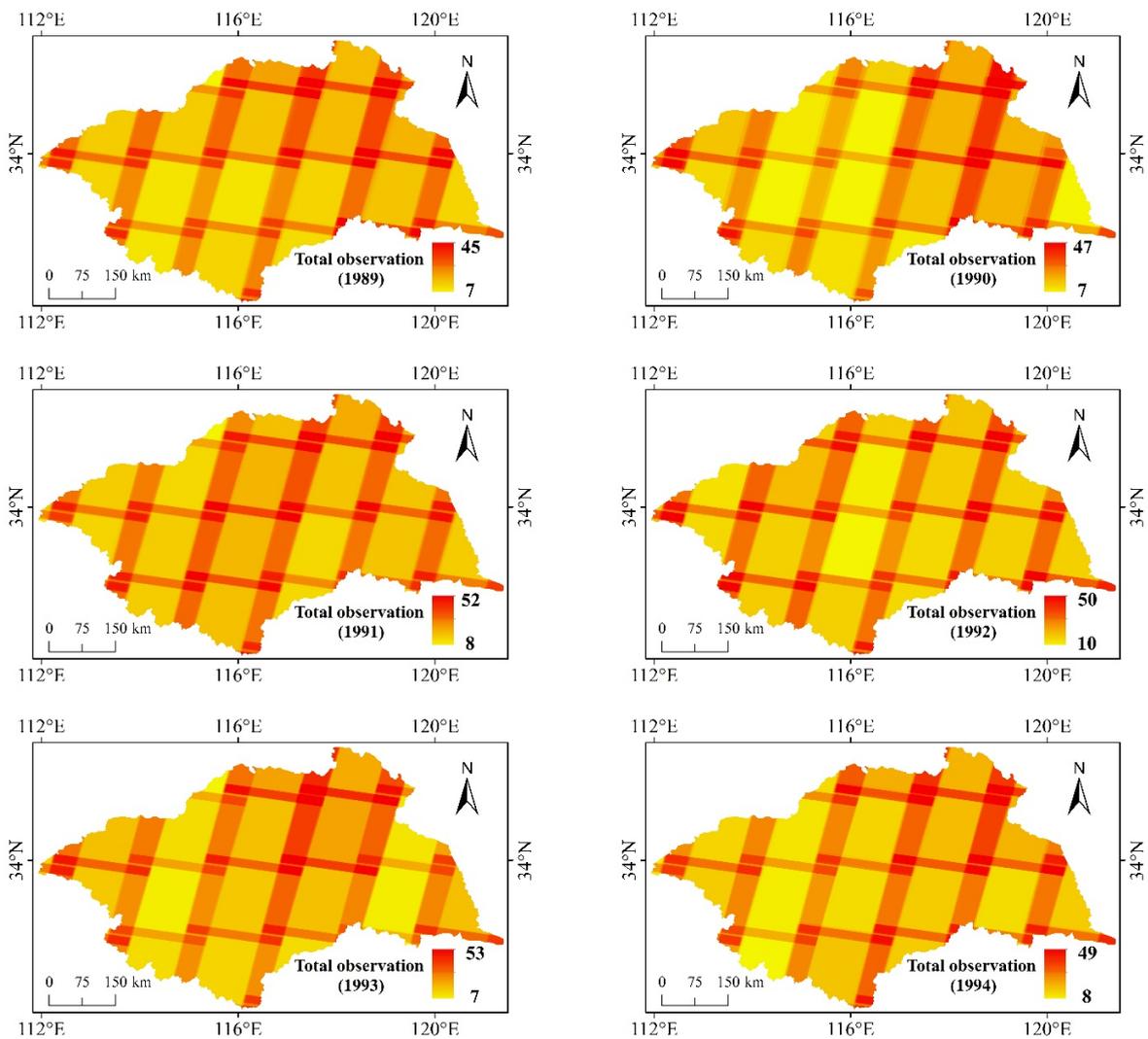
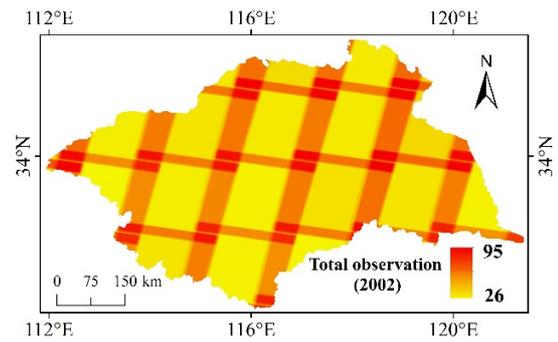
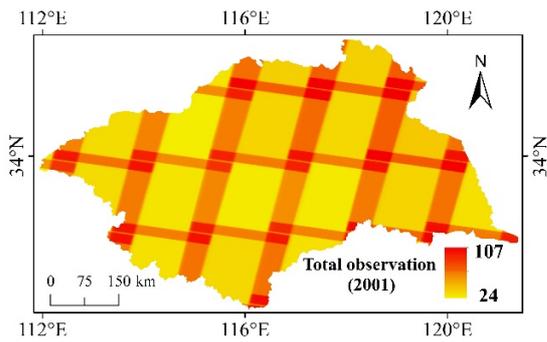
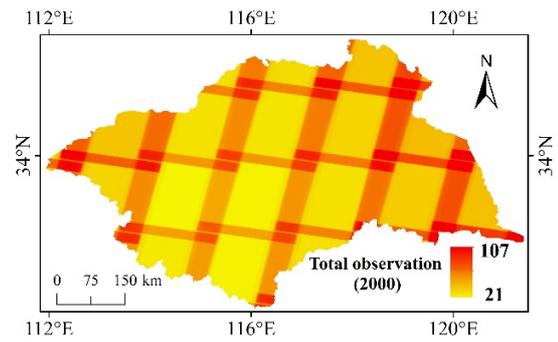
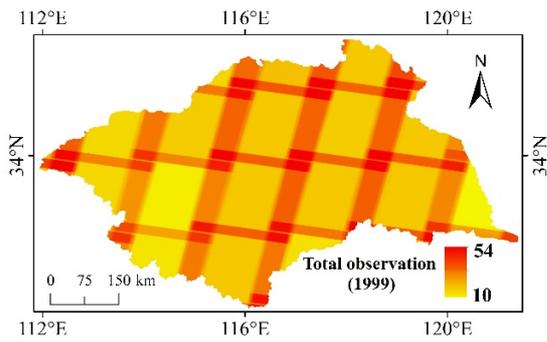
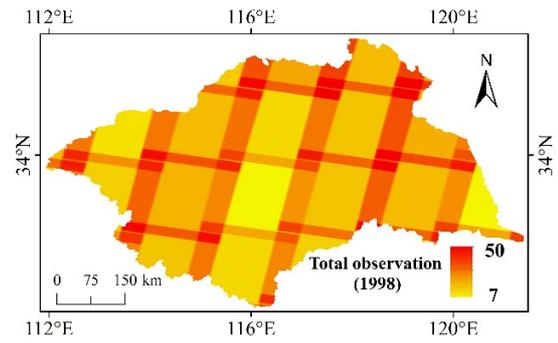
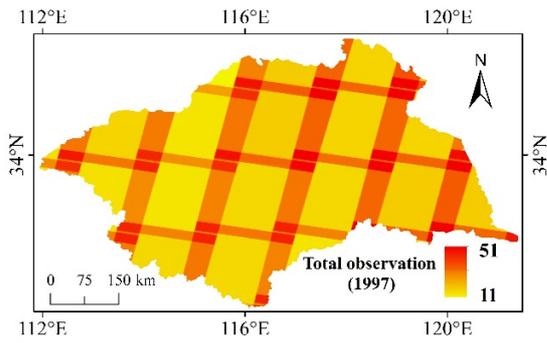
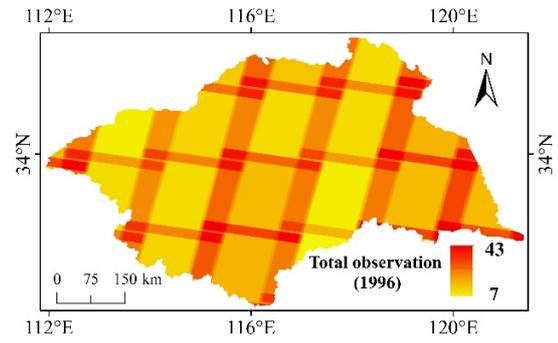
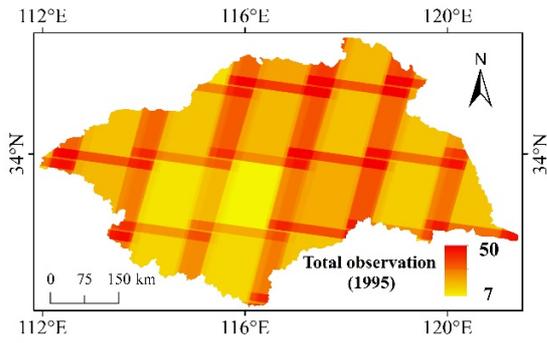
