

Supplementary Material

Table S1 Transition matrix of land use/cover from 1978 to 1993 in the built-up area of Guiyang (ha)

1978	1993					
	Forestland	Grassland	Water body	Urban land	Farmland	Total
Forestland	4792.14	0	0	124.65	8.73	4920.21
Grassland	1.71	4320.45	0	85.05	14.31	4420.08
Water body	0	0	68.31	0	0	68.13
Urban land	0	0	0	14618.2	0	14626.08
Farmland	20.97	9.99		409.68	7418.43	7857.45
Total	4814.82	4330.44	68.31	15237.58	7441.47	

Table S2 Transition matrix of land use/cover from 1993 to 2001 in the built-up area of Guiyang (ha)

1993	2001					
	Forestland	Grassland	Water body	Urban land	Farmland	Total
Forestland	4679.19	0	0	140.94	2.52	4822.65
Grassland	0	4330.44	0	0	0	4330.44
Water body	0	0	68.31	0	0	68.31
Urban land	0	0	0	15229.8	0	15229.8
Farmland	0.81	0	0	17.46	7423.2	7441.47
Total	4680	4330.44	68.31	15388.2	7425.72	

Table S3 Transition matrix of land use/cover from 2001 to 2009 in the built-up area of Guiyang (ha)

2001	2009					
	Forestland	Grassland	Water body	Urban land	Farmland	Total
Forestland	4441.86	1.26	0	236.43	0.45	4680
Grassland	39.06	3315.15	0	847.53	128.7	4330.44
Water body	0	0	68.31	0	0	68.31
Urban land	0	0	0	15388.2	0	15388.2
Farmland	13.59	10.89	1.53	937.44	6462.27	7425.72
Total	4494.51	3327.3	69.84	17409.6	6591.42	

Table S4 Transition matrix of land use/cover from 2009 to 2018 in the built-up area of Guiyang (ha)

2009	2018					
	Forestland	Grassland	Water body	Urban land	Farmland	Total
Forestland	2964.33	0.09	0	1526.58	3.51	4494.51
Grassland	1.26	1356.93	0	1962.36	6.75	3327.3
Water body	0	0	69.66	0	0	69.66
Urban land	0	0	0	17409.6	0	17409.6
Farmland	10.62	10.17	0	4648.32	1922.31	6591.42
Total	2958.66	1367.73	69.66	24245.01	2759.85	