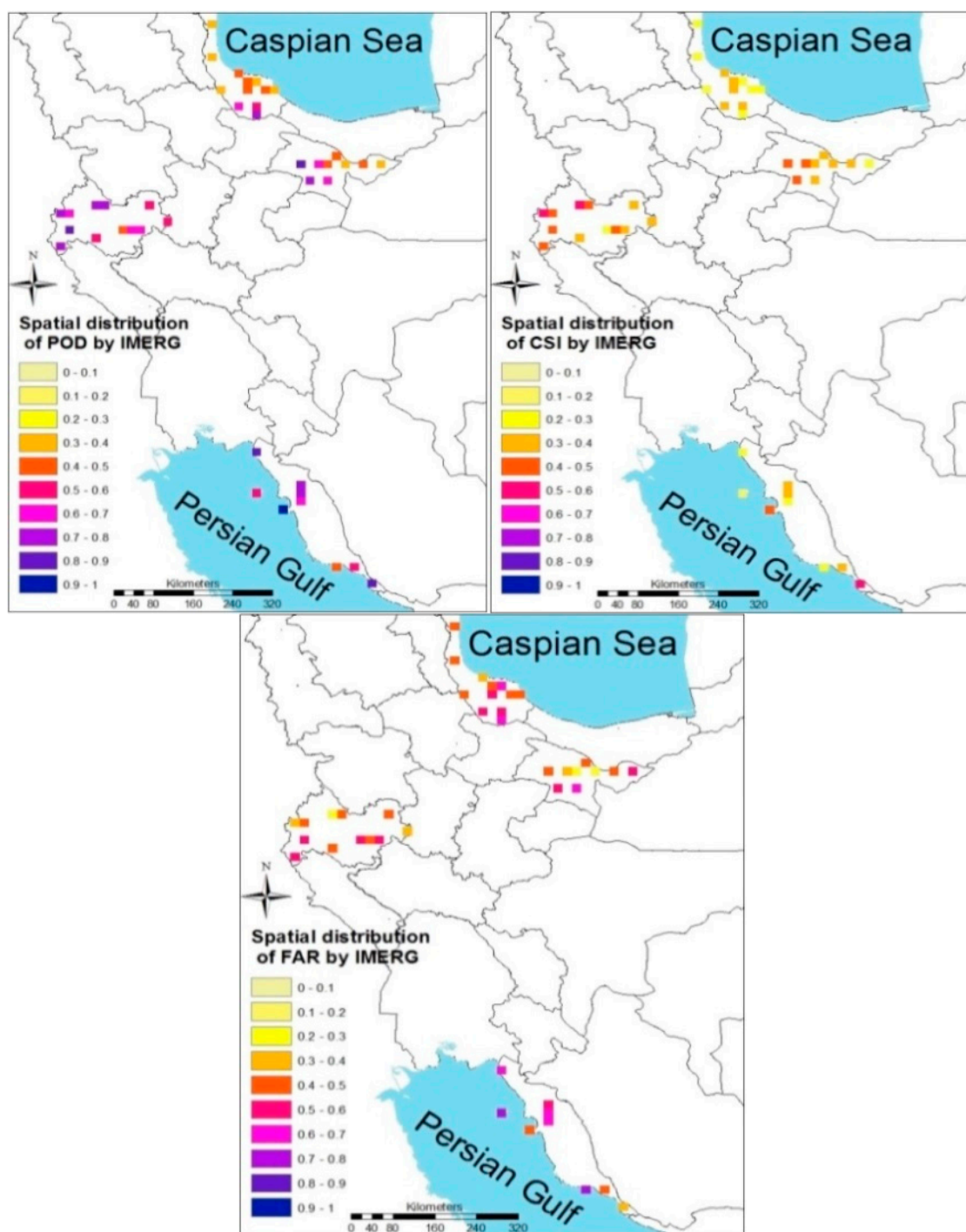


Figure S1. Cont.