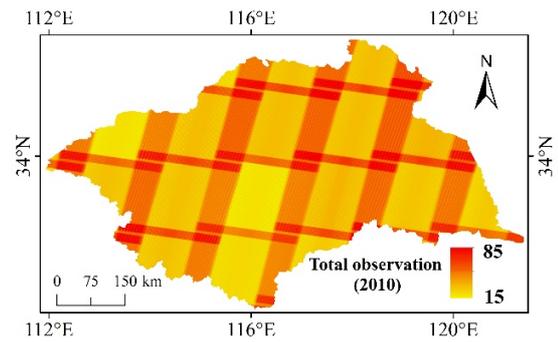
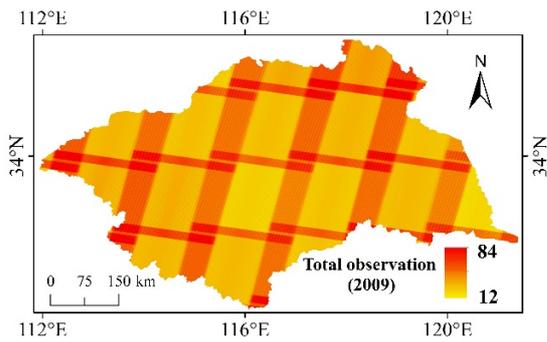
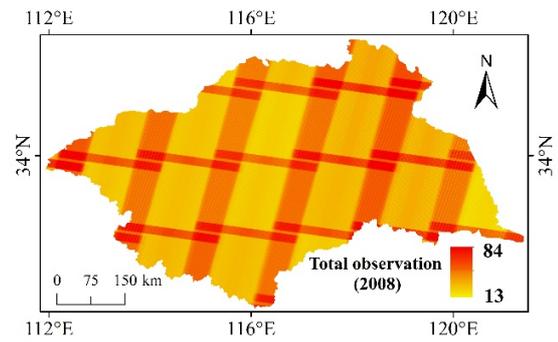
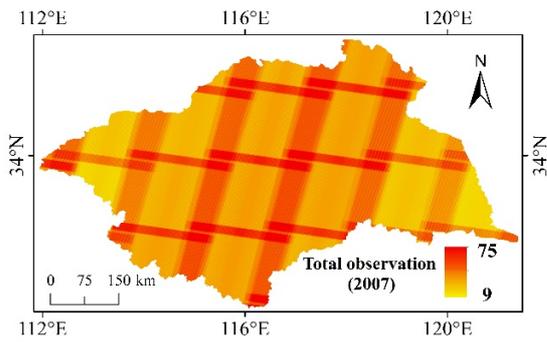
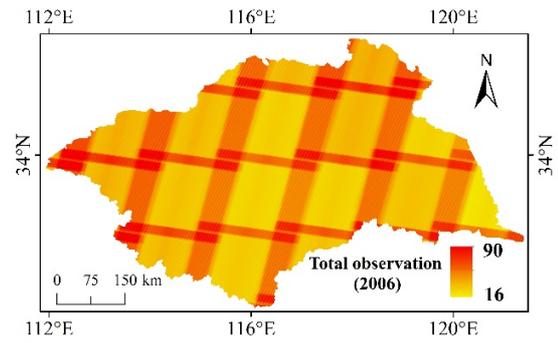
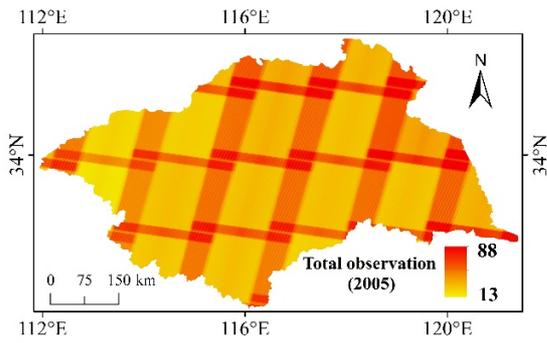
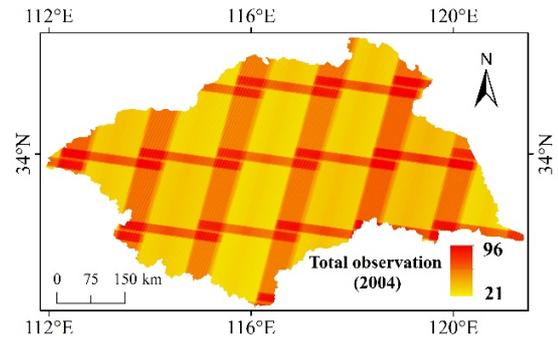
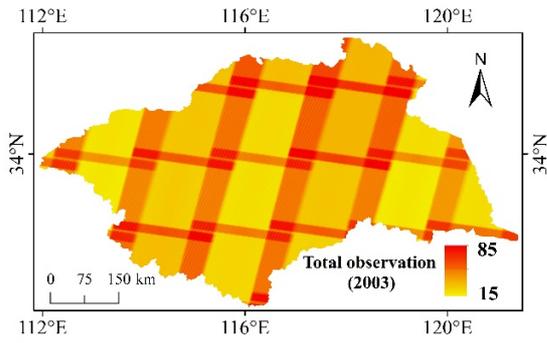


