

Regions and Cities at a Glance 2020 provides a comprehensive assessment of how regions and cities across the OECD are progressing in a number of aspects connected to economic development, health, well-being and net zero-carbon transition. In the light of the health crisis caused by the COVID-19 pandemic, the report analyses outcomes and drivers of social, economic and environmental resilience. Consult the full publication <u>here</u>.

OECD REGIONS AND CITIES AT A GLANCE - COUNTRY NOTE

KOREA

- A. Resilient regional societies
- B. Regional economic disparities and trends in productivity
- C. Well-being in regions
- D. Industrial transition in regions
- E. Transitioning to clean energy in regions
- F. Metropolitan trends in growth and sustainability

The data in this note reflect different subnational geographic levels in OECD countries:

- Regions are classified on two territorial levels reflecting the administrative organisation of countries: large regions (TL2) and small regions (TL3). Small regions are classified according to their access to metropolitan areas (see <u>https://doi.org/10.1787/b902cc00-en</u>).
- Functional urban areas consists of cities defined as densely populated local units with at least 50 000 inhabitants – and adjacent local units connected to the city (commuting zones) in terms of commuting flows (see <u>https://doi.org/10.1787/d58cb34d-en</u>). Metropolitan areas refer to functional urban areas above 250 000 inhabitants.

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A. Resilient regional societies

Ageing challenges regions far from metropolitan areas more strongly

The elderly dependency rate has been increased in all types of regions in Korea since 2000. Regions far from metropolitan areas show the highest elderly dependency rate (34%) among different types of regions (Figure A1. Jeollanam-do (Jeolla region) is the small region with the highest elderly dependency rate in Korea, with 34 elderly for every 100 persons in their working-age in 2019 (Figure A2).



Residents in the Jeolla region have nearly four times more hospital beds per capita than in 2000.

In contrast to the trend in many OECD countries, the number of hospital beds per inhabitant has increased in all regions since 2000 (Figure A3). Regional disparities in hospital beds are above OECD average. Jeju, the region with the lowest number of hospital beds per inhabitants, had 15 hospital beds per 1 000 inhabitants less than in Jeolla in 2017.



Figure notes. [A1]: OECD (2019), Classification of small (TL3) regions based on metropolitan population, low density and remoteness https://doi.org/10.1787/b902cc00-en. Two-year moving averages. [A2]: Small (TL3) regions contained in large regions. TL3 regions in Korea are composed by 17 special cities, metropolitan areas and provinces.

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B. Regional economic disparities and trends in productivity

Regional economic gaps have declined since 2000, partially due to lower growth of the most productive regions

Differences between Korean regions in terms of GDP per capita have been stabled over the last eighteen years, and remain among the lowest of OECD countries (Figure B1). Jeju, the poorest region in the country, has a GDP per capita level equivalent to 72% of the GDP per capita in Chungcheong, the richest region in Korea.

With a productivity growth of 3.3% per year over the period 2008-18, Jeju has experienced the highest growth and is catching-up to Gyeongnam, the productivity frontier of Korea in 2008 (Figure B2).

Jeollanam-do, the only region far from a metropolitan area of at least 250 000 inhabitants, has higher productivity than the average in metropolitan regions (Figure B3).



Note: A ratio with a value equal to 2 means that the GDP of the most developed regions accounting for 20% of the national population is twice as high as the GDP of the poorest regions accounting for 20% of the national population.



C. Well-being in regions

Korea presents important regional disparities in 4 out of 11 well-being dimensions, with the largest disparities in the dimensions of jobs and safety



Note: Relative ranking of the regions with the best and worst outcomes in the 11 well-being dimensions, with respect to all 440 OECD regions. The eleven dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is measured by the indicators in the table below.

While Korean regions are in the bottom 20% of OECD regions in the environment dimension, they are leading in the top 25% of OECD regions in terms of health and access to services (broadband). In contrast, outcomes across regions are very unequal in the dimension of jobs. While Jeju is around the top 25% of OECD regions in this dimension, Gyeongnam region is in the bottom 40% of OECD regions (Figure C1).

