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Abstract



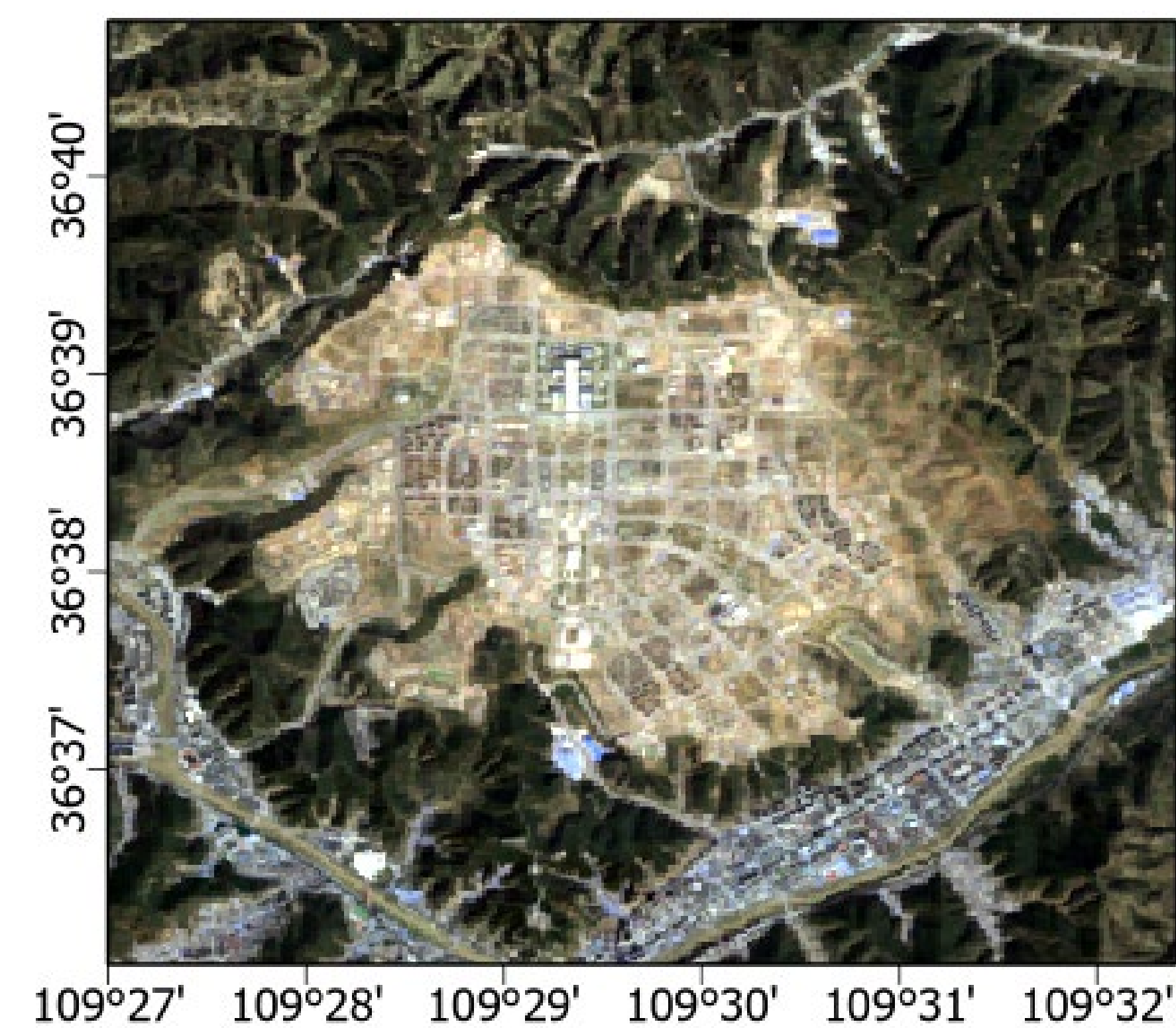
Group Website



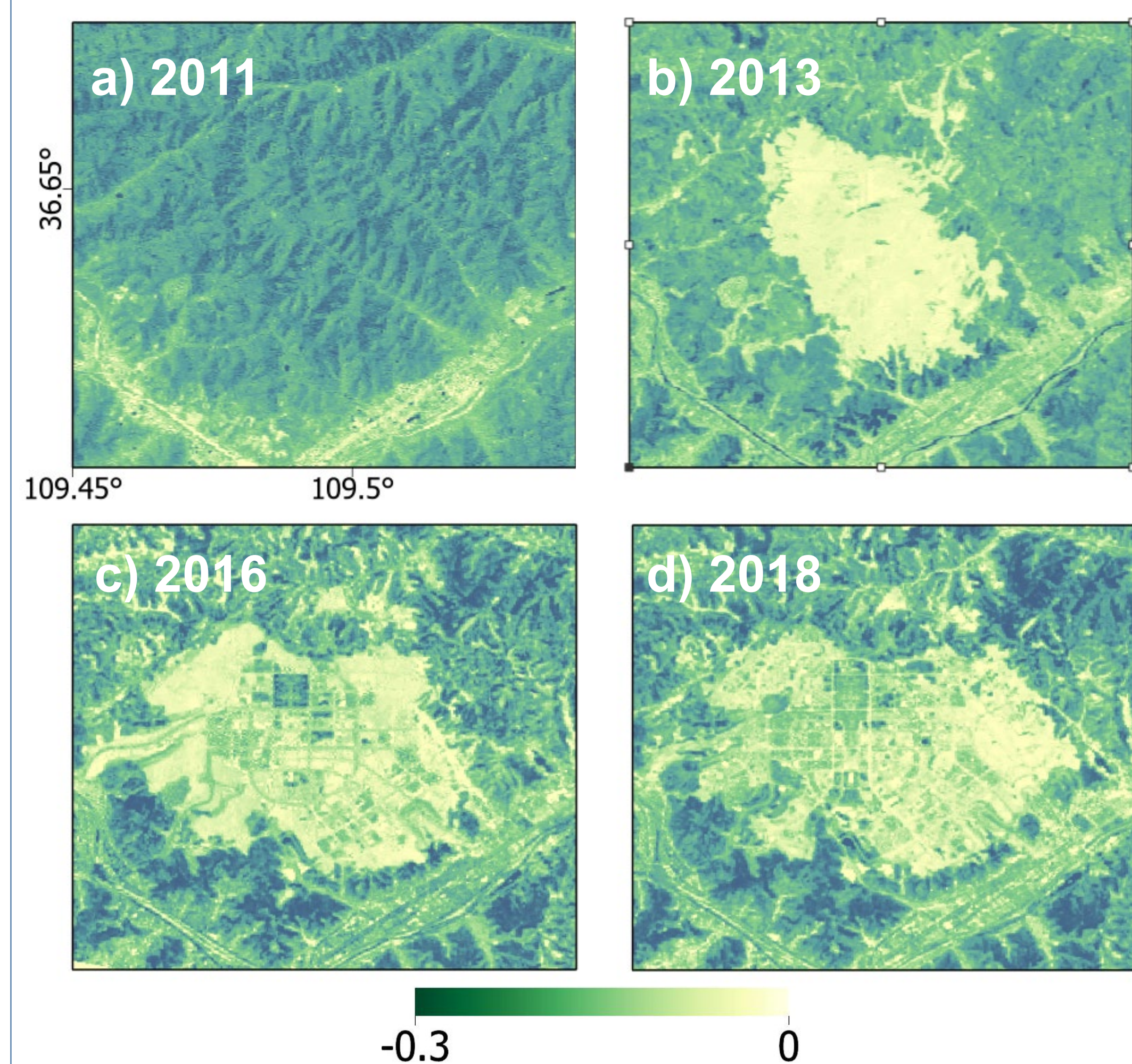
Introduction

Yan'an New District has implemented the Mountain Excavation and City Construction project, aiming to transform the loess and gully area into an urbanized environment with an area of 78.5 km².