Supplementary Materials: Changes in Water Surface Area during 1989–2017 in the Huai River Basin using Landsat Data and Google Earth Engine. *Remote Sensing* 2019, 8, remotesensing-530145.

Haoming Xia ^{1†}, Jinyu Zhao ^{1†}, Yaochen Qin ^{1*}, Jia Yang ², Yaoping Cui ¹, Hongquan Song ¹, Liqun Ma ¹, Ning Jin ³ and Qingmin Meng ⁴







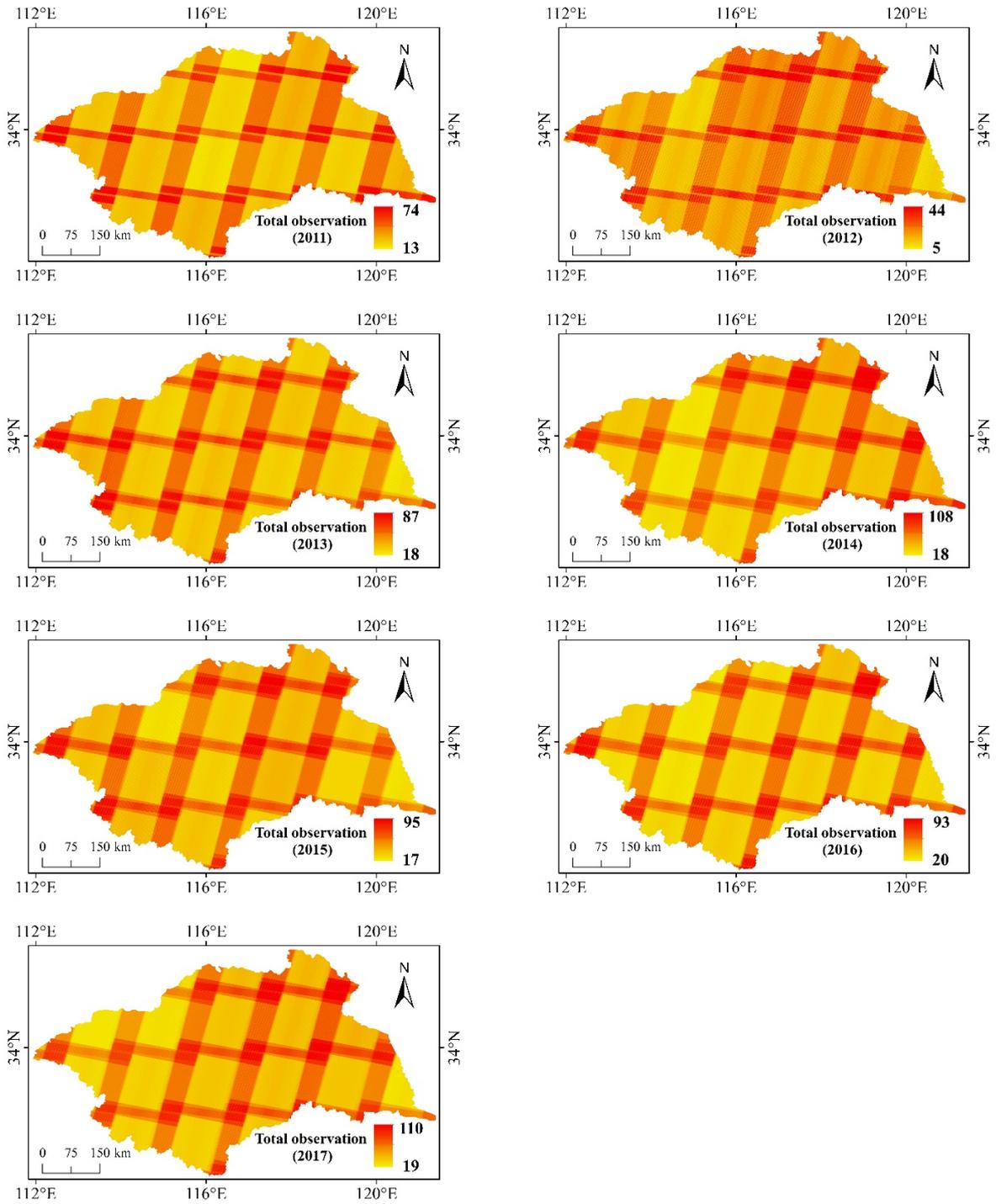
