**Additional File 3**:Additional graphs for coverage probabilities and statistical power.

**Z:\STEAM\R\Final\pm10_corrected\pm10_corrected_final\Coverage.tif**

**Fig** 3.1 The Coverage probability (%) of 95% confidence intervals by correlation coefficient and variance ratio (model vs. “true”).

**Z:\STEAM\R\Final\pm10_corrected\pm10_corrected_final\Power.tif**

**Fig** 3.2 Statistical power (%) by correlation coefficient and variance ratio (model vs. “true”).