Landsat-8 Yan'an New District

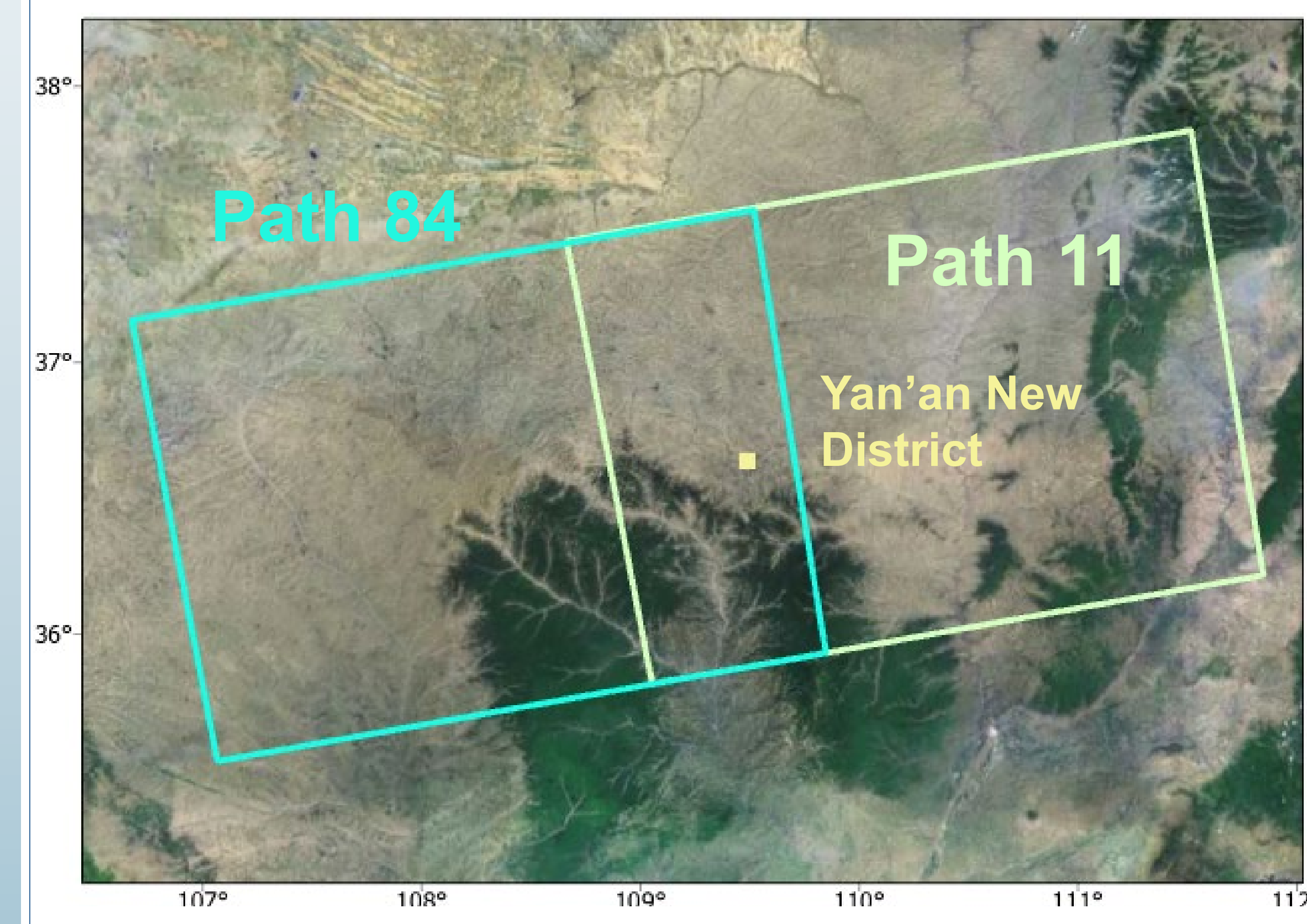


NDBI (Built-up) for