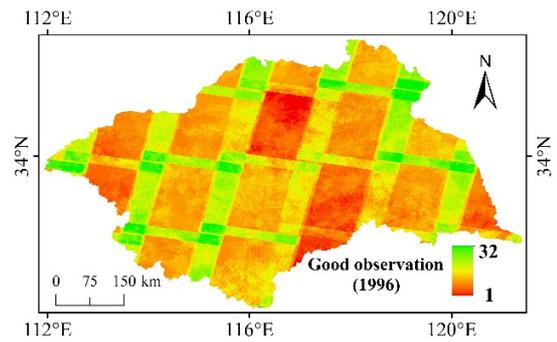
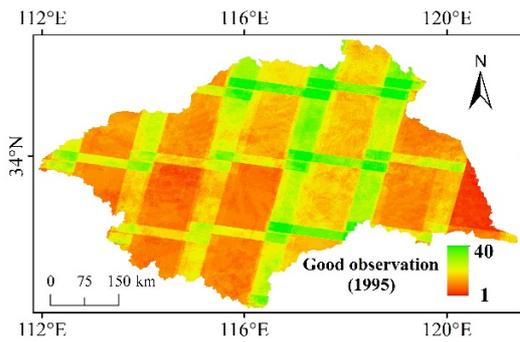
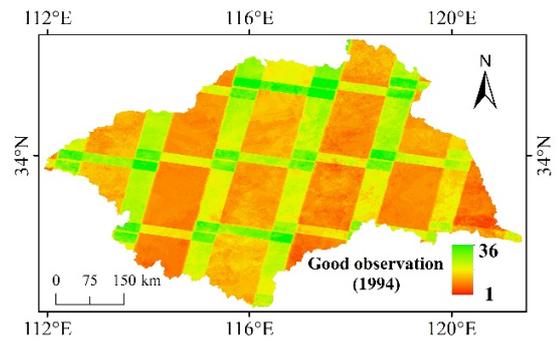
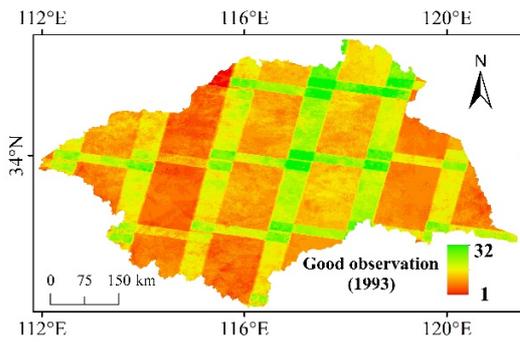
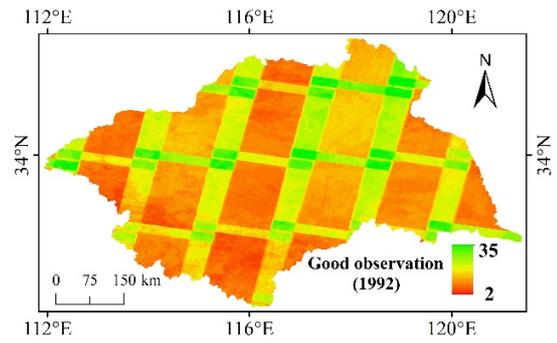
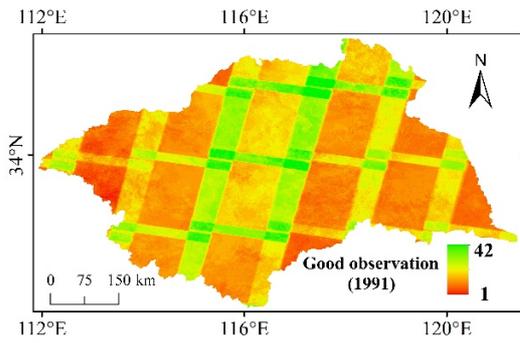
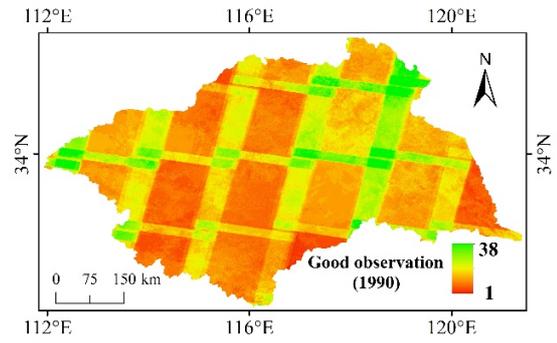
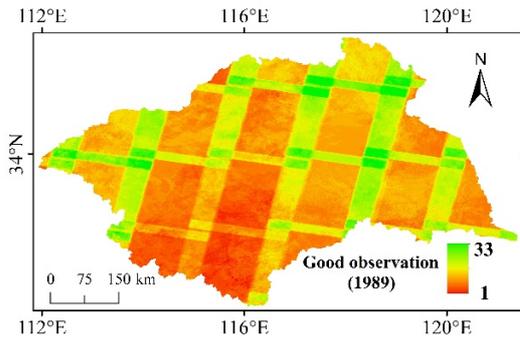
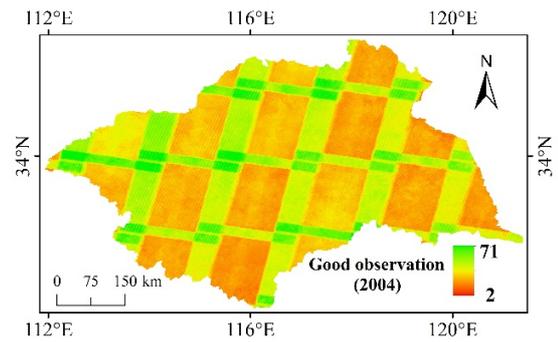