The top performing Korean regions is above the average of the top OECD regions in 3 out of 13 well-being indicators, namely access to services, adjusted mortality rates and life expectancy (Figure C2).

| | | Country | OECD Top | Korear | rean regions | |
|---|---|---------|-------------|---------|--------------|--|
| | | Average | 20% regions | Top 20% | Bottom 20% | |
| - | Jobs | | | | | |
| | Employment rate 15 to 64 years old (%), 2019 | 66.0 | 76.0 | 67.9 | 64.5 | |
| | Unemployment rate 15 to 64 years old (%), 2019 | 4.3 | 3.3 | 3.4 | 4.6 | |
| | Safety | | | | | |
| | Homicide Rate (per 100 000 people), 2016-18 | 1.3 | 0.7 | 1.1 | 1.6 | |
| | Education | | | | | |
| | Population with at least upper secondary education, 25-64 year-olds (%), 2019 | 84.3 | 90.3 | 88.6 | 76.6 | |
| | Community | | | | | |
| | Perceived social netw ork support (%), 2014-18 | 77.3 | 94.1 | 80.9 | 71.9 | |
| | Health | | | | | |
| | Life Expectancy at birth (years), 2018 | 82.7 | 82.6 | 83.4 | 81.9 | |
| | Age adjusted mortality rate (per 1 000 people), 2018 | 6.2 | 6.6 | 5.9 | 6.7 | |
| | Civic engagement | | | | | |
| | Voters in last national election (%), 2019 or latest year | 77.2 | 84.2 | 64.1 | 58.3 | |
| | Income | | | | | |
| | Disposable income per capita (in USD PPP), 2018 | 19 893 | 26 617 | 21 009 | 18 520 | |
| | Environment | | | | | |
| | Level of air pollution in PM 2.5 (µg/m³), 2019 | 31.1 | 7.0 | 25.3 | 28.0 | |
| | Housing | | | | | |
| | Rooms per person, 2018 | 1.3 | 2.3 | 1.6 | 1.4 | |
| | Life Satisfaction | | | | | |
| | Life satisfaction (scale from 0 to 10), 2014-18 | 5.8 | 7.3 | 5.9 | 5.7 | |
| | Access to services | | | | | |
| | Households with broadband access (%), 2019 | 99.4 | 91.3 | 99.7 | 98.9 | |

| C2. | How | do t | he t | op an | d botton | n regions | fare on | the we | ell-being | indicators? | |
|-----|-----|------|------|-------|----------|-----------|---------|--------|-----------|-------------|--|
| | | | | | | | | | | | |

Note: OECD regions refer to the first administrative tier of subnational government (large regions, Territorial Level 2); Korea is composed of seven large regions. Visualisation: https://www.oecdregionalwellbeing.org.

D. Industrial transition in regions



Manufacturing employment has grown in three regions since 2008

Between 2008 and 2019, three out of seven large regions in Korea experienced an increased in the share of manufacturing employment. With an increase of more than 3-percentage points in the share of manufacturing employment, Chungcheong recorded the largest increase (Figure D1).

The share of manufacturing gross value added has declined in all regions since 2008, except in Seoul, and Jeju. In Chungcheong, the increase in manufacturing gross value added has occurred together with an increase of manufacturing employment in the same period (Figure D2).



D2. Manufacturing trends, 2008-18

Note figure D.2. : Regions are ordered by regional employment as a share of national employment. Colour of the bubbles represents the evolution of the share over the period 2008-1 in percentage points: red: below -2 pp; orange: between -2 pp and -1 pp; yellow: between -1 pp and 0; light blue: between 0 and +1 pp; medium blue: between +1 pp and +2 pp; dark blue: above +2 pp over the period.

