

Warming patterns over the Tibetan Plateau and adjacent lowlands derived from elevation- and bias-corrected ERA-Interim data

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Climate Research 58: 235–246 (2014)

Supplement. Table S1. RMSE (°C) of the low-resolution ERA-Interim 2 m temperature (ERA 2 m), the adjusted 2 m temperature using a fixed lapse rate of 0.65°C per 100 m (ERA 2m cor), and the elevation- and bias-adjusted temperature (ERA bias cor). Values are given for the whole period as well as for winter (DJF) and summer (JJA)

Station	X (°)	Y (°)	Z (m)	ERA 2 m		ERA 2 m winter		ERA 2 m summer		ERA 2 m cor		ERA 2 m cor winter		ERA 2 m cor summer		ERA bias cor		ERA bias cor winter		ERA bias cor summer	
				°C	%	°C	%	°C	%	°C	%	°C	%	°C	%	°C	%	°C	%	°C	%
RANGPUR	89.23	25.73	34	1.14	100	1.22	100	0.86	100	1.41	124.02	1.54	125.77	1.01	117.46	3.36	295.94	4.09	334.49	2.30	266.75
BHAGALPUR	86.95	25.23	49	1.33	100	1.10	100	1.36	100	1.23	93.08	1.05	96.03	1.26	92.73	3.40	256.25	4.27	389.34	2.50	184.73
PATNA	85.09	25.59	60	1.28	100	1.25	100	1.25	100	1.27	99.30	1.26	100.95	1.23	98.21	3.34	262.14	4.19	335.87	2.60	207.44
BIRATNAGAR AIRPORT	87.27	26.47	72	1.56	100	1.23	100	1.76	100	2.51	161.34	2.84	230.86	2.16	122.96	3.03	194.98	3.68	298.34	2.29	129.96
GORAKHPUR	83.37	26.75	77	1.70	100	1.64	100	1.29	100	1.49	87.70	1.49	90.58	1.11	86.26	3.24	190.57	3.94	239.96	2.52	195.31
TEZPUR	92.78	26.62	79	1.81	100	1.98	100	1.41	100	3.26	179.65	3.03	153.01	3.59	255.18	2.56	141.27	3.36	169.24	1.62	115.01
GAUR	85.27	26.77	90	3.31	100	3.23	100	3.07	100	2.34	70.82	2.45	75.68	2.01	65.29	3.70	111.71	4.34	134.15	2.91	94.62
JANAKPUR AIRPORT	85.92	26.71	90	4.36	100	4.14	100	4.06	100	1.74	39.98	1.63	39.40	1.47	36.17	3.08	70.71	3.73	89.99	2.41	59.54
ALLAHABAD	81.73	25.44	98	1.51	100	1.49	100	1.35	100	1.34	88.83	1.38	92.45	1.17	86.95	3.49	231.02	4.34	291.37	2.39	176.85
BHAIRAHAWA AIRPORT	83.42	27.51	109	5.95	100	5.66	100	5.38	100	2.25	37.82	2.02	35.73	1.75	32.50	3.04	51.14	3.63	64.19	2.43	45.17
PARWANIPUR	84.92	27.07	115	2.30	100	2.12	100	2.37	100	1.58	68.70	1.80	85.18	1.39	58.85	3.07	133.10	3.66	172.82	2.38	100.64
LUCKNOW	80.89	26.76	128	1.12	100	1.20	100	1.04	100	1.10	98.47	1.17	97.09	1.05	101.18	3.22	287.63	3.81	317.07	2.57	247.87
SILIGURI	88.32	26.63	131	2.15	100	2.43	100	1.57	100	4.03	187.46	3.93	161.61	4.34	276.01	3.07	142.87	3.81	156.58	2.07	131.61
BAREILLY	79.40	28.37	173	1.50	100	1.43	100	1.45	100	1.26	84.11	1.30	91.16	1.20	82.84	2.99	199.63	3.46	242.47	2.56	176.80
DHANGADHI ATARIYA	80.60	28.68	187	2.19	100	2.11	100	2.32	100	2.37	108.19	2.39	113.02	2.23	96.09	2.35	107.33	1.75	82.83	1.62	69.93
KHAJURA NEPALGANJ	81.64	28.06	190	1.64	100	1.56	100	1.67	100	2.98	181.70	2.80	179.88	2.77	165.90	3.14	190.99	3.69	236.60	2.51	150.28
SIKTA	82.00	28.04	195	2.25	100	2.08	100	2.46	100	2.89	128.15	2.76	132.61	2.78	113.03	2.96	131.43	3.30	158.53	2.52	102.49
BUTWAL	83.45	27.70	205	6.80	100	7.32	100	4.94	100	2.39	35.18	2.54	34.69	1.59	32.23	2.84	41.79	3.29	44.92	2.28	46.08
RAMPUR	83.89	27.86	256	5.64	100	5.80	100	5.08	100	2.70	47.85	2.60	44.91	3.15	62.01	2.30	40.79	2.53	43.56	1.98	38.94
DHARAN BAZAR	87.28	26.81	444	7.68	100	8.32	100	6.00	100	3.43	44.63	3.95	47.51	1.73	28.81	2.43	31.59	2.89	34.81	1.89	31.55
SURKHET BIRENDRA	81.64	28.59	720	2.38	100	2.72	100	2.17	100	2.20	92.12	1.89	69.63	2.38	109.70	1.95	81.81	1.62	59.57	1.25	57.61
GAUHATI	91.59	26.11	807	2.27	100	1.89	100	2.28	100	3.97	174.55	3.56	187.67	4.01	175.63	2.96	130.15	3.83	202.32	2.24	98.36
POKHARA AIRPORT	83.98	28.20	827	12.69	100	14.26	100	10.16	100	3.55	27.97	4.70	32.99	1.20	11.78	1.61	12.69	1.71	12.00	1.46	14.37
DARCHULA	80.54	29.85	1097	14.04	100	14.48	100	12.22	100	3.73	26.53	4.13	28.54	1.95	15.98	1.70	12.14	2.10	14.48	1.40	11.45