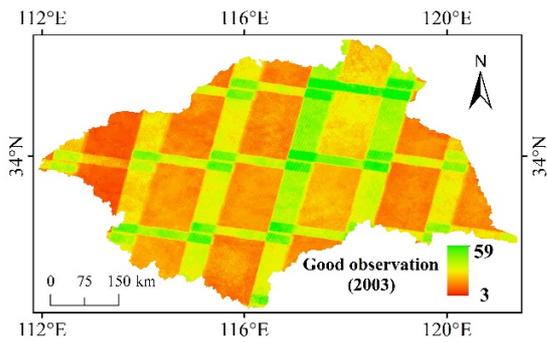
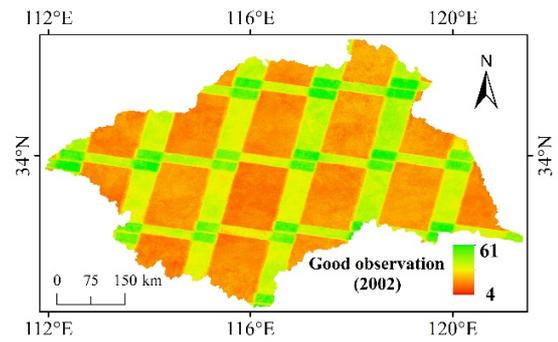
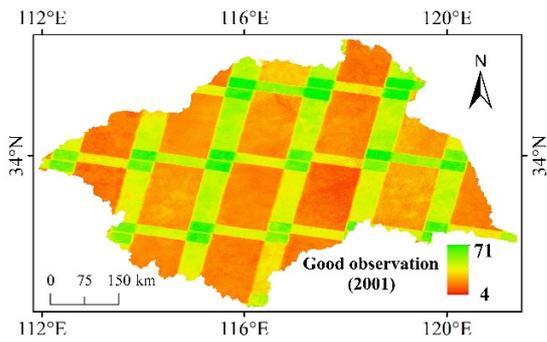
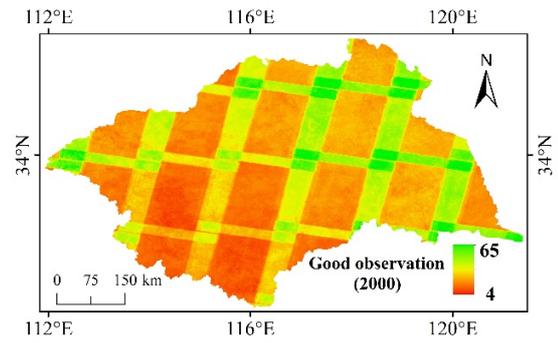
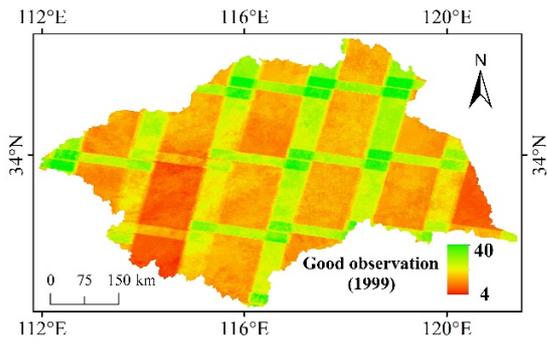
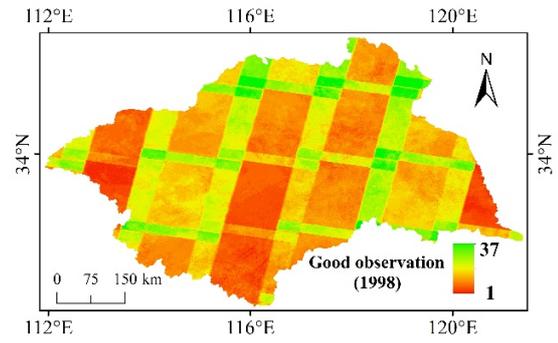
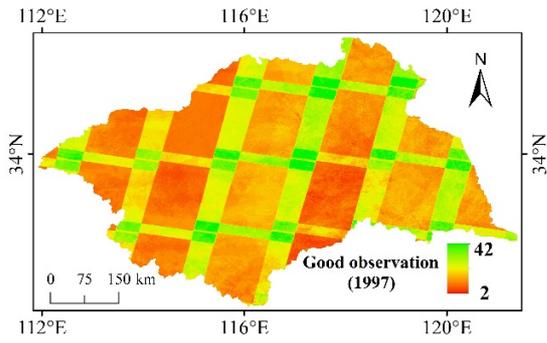
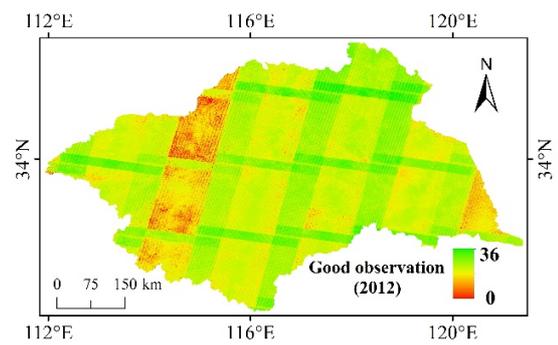
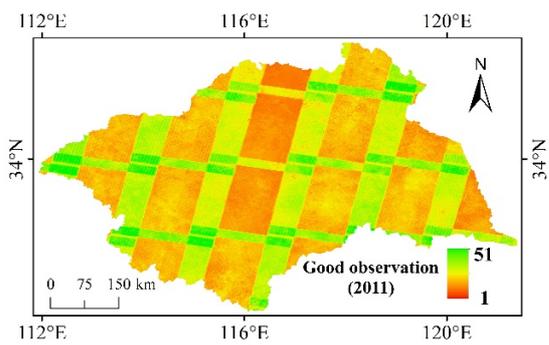
