

## Supplementary Materials

Table S1. TSS data used in this study.

Year	ID	Province	City/Country	Longitude	Latitude	TSS (%)	Reference
1996	57760	Hunan	Lengshuijiang	111.433	29.7	10	[73]
1996	57761	Hunan	Xinhua	111.3	27.75	12.8	[73]
1996	57762	Hunan	Lianyuan	111.683	27.7	11.99	[73]
1996	57774	Hunan	Shuangfeng	112.1667	27.45	13.14	[73]
1997	57981	Hunan	Zixing	113.4	25.9667	12.15	[74]
1998	56287	Sichuan	Ya'an	103	29.98333	10.1	[75]
1998	56593	Sichuan	Changning	104.917	28.5833	11	[75]
1998	57981	Hunan	Zixing	113.4	25.9667	12.2	[74]
2001	57253	Hubei	Yunxian	110.8167	32.85	14.8	[76]
2001	57260	Hubei	Danjiangkou	111.517	32.5667	11.55	[76]
2001	57355	Hubei	Badong	110.3667	31.03333	13.73	[76]
2001	57358	Hubei	Zigui	110.683	31	14.34	[76]
2001	57359	Hubei	Xingshan	110.767	31.2333	12.93	[76]
2001	57851	Hunan	Xinning	110.85	26.45	12.5	[76]
2001	57978	Hunan	Linwu	112.55	25.2833	8.8	[76]
2001	57995	Jiangxi	Xinfeng	114.933	25.4	12.5	[76]
2001	58907	Jiangxi	Anyuan	115.4	25.15	11.4	[76]
2001	59102	Jiangxi	Xunwu	115.65	24.95	12.7	[77]
2002	56485	Sichuan	Leibo	103.5833	28.26667	12.4	[76]
2002	56578	Sichuan	Ningnan	102.75	27.0667	11	[76]
2002	56665	Sichuan	Yanbian	101.533	26.9167	11.1	[76]
2002	57253	Hubei	Yunxian	110.8167	32.85	14.66	[76]
2002	57260	Hubei	Danjiangkou	111.517	32.5667	11.64	[76]
2002	57348	Chongqing	Fengjie	109.5333	31.01667	13	[76]
2002	57355	Hubei	Badong	110.3667	31.03333	12.52	[76]
2002	57358	Hubei	Zigui	110.683	31	12.44	[76]
2002	57359	Hubei	Xingshan	110.767	31.2333	13.14	[76]
2002	57387	Hubei	Jingshan	113.117	31.0167	12.23	[78]
2002	57464	Hubei	Changyang	111.183	30.4667	11.2	[78]
2002	57589	Hubei	Tongcheng	113.8	29.25	11.17	[78]
2002	57851	Hunan	Xinning	110.85	26.45	12.5	[76]
2002	57957	Guangxi	Guilin	110.3	25.31667	11	[77]
2002	57966	Hunan	Ningyuan	111.95	25.6	11.8	[76]
2002	57978	Hunan	Linwu	112.55	25.2833	11	[76]
2002	57995	Jiangxi	Xinfeng	114.933	25.4	12.5	[76]
2002	58500	Hubei	Yangxin	115.2	29.85	12.6	[78]
2002	58823	Fujian	Shunchang	117.8	26.8	12.8	[76]
2002	58824	Fujian	Mingxi	117.15	26.4	11.9	[76]
2002	58907	Jiangxi	Anyuan	115.4	25.15	11.4	[76]
2002	58921	Fujian	Yong'an	117.35	25.96667	13	[76]
2002	59061	Guangxi	Fuchuan	111.267	24.8167	12.9	[76]
2002	59065	Guangxi	Hezhou	111.5333	24.41667	11.3	[77]
2002	59072	Guangdong	Lianzhou	112.3833	24.78333	10.6	[77]
2002	59102	Jiangxi	Xunwu	115.65	24.95	12.7	[77]
2002	59106	Guangdong	Pingyuan	115.9	24.5833	10.6	[76]
2003	56394	Sichuan	Rongxian	104.433	29.45	11.3	[78]
2003	56485	Sichuan	Leibo	103.5833	28.26667	12.4	[76]
2003	56491	Sichuan	Yibin	104.55	28.7	12.2	[78]
2003	56578	Sichuan	Ningnan	102.75	27.0667	11	[76]
2003	56665	Sichuan	Yanbian	101.533	26.9167	11.1	[76]
2003	57253	Hubei	Yunxian	110.8167	32.85	10.44	[76]
2003	57260	Hubei	Danjiangkou	111.517	32.5667	11.7	[76]
2003	57348	Chongqing	Fengjie	109.5333	31.01667	13	[76]
2003	57355	Hubei	Badong	110.3667	31.03333	11.4	[76]

