



Supplement A

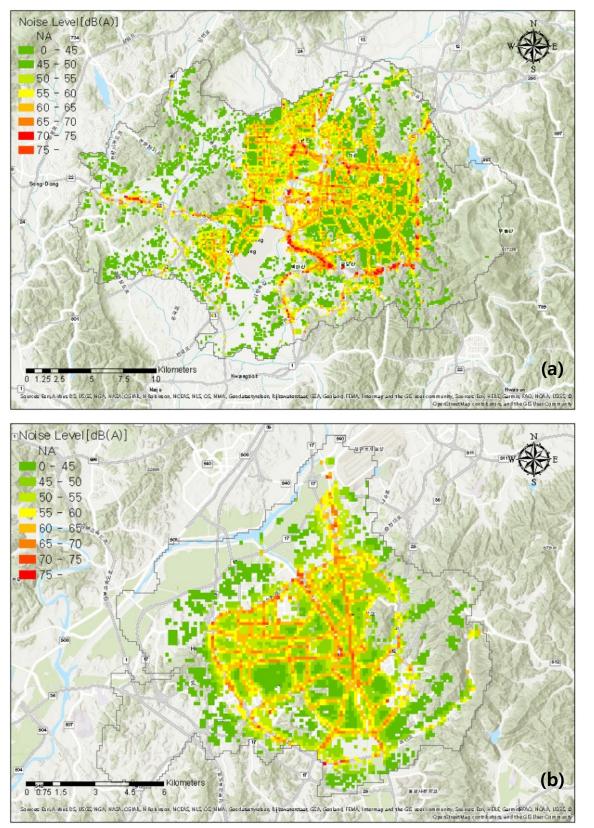


Figure S1. Grid maps of representative values for road-traffic noise level in: (a) Gwangju; (b) Cheongju [44-45].

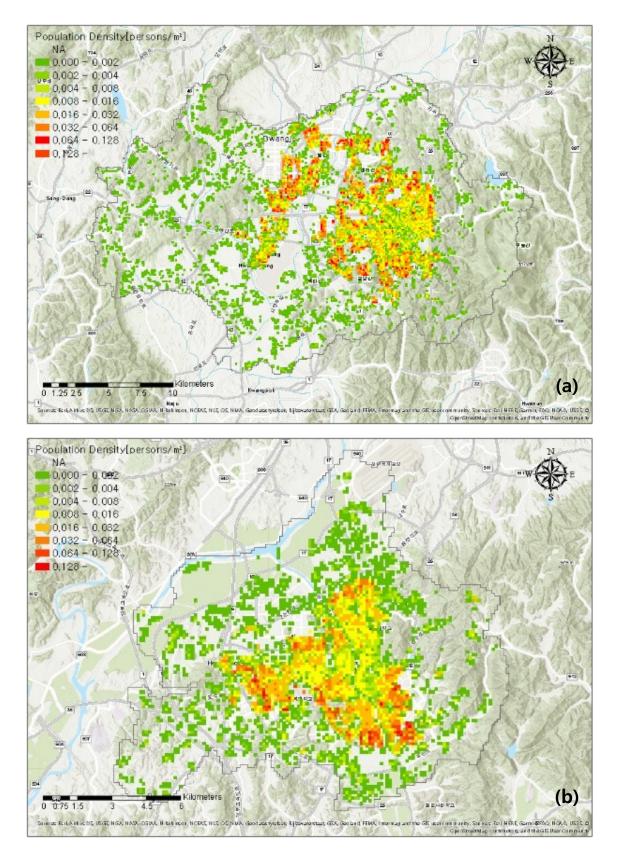


Figure S2. Grid maps of representative values for population density in: (a) Gwangju; (b) Cheongju [44-45].