Table S1 (continued)

Station	X (°)	Y (°)	Z (m)	ERA 2 m		ERA 2 m		ERA 2 m cor		ERA 2 m cor		ERA bias		ERA bias cor		ERA bias cor			
				°C	%	winter	summer	winter	summer	winter	summer	cor	%	winter	summer	winter	summer		
				°C	%	°C	%	°C	%	°C	%	°C	%	°C	%	°C	%		
PHIDIM PANCHTHER	87.77	27.14	1205	5.12	100	5.33	100	4.38	100	1.29	25.27	1.23	23.13	1.25	26.84	1.47	27.56	1.16	26.44
DHANKUTA	87.34	26.98	1210	3.05	100	3.71	100	2.10	100	1.57	51.67	1.98	53.44	1.07	47.68	1.48	39.94	1.33	63.29
KHOKANA	85.30	27.64	1212	2.84	100	3.07	100	2.84	100	1.59	56.20	1.54	50.26	1.35	47.72	1.50	51.56	1.20	42.16
PATAN WEST	80.55	29.47	1266	3.22	100	3.84	100	2.50	100	2.52	78.20	1.83	47.69	3.06	122.55	1.59	49.43	1.76	45.74
CHAINPUR WEST	81.20	29.55	1304	12.45	100	13.54	100	10.34	100	3.73	29.97	4.59	33.86	1.82	17.57	2.36	18.95	1.45	10.71
CHAINPUR EAST	87.32	27.28	1329	3.09	100	3.80	100	1.87	100	3.75	121.11	2.85	74.92	4.57	244.54	1.66	53.53	1.70	44.71
KATHMANDU AIRPORT	85.36	27.70	1337	4.20	100	4.64	100	3.16	100	1.99	47.36	2.07	44.74	1.84	58.13	1.95	46.33	2.16	46.57
BUDDHANILAKANTHA	85.36	27.78	1350	3.42	100	4.28	100	2.43	100	2.61	76.37	1.79	41.75	3.25	133.61	1.32	38.56	1.54	35.89
GODAVARI	85.39	27.59	1400	2.45	100	3.25	100	1.36	100	1.44	58.98	1.42	43.65	1.56	114.85	1.37	55.93	1.40	43.10
DHULIKHEL	85.55	27.62	1552	5.58	100	6.20	100	4.33	100	3.27	58.54	3.78	61.08	2.10	48.36	1.44	25.87	1.59	25.67
PAKHRIBAS	87.27	27.06	1680	1.45	100	1.41	100	1.66	100	1.44	99.69	1.51	107.19	1.52	91.56	0.99	67.99	1.10	77.68
OKHALDHUNGA	86.50	27.32	1720	1.91	100	1.41	100	2.49	100	2.91	152.51	1.85	131.41	3.75	150.79	1.15	60.30	1.26	89.87
TAPLEJUNG	87.66	27.36	1732	1.18	100	1.36	100	0.87	100	4.47	378.34	4.25	312.50	4.77	549.07	1.41	119.00	1.17	85.82
LUMLE	83.83	28.38	1740	7.92	100	10.00	100	4.70	100	2.96	37.35	4.06	40.59	1.92	40.89	1.28	16.12	1.69	16.86
TIMURE	85.37	28.25	1900	12.65	100	13.53	100	10.25	100	3.89	30.74	4.50	33.23	1.92	18.75	1.55	12.22	2.01	14.89
DHUNCHE	85.30	28.11	1982	11.47	100	13.72	100	7.93	100	5.78	50.43	7.75	56.45	2.25	28.32	1.72	14.97	2.34	17.06
JIRI	86.23	27.63	2003	6.26	100	6.83	100	5.44	100	3.09	49.30	3.66	53.60	2.21	40.74	1.42	22.73	1.83	26.86
KAKANI	85.27	27.82	2064	2.11	100	2.74	100	1.93	100	2.10	99.52	2.09	76.08	2.64	137.11	1.46	69.27	1.58	57.78
