Supplemental materials

Table S1. *P* factors under different land use patterns for the RUSLE database in the Wangjiagou agricultural watershed.

Factor	Meadow Soil	Orchard Soil	Residential Area	Other Woodlands	Paddy Soil	Forest	Dry farming Area	Highway	Tea Garden	Water Area	Country Road
P	1	0.7	0	0.7	0.01	1	0.22	0	0.7	0	0
Area percent (%)	0.102	1.914	4.101	39.284	40.319	0.569	11.231	1.203	0.069	0.513	0.696

Table S2. Monthly rainfall, Fournier index and annual erosivity factor in the Wangjiagou watershed from 2002 to 2014.

Year	Monthly Rainfall (mm)												Annual Rainfall (mm)	Fournier Index	Erosivity Factor
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
2002	19.6	33.7	64.2	122.8	202.4	164.4	146.1	212.1	79.0	87.4	53.5	25.6	1210.8	142.4	2066.0
2003	21.3	11.9	9.6	99.5	219.8	266.9	346.2	26.4	55.4	42.3	43.2	29.1	1171.6	220.4	3497.2
2004	16.3	32.5	78.5	132.5	188.1	279.0	89.0	69.9	170.2	76.8	107.6	19.7	1260.1	157.1	2324.4
2005	3.3	16.3	53.4	100.4	198.6	74.8	138.7	209.3	50.0	137.6	24.2	7.3	1013.9	141.4	2048.1
2006	15.0	63.5	46.6	109.1	169.2	81.8	47.5	13.2	119.7	110.2	57.2	14.8	847.8	101.5	1373.5
2007	24.6	50.9	17.3	140.7	123.8	129.0	212.5	68.9	145.9	109.3	41.9	17.4	1082.2	129.8	1847.2
2008	3.1	43.6	61.1	56.8	148.8	140.6	109.6	282.2	47.4	161.1	47.6	25.0	1126.9	154.0	2269.7
2009	17.6	2.4	58.7	119.4	146.3	190.0	114.0	206.2	62.7	90.9	21.0	19.3	1048.5	137.4	1978.2
2010	8.3	10.6	85.1	122.5	168.7	101.7	181.0	79.5	58.5	64.6	62.3	34.5	977.3	115.6	1606.8
2011	12.2	14.0	76.1	91.7	108.6	132.3	28.2	64.2	102.8	141.1	82.5	34.1	887.8	98.2	1320.4
2012	9.8	3.2	49.8	105.9	262.1	108.8	47.8	63.3	181.2	96.7	53.2	11.9	993.7	146.7	2141.2
2013	5.6	13.6	21.8	103.1	255.3	404.3	12.8	68.1	49.5	54.7	65.3	17.9	1072.0	237.7	3829.4
2014	6.5	1.5	112.0	61.2	108.5	141.2	33.6	124.7	198.6	31.8	56.8	16.1	892.5	121.7	1710.3

Table S3. Revised *K* factor with original and interpolated soil particle-size distributions.

The Original Surface (0-20cm) Soil Particle-size Distribution (%)				The Interpolated Soil Particle-Size Distribution (%)			Revised *K* Factor*
Coarse sand (0.2-2mm)	Fine sand (0.02-0.2mm)	Silty sand (0.002-0.02mm)	Clay (<0.002mm)	Sand (0.05-2mm)	Silt (0.002-0.05mm)	Clay (<0.002mm)	0.02
15.59	39.39	20.16	24.86	28.41	46.73	24.86	

* With the unit of $t \cdot ha \cdot h \cdot MJ^{-1} \cdot mm^{-1} \cdot ha^{-1}$.

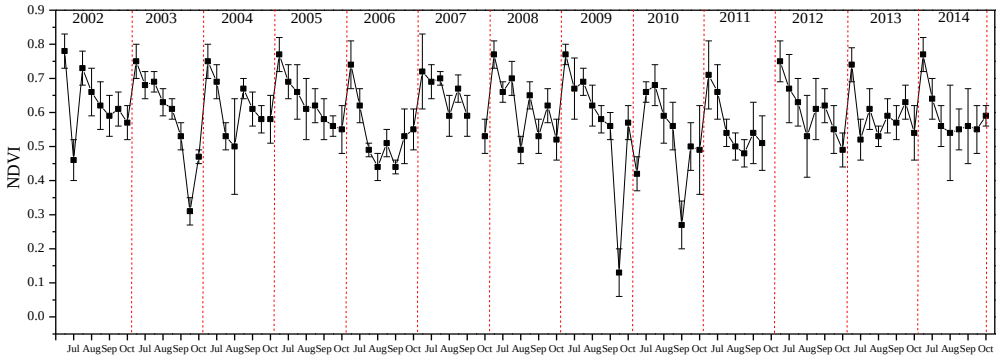


Figure S1. NDVI values from July to October in the studied period in the Wangjiagou watershed.