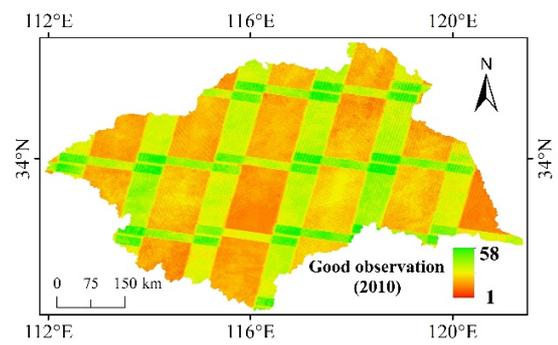
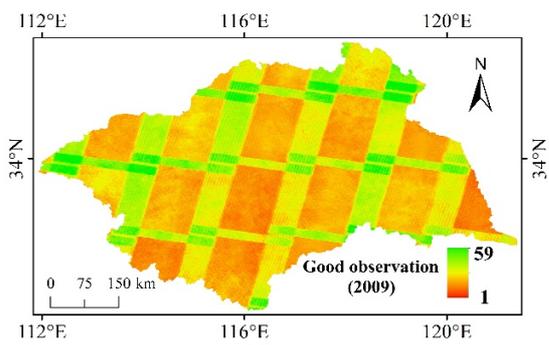
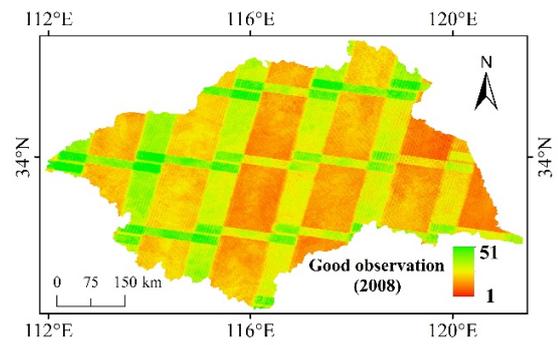
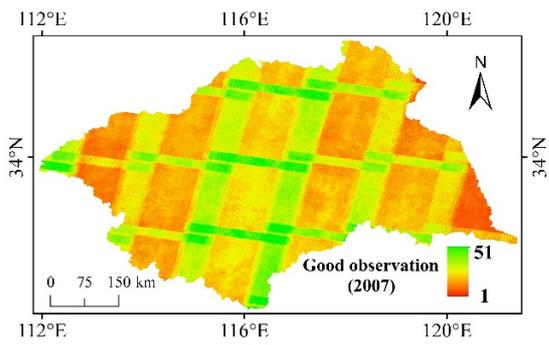
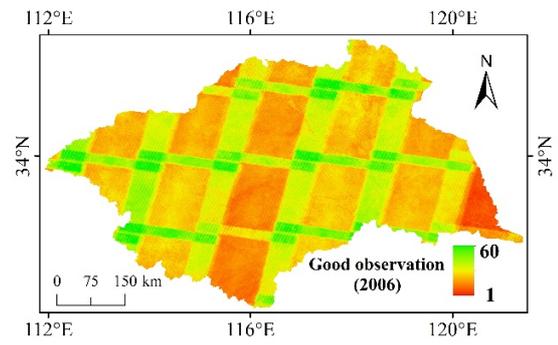
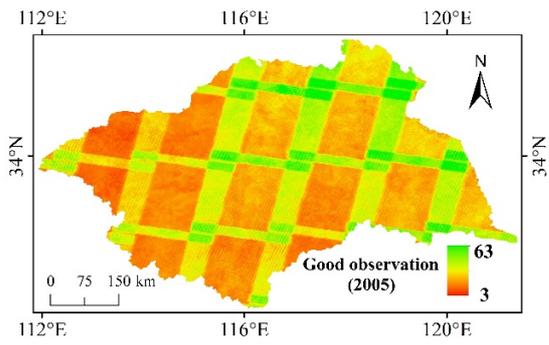


Figure S1. Total numbers of Landsat total observation for pixel-by-pixel from 1989 to 2017.







