

Supplementary Materials

Information:

Table S1; Figure S1; Figure S2; Figure S3; Table S2; Table S3; Table S4; Table S5

Table S1. Bioclimatic variables.

Code	Variable ¹
BIO1	Annual Mean Temperature
BIO2	Mean Diurnal Range (Mean of monthly (max temp – min temp))
BIO3	Isothermality (BIO2/BIO7) (* 100)
BIO4	Temperature Seasonality (standard deviation *100)
BIO5	Max Temperature of Warmest Month
BIO6	Max Temperature of Warmest Month
BIO7	Temperature Annual Range (BIO5–BIO6)
BIO8	Mean Temperature of Wettest Quarter
BIO9	Mean Temperature of Driest Quarter
BIO10	Mean Temperature of Warmest Quarter
BIO11	Mean Temperature of Coldest Quarter
BIO12	Annual Precipitation
BIO13	Precipitation of Wettest Month
BIO14	Precipitation of Driest Month
BIO15	Precipitation Seasonality (Coefficient of Variation)
BIO16	Precipitation of Wettest Quarter
BIO17	Precipitation of Driest Quarter
BIO18	Precipitation of Warmest Quarter
BIO19	Precipitation of Coldest Quarter

¹ please refer to: <http://www.worldclim.org/bioclim>.

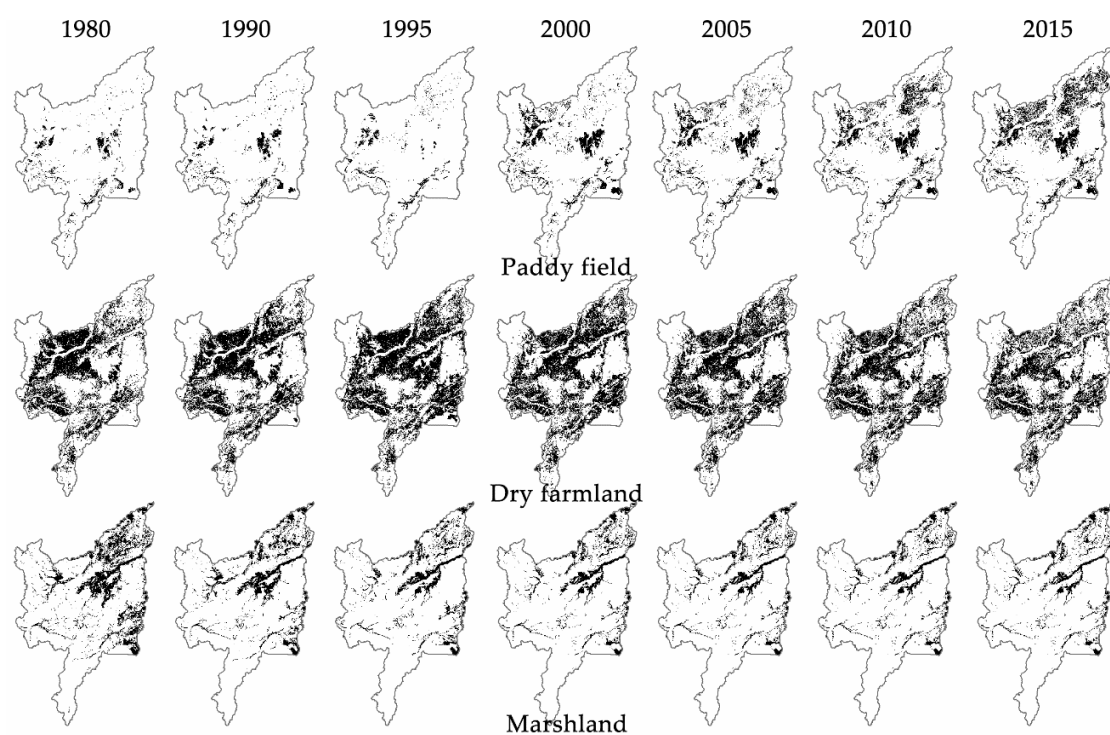


Figure S1. Spatial changes of the four LULC types over the SJP.