Yan'an New District

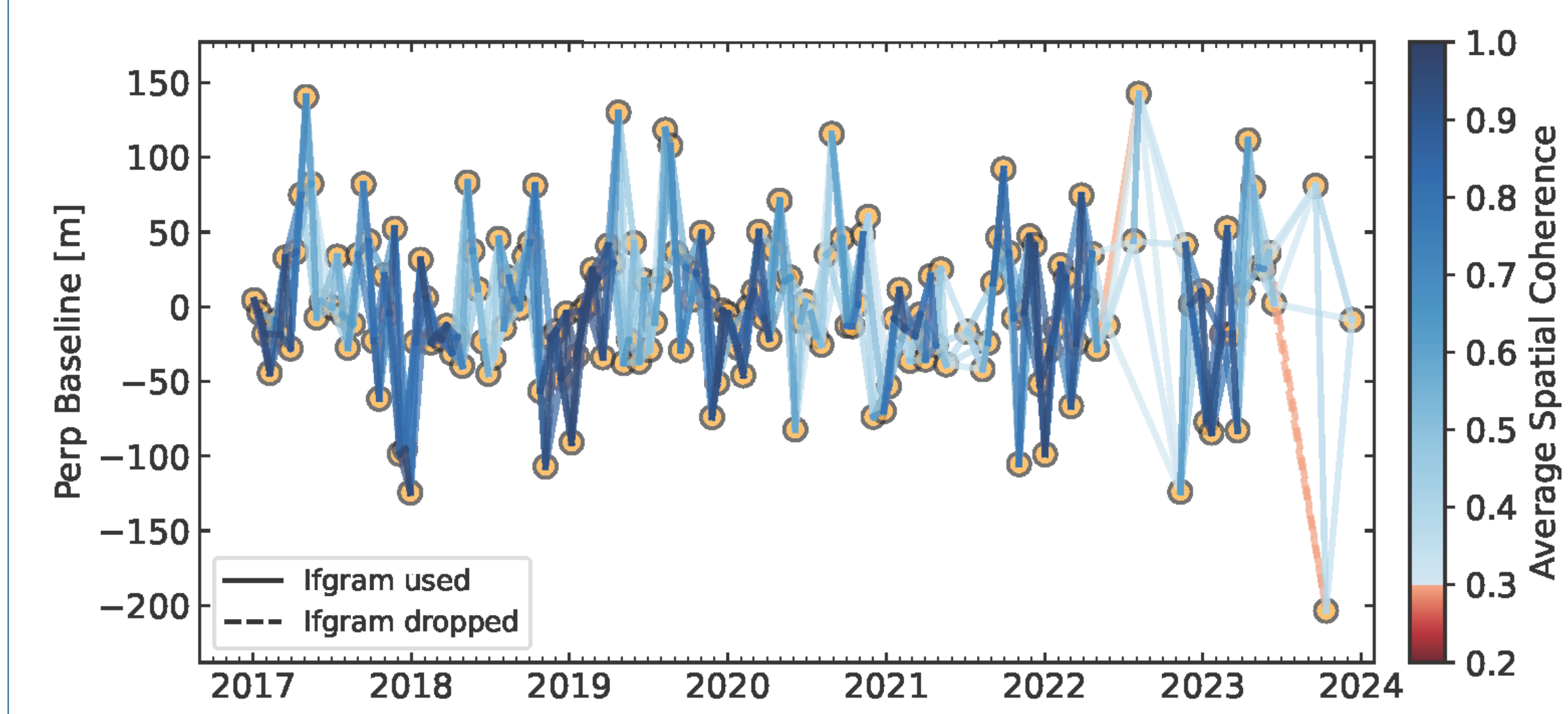


Data and Method

