



SUPPLEMENTARY FIGURE S1. Location, climate of 19 cities, 15 provincial-level administrative divisions in China

SUPPLEMENTARY TABLE S1. The analysis results of exposure, sensitivity, adaptability score for the 31 provincial-level administrative divisions in 2019.

Item	Exposure index score	Sensitivity index score	Adaptability index score	Vulnerability index score	Vulnerability ranking
Tibet	0.016	0.262	0.096	0.182	1
Qinghai	0.034	0.123	0.046	0.112	2
Tianjin	0.157	0.015	0.096	0.076	3
Xinjiang	0.091	0.096	0.112	0.075	4
Shanxi	0.133	0.021	0.107	0.047	5
Shaanxi	0.139	0.001	0.104	0.036	6
Henan	0.154	0.004	0.123	0.035	7
Chongqing	0.158	-0.006	0.128	0.024	8
Gansu	0.068	-0.005	0.049	0.014	9
Hebei	0.148	-0.017	0.127	0.004	10
Hainan	0.037	0.109	0.142	0.004	11
Hunan	0.103	0.031	0.141	-0.006	12
Hubei	0.109	0.006	0.130	-0.015	13
Guangdong	0.089	0.121	0.230	-0.020	14
Guangxi	0.075	0.041	0.143	-0.028	15
Auhui	0.122	-0.011	0.140	-0.029	16
Ningxia	0.083	-0.014	0.100	-0.031	17
Fujian	0.073	0.075	0.179	-0.032	18
Yunnan	0.036	0.020	0.088	-0.032	19
Guizhou	0.063	-0.006	0.090	-0.033	20
Jiangxi	0.097	0.008	0.142	-0.036	21
Liaoning	0.080	-0.004	0.122	-0.047	22
Heilongjiang	0.135	-0.023	0.161	-0.049	23
Shanghai	0.135	-0.023	0.161	-0.049	24
Jilin	0.049	-0.026	0.074	-0.051	25
Zhejiang	0.112	0.007	0.198	-0.079	26
Shandong	0.111	-0.030	0.163	-0.082	27
Inner Mongolia	0.048	-0.023	0.114	-0.090	28
Sichuan	0.097	-0.048	0.146	-0.097	29
Beijing	0.118	0.012	0.231	-0.100	30
Jiangsu	0.112	-0.013	0.231	-0.132	31