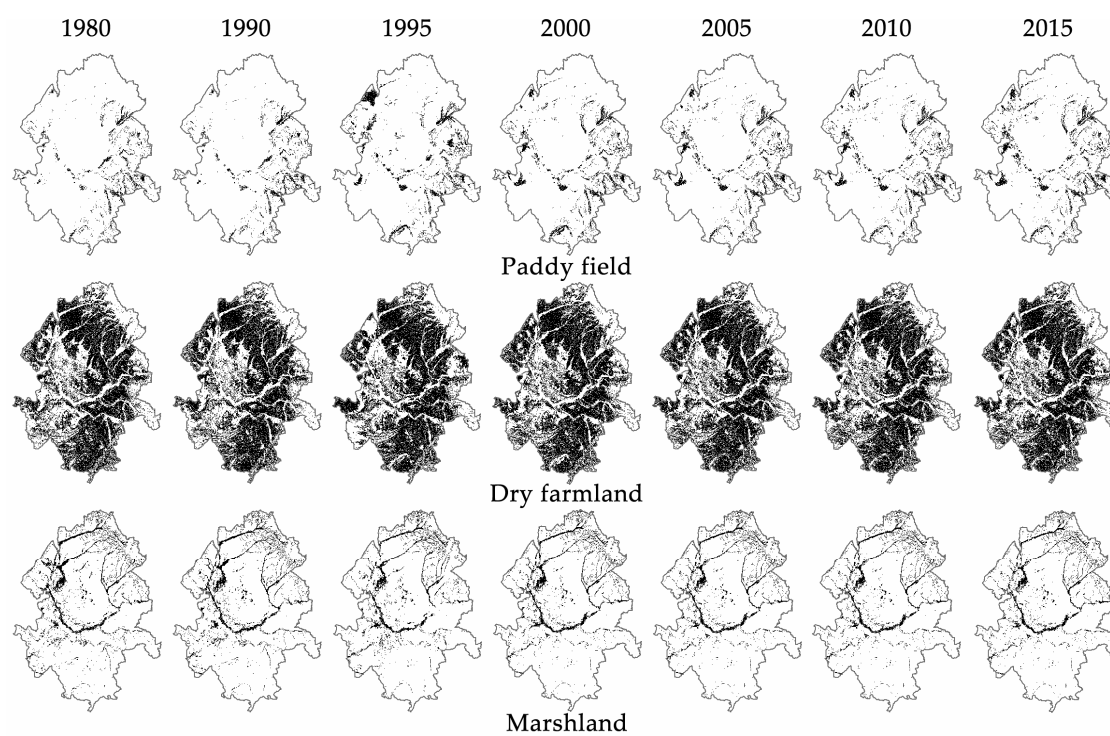


Figure S2. Spatial changes of the four LULC types over the SNP.