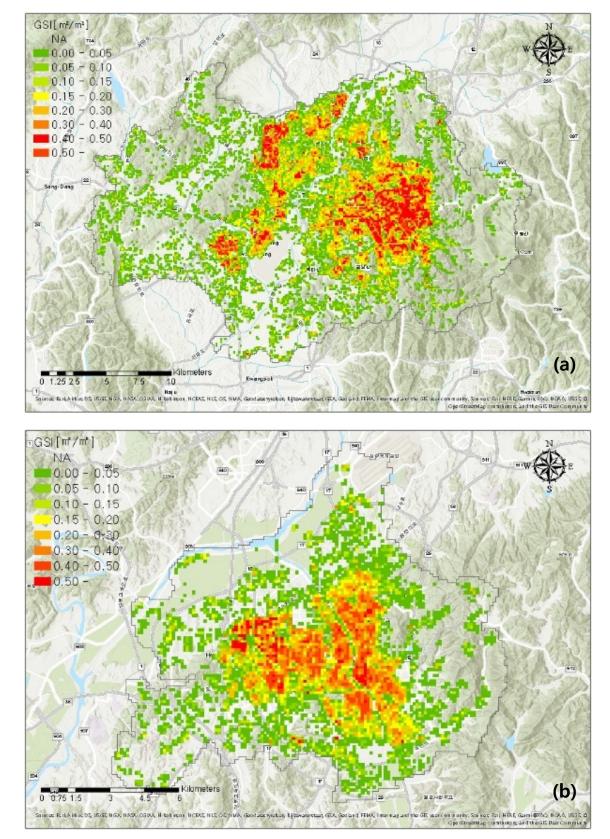


Figure S3. Grid maps of representative values for ground space index in: (a) Gwangju; (b) Cheongju [44-45].

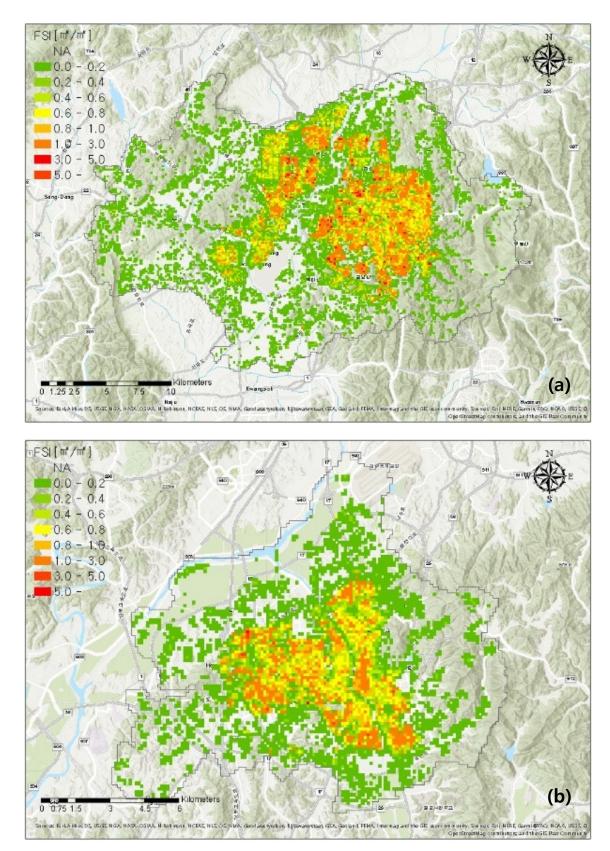


Figure S4. Grid maps of representative values for floor space index in: (a) Gwangju; (b) Cheongju [44-45].

