

Table S1 Statistical parameters for each model

Figure S1. Spatial distribution of CO₂ emissions for 2009 (a) and 2019 (b) in the study area

Figure S2. Land use data for 2009 (a) and 2019 (b) in the study area

Figure S3 Proportion of other land-use types converted to urban land in 2035

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Statistical Model	Adjusted R^2	SSR	df	AIC	F-value	<i>P</i> -value
Logarithmic model for the CO ₂ emissions per unit urban area and urban area	0.327	1527	32	127.69	15.05	0.001
Quadratic polynomial model for the CO ₂ emissions and urban are	0.532	80.84	32	35.66	17.03	0.000
Power model for the CO ₂ emissions and the proportion of urban land area (proportion of urban land area is less than 10%)	0.499	72.09	28	30.48	28.13	0.000
Power model for the CO ₂ emissions and the proportion of urban land area (proportion of urban land area is larger than 10%)	0.852	23.05	4	11.01	17.264	0.048

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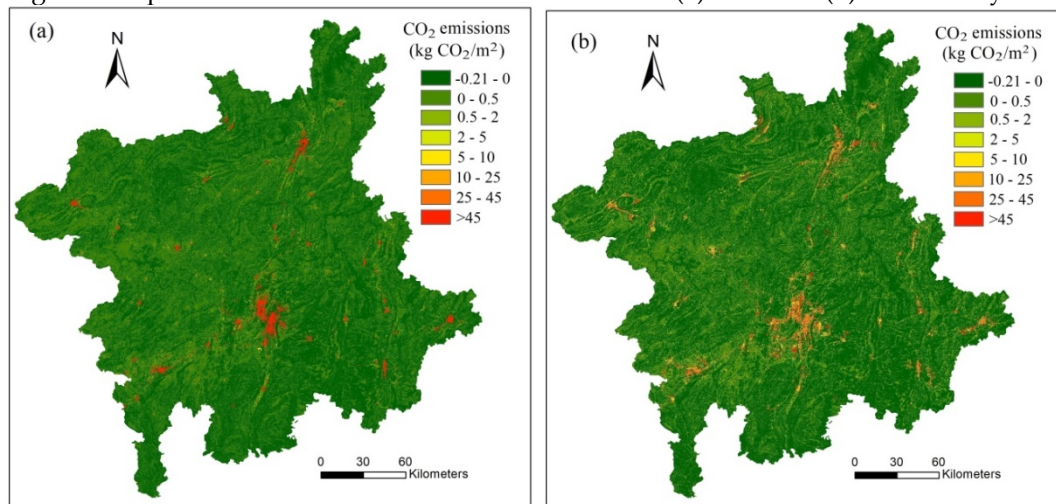


Figure S2. Land use data for 2009 (a) and 2019 (b) in the study area

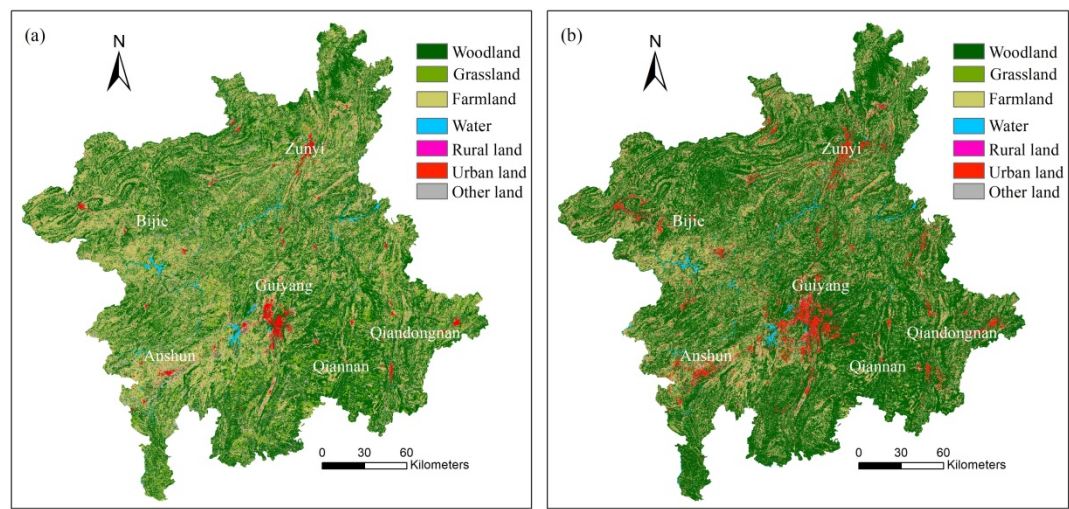


Figure S3 Proportion of other land-use types converted to urban land in 2035.