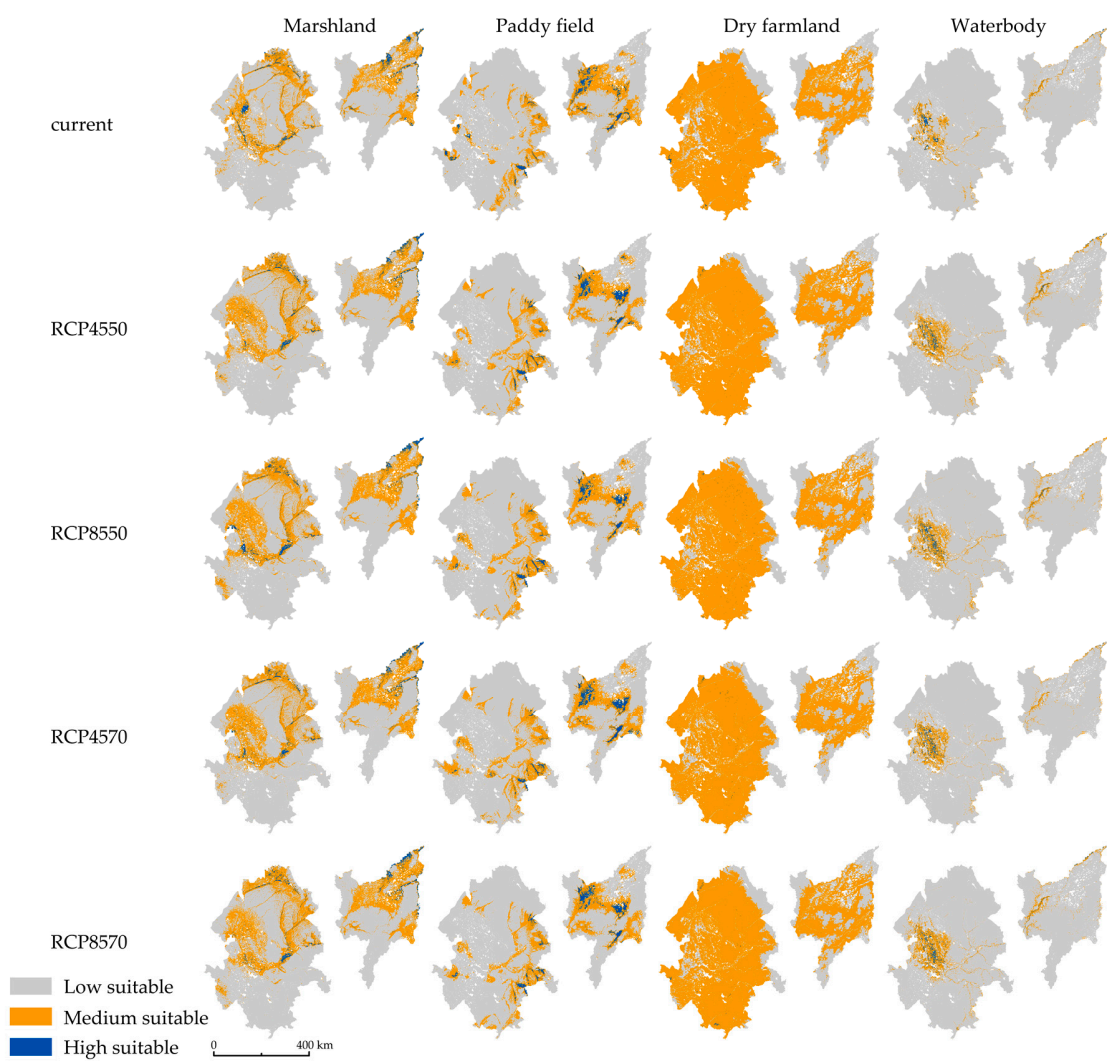


Figure S3. Suitability distributions predicted for the wetlands and agriculture over the SJP and SNP under different climate scenarios with the Maxent model.

Table S2. Predicted suitable area (in square kilometers) for marshland, paddy field, dry farmland and waterbody under the current and four future climatic scenarios over the SJP.

	Low suitable	Medium suitable	High suitable	Change ¹ (%)
Marshland				
Current	71,357	28,915	3289	–
RCP4550	69,752	30,628	3181	4.98
RCP8550	67,467	33,415	2679	12.08
RCP4570	68,423	31,959	3179	9.11
RCP8570	67,157	33,134	3270	13.04
Paddy field				
Current	69,974	29,427	4160	–
RCP4550	71,254	27,440	4867	–3.81
RCP8550	71,258	28,222	4081	–3.82
RCP4570	68,764	28,914	5883	3.60
RCP8570	70,965	27,760	4836	–2.95
Dry farmland				
Current	46,208	57,341	12	–
RCP4550	44,511	59,041	9	2.96
RCP8550	45,978	57,557	26	0.40
RCP4570	44,391	59,162	8	3.17
RCP8570	45,923	57,634	4	0.50
Waterbody				
Current	99,967	3302	292	–
RCP4550	98,074	4998	489	52.67
RCP8550	98,189	4993	379	49.47
RCP4570	100,029	3359	173	–1.73
RCP8570	98,354	4797	410	44.88

¹ represents the sum of medium- and high-suitability predicted areas in one scenario relative to that of the “current” baseline.

Table S3. Predicted suitable area (in square kilometers) for marshland, paddy field, dry farmland and waterbody under the current and four future climatic scenarios over the SNP.

