Supplementary Materials

Quantifying the compound factors of forest land changes in the Pearl River Delta, China

Table S1. The error matrix of classified and reference data for 2018.

Year	Classified Image	Reference Data						Totals	Accuracy/ %	Total accuracy/ %
		Forest land	Cropland	Built -up land	Grassland	Water	Unuse land			
2018	Forest land	47	2		1			50	96.00	94.67
	Cropland	1	48		1			50	96.00	
	Built -up land			49			1	50	98.00	
	Grassland		3		46		1	50	92.00	
	Water					50		50	100.00	
	Unuse land			4	2		44	50	88.00	

Table S2. Total variance interpretation of principal component analysis.

Factor	Eigenvalue		
	Sum	Variance percentage (%)	Cumulative percentage (%)
1	8.672	33.355	33.355
2	3.736	14.370	47.724
3	3.367	12.950	60.675
4	1.820	6.999	67.673
5	1.547	5.951	73.625
6	1.247	4.798	78.422
7	1.066	4.100	82.522

Table S3. Explanatory factors of Geographically weighted regression.

Var name	Variable			
	Forest land to Cropland	Forest land to Built-up land	Cropland to Forest land	Built-up Land to Forest land
Residual squares	22.093	28.030	23.910	8.598
Effective number	13.944	12.624	12.624	15.874
Sigma	0.818	0.903	0.834	0.526
AICc	134.240	141.740	134.267	96.388
R^2	0.520	0.391	0.480	0.813
R^2 adjusted	0.332	0.185	0.304	0.724

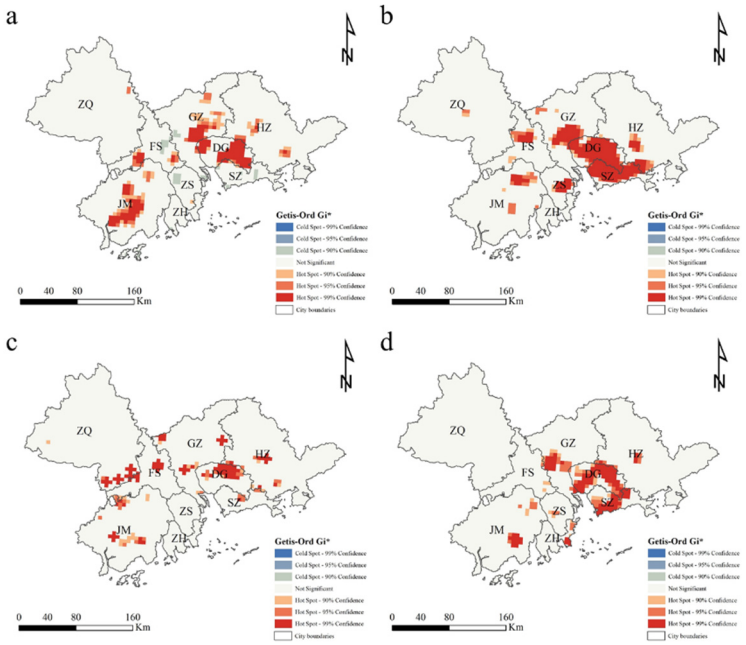

Figure S1. Hotspots distribution of forest land change. a: forest land change to cropland; b: forest land change to built-up land; c: cropland change to forest land; d: built-up land change to forest land.