E. Transitioning to clean energy in regions

The regions of Chungcheong, Seoul and Gyeongnam, which contribute to two-thirds of Korean electricity, highly rely on coal for electricity production

In 2017, the regions of Chungcheong, Seoul and Gyeongnam produced 66% of Korean electricity – each region accounting for an equal part of this production. In these regions, the production of electricity is marked by a very limited use of renewable sources – below the 6% – and a high reliance on coal. In particular, Chungcheong and Gyeongnam produce 82% and 50% of their electricity using coal-fired power, respectively. In contrast, the region of Gyeongbuk, which accounts for 14% of Korea's electricity, has fully abandoned the use of coal for electricity production (Figure E1).

| | E1. Transition to renewable energy, 2017 | | | | | | | |
|--------------------|--|---|---|--|------|--|--|--|
| | Total electricity generation (in GWh per year) | Regional share of renewables in electricity generation (%) | Regional share of coal in electricity generation (%) | Greenhouse gas emissions from electricity generated (in Ktons of CO ₂ eq.) | | | | |
| Chungcheong Region | 134 861 | 6% | 82% | 100 461 | Chu. | | | |
| Seoul Region | 120 506 | 2% | 33% | 71 644 | Seo. | | | |
| Gyeongnam Region | 116 912 | 2% | 50% | 56 939 | Gye. | | | |
| Jeolla Region | 76 660 | 6% | 19% | 22 072 | Jeo. | | | |
| Gyeongbuk Region | 76 317 | 5% | 0% | 2 747 | Gye. | | | |
| Gangwon Region | 36 518 | 7% | 84% | 26 747 | Gan. | | | |
| Jeju | 2 510 | 30% | 46% | 1 344 | Jej. | | | |

According to OECD estimates, carbon efficiency in the production of electricity is very unequal across Korean regions. While Gyeongbuk emits 35 tons of CO_2 per gigawatt hour of electricity produced, Chungcheong releases close to 750 tons of CO_2 per gigawatt hour. Relative to total Korean levels, whereas Gyeongbuk produces 14% of Korean electricity and releases only 1% of total CO_2 emissions in the country, Chungcheong generates 24% of electricity and releases 36% of total CO_2 emissions (E2).



E2. Contribution to total CO₂ emissions from electricity production, 2017

Figure notes: Regions are arranged in Figure E1 by total generation, and in Figure E2 according to gap between share of electricity generation and share of CO₂ emissions (most positive to most negative). These estimates refer to electricity production from the power plants connected to the national power grid, as registered in the Power Plants Database. As a result, small electricity generation facilities disconnected from the national power grid might not be captured. Renewable energy sources include hydropower, geothermal power, biomass, wind, solar, wave and tidal and waste. See <u>here</u> for more details.

Compared to OECD average, Korea has a higher concentration of people in metropolitan areas above half a million inhabitants

In Korea, 82% of the population lives in cities of more than 50 000 inhabitants and their respective commuting areas (functional urban areas, FUAs). The share of population in FUAs with more than 500 000 people is 77%, higher than the OECD average of 60% (Figure F1).



Built-up areas have increased faster than population in most metropolitan areas

Built-up area per capita in Korean metropolitan areas is consistently and significantly lower than the OECD average of metropolitan areas. Built-up area per capita have increased in seven out of twelve functional urban areas in Korea since 2000, especially in Pohan, which had the highest level of built-up area per capita in Korea. At the opposite, in Sebuk population has grown faster than the built-up area since 2000 (Figure F2).



While the metropolitan area of Ulsan had the highest GDP per capita in Korea in 2018, it is the only Korean metropolitan area where GDP per capita has stagnated since 2000

Korea shows large disparities across metropolitan areas in terms of GDP per capita, with Dalseong being in the bottom 10% of OECD metropolitan areas and Ulsan in the top 10%. GDP per capita has increased significantly faster than the median OECD metropolitan area in all Korean metropolitan areas, except Ulsan. In particular, Seoul is in the top 5% of OECD metropolitan areas that record the highest GDP per capita growth since 2000.