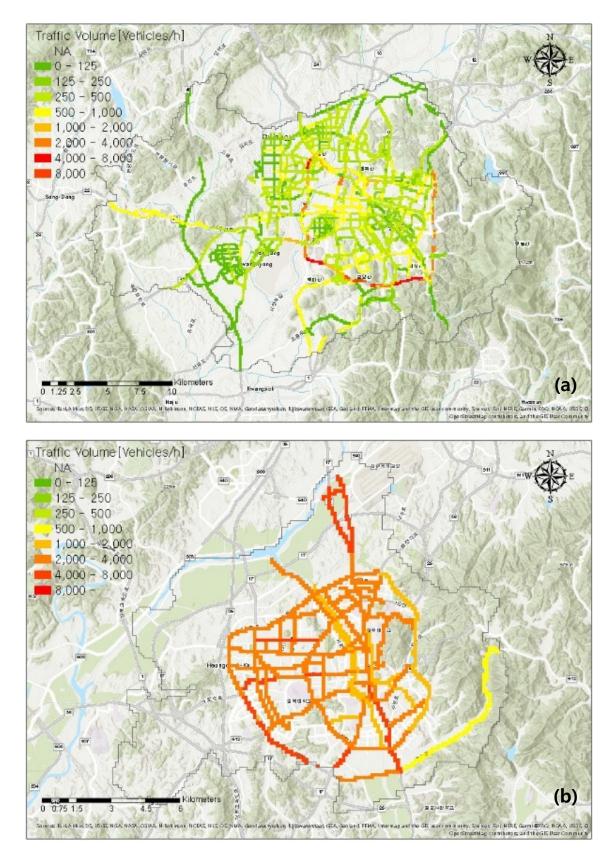


Figure S5. Grid maps of representative values for traffic volume in: (a) Gwangju; (b) Cheongju [44-45].

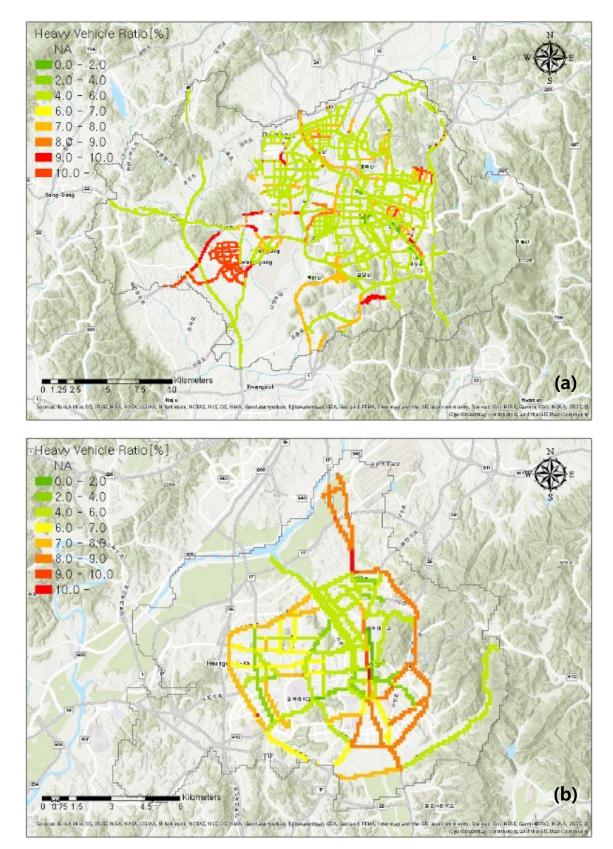


Figure S6. Grid maps of representative values for heavy vehicle ratio in: (a) Gwangju; (b) Cheongju [44-45].

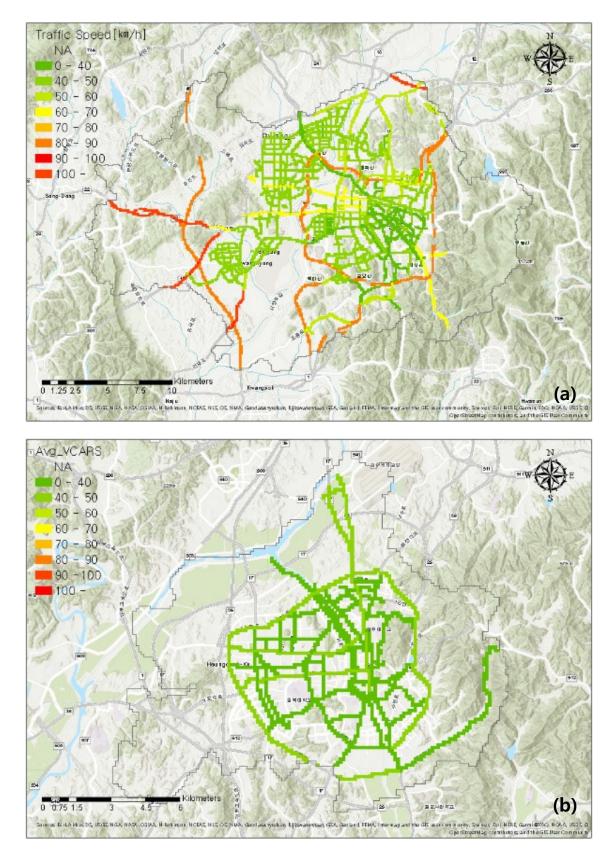


Figure S7. Grid maps of representative values for traffic speed in: (a) Gwangju; (b) Cheongju.