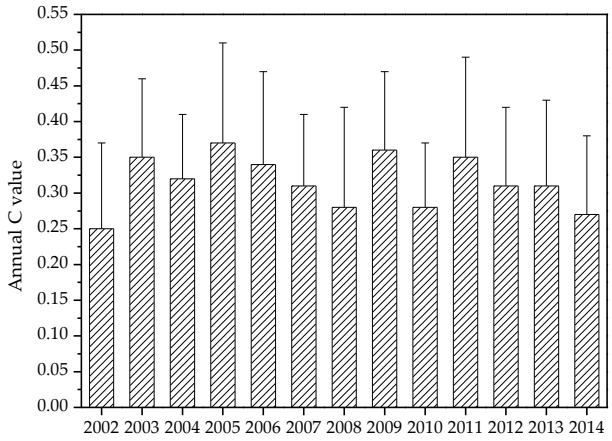
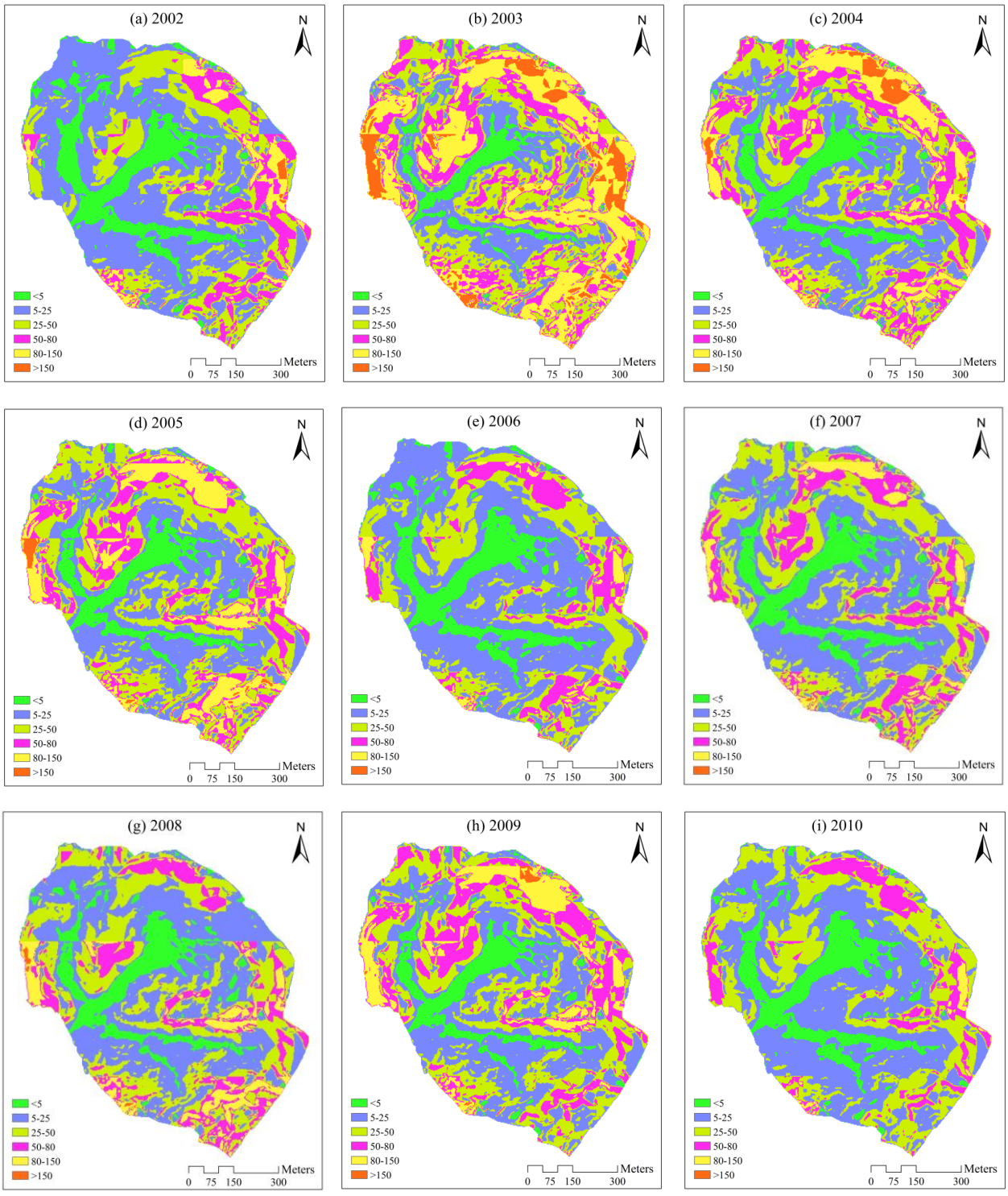


Figure S2. The annual C factors from 2002 to 2014 in the Wangjiagou watershed.