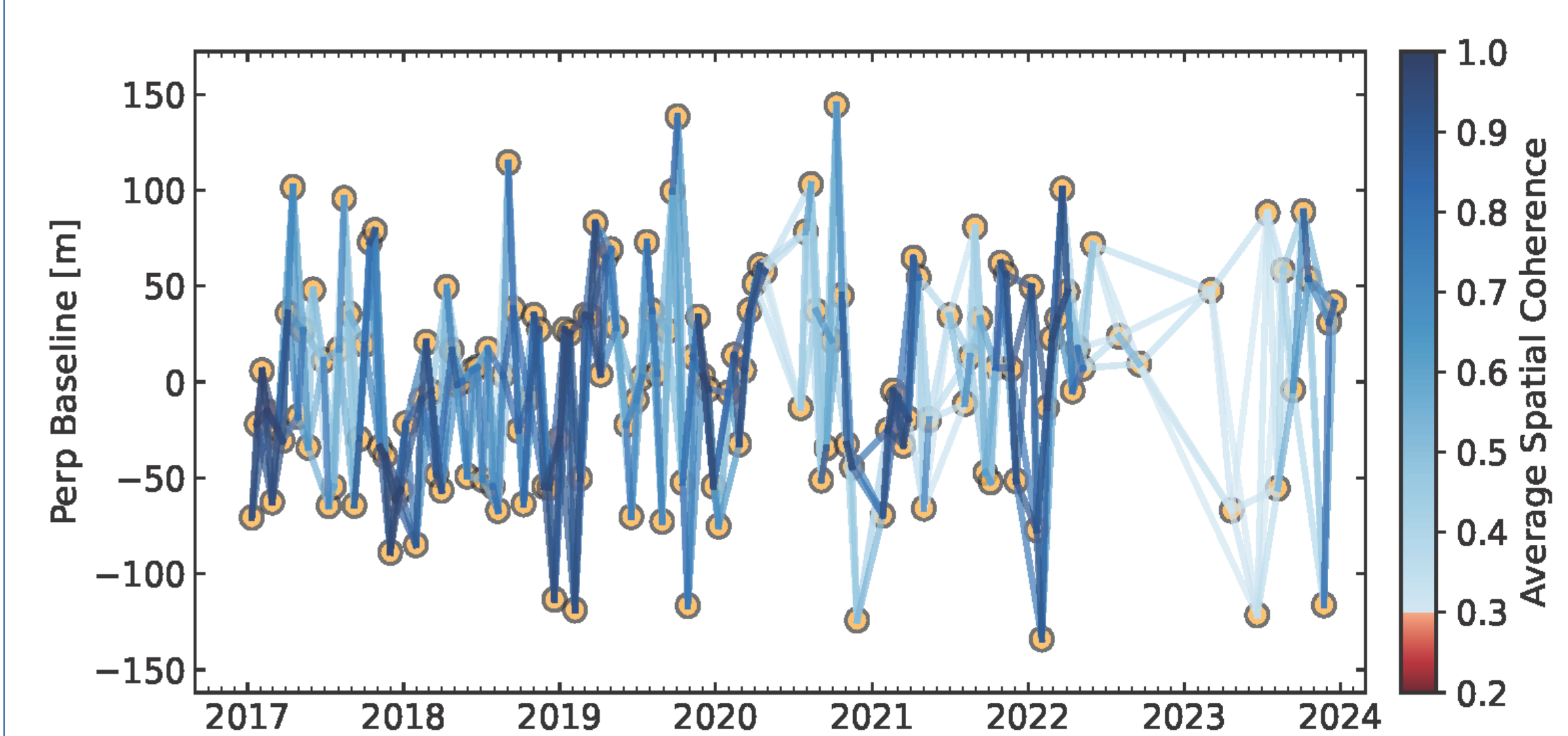
Sentinel-1 footprints covering the study area



