Supplementary Information

Modeling In-Use Steel Stock in China's Buildings and Civil Engineering Infrastructure Using Time-Series of DMSP/OLS Nighttime Lights. *Remote Sens.* 2014, *6*, 4780–4800

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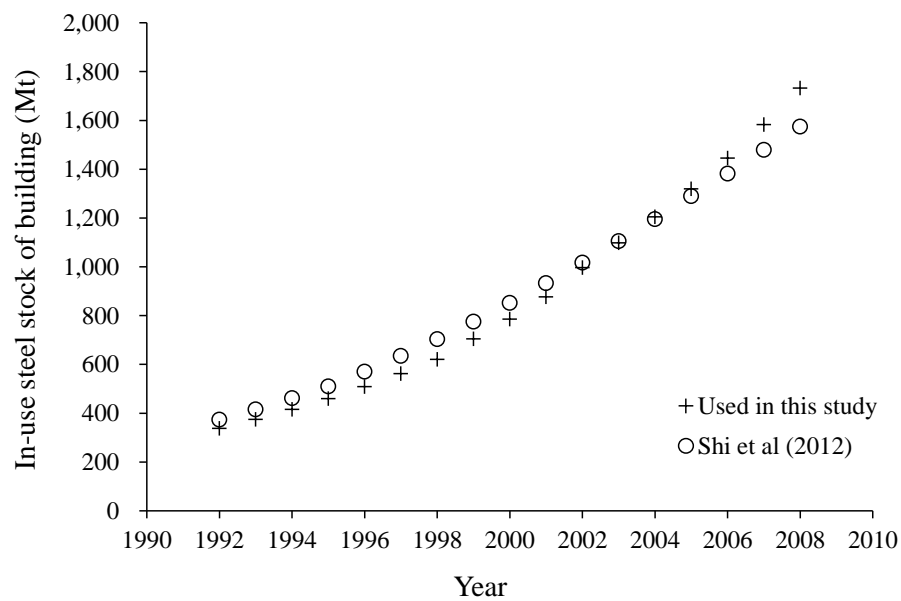
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This document would show detail supplementary information and data analysis for the manuscript.

Due to the lack of the detailed ground dataset (e.g., 3D GIS data), it is difficult to validate the provincial in-use steel stock dataset used in this study [32]. However, we summed all the provincial in-use steel stock in buildings of the dataset used in this study and compared with those of Shi *et al.* [34] who calculated the in-use steel stock of buildings at national level, in order to validate the reliability of the dataset used in this study. Figure S1 shows the in-use steel stock of buildings of the dataset used in this study and Shi *et al.*'s [34] dataset. These two datasets were generally consistent well.

For in-use steel stock of civil engineering infrastructure, it is not appropriate to compare the two datasets directly. First, the investigation units of these two studies are quite different. In Shi *et al.*'s [34] dataset, the road system is divided into four types: superhighways, first-class-highway, second-class highway, and under second-class highway. While in dataset used in this study, the road system is divided into five types: superhighways and four categories of traditional highways which provided more detailed estimation for the road in rural areas. Second, the investigation categories are also different between these two studies. The dataset used in this study includes in-use steel stock in three civil engineering infrastructures (road, railway, and water pipe), while Shi *et al.* [34] just calculates the in-use steel stock in road and railway.

Figure S1. Inter-comparison of in-use steel stock in buildings between dataset used in this study and Shi *et al.*'s [34] dataset.