

Supplementary Material

Figure S1. Taylor diagram performance evaluation of seven CMIP6 models with gridded precipitation, maximum and minimum temperature in lowland (a1-a3), midland (b1-b3), and highland (c1-c3) for the baseline period (1995-2014).

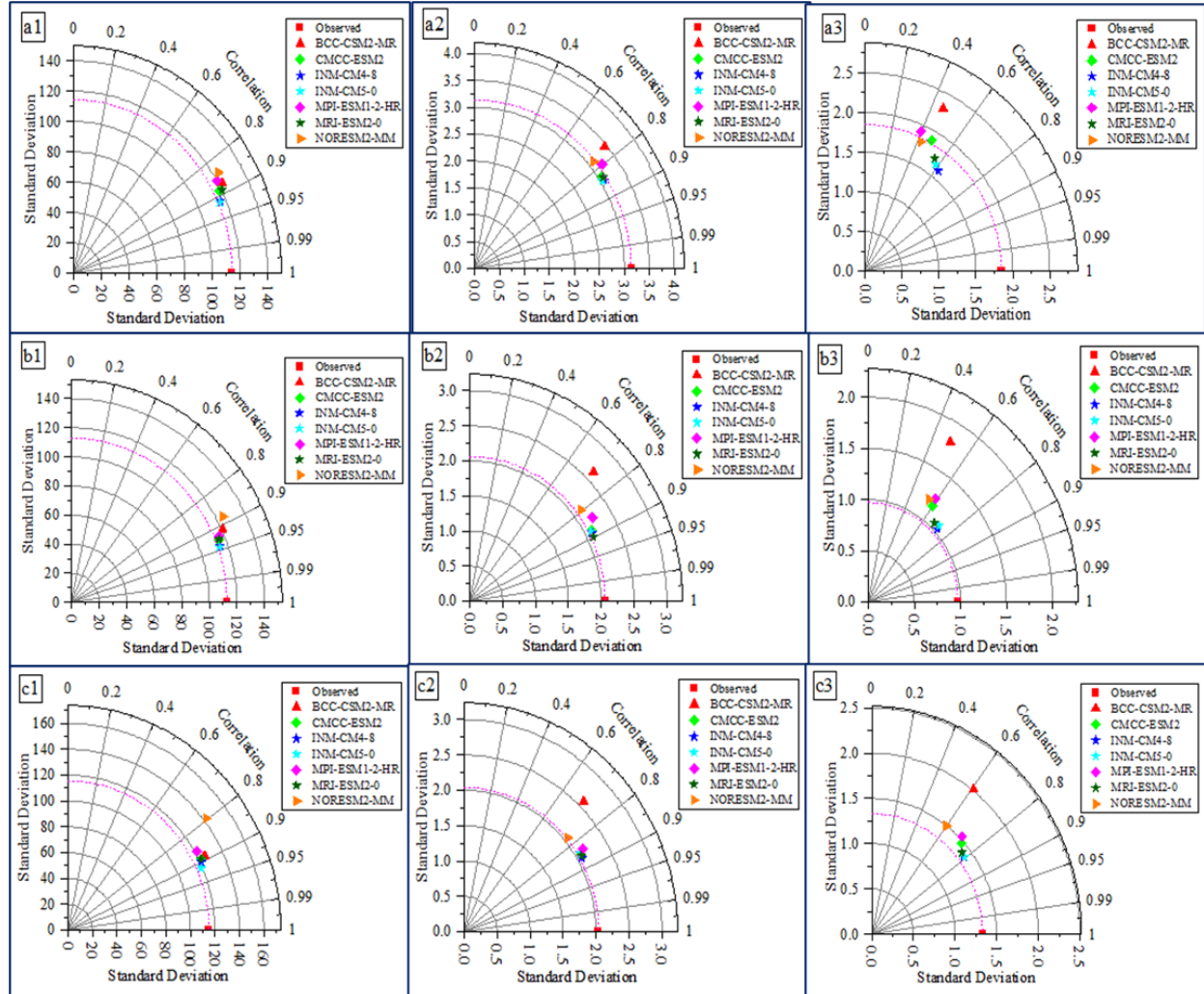


Table S1. MK and Sen's slope trend test of model INM-CM5-0 precipitation output in each climate zone under different scenarios.

		Precipitation											
Period	Zones	SSP1-2.6				SSP2-4.5				SSP5-8.5			
		P-value	Z	MK	Sen	P-value	Z	MK	Sen	P-value	Z	MK	Sen
Near	Lowland	0.01**	1.92	0.25	6.3	0.01**	1.92	0.25	5.4	0.01**	1.46	0.19	4.96

