

Table S1. The fitting results of convolutional neural networks and other methods for reconstructing heterogenous NDVI.

Methods	Linear Regression	Multiple Linear Regression	Random Forest	CNNs
R ²	0.408	0.503	0.777	0.965
RMSE	0.1222	0.1120	0.0751	0.0415

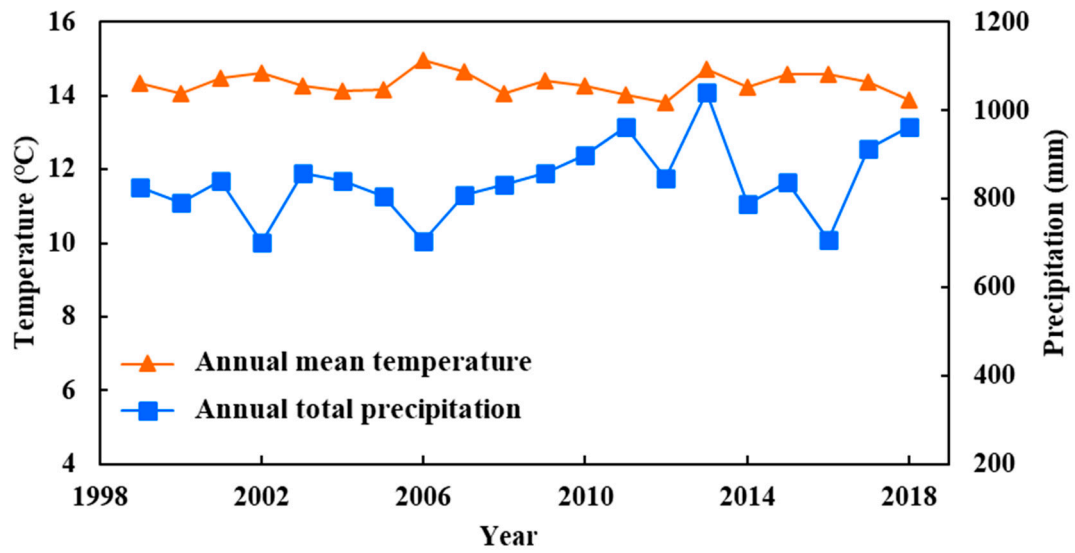


Figure S1. The characteristics of annual mean temperature and annual total precipitation in the study area.

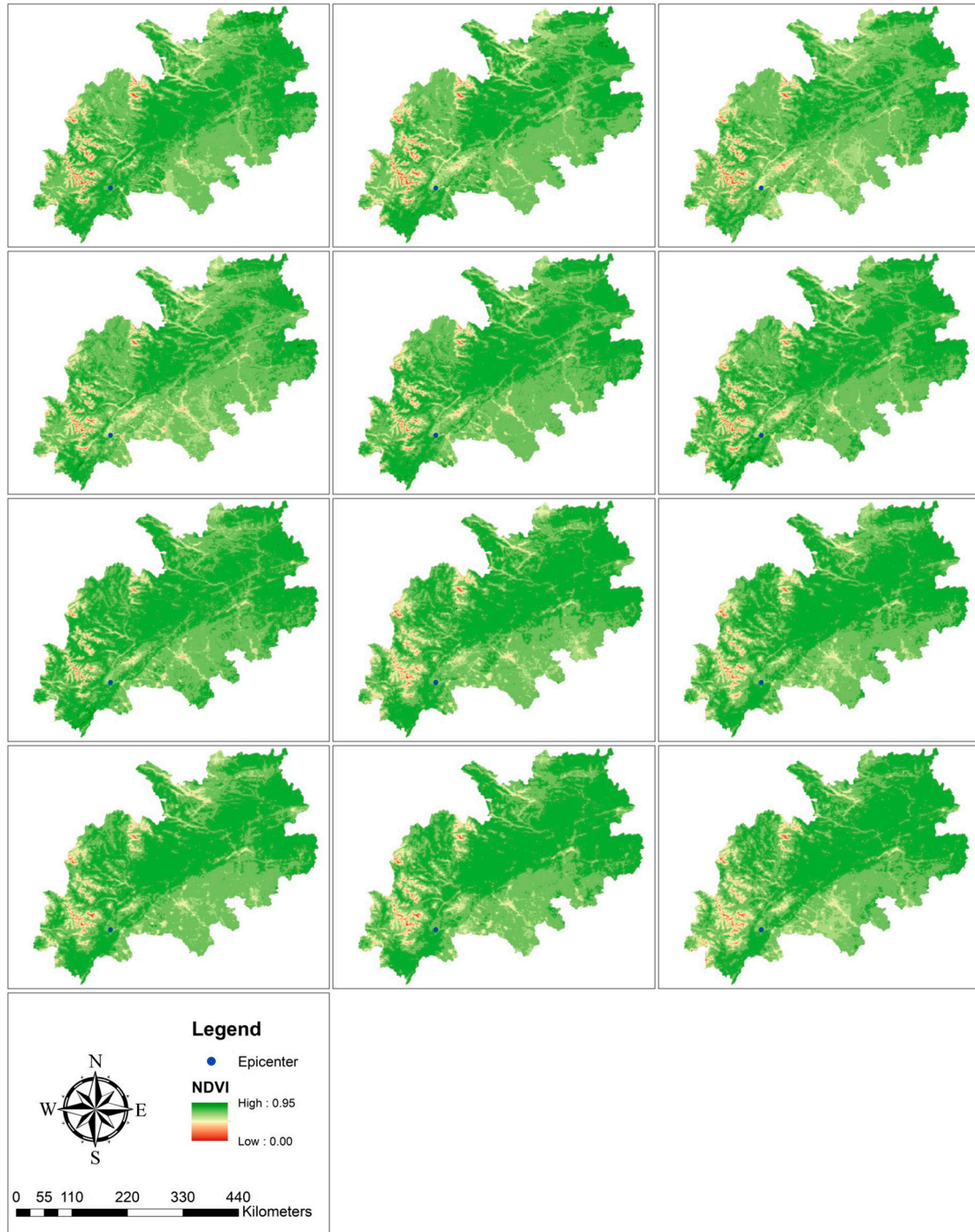


Figure S2. Annual NDVI for years 2007 to 2018 from the MVC analysis. The full images are shown for the first seven years to illustrate the continuity of NDVI across the Longmenshan fault boundary with vegetation in the surrounding area.

Table S2. Statistics showing the beginning of vegetation recovery for pixels in areas experiencing large numbers of large landslides ($S \geq 80,000 \text{ m}^2$) .

Year	2009	2010	2011	2012	2013
Pixel Count	261	555	61	1	1
Percentage (%)	29.693%	63.140%	6.940%	0.114%	0.114%