1  **Supplementary**

2  Table S1 Parameters of models in the east

|  | Equation | a | b | c | Adj. $R^2$ | DF | Mean Square | F Value | Prob>F |
|---|---|---|---|---|---|---|---|---|---|
| SD | y = a-b*c^x | 0.20304 | -2.56749 | 0.94948 | 0.21794 | 3 | 4.38816 | 1209.831 | <0.01 |
| MS | y = a-b*c^x | 0.15721 | -2.32398 | 0.94737 | 0.27804 | 3 | 2.6277 | 1605.216 | <0.01 |
| Pp8 | y = a-b*c^x | 0.10484 | -3.32276 | 0.95145 | 0.23924 | 3 | 2.19772 | 312.0703 | <0.01 |
| Pc7 | y = a-b*c^x | 0.07635 | -6.14831 | 0.9442 | 0.25567 | 3 | 1.68345 | 200.9151 | <0.01 |
| Pc8 | y = a-b*c^x | 0.07345 | -3.92797 | 0.9511 | 0.26759 | 3 | 1.74043 | 214.6014 | <0.01 |
| Tp7 | y = a-b*c^x | 0.15248 | -0.66032 | 0.97544 | 0.11036 | 3 | 4.09682 | 297.4065 | <0.01 |
| Tp9 | y = a-b*c^x | 0.09883 | -3.20781 | 0.94856 | 0.11919 | 3 | 1.68141 | 168.0879 | <0.01 |
| Tc7 | y = a-b*c^x | 0.06745 | -2.44049 | 0.95524 | 0.14155 | 3 | 1.34395 | 115.237 | <0.01 |

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4  Table S2 Parameters of models in the west

|  | Equation | a | b1 | b2 | Adj. $R^2$ | DF | Mean Square | F Value | Prob>F |
|---|---|---|---|---|---|---|---|---|---|
| SD | y =a+b1*x+b2*x² | 0.19016 | 0.00366 | -1.46E-05 | 0.06674 | 2 | 0.09185 | 9.01004 | <0.01 |
| MS | y =a+b1*x+b2*x² | 0.06655 | 0.00503 | -2.57E-05 | 0.06199 | 3 | 0.06078 | 6.0002 | <0.01 |
| Tp6 | y =a+b1*x+b2*x² | -0.13544 | 0.00639 | -2.62E-05 | 0.09404 | 2 | 0.33036 | 12.88546 | <0.01 |
| Tp7 | y =a+b1*x+b2*x² | 0.0644 | 0.00425 | -1.60E-05 | 0.03396 | 2 | 0.12112 | 5.02548 | <0.01 |
| Tc6 | y =a+b1*x+b2*x² | -0.06019 | 0.00716 | -2.83E-05 | 0.06071 | 2 | 0.36052 | 8.40094 | <0.01 |
| Tc7 | y =a+b1*x+b2*x² | -0.05485 | 0.00643 | -2.47E-05 | 0.07325 | 2 | 0.27795 | 10.0495 | <0.01 |
| Pp9 | y=a+b1*x | 0.2356 | -5.29E-04 |  | 0.04693 | 1 | 0.13637 | 12.27533 | <0.01 |
| Pc5 | y=a+b1*x | 0.12595 | 6.51E-04 |  | 0.04694 | 1 | 0.20685 | 12.27934 | <0.01 |

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