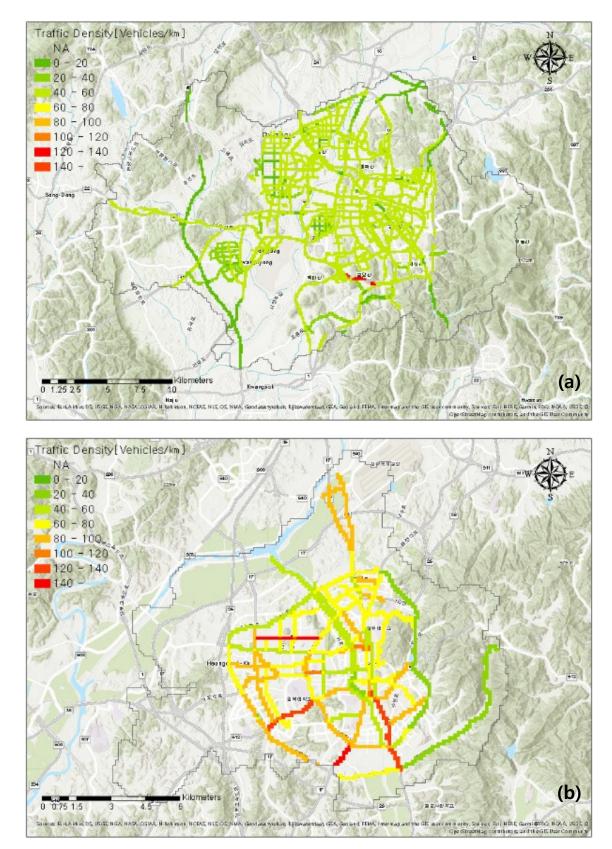


Figure S8. Grid maps of representative values for traffic density in: (a) Gwangju; (b) Cheongju.

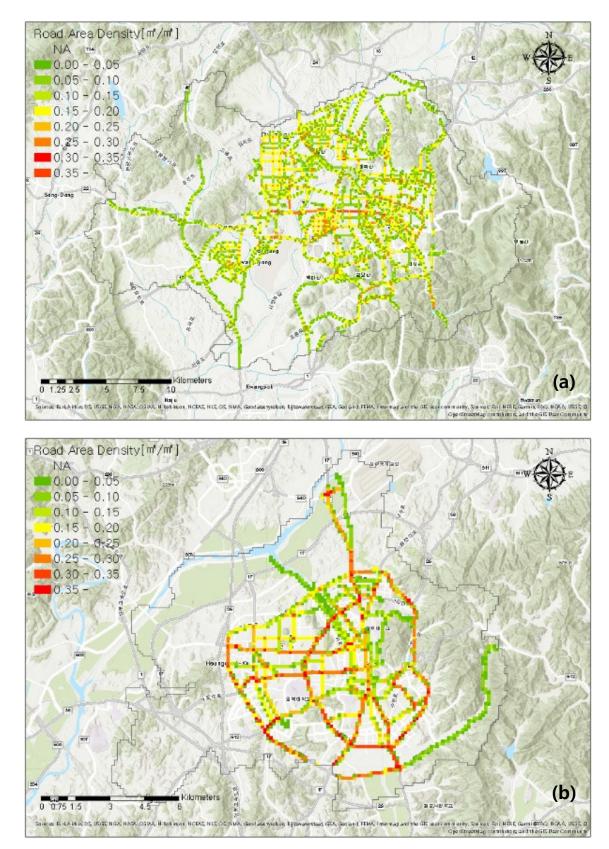


Figure S9. Grid maps of representative values for road area density in: (a) Gwangju; (b) Cheongju [44-45].