MUSIKOT RUKUMKOT	82.45	28.64	2100	3.71	100	5.07	100	2.23	100	2.93	78.96	4.18	82.50	1.54	68.84	1.57	42.36	2.01	39.65
JUMLA	82.18	29.28	2300	6.18	100	6.98	100	5.77	100	1.46	23.60	1.72	24.69	1.28	22.21	1.53	24.73	1.72	24.64
DAMAN	85.10	27.62	2314	2.47	100	1.93	100	3.11	100	4.18	169.59	5.63	292.36	2.20	70.72	1.68	67.90	1.92	99.49
SALLERI	86.58	27.50	2378	5.36	100	5.81	100	3.77	100	5.08	94.87	5.54	95.28	3.49	92.56	2.10	39.24	2.54	43.62
THAKMARPHA	83.68	28.74	2566	3.22	100	5.04	100	1.48	100	4.07	126.41	2.38	47.09	4.86	328.90	1.50	46.68	2.04	40.51
LUKLA	86.72	27.70	2660	2.56	100	3.25	100	1.30	100	1.83	71.46	1.61	49.63	2.81	216.44	1.56	60.80	1.22	37.48
CHAME	84.24	28.55	2680	5.21	100	7.04	100	2.01	100	3.20	61.43	3.38	47.98	3.79	188.43	2.06	39.47	2.58	36.70
JOMSOM	83.73	28.78	2744	3.49	100	5.10	100	2.35	100	3.19	91.41	2.05	40.21	3.47	147.78	1.60	45.74	2.05	40.31
SIMIKOT	81.82	29.97	2800	6.80	100	7.48	100	4.89	100	3.70	54.39	3.60	48.21	4.35	88.93	2.56	37.66	3.29	43.99
ASKOLE	75.82	35.68	3015	13.15	100	12.34	100	13.36	100	4.34	33.00	3.71	30.06	4.45	33.30	2.01	15.31	2.58	20.89
NAMCHE	86.72	27.80	3560	3.45	100	2.78	100	4.38	100	2.41	69.95	2.80	100.72	2.42	55.18	1.69	49.06	1.95	70.22
LHASA	91.14	29.66	3650	7.57	100	7.60	100	6.67	100	2.06	27.26	2.28	29.99	2.10	31.47	2.01	26.63	2.72	35.77
JIANGZI	89.63	29.00	3657	5.05	100	5.27	100	3.86	100	3.31	65.54	3.58	67.87	4.06	105.04	1.96	38.81	3.01	57.02
ZEDANG	91.77	29.23	3657	7.81	100	7.79	100	6.97	100	2.11	27.08	2.22	28.52	1.93	27.66	1.90	24.32	2.57	32.98
XIGATSE	88.88	29.25	3837	7.16	100	7.04	100	6.11	100	2.47	34.50	2.95	41.90	1.92	31.37	2.20	30.74	3.00	42.63
LONGZI	92.47	28.42	3861	1.93	100	1.46	100	2.20	100	1.37	70.92	1.47	101.04	1.44	65.18	1.48	77.07	1.99	136.30
CHHOSER	84.07	29.20	3870	9.25	100	10.67	100	7.73	100	5.39	58.30	6.78	63.50	3.81	49.33	1.64	17.68	2.14	20.01
URDUKAS	76.29	35.73	3926	5.93	100	5.91	100	5.86	100	2.31	38.93	2.20	37.29	2.26	38.61	1.79	30.12	2.25	38.03
SUOXIAN	93.78	31.88	4024	4.26	100	4.04	100	3.99	100	2.49	58.52	3.58	88.63	2.08	52.27	2.23	52.43	3.61	89.22
CHIGU	91.63	28.70	4237	7.58	100	7.73	100	6.88	100	5.69	75.02	5.82	75.37	5.05	73.47	1.74	22.98	1.88	24.39
SHIQUANHE	80.08	32.50	4279	6.94	100	7.00	100	7.35	100	3.16	45.59	3.52	50.27	3.31	45.10	2.06	29.70	3.02	43.10
PALI	89.08	27.73	4300	4.77	100	5.34	100	4.39	100	1.52	31.82	1.94	36.34	1.07	24.42	1.53	32.09	2.23	41.72