2003	57358	Hubei	Zigui	110.683	31	12.9	[76]
2003	57359	Hubei	Xingshan	110.767	31.2333	12.72	[76]
2003	57377	Hubei	Jingmen	112.2	31.05	9.9	[78]
2003	57387	Hubei	Jingshan	113.117	31.0167	8.1	[78]
2003	57464	Hubei	Changyang	111.183	30.4667	7.6	[78]
2003	57466	Hubei	Zhijiang	111.75	30.4333	11.93	[79]
2003	57469	Hubei	Songzi	111.767	30.1833	10.2	[78]
2003	57477	Hubei	Gong'an	112.217	30.0667	12.1	[79]
2003	57483	Hubei	Tianmen	113.1667	30.66667	11.2	[79]
2003	57494	Hubei	Wuhan	114.1333	30.61667	14.2	[78]
2003	57522	Chongqing	Fuling	107.4167	29.75	12.9	[78]
2003	57562	Hunan	Shimen	111.3667	29.58333	12.1	[80]
2003	57589	Hubei	Tongcheng	113.8	29.25	11.03	[78]
2003	57649	Hunan	Jishou	109.7333	28.31667	13.35	[78]
2003	57851	Hunan	Xinning	110.85	26.45	12.4	[76]
2003	57957	Guangxi	Guilin	110.3	25.31667	12	[77]
2003	57966	Hunan	Ningyuan	111.95	25.6	11.8	[76]
2003	57978	Hunan	Linwu	112.55	25.2833	13.2	[76]
2003	57995	Jiangxi	Xinfeng	114.933	25.4	12.7	[76]
2003	58500	Hubei	Yangxin	115.2	29.85	11.78	[78]
2003	58501	Hubei	Wuxue	115.55	29.85	12.7	[78]
2003	58646	Zhejiang	Lishui	119.9167	28.45	12.7	[78]
2003	58656	Zhejiang	Yueqing	120.967	28.1167	13.7	[78]
2003	58660	Zhejiang	Linhai	121.1333	28.85	13.6	[78]
2003	58664	Zhejiang	Wenling	121.367	28.3667	13.1	[78]
2003	58737	Fujian	Jian'ou	118.3167	27.05	14.1	[78]
2003	58824	Fujian	Mingxi	117.15	26.4	15.4	[76]
2003	58837	Fujian	Youxi	118.15	26.1667	13.1	[78]
2003	58847	Fujian	Fuzhou	119.2833	26.08333	13	[78]
2003	58905	Jiangxi	Yudu	115.417	25.9667	15.1	[78]
2003	58907	Jiangxi	Anyuan	115.4	25.15	13.5	[76]
2003	58921	Fujian	Yong'an	117.35	25.96667	13.4	[76]
2003	58927	Fujian	Longyan	117.0333	25.1	14	[78]
2003	58934	Fujian	Yongchun	118.267	25.3333	11.8	[78]
2003	58942	Fujian	Fuqing	119.383	25.7167	12.6	[78]
2003	59065	Guangxi	Hezhou	111.5333	24.41667	13.8	[77]
2003	59091	Jiangxi	Quannan	114.533	24.75	13.8	[78]
2003	59124	Fujian	Nanjing	117.367	24.5167	12.8	[78]
2003	59126	Fujian	Zhangzhou	117.65	24.5	14.7	[78]
2010	57957	Guangxi	Guilin	110.3	25.31667	12	[77]
2011	57957	Guangxi	Guilin	110.3	25.31667	14.8	[77]
2012	56297	Sichuan	Renshou	104.15	30.0167	10.84	[81]
2012	56485	Sichuan	Leibo	103.5833	28.26667	10.49	[76]
2012	56879	Yunnan	Huaning	102.917	24.2	11.3	[81]
2012	57348	Chongqing	Fengjie	109.5333	31.01667	12.55	[76]
2012	57349	Chongqing	Wushan	109.867	31.0667	12.15	[81]
2012	57416	Sichuan	Linshui	106.933	30.3333	11.72	[81]
2012	57417	Sichuan	Wusheng	106.283	30.35	10.94	[81]
2012	57511	Chongqing	Beibei	106.45	29.85	11.7	[81]
2012	57840	Guizhou	Tianzhu	109.2	26.9	10.5	[82]
2012	57844	Guizhou	Jinping	109.183	26.6833	11.9	[82]
2012	57916	Guizhou	Luodian	106.7667	25.43333	11.45	[82]
2012	57926	Guizhou	Libo	107.883	25.4167	10.2	[82]
2012	57932	Guizhou	Rongjiang	108.5333	25.96667	10.9	[82]
2012	57936	Guizhou	Congjiang	108.9	25.5833	12.2	[82]
2012	57957	Guangxi	Guilin	110.3	25.31667	14	[77]
2012	57960	Guangxi	Quanzhou	111.067	25.9333	13.1	[81]
2012	57976	Hunan	Yizhang	112.95	25.4167	13.69	[81]
2012	57995	Jiangxi	Xinfeng	114.933	25.4	13.19	[76]
2012	58660	Zhejiang	Linhai	121.1333	28.85	13.15	[78]