(a) 2002
(b) 2003
(c) 2004
(d) 2005
(e) 2006
(f) 2007
(g) 2008
(h) 2009
(i) 2010
N
<5
5-25
25-50
50-80
80-150
>150
Meters
0 75 150 300

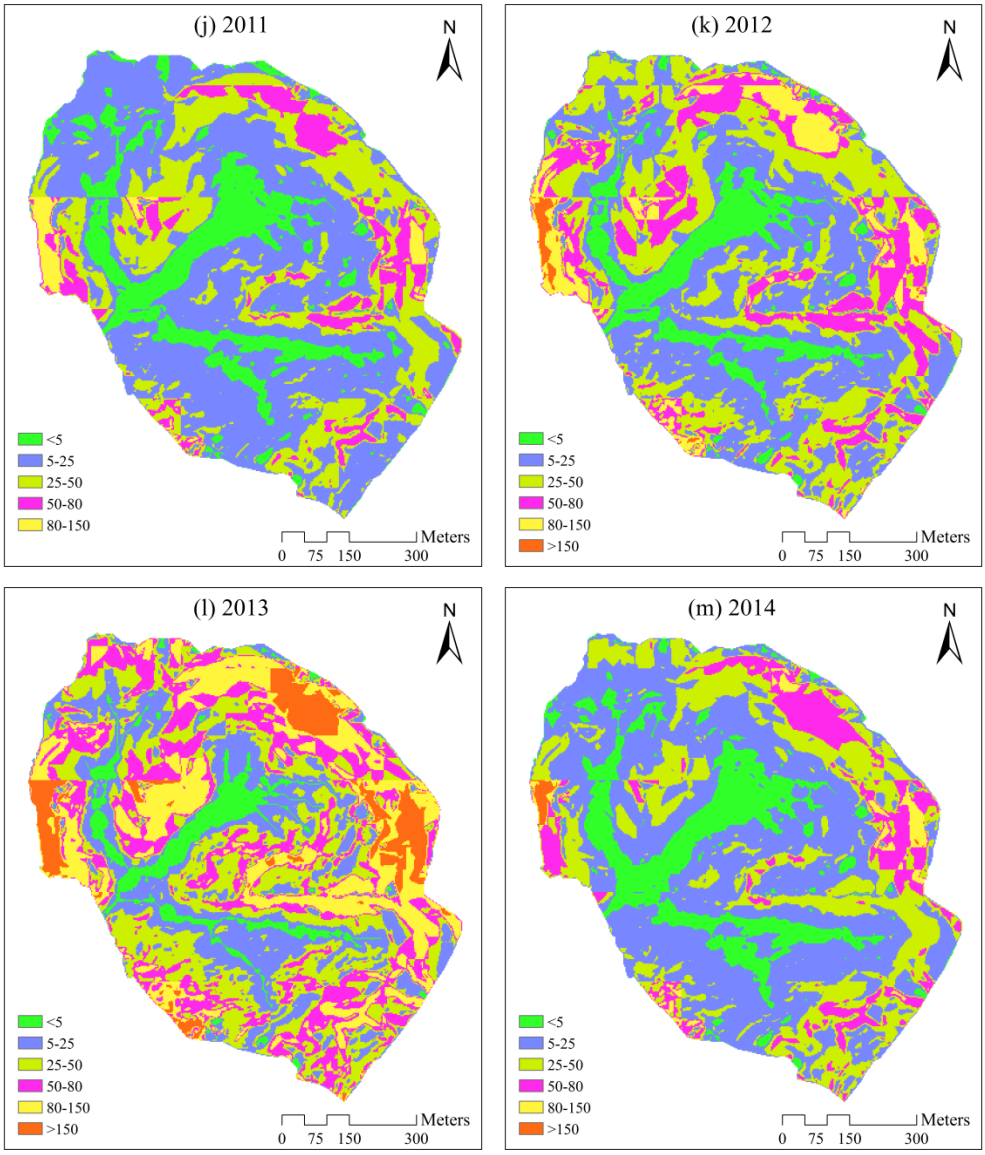


Figure S3. Spatial distributions of soil erosion from 2002 to 2014 in the Wangjiagou watershed.

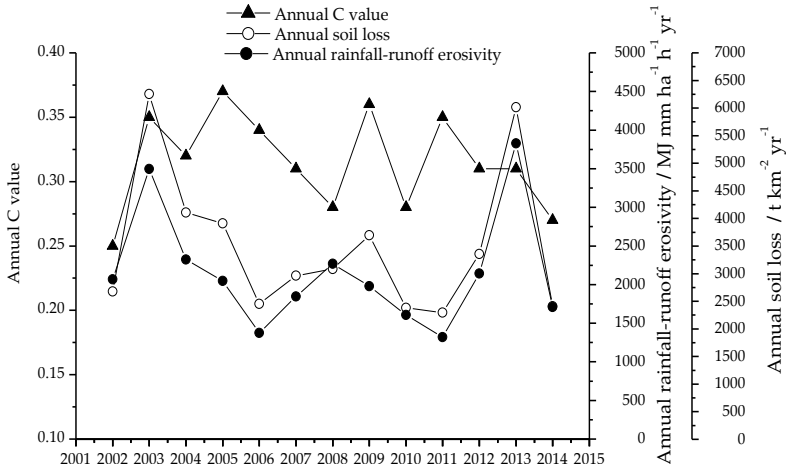


Figure S4. Annual rainfall erosivity, annual C value and annual soil loss in the Wangjiagou typical small agricultural watershed from 2002 to 2014.