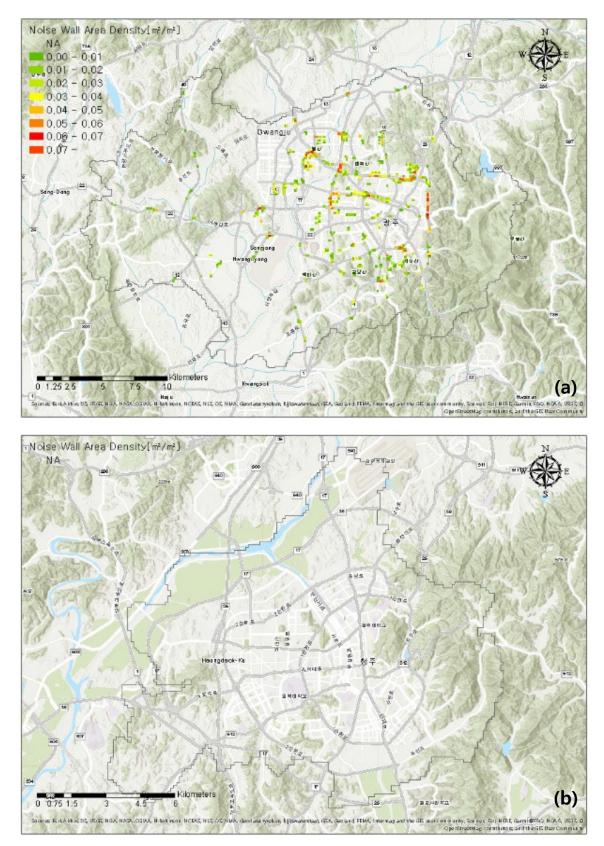


Figure S10. Grid maps of representative values for noise barrier density in: (a) Gwangju; (b) Cheongju [44-45].

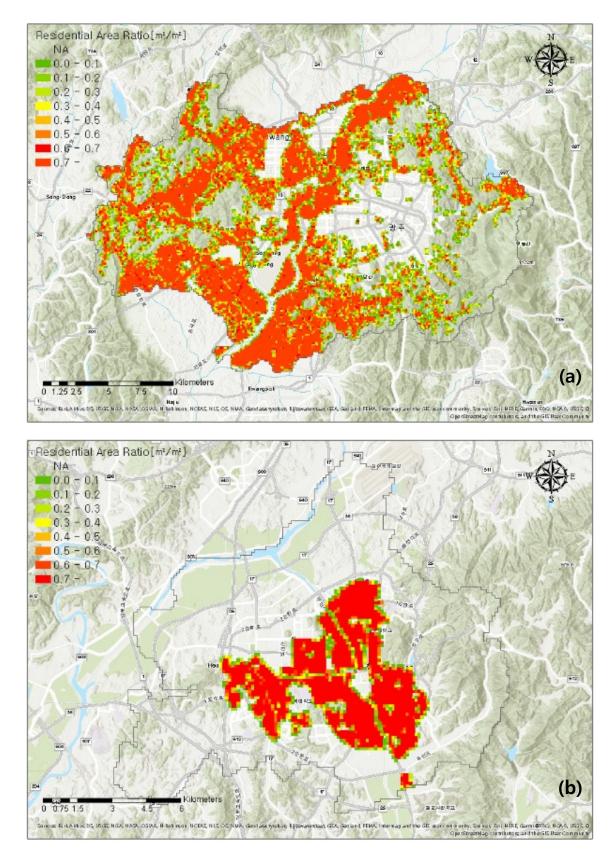


Figure S11. Grid maps of representative values for fraction of residential area in: (a) Gwangju; (b) Cheongju [44-45].