Table S1 (continued)

Station	X (°)	Y (°)	Z (m)	ERA 2 m		ERA 2 m		ERA 2 m cor		ERA 2 m cor		ERA bias cor		ERA bias cor		ERA bias cor					
				°C	%	winter	summer	winter	summer	winter	summer	cor		winter	summer	winter	summer				
				°C	%	°C	%	°C	%	°C	%	°C	%	°C	%	°C	%				
XIAR	87.08	28.63	4302	4.39	100	4.39	100	4.35	100	2.31	52.61	2.57	58.44	2.25	51.65	1.73	39.53	2.34	53.33	1.53	35.14
CUONA	91.63	28.70	4336	2.06	100	2.56	100	1.93	100	3.22	156.21	3.65	142.43	3.20	165.56	1.55	75.12	2.49	97.31	0.66	33.98
YUDO	84.05	32.30	4420	3.91	100	3.52	100	4.36	100	2.49	63.67	2.93	83.17	2.30	52.79	2.65	67.90	3.45	98.13	2.11	48.32
NAGQU	92.07	31.48	4508	1.69	100	1.58	100	1.62	100	2.14	126.59	2.79	176.57	1.78	109.93	1.91	113.10	2.71	171.78	1.35	83.38
TUOTUOHE	92.43	34.22	4535	2.02	100	2.22	100	2.00	100	2.32	114.74	3.13	141.00	1.16	58.22	2.15	106.76	3.01	135.33	1.19	59.59
WUDAOLIANG	93.08	35.22	4614	1.27	100	1.41	100	1.13	100	1.27	99.54	1.40	99.41	1.13	99.45	1.62	127.08	2.09	147.99	1.14	100.49
XAINZA	88.63	30.95	4671	2.42	100	2.77	100	2.00	100	1.31	54.17	1.47	52.88	1.15	57.27	1.87	77.16	2.51	90.67	1.48	73.82
BAINGOIN	90.02	31.37	4701	1.79	100	2.21	100	1.19	100	1.51	84.56	1.77	80.36	1.22	102.43	1.85	103.64	2.52	114.04	1.42	119.33
DAMXUNG	92.45	30.73	4724	2.95	100	4.63	100	1.43	100	3.80	128.60	5.66	122.33	2.15	150.69	2.35	79.58	3.60	77.84	1.39	97.48
LANNGAZHOINKANG	81.43	30.55	4736	8.35	100	8.54	100	7.79	100	8.96	107.40	9.15	107.17	8.41	108.00	2.17	25.95	2.95	34.56	1.44	18.50
JIALI	93.40	30.78	4876	1.88	100	1.99	100	1.58	100	1.95	103.62	1.96	98.30	1.67	106.02	1.96	104.06	3.08	154.37	1.21	76.76
PYRAMIDE	86.81	27.96	5079	10.93	100	8.46	100	12.10	100	3.00	27.46	3.26	38.51	2.78	22.97	1.61	14.76	2.11	24.93	0.83	6.85
KALA PATTHAR	86.83	27.99	5600	30.60	100	31.15	100	27.73	100	18.36	60.00	18.87	60.58	15.43	55.64	1.58	5.17	1.29	4.14	0.97	3.49
COLLE SUD	86.93	27.96	8000	28.67	100	29.57	100	26.01	100	2.75	9.58	2.51	8.50	2.47	9.51	1.65	5.76	1.76	5.96	0.88	3.39