1   **Supporting Online Materials**

3   **Spatially explicit global gross domestic product (GDP) data**

4   **set consistent with the Shared Socioeconomic Pathways**

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6   Tingting Wang, Fubao Sun[*]

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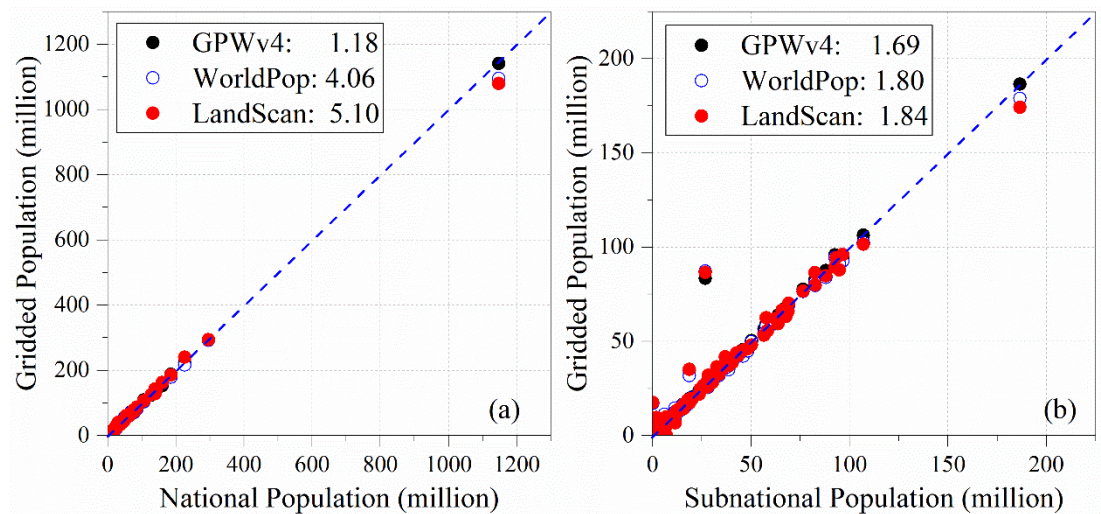
9   **Supporting figures**

10

11   Figure S1 Comparison between national (a) and subnational (b) population between

12   official data against gridded data sets in 2005, values in the legend are their

13   corresponding RMSE.

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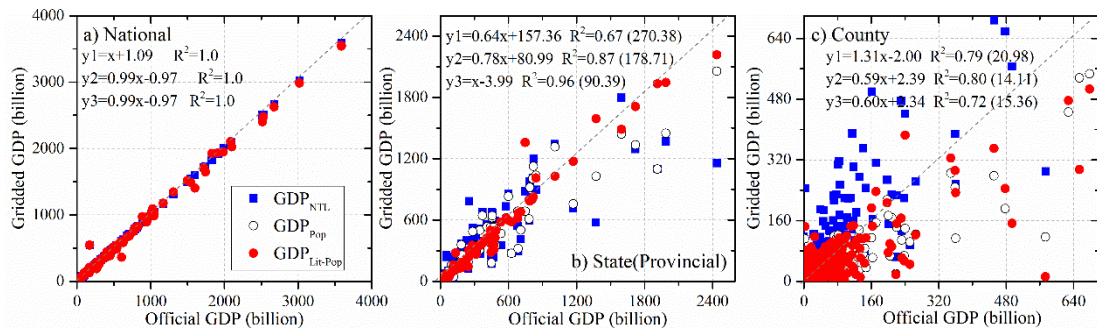
16

17 Figure S2 Comparison between official GDP and disaggregated GDP at national level

18 (a), at state and provincial (b), and at county (c) levels in U.S. and China in 2015, values

19 in brackets are their corresponding RMSE.

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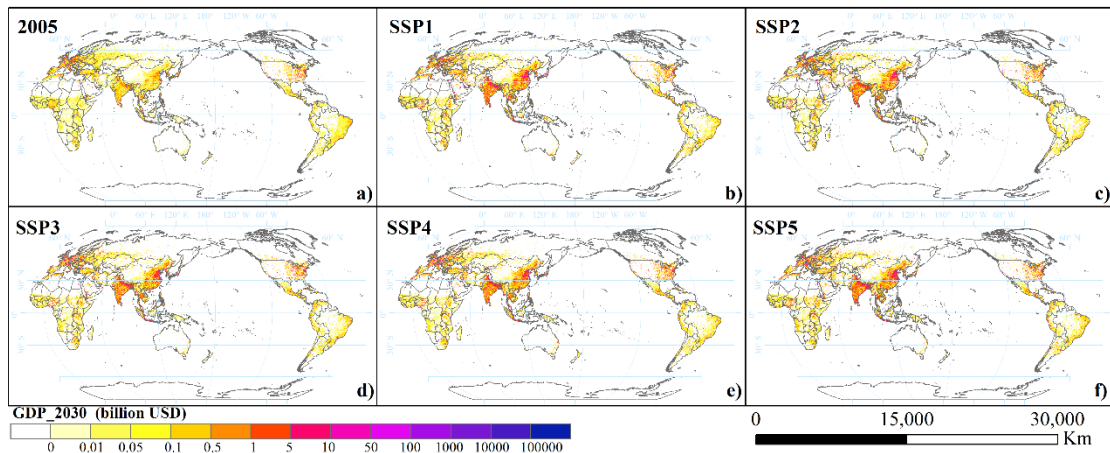
22