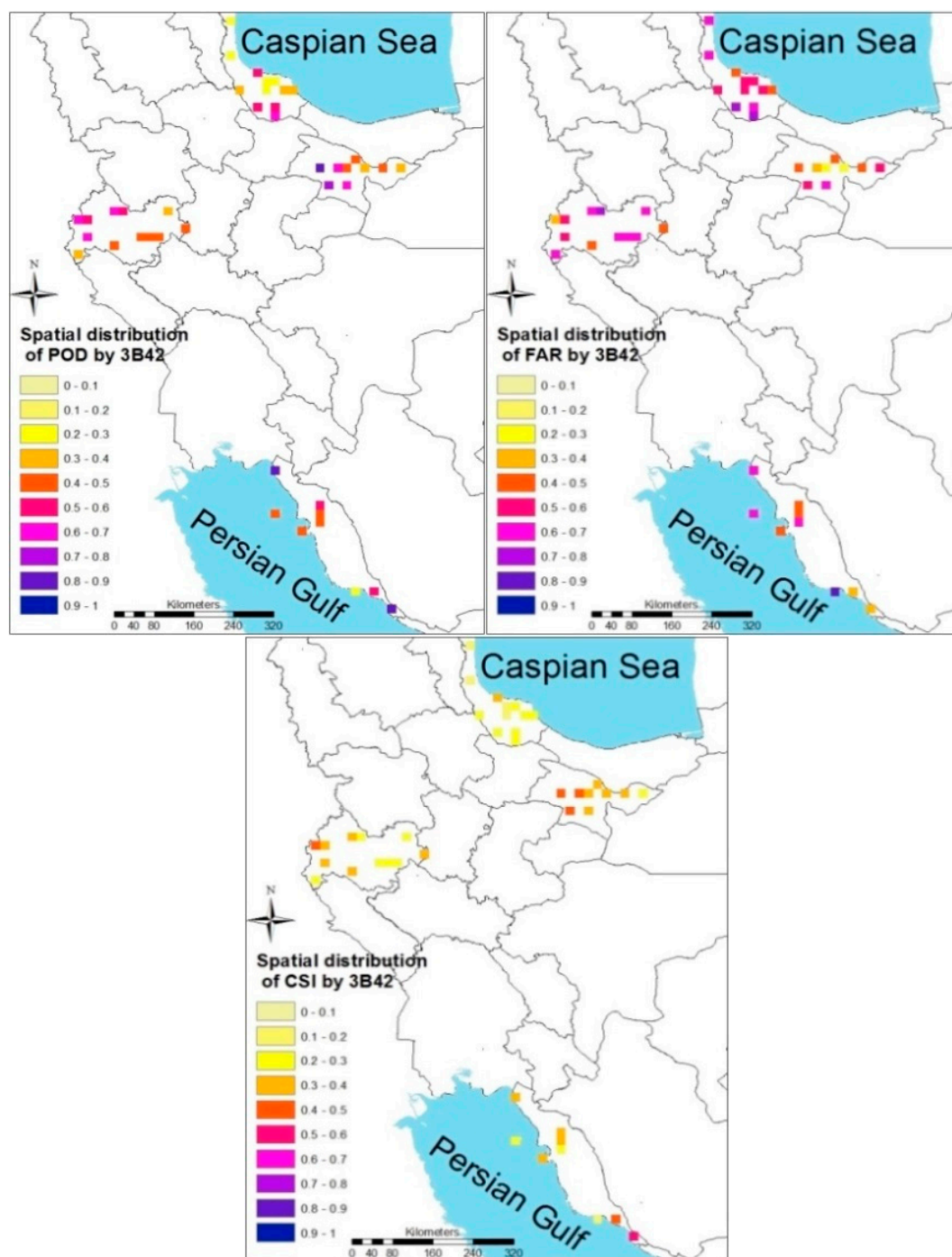


Figure S1. Cont.