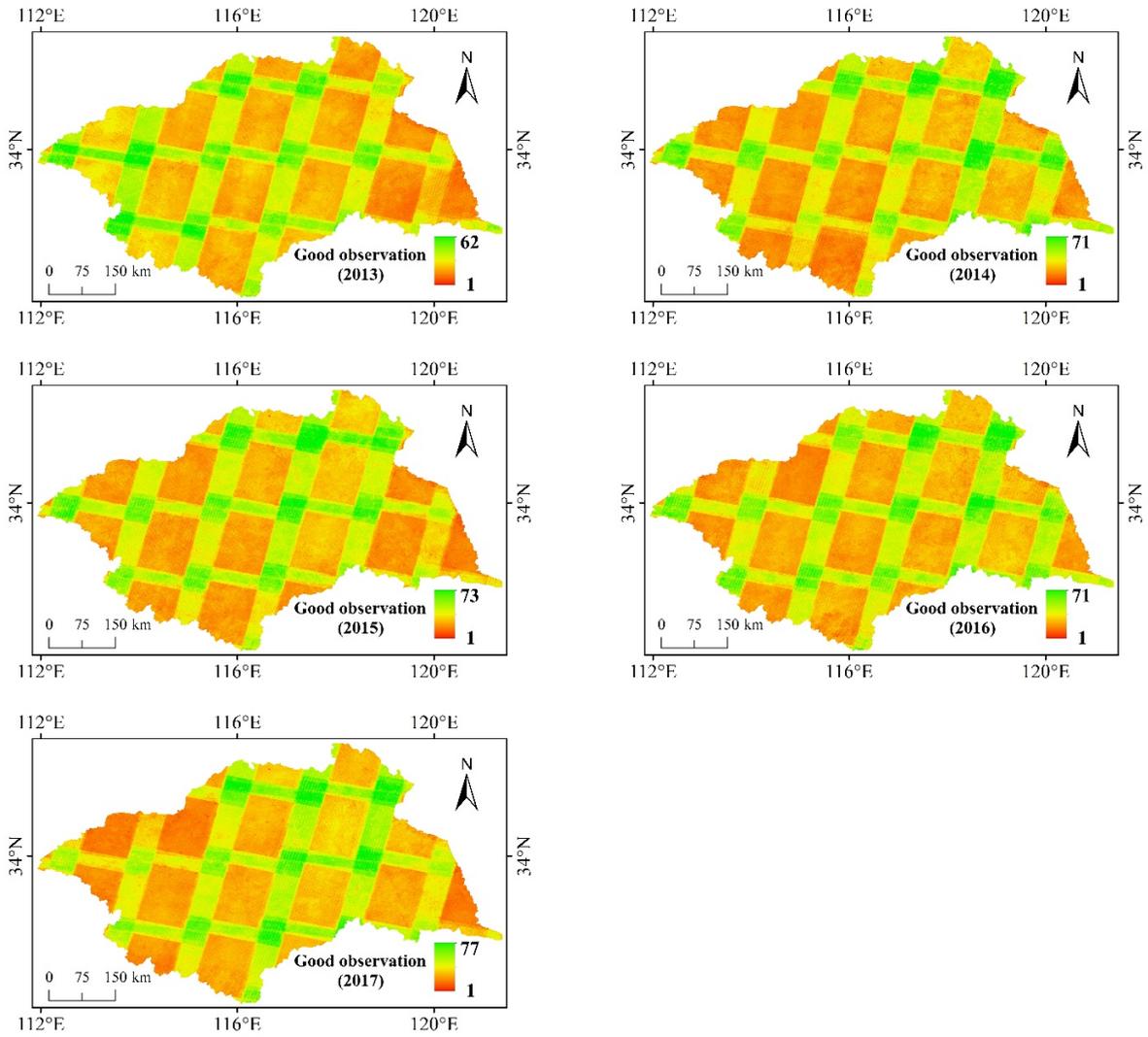
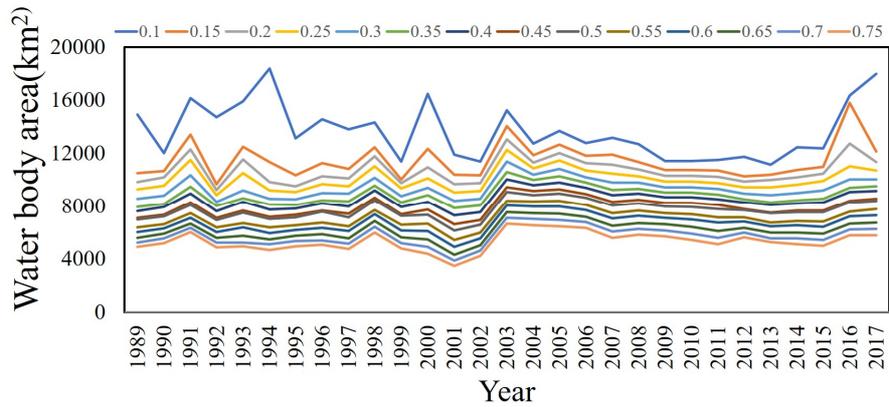


Figure S2. Total numbers of Landsat good observation for pixel-by-pixel from 1989 to 2017.