23 Figure S3 The spatial allocation of global GDP using GDP$_{Pop}$ approach for 2005 (a) and

24 2030 under SSP1-5 scenarios (b-f) with a spatial resolution of 1 km.

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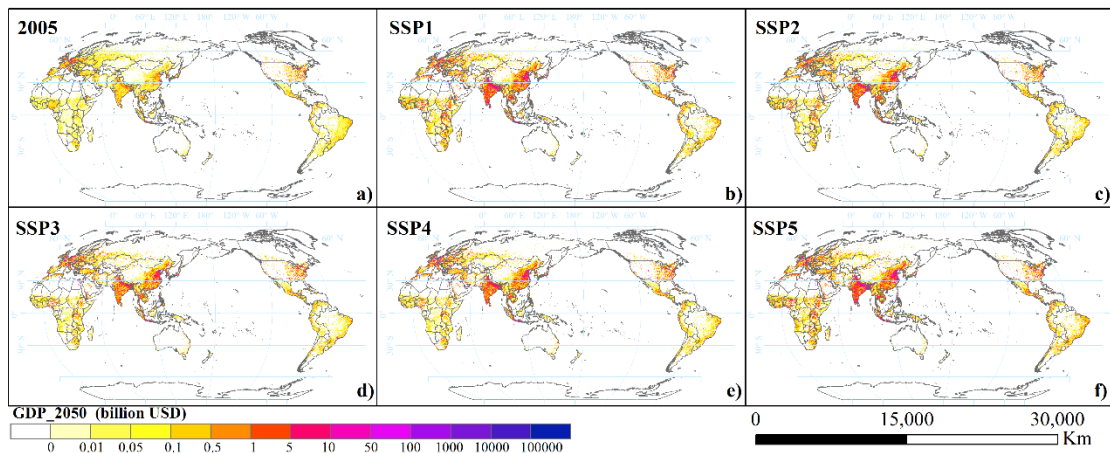
28 Figure S4 The spatial allocation of global GDP using GDP$_{Pop}$ approach for 2005 (a) and

29 2050 under SSP1-5 scenarios (b-f) with a spatial resolution of 1 km.

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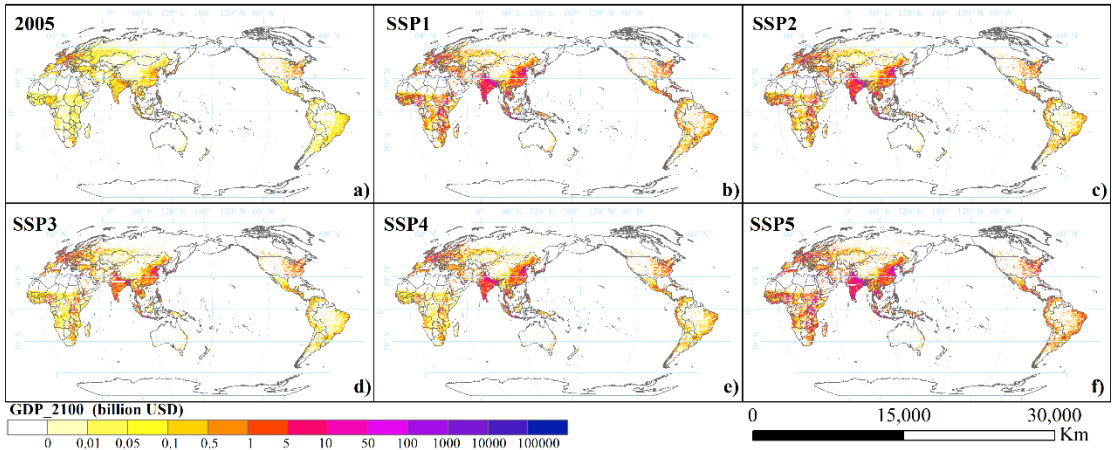
Figure S5 The spatial allocation of global GDP using GDP_{Pop} approach for 2005 (a) and

2100 under SSP1-5 scenarios (b-f) with a spatial resolution of 1 km.