(2015-2044)	Midland	0.01**	1.85	0.24	4.7	0.01**	1.28	0.16	3.9	0.01**	2.56	0.33	7.3
	Highland	0.02*	0.89	0.11	2.9	0.01**	1.35	0.17	3.7	0.01**	1.64	0.21	5.86
Mid (2045-2074)	Lowland	1.0	0.00	0.02	0.01	0.11	-0.6	-0.1	-2.5	0.56	0.32	0.04	1.53
	Midland	0.03*	1.1	0.14	4.1	0.13	-0.6	-0.1	-1.6	0.01**	2.03	0.26	8.7
Far (2075-2100)	Highland	0.02*	1.32	0.17	6.4	0.01**	-1.1	-0.1	-3.4	0.91	-0.1	-0.1	-0.4
	Lowland	0.28	-0.3	-0.04	-1.2	0.07	0.61	0.08	1.43	0.8	0.08	0.01	1.34
(2015-2100)	Midland	0.37	0.44	0.06	3.24	0.09	0.92	0.13	3.34	0.01**	2.07	0.29	19.4
	Highland	0.61	-0.2	-0.02	-1.1	0.64	0.26	0.04	1.24	0.01**	1.49	0.21	9.6
2015-2100	Lowland	0.01**	-3.7	-0.27	-2.8	0.01**	-0.9	-0.1	-0.7	0.01**	1.94	0.14	1.52
	Midland	0.08	-1.1	-0.1	-0.8	0.58	0.35	0.02	0.22	0.01**	4.78	0.35	4.22
	Highland	0.01**	-2.9	-0.2	-2.5	0.94	0.03	0.01	0.02	0.01**	2.23	0.16	2.38

Bold (*, **) value indicates statistically significant at $p < 0.05$ (5%) and $p < 0.01$ (1%) confidence level respectively. (-Ve) value indicates a decreasing trend.

Table S2. MK and Sen's slope trend test of model INM-CM4-8 maximum temperature output in each climate zone under different scenarios.

Maximum Temperature													
Period	Zones	SSP1-2.6				SSP2-4.5				SSP5-8.5			
		P-value	Z	MK	Sen	P-value	Z	MK	Sen	P-value	Z	MK	Sen
Near	Lowland	0.01**	1.32	0.17	0.01	0.01**	3.38	0.43	0.04	0.01**	3.6	0.46	0.04
	Midland	0.01**	1.6	0.21	0.01	0.01**	3.49	0.45	0.03	0.01**	3.6	0.33	0.02
	Highland	0.02*	0.96	0.12	0.01	0.01**	3.32	0.42	0.02	0.01**	3.1	0.39	0.02
Mid	Lowland	0.77	-0.1	-0.01	-0.01	0.69	0.21	0.03	0.01	0.01**	4.96	0.64	0.07
	Midland	0.33	-3.9	-0.05	-0.01	0.44	0.42	0.06	0.01	0.01**	4.95	0.64	0.05
	Highland	0.03*	-0.4	-0.04	-0.01	0.32	0.53	0.07	0.01	0.01**	4.67	0.6	0.04
Far	Lowland	0.14	-0.7	-0.1	-0.01	0.05*	1.1	0.16	0.02	0.01**	3.04	0.43	0.05
	Midland	0.48	-0.4	-0.1	-0.1	0.22	0.79	0.11	0.01	0.01**	3.35	0.47	0.04
	Highland	0.57	-0.3	-0.1	-0.01	0.07	1.23	0.17	0.01	0.01**	3.13	0.44	0.03
2015-2100	Lowland	0.05*	1.53	0.11	0.01	0.01**	7.75	0.57	0.03	0.01**	11.1	0.8	0.05
	Midland	0.02*	1.84	0.13	0.01	0.01**	7.72	0.56	0.02	0.01**	11.1	0.81	0.04
	Highland	0.04*	1.55	0.11	0.01	0.01**	7.42	0.54	0.01	0.01**	10.6	0.78	0.03

Table S3. MK and Sen's slope trend test of model INM-CM4-8 minimum temperature output in each climate zone under different scenarios.

Minimum Temperature													
Period	Zones	SSP1-2.6				SSP2-4.5				SSP5-8.5			
		P-value	Z	MK	Sen	P-value	Z	MK	Sen	P-value	Z	MK	Sen
Near	Lowland	0.01**	3.28	0.42	0.02	0.01**	4.71	0.61	0.05	0.01**	5.1	0.65	0.07

	Midland	0.01**	3.17	0.41	0.02	0.01**	4.71	0.61	0.03	0.01**	5.42	0.7	0.04
	Highland	0.01**	2.85	0.37	0.01	0.01**	4.67	0.6	0.03	0.01**	4.96	0.64	0.03
Mid	Lowland	0.01**	1.35	0.17	0.01	0.01**	3.14	0.41	0.02	0.01**	5.56	0.72	0.09
	Midland	0.01**	1.03	0.13	0.01	0.01**	3.71	0.48	0.02	0.01**	5.82	0.75	0.06
	Highland	0.17	0.53	0.07	0.01	0.01**	3.82	0.49	0.02	0.01**	5.7	0.73	0.05
Far	Lowland	0.03*	-3.1	-0.4	-0.05	0.32	0.44	0.06	0.01	0.01**	5.16	0.72	0.09
	Midland	0.02*	-2.9	-0.38	-0.02	0.03*	1.01	0.14	0.01	0.01**	5.55	0.77	0.05
	Highland	0.03*	0.93	0.12	0.01	0.01**	1.06	0.15	0.01	0.01**	5.24	0.73	0.05
2015-2100	Lowland	0.92	0.12	0.01	0.01	0.01**	9.43	0.69	0.03	0.01**	12.1	0.89	0.08
	Midland	0.41	0.97	0.07	0.01	0.01**	10.2	0.75	0.02	0.01**	12.4	0.91	0.05
	Highland	0.45	0.74	0.05	0.01	0.01**	9.95	0.73	0.02	0.01**	12.1	0.89	0.05