Supplementary Materials: Land Use Changes Induced County-Scale Carbon Consequences in Southeast China 1979–2020, Evidence from Fuyang, Zhejiang Province

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Table S1. Details of Carbon Calculations for the C Stocks in Vegetation

Land Use Types	Vegetation Carbon Stock MgC ha^{-1}	Description of How Values have Been Calculated	Location	References
Forest	12.06 − 50.18	The value was extracted from Table 3.6 which reported the storage of biomass carbon of plants in different kinds of forest.	Fuyang County	[1]
Forest	33.3	The value was extracted from Table 6 which estimated the forest tree carbon density for the early 1990s in China.	China	[2]
Forest	15.14 ± 2.29	The value was derived from Table 3 which calculated forest carbon storage and density in Xiamen in 2006.	Xiamen China	[3]
Orchard land	4.04 − 9.06	The value was extracted from Table 3.6 which reported the storage of biomass carbon of plants in tea plantation.	Fuyang County	[1]
Orchard land	12.0	The value was derived from Table 1 which estimated the vegetation carbon density in different land use types by CEVSA model	China	[4]
Orchard land	48.93 ± 14.78	The value was derived from Table 3 which listed carbon density of biomass for tea plantations in eastern China.	Eastern zone China	[5]
Vacant land	1.45	The value was derived from Table 1 which compared the vegetation carbon storage of vacant land from this study and other researches.	Huang-Huai-Hai Plain China	[6]
Vacant land	0.7 − 2.3	The value was derived from Table 1 which reviews natural vegetation carbon density of terrestrial ecosystem in China	China	[7]
Vacant land	0.00	The value was derived from Table 1 which estimated the vegetation carbon density in different land use types by CEVSA model	China	[4]
Cropland	1.29 − 2.19	The value was extracted from Table 3.6 which reported the storage of biomass carbon of plants in different kinds of cropland.	Fuyang County	[1]
Cropland	3.82	The value was derived from Table 1 which compared the vegetation carbon storage of cropland from this study and other researches.	Huang-Huai-Hai Plain China	[6]
Cropland	5.7	The value was derived from Table 1 which estimated the vegetation carbon density of different land use types by CEVSA model	China	[4]

Table S2. Details of Carbon Calculations for the C Stocks in Soil

Land Use Types	Vegetation Carbon Stock MgC ha^{-1}	Description of How Values have Been Calculated	Location	References
Forest	25.25 − 50.6	The value was derived from Table 4 which calculated surface soil organic carbon density of different land use types	Fuyang County	[8]
Forest	50.2 ± 11.7	The value was derived from Table 3 which lists carbon density of 0–20 cm soil for forests in Eastern China.	Eastern zone China	[5]
Forest	53.42 − 77.77	The value was calculated by Equation: Doc = SOC × r × H × 0.1 [9], Doc (MgC ha^{-1}) and SOC (g/kg) are the density and content of soil organic carbon, respectively; H (20 cm) is the thickness ; r (g/cm^3) is the bulk density which was calculated by Equation: r = −0.220lnSOC + 1.780 [9]; SOC value (g/kg) was extracted from Table 3 which calculated carbon contents of different soil layers in forests.	Fuyang County	[10]
Orchard land	32.68	The value was derived from Table 4 which calculated surface soil organic carbon density of different land use types	Fuyang County	[8]
Orchard land	46.2 ± 20.9	The value was derived from Table 3 which lists carbon density of 0–20 cm soil for tea plantations in Eastern China.	Eastern zone China	[5]
Orchard land	33.58	The value was calculated by Equation: Doc = SOC × r × H × 0.1 [9], Doc (Mg C ha^{-1}) and SOC (g/kg) are the density and content of soil organic carbon, respectively; H (20 cm) is the thickness ; r (g/cm^3) is the bulk density which was calculated by Equation: r = −0.220lnSOC + 1.780 [9]; SOC value (g/kg) was extracted from Figure 5.5 which calculated soil carbon contents (0–20 cm) in tea plantations.	Hangzhou China	[11]
Vacant land	4.75	The value was calculated by Equation: Doc = SOC × r × H × 0.1 [9], Doc (Mg C ha^{-1}) and SOC (g/kg) are the density and content of soil organic carbon, respectively; H (20 cm) is the thickness ; r (g/cm^3) is the bulk density which was calculated by Equation: r = −0.220lnSOC + 1.780 [9]; SOC value (g/kg) was extracted from Table 1 which calculated surface soil carbon contents (0-20 cm) in vacant land.	Jiangxi China	[12]
Vacant land	14.6 ± 2.5	The value was derived from Table 2 which calculated surface soil organic carbon density of different land use types	Jiangxi China	[13]
Vacant land	27.78 ± 6.20	The value was calculated by Equation: Doc = SOC × r × H × 0.1 [9], Doc (Mg C ha^{-1}) and SOC (g/kg) are the density and content of soil organic carbon, respectively; H (20 cm) is the thickness ; r (g/cm^3) is the bulk density which was calculated by Equation: r = −0.220lnSOC + 1.780 [9]; SOC value (g/kg) was extracted from Table 3 which calculated surface soil carbon contents (0–20 cm) in vacant land.	Shanxi China	[14]

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