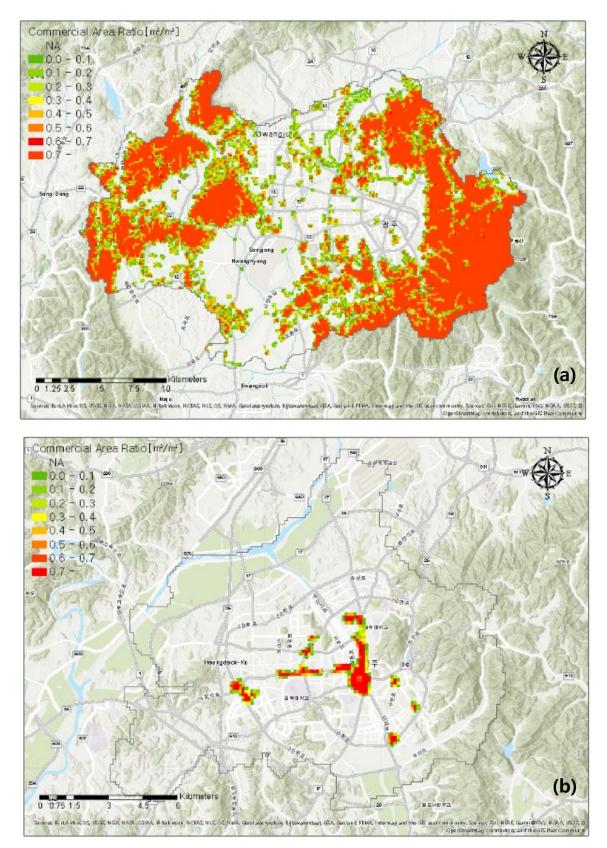


Figure S12. Grid maps of representative values for fraction of commercial area in: (a) Gwangju; (b) Cheongju [44-45].

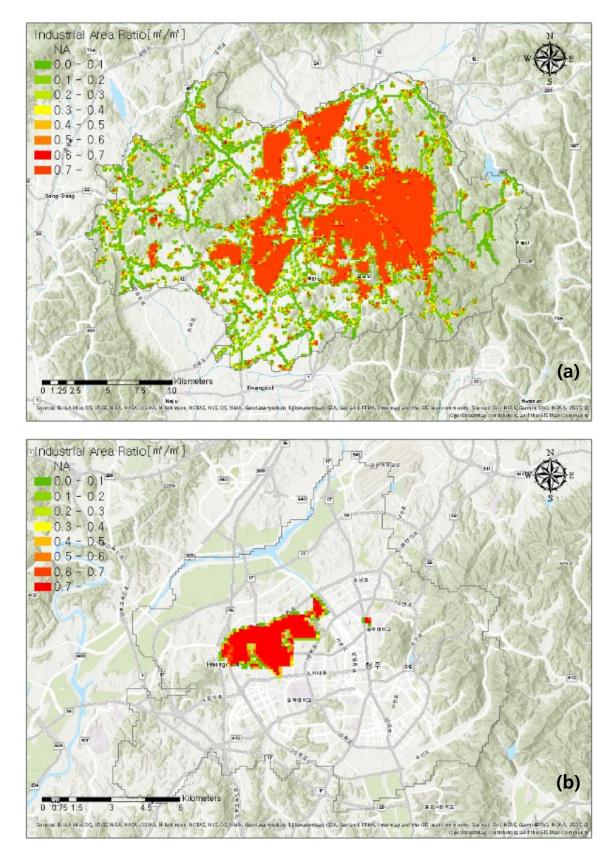


Figure S13. Grid maps of representative values for fraction of industrial area in: (a) Gwangju; (b) Cheongju [44-45].

