

Supplementary Material

1 Supplementary Tables

Table 1. The primary data and their sources

Data type	Data source	Data description
Land use	Yang J et al., 2021 [19]	Five periods in 2000, 2005, 2010, 2015 and 2020; 30 m resolution
Digital Elevation Model (DEM)	Geospatial Data Cloud (https://www.gscloud.cn)	30m resolution
Meteorological data	China Meteorological Data Service Centre (http://data.cma.cn/en) and some district and county meteorological bureaus of Guangdong, Hunan, Guangxi, Fujian and Jiangxi Province	Daily scale data of meteorological stations from 2000 to 2020
Absolute depth to bedrock	International Soil Reference and Information Centre (ISRIC) (https://www.isric.org/)	250m resolution
Derived available soil water capacity (volumetric fraction) until wilting point	International Soil Reference and Information Centre (ISRIC) (https://www.isric.org/)	250m resolution
Residential and industrial	Open Street Map (https://www.openstreetmap.org/)	Shapefile data
Normalized Difference Vegetation Index	Chinese Academy of Science Discipline Data Center for Ecosystem (http://www.nesdc.org.cn/); Zheng et al., 2019 [20]	Five periods in 2000, 2005, 2010, 2015 and 2020; 30 m resolution

Net Primary Productivity	Analytical Insight of Earth (https://engine-aiearth.al.iyun.com/#/)	Five periods in 2000, 2005, 2010, 2015 and 2020; 500 m resolution
--------------------------	--	---