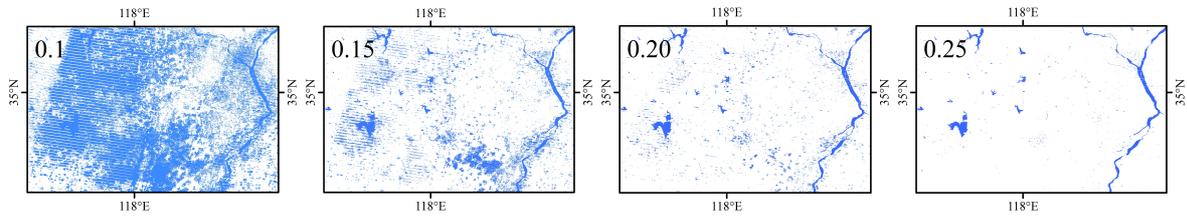


Figure S3. Water body frequency threshold selection, The first line is maximum water body area using 14 different water body frequency thresholds, The second line is noise conditions of insets in the 2017 maximum water body maps using threshold:0.1,0.15,0.2,0.25.

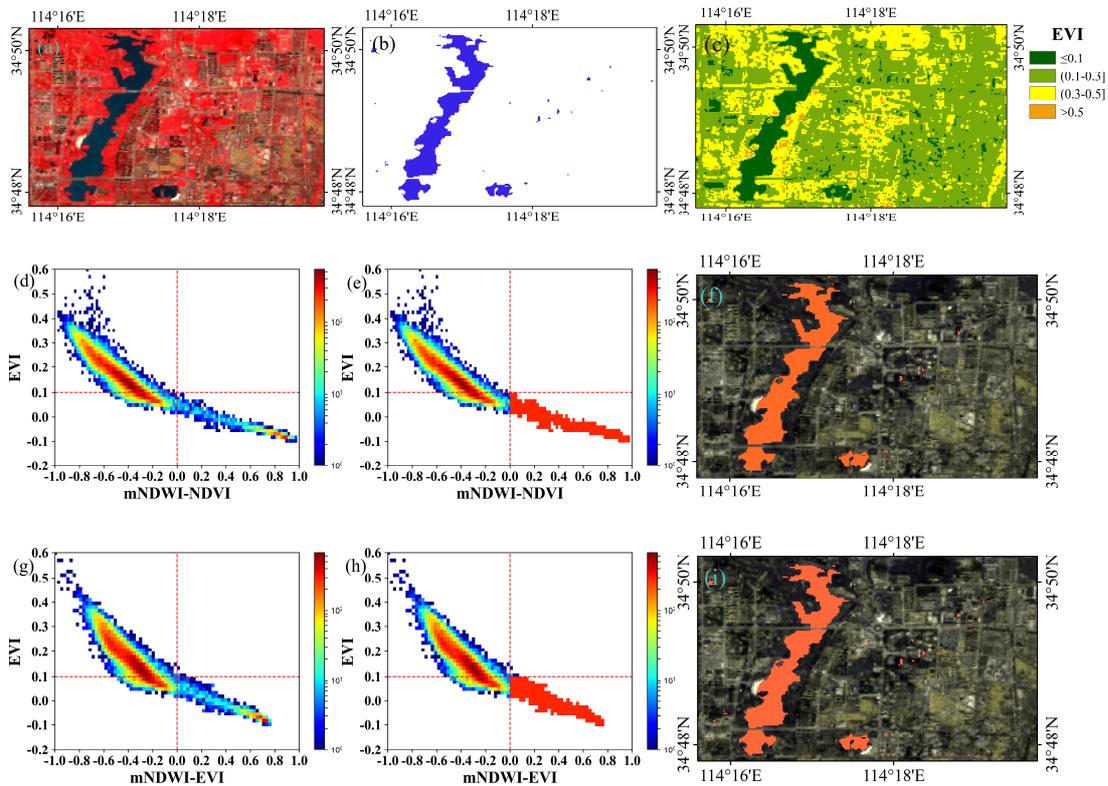


Figure S4. Water detection in built-up and vegetation land. (a) Landsat 8 OLI surface reflectance image (list bands in the false-color composite (bands 5,4,3)), (b) Final water detection in blue color (($mNDWI > NDVI$ or $mNDWI > EVI$) and ($EVI < 0.1$)), (c) EVI, (d) Scatter plot (($mNDWI - NDVI$) vs EVI), (e) Scatter plot (($mNDWI - NDVI$) vs EVI) with water detection marked red, (f) Surface water in red corresponding to water detection in scatter plot e, (g) Scatter plot (($mNDWI - EVI$) vs EVI), (h) Scatter plot (($mNDWI - EVI$) vs EVI) with water detection marked red, (i) Surface water in red corresponding to water detection in scatter plot h.