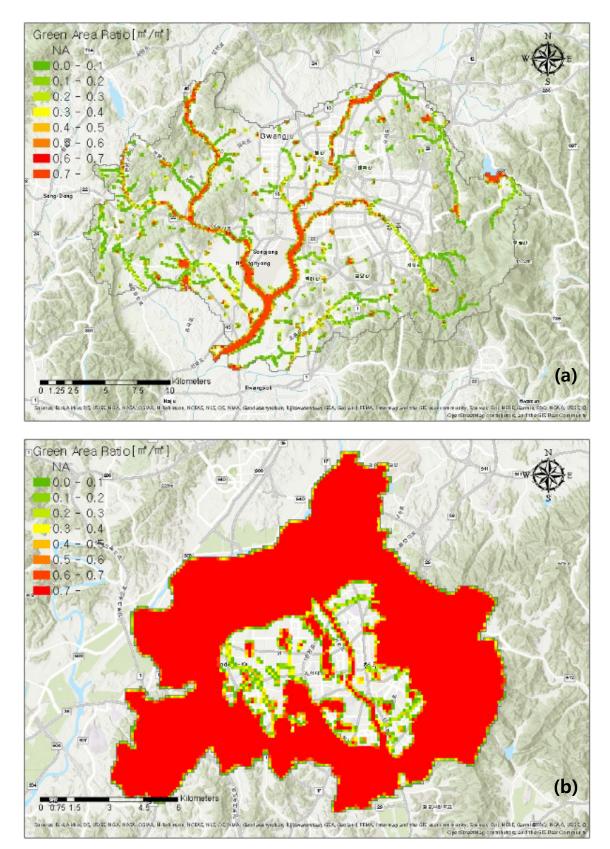


Figure S14. Grid maps of representative values for fraction of green area in: (a) Gwangju; (b) Cheongju [44-45].

Noise Level[dB(A)] NA

Supplement B

50 51

0 - 45 45 - 50 50 - 55 55 - 60 60 - 65 65 - 70 70 -75 75 122 Jan (a Kilometers lova nasa k 10 1.25 2.5 Naju NASA, OSIAR, M Robinson, NCDAS, NLS, OS, NMA, Geodatestyretsen, Rijb Hwats un ammunity, Sauroes: Esit HERE, Garmin, FAQ, NOKA, USGS, D OpenStreetMag contributors, and the GE User Community z Es ri, A intrus D.S. USGS, NGA Noise Level[dB(A)] NA 0 - 45 45 - 50 50 - 55 55 - 60 60 - 65 65 - 70 70 -75 75 ng-122 --(b Kilometers Keva nasa k 10 1.25 2.5 15 75 Naju as Esri A infus DS, USQS, NGA, NASA, OGMR, H Babinson, NCEAS, NLS, OS, NMA, Geodatestynetien, Rijts Hwats un ammunity, Sauross: Isri, HERE, Garmin, FAQ, NONA, USGS, D OpenStreatMap contributors, and the GIS User Community erstaat, GSA, Geoland, FEMA, Int ag and the GIS u

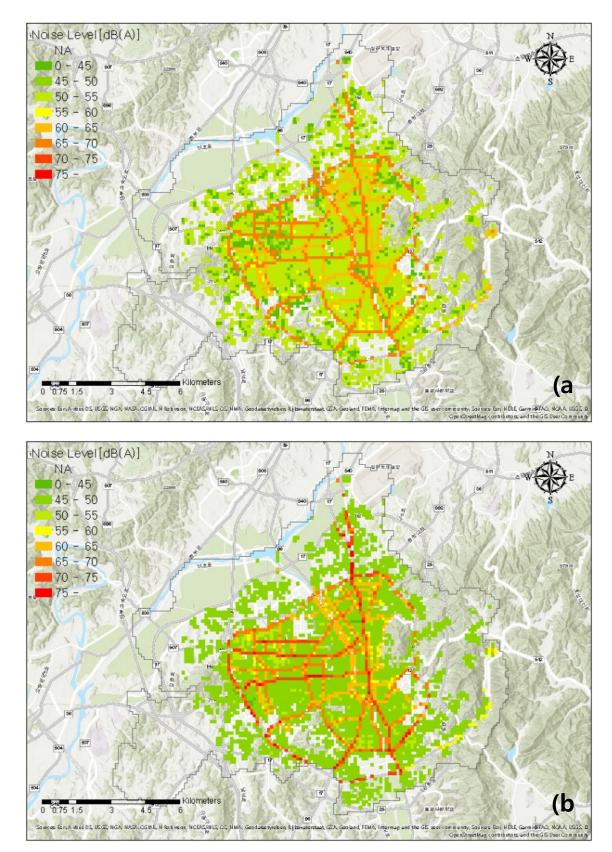


Figure S16. Statistical road-traffic noise map of Cheongju: (a) ANN model; (b) OLS model [44-45].