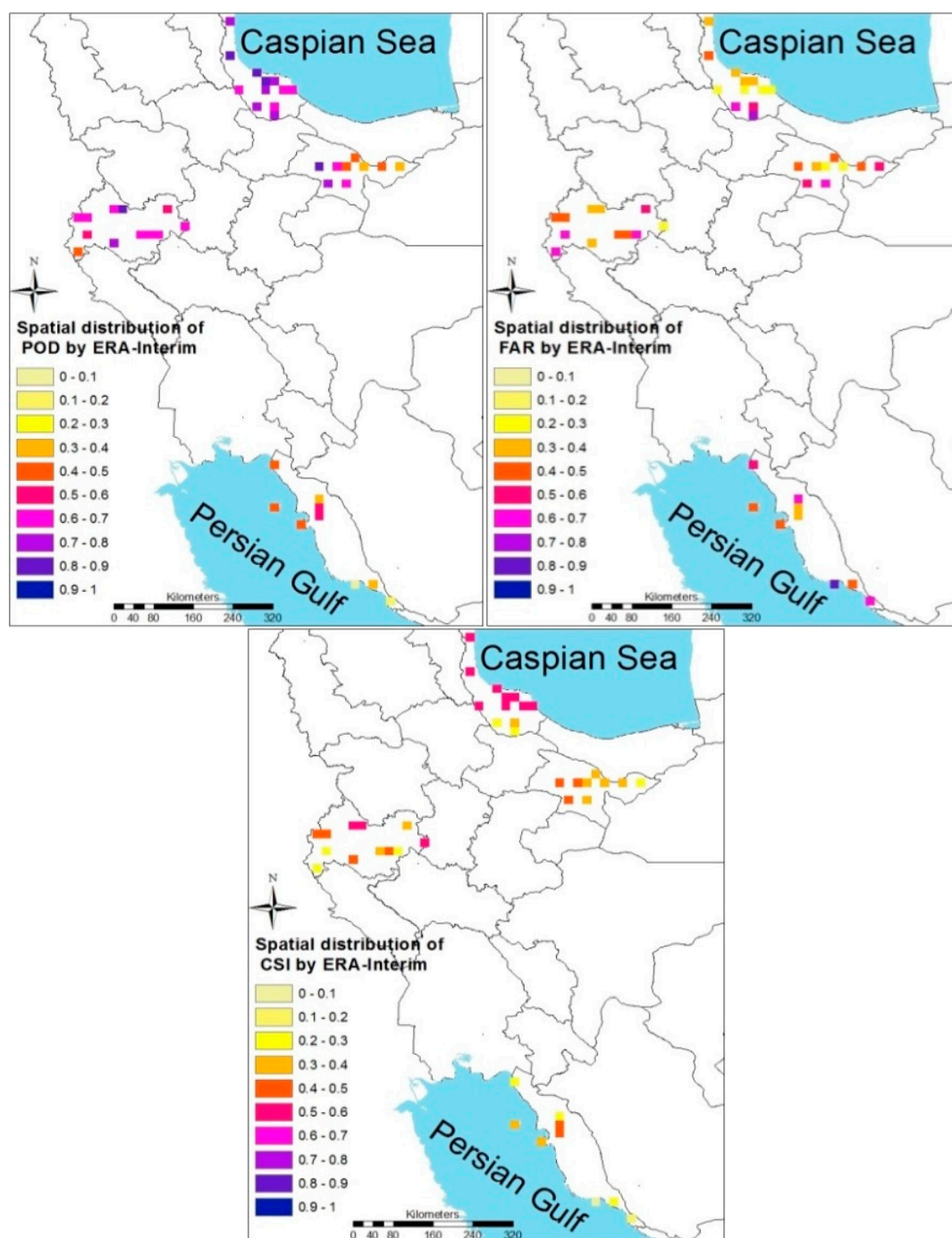


Figure S1. Spatial distribution of POD, FAR and CSI over four study areas in Iran for entire precipitation range.

Table S1. Summary of spatially-averaged metrics based on contingency tables for all precipitation ranges.