	Low suitable	Medium suitable	High suitable	Change ¹ (%)
Marshland				
Current	170,060	43,631	3665	–
RCP4550	160,307	53,773	3276	20.62
RCP8550	155,463	57,816	4077	30.86
RCP4570	158,432	55,576	3348	24.59
RCP8570	158,185	56,037	3134	25.11
Paddy field				
Current	190,262	24,991	2103	–
RCP4550	184,258	30,963	2135	22.16
RCP8550	182,694	32,470	2192	27.93
RCP4570	182,588	32,817	1951	28.32
RCP8570	183,985	31,157	2214	23.17
Dry farmland				

Current	30,031	186,998	327	–
RCP4550	29,581	187,628	147	0.24
RCP8550	30,992	186,055	309	–0.51
RCP4570	32,079	185,054	223	–1.09
RCP8570	32,620	184,457	279	–1.38
Waterbody				
Current	204,479	11,180	1697	–
RCP4550	199,029	16,318	2009	42.32
RCP8550	198,404	16,580	2372	47.18
RCP4570	200,958	14,336	2062	27.34
RCP8570	195,682	19,374	2300	68.32

¹ represents the sum of medium- and high-suitability predicted areas in one scenario relative to that of the “current” baseline.

Table S4. Predicted suitable area changes (in square kilometers) for marshland, paddy field, dry farmland and waterbody under the current and four future climatic scenarios over the SJP.

	Low suitable / No change	Medium suitable / No change	High suitable / No change	Increasing suitability	Decreasing suitability
Marshland					
Current	71,269	28,822	3239	–	
RCP4550	65,810	23,695	1843	6721	5261
RCP8550	64,415	1843	1749	7717	4459
RCP4570	64,904	6721	1847	7636	4819
RCP8570	64,353	5261	1946	8161	4012
Paddy field					
Current	69,770	29,401	4159	–	–
RCP4550	64,837	20,457	2060	7698	8278
RCP8550	65,174	21,569	2067	6587	7933
RCP4570	63,059	20,610	2528	10,006	7127
RCP8570	64,700	20,642	2092	7792	8104
Dry farmland					
Current	46,047	57,271	12	–	–
RCP4550	39,307	52,216	0	6749	5058
RCP8550	39,966	51,398	4	6103	5859
RCP4570	39,196	52,224	2	6857	5051
RCP8570	39,593	51,082	1	6457	6197
Waterbody					
Current	99,783	3269	278	–	–
RCP4550	96,915	2029	199	3131	1056
RCP8550	97,008	2094	161	2975	1092
RCP4570	98,577	1958	122	1244	1429
RCP8570	97,321	2224	204	2652	929

Table S5. Predicted suitable area changes (in square kilometers) for marshland, paddy field, dry farmland and waterbody under the current and four future climatic scenarios over the SNP.

	Low suitable / No change	Medium suitable / No change	High suitable / No change	Increasing suitability	Decreasing suitability
Marshland					
Current	170,060	43,631	3665	–	–
RCP4550	151,896	33,535	1532	19,888	10,505
RCP8550	147,869	33,626	1567	24,659	9635
RCP4570	149,820	33,338	1575	21,982	21,196
RCP8570	150,451	34,346	1543	21,196	9820
Paddy field					
Current	190,262	24,991	2103	–	–
RCP4550	175,912	15,829	1033	15,368	9214
RCP8550	174,644	15,965	961	16,769	9017
RCP4570	175,474	16,863	837	15,840	8342
RCP8570	176,096	16,158	991	15,318	8793
Dry farmland					

Current	30,031	186,998	327	–	–
RCP4550	22,475	179,768	23	7680	7410
RCP8550	22,836	178,608	75	7429	8408
RCP4570	23,107	177,832	29	7118	9270
RCP8570	23,820	177,966	47	6443	9080
Waterbody					
Current	204,479	11,180	1697	–	–
RCP4550	196,163	7235	748	9434	3776
RCP8550	196,183	7710	956	9567	2940
RCP4570	197,849	7018	832	7731	3926
RCP8570	193,905	8118	866	11,871	2596