

Korea (Republic)



Trilemma Rank

#37

Trilemma Score

71.7

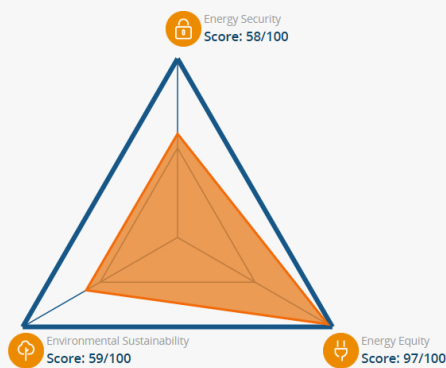
Balance Grade

BAC

Korea shows a varied Trilemma performance with an unbalanced triangle, ranking 37th globally. Equity is the strongest dimension with high scores across the indicators. He Security index is improved by performance in grid stability in more recent years. Marked growth in the Sustainability dimension is driven by managed GHG emissions and per capita CO₂ in the context of growth. The overall score grade is BAC.

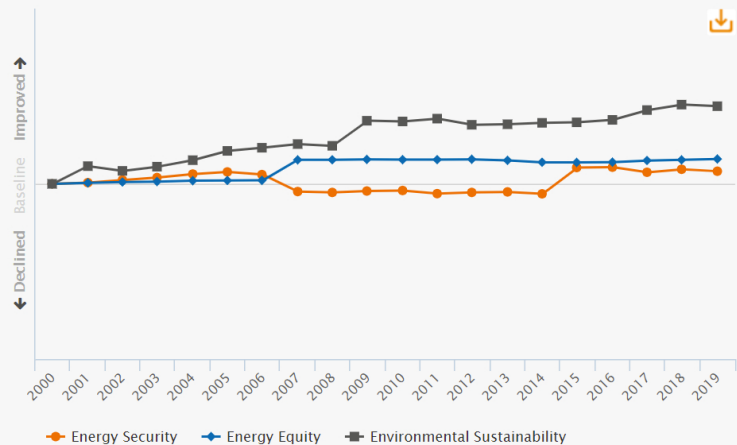
Population
51.5 (millions) **Land Area**
97.5 (thousand sq. km) **GDP Per Capita**
38,824 (PPP US\$) **Industrial Sector**
35.9 (% of GDP) **GDP Growth**
3.1 (annual %)

Balance



Historical Trilemma Scores

Trend lines track the country's performance in each dimension, beginning with a baseline of 100 in the year of 2000



Highcharts.com

Trends and Outlook

Crucial recent policy measures to enhance energy security and environmental sustainability include: increasing the share of renewable energy in electricity generation from the current 7.6% up to 30-35% by 2040 and increase use of natural gas including US shale gas. Also, encouraging the use of energy management systems, including BEMS (Building Energy Management Systems) and FEMS (Factory Energy Management System). A part of the government policy is introducing DR (Demand Response) markets and AI & IoT technologies to enhance energy efficiency measure 38% by 2040.

The Korean Government announced its third national energy master plan in April 2019, to be implemented from 2019 to 2040. The energy master plan is the nation's top-level power plan to set forth a vision for its energy policies and strategies. Based on critical agendas drawn in the program, policymakers focus on tasks based on the national vision of achieving sustainable economic development and a higher quality of living. The five policy tasks are:

- 1) Realization of high energy efficiency society through the innovation of energy demand management.
- 2) Building an integrated smart energy system driven by renewable energy.
- 3) Developing future energy business to create new jobs and market.
- 4) Implementation of a nation driven and decentralized energy governance.
- 5) Establishing infrastructure for energy transition and 4th industrial revolution.

Key metrics

Metrics are determined relative to other countries, with the top performer receiving a full bar.

	2019 Performance	Trend 2010-19
Energy security ⓘ		
Import dependence	<div><div></div></div>	▲
Diversity of electricity generation	<div><div></div></div>	▼
Energy storage	<div><div></div></div>	▼
Energy equity ⓘ		
Access to electricity	<div><div></div></div>	▶
Electricity prices	<div><div></div></div>	▲
Gasoline and diesel prices	<div><div></div></div>	▶
Environmental sustainability ⓘ		
Final energy intensity	<div><div></div></div>	▲
Low carbon electricity generation	<div><div></div></div>	▼
CO ₂ emissions per capita	<div><div></div></div>	▼
Country context ⓘ		
Macroeconomic stability	<div><div></div></div>	▲
Effectiveness of government	<div><div></div></div>	▲
Innovation capability	<div><div></div></div>	▲