## Supervised Ensemble Graph Neural Network Attribute-aware Graph Predicted Randomly sampled Susceptibility point from the map Values (60%) (30%)Neighborhood-aware Graph (95%) (50%) The nodes are (each point has a 1km-by-1km feature vector and grid point. geographical location information)

## **Unsupervised Spectral Graph Clustering**







overlay the map on settlement and road patterns The nodes are settlements and roads are edges.