Interferogram network of Path 84

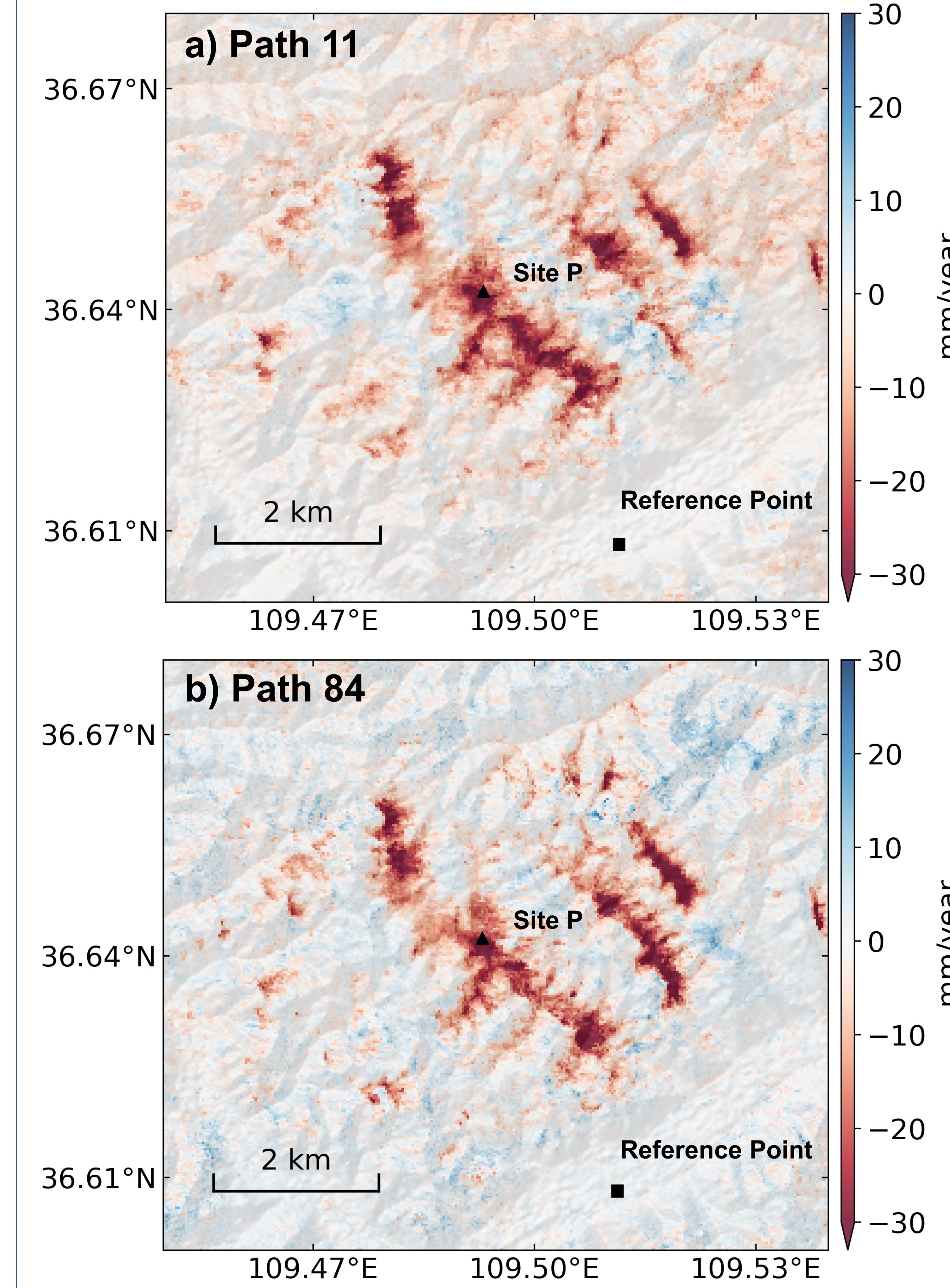


Interferogram network of Path 11

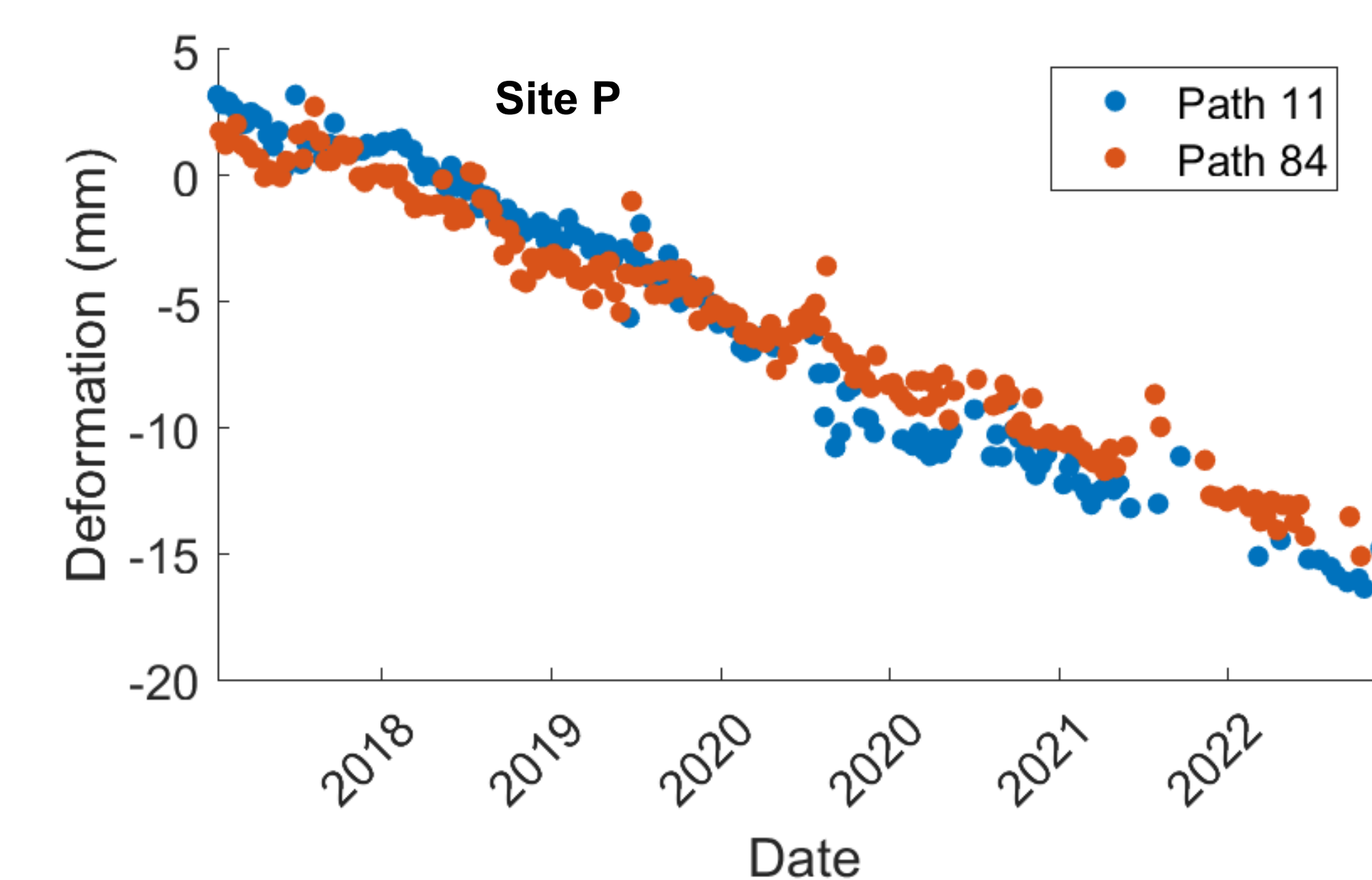


Results and Discussion

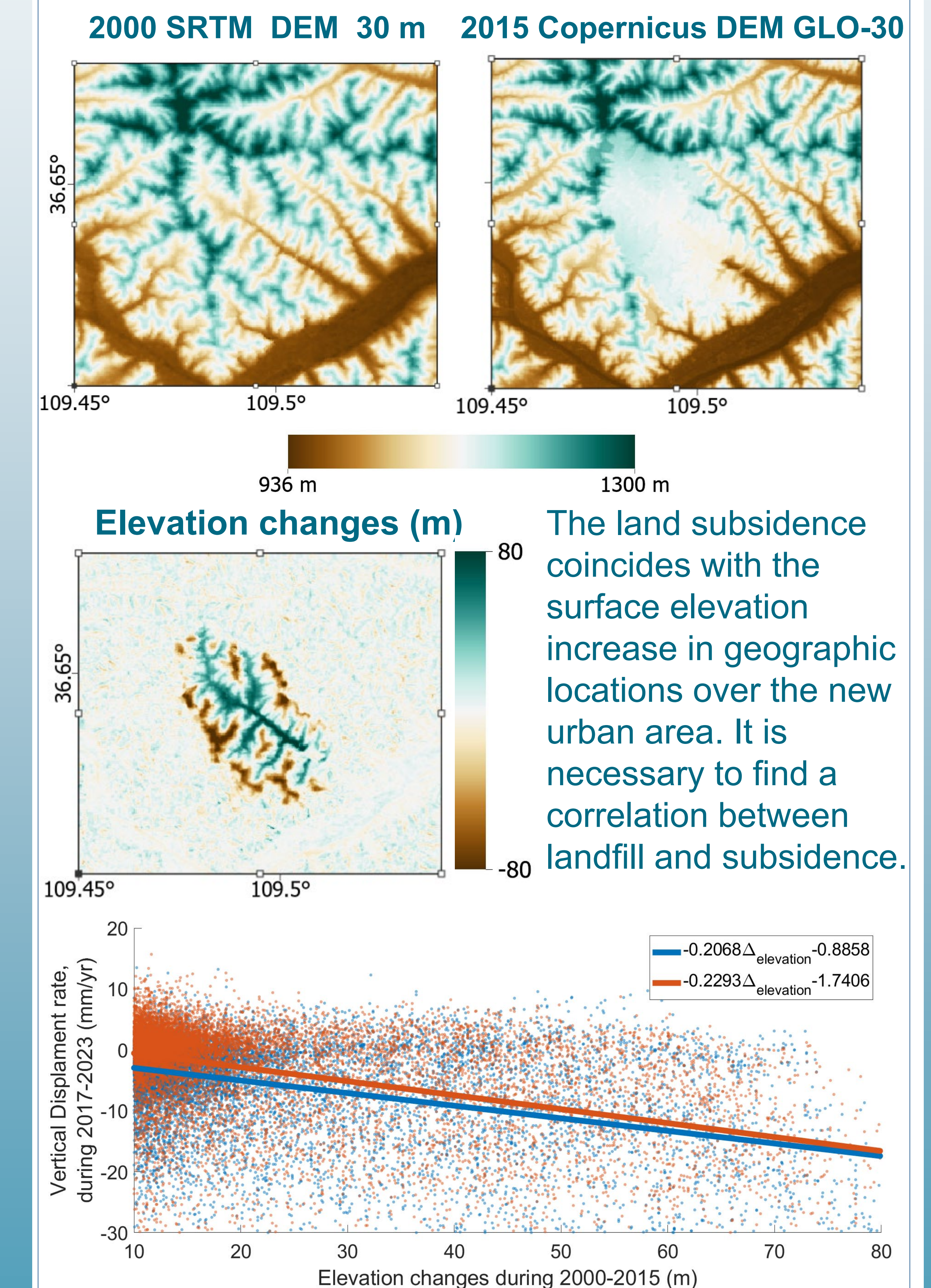
Vertical displacement velocity



Time-series vertical displacement (36.643°N, 109.493°E)



Correlation between Elevation Increase and Subsidence



Conclusion

- The Yan'an New District shows obvious uneven subsidence, up to ~60 mm/year.
- Subsidence happens mainly in the elevation change region, caused by the mountain excavation.
- More reliable subsidence is monitored through validation between timeseries generated with Path 11 and Path 84.