2012	58907	Jiangxi	Anyuan	115.4	25.15	12.6	[76]
2012	59102	Jiangxi	Xunwu	115.65	24.95	13.45	[77]
2012	59431	Guangxi	Nanning	108.2167	22.63333	9.2	[83]
2013	57995	Jiangxi	Xinfeng	114.933	25.4	13.62	[76]
2013	59268	Guangdong	Yunan	111.533	23.25	10.6	[84]
2013	59471	Guangdong	Yunfu	112.05	22.9333	10.6	[84]
2016	57637	Guizhou	Dejiang	108.117	28.25	10.9	[85]
2016	57732	Guizhou	Yinjiang	108.4	28.0167	10.4	[85]
2016	57844	Guizhou	Jinping	109.183	26.6833	11.45	[82]
2016	57916	Guizhou	Luodian	106.7667	25.43333	11.36	[82]
2016	57936	Guizhou	Congjiang	108.9	25.5833	12	[82]

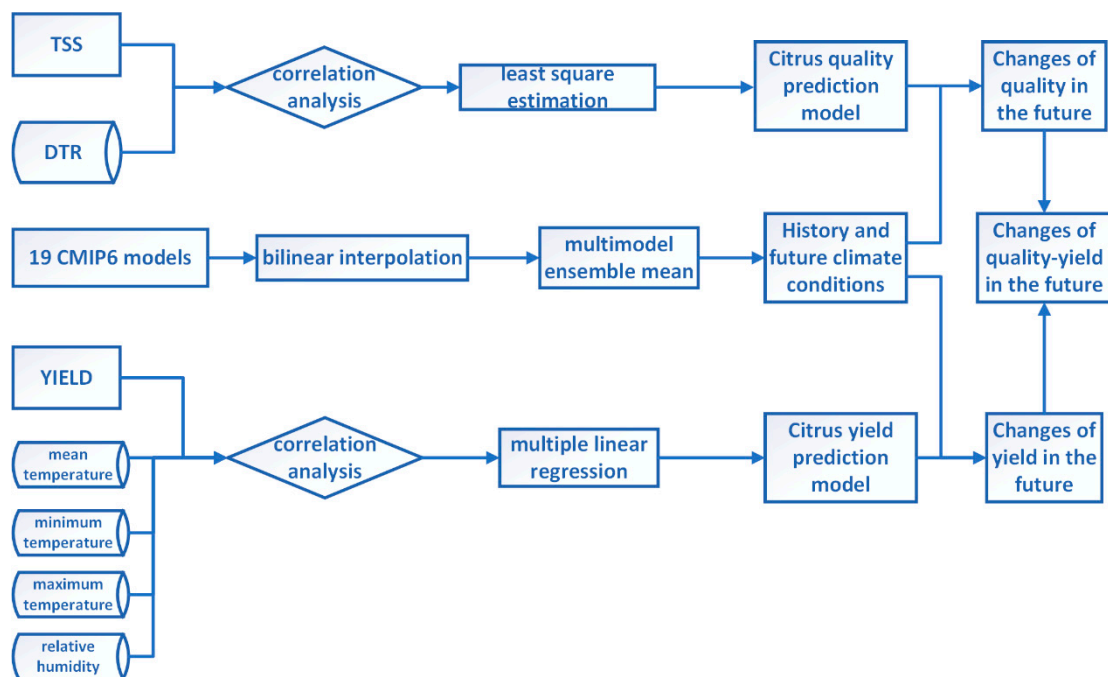


Figure S1. Flow chart.