	Guilan (G8)			Bushehr (G4)			Kermanshah (G5)			Tehran (G2)		
	IMERG	3B42	ERA	IMERG	3B42	ERA	IMERG	3B42	ERA	IMERG	3B42	ERA
POD	0.46	0.39	0.74	0.70	0.56	0.39	0.66	0.51	0.63	0.55	0.50	0.51
FAR	0.52	0.59	0.40	0.59	0.55	0.54	0.45	0.57	0.46	0.43	0.71	0.58
CSI	0.29	0.23	0.49	0.35	0.33	0.28	0.42	0.30	0.42	0.37	0.23	0.30
Accuracy	0.77	0.74	0.84	0.95	0.96	0.97	0.90	0.86	0.90	0.89	0.80	0.86
Bias	1.02	1.06	1.36	1.86	1.30	0.83	1.24	1.24	1.21	1.03	1.73	1.23
POFD	0.13	0.15	0.13	0.04	0.02	0.01	0.07	0.10	0.07	0.05	0.17	0.09
SR	0.48	0.41	0.60	0.41	0.45	0.46	0.55	0.43	0.54	0.57	0.29	0.42
ETS	0.19	0.13	0.38	0.33	0.31	0.26	0.37	0.24	0.36	0.32	0.15	0.24
TSS	0.33	0.24	0.61	0.67	0.53	0.38	0.60	0.41	0.57	0.50	0.34	0.42
OR	7.48	4.12	20.59	118.43	77.74	56.28	34.84	13.62	30.16	30.51	6.00	11.74

Table S2. Summary of all statistical indices for daily, monthly and seasonal precipitation over four study regions of Iran.

Daily	IMERG						3B42						ERA-Interim					
	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC
Guilan (G8)	19.41	11.59	−6.41	0.62	−0.37	0.40	19.59	11.68	−9.75	0.31	−0.69	0.29	17.59	9.88	−9.06	0.35	−0.65	0.55
Bushehr (G4)	13.7	7.92	−2.52	0.90	−0.10	0.51	11.86	7.07	−2.95	0.75	−0.25	0.47	14.30	8.04	−7.72	0.22	−0.78	0.40
Kermanshah (G5)	7.10	4.91	−0.72	0.88	−0.12	0.52	7.72	5.39	−1.59	0.75	−0.25	0.42	7.35	4.31	−3.33	0.52	−0.48	0.38
Tehran (G2)	6.38	4.42	−1.86	0.75	−0.25	0.46	7.64	7.74	−1.47	0.78	−0.22	0.27	5.92	4.05	−3.42	0.35	−0.65	0.14
Monthly	IMERG						3B42						ERA-Interim					
	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC
Guilan (G8)	81.91	53.00	−29.21	0.98	−0.02	0.76	102.76	58.96	−35.45	0.93	−0.07	0.52	95.27	62.07	−54.34	0.58	−0.42	0.85
Bushehr (G4)	14.36	7.13	3.84	1.49	0.71	0.82	11.88	6.31	1.05	1.21	0.21	0.89	16.50	6.39	−5.86	0.39	−0.61	0.95
Kermanshah (G5)	16.94	11.50	7.70	1.62	0.62	0.88	15.64	10.31	4.56	1.40	0.57	0.85	16.87	10.34	−5.67	0.82	−0.18	0.84
Tehran (G2)	19.88	14.09	−5.14	1.13	0.13	0.57	20.61	14.55	11.56	2.03	1.03	0.69	14.74	11.08	−7.34	0.82	−0.18	0.80
Seasonally	IMERG						3B42						ERA-Interim					

	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC	RMSE mm	MAE mm	Bias mm	Mbias	Rbias	CC
Guilan (G8)	207.02	163.29	−97.95	0.97	−0.03	0.85	232.45	157.45	−106.36	0.93	−0.07	0.75	237.58	178.71	−163.03	0.58	−0.42	0.93
Bushehr (G4)	30.52	22.85	10.55	1.60	0.60	0.83	17.81	13.58	3.14	1.21	0.21	0.95	30.12	17.99	−17.59	0.39	−0.61	0.92
Kermanshah (G5)	37.07	27.52	23.10	1.62	0.62	0.95	36.36	26.69	18.26	1.56	0.56	0.92	39.43	28.00	−17.02	0.82	−0.18	0.88
Tehran (G2)	43.68	34.54	−15.42	1.13	0.13	0.84	46.48	35.57	34.67	2.03	1.03	0.93	33.18	27.54	−22.01	0.82	−0.18	0.90



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