## Supplementary Table 1

Pearson correlation coefficients between EPR and social-economic factors (GDPpc and UR) at provincial-level of China (two tailed test).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | EPR2018 | EPR2017 | EPR2016 | EPR2015 | EPR2014 | EPR2013 | EPR2012 | EPR2011 | EPR2010 | EPR2009 | EPR2008 | EPR2007 | EPR2006 | EPR2005 | EPR2004 | EPR2003 | EPR2002 |
| GDPpc2018 | 0.27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2017 |  | 0.41\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2016 |  |  | 0.40\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2015 |  |  |  | 0.39\* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2014 |  |  |  |  | 0.24 |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2013 |  |  |  |  |  | 0.29 |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2012 |  |  |  |  |  |  | 0.17 |  |  |  |  |  |  |  |  |  |  |
| GDPpc2011 |  |  |  |  |  |  |  | 0.11 |  |  |  |  |  |  |  |  |  |
| GDPpc2010 |  |  |  |  |  |  |  |  | 0.25 |  |  |  |  |  |  |  |  |
| GDPpc2009 |  |  |  |  |  |  |  |  |  | 0.53\*\* |  |  |  |  |  |  |  |
| GDPpc2008 |  |  |  |  |  |  |  |  |  |  | 0.54\*\* |  |  |  |  |  |  |
| GDPpc2007 |  |  |  |  |  |  |  |  |  |  |  | 0.56\*\* |  |  |  |  |  |
| GDPpc2006 |  |  |  |  |  |  |  |  |  |  |  |  | 0.61\*\* |  |  |  |  |
| GDPpc2005 |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.53\*\* |  |  |  |
| GDPpc2004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.77\*\* |  |  |
| GDPpc2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.81\*\* |  |
| GDPpc2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.77\*\* |
| UR2018 | 0.41\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2017 |  | 0.51\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2016 |  |  | 0.51\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2015 |  |  |  | 0.47\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2014 |  |  |  |  | 0.31\* |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2013 |  |  |  |  |  | 0.38\* |  |  |  |  |  |  |  |  |  |  |  |
| UR2012 |  |  |  |  |  |  | 0.22 |  |  |  |  |  |  |  |  |  |  |
| UR2011 |  |  |  |  |  |  |  | 0.15 |  |  |  |  |  |  |  |  |  |
| UR2010 |  |  |  |  |  |  |  |  | 0.30\* |  |  |  |  |  |  |  |  |
| UR2009 |  |  |  |  |  |  |  |  |  | 0.53\*\* |  |  |  |  |  |  |  |
| UR2008 |  |  |  |  |  |  |  |  |  |  | 0.61\*\* |  |  |  |  |  |  |
| UR2007 |  |  |  |  |  |  |  |  |  |  |  | 0.59\*\* |  |  |  |  |  |
| UR2006 |  |  |  |  |  |  |  |  |  |  |  |  | 0.60\*\* |  |  |  |  |
| UR2005 |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.50\*\* |  |  |  |
| UR2004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.65\*\* |  |  |
| UR2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.69\*\* |  |
| UR2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.65\*\* |

\* *P* < 0.05. \*\* *P* < 0.01.

## Supplementary Table 2

Pearson correlation coefficients between EDR and social-economic factors (GDPpc and UR) at provincial-level of China (two tailed test).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | EDR2018 | EDR2017 | EDR2016 | EDR2015 | EDR2014 | EDR2013 | EDR2012 | EDR2011 | EDR2010 | EDR2009 | EDR2008 | EDR2007 | EDR2006 | EDR2005 | EDR2004 | EDR2003 | EDR2002 |
| GDPpc2018 | 0.17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2017 |  | 0.30\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2016 |  |  | 0.28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2015 |  |  |  | 0.22 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2014 |  |  |  |  | 0.07 |  |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2013 |  |  |  |  |  | 0.09 |  |  |  |  |  |  |  |  |  |  |  |
| GDPpc2012 |  |  |  |  |  |  | -0.07 |  |  |  |  |  |  |  |  |  |  |
| GDPpc2011 |  |  |  |  |  |  |  | -0.09 |  |  |  |  |  |  |  |  |  |
| GDPpc2010 |  |  |  |  |  |  |  |  | 0.01 |  |  |  |  |  |  |  |  |
| GDPpc2009 |  |  |  |  |  |  |  |  |  | 0.38\* |  |  |  |  |  |  |  |
| GDPpc2008 |  |  |  |  |  |  |  |  |  |  | 0.33\* |  |  |  |  |  |  |
| GDPpc2007 |  |  |  |  |  |  |  |  |  |  |  | 0.38\* |  |  |  |  |  |
| GDPpc2006 |  |  |  |  |  |  |  |  |  |  |  |  | 0.45\*\* |  |  |  |  |
| GDPpc2005 |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.26\* |  |  |  |
| GDPpc2004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.68\*\* |  |  |
| GDPpc2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.75\*\* |  |
| GDPpc2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.70\*\* |
| UR2018 | 0.27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2017 |  | 0.39\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2016 |  |  | 0.37\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2015 |  |  |  | 0.31\* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2014 |  |  |  |  | 0.13 |  |  |  |  |  |  |  |  |  |  |  |  |
| UR2013 |  |  |  |  |  | 0.18 |  |  |  |  |  |  |  |  |  |  |  |
| UR2012 |  |  |  |  |  |  | -0.03 |  |  |  |  |  |  |  |  |  |  |
| UR2011 |  |  |  |  |  |  |  | -0.07 |  |  |  |  |  |  |  |  |  |
| UR2010 |  |  |  |  |  |  |  |  | 0.05 |  |  |  |  |  |  |  |  |
| UR2009 |  |  |  |  |  |  |  |  |  | 0.38\* |  |  |  |  |  |  |  |
| UR2008 |  |  |  |  |  |  |  |  |  |  | 0.42\*\* |  |  |  |  |  |  |
| UR2007 |  |  |  |  |  |  |  |  |  |  |  | 0.43\*\* |  |  |  |  |  |
| UR2006 |  |  |  |  |  |  |  |  |  |  |  |  | 0.45\*\* |  |  |  |  |
| UR2005 |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.25 |  |  |  |
| UR2004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.54\*\* |  |  |
| UR2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.62\*\* |  |
| UR2002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.56\*\* |

\* *P* < 0.05. \*\* *P* < 0.01.