

COUNTRY FACTSHEET

SOUTH KOREA

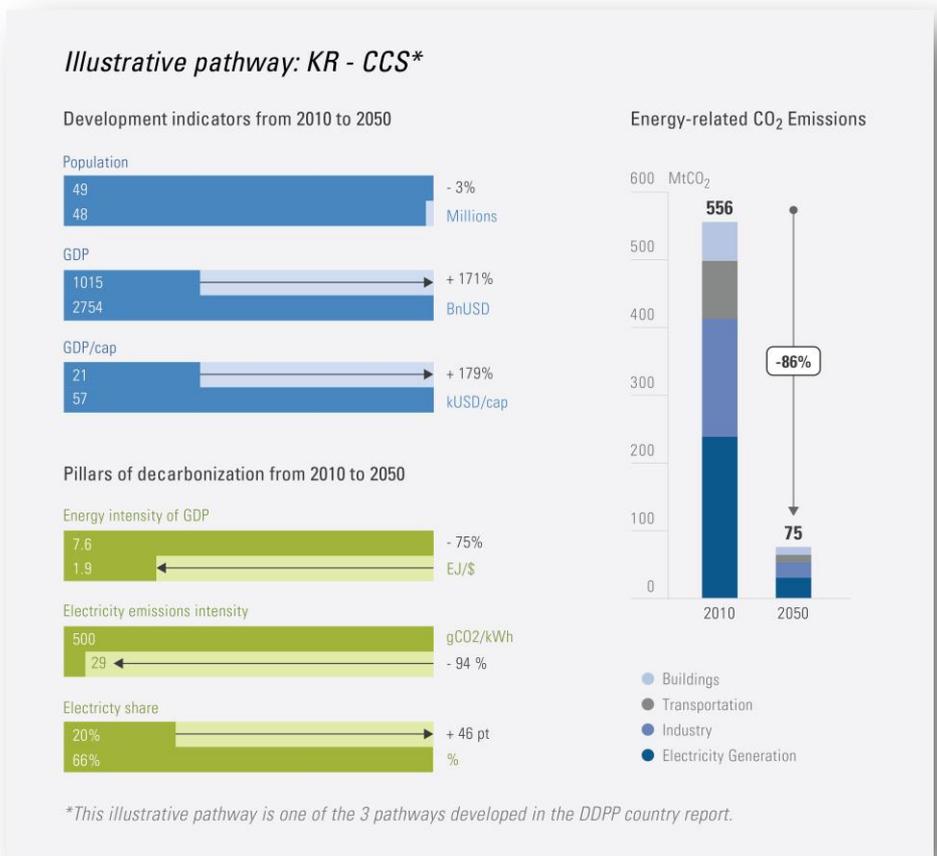
WHAT ARE THE NATIONAL CIRCUMSTANCES THAT INFLUENCE DEEP DECARBONIZATION IN SOUTH KOREA?

- High emission intensity of the economy, making South Korea the 7th globally in terms of carbon emissions (2011) while ranking 15th in terms of GDP (2012), makes the case for deep decarbonization of the economy compelling.
- Economic structure makes export-led growth highly dependent on energy-intensive heavy industries that are very energy efficient according to international standards; this makes deep decarbonization very challenging and the structural adjustment of the economy that is, shift to a new growth formula, a task of paramount importance.
- Endowment of renewable energy resources is highly limited, its existing policy to increase the share of nuclear power (currently, about 30% of electricity supply) has been rendered politically unsustainable especially since the Fukushima incident, while the potential for deployment of CCS seems highly limited by the presumed lack of the storage space at home.

- Efforts to expand the supply of renewable energies such as wind and solar should be continuously stretched, with full deployment of market mechanisms such as market-based pricing of energy, including electricity, supplemented with carbon pricing, and also of new ICT and other technologies, including smart grids, in particular.
- Practical considerations seem to dictate continuing reliance on nuclear power as a major means of decarbonizing electricity. This would require a renewed emphasis on sustained efforts to address the safety issues raised by nuclear power, on which international cooperation should be pursued as a matter of pressing priority. An open, transparent, and participatory governance architecture over the nuclear power issues, including the safety issues, in particular, will be crucial to improving public acceptance and addressing technical issues through a broad consultation among all stakeholders.

WHAT ARE THE MOST PROMINENT STRATEGIES TO BE IMPLEMENTED FOR DEEP DECARBONIZATION IN SOUTH KOREA?

- The strategy of improving energy efficiency should be endowed with the highest priority in all its dimensions: strengthening demand management; decentralizing electricity generation; economic structural adjustment; and realigning the national infrastructure such as the transport system and the urban design, etc. Political considerations as well as short-sightedness in visioning and planning have been hampering those efforts.



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- ▶ Exploration of the deep decarbonization pathways should be a continuing national exercise as a way of canvassing all the challenges and solution options for proactive and most effective approach to decarbonization from the long-term strategic perspective.
- ▶ South Korea's green growth strategy should be strengthened, re-focused on decarbonization and geared to continuing exploration and enablement of deep decarbonization pathways.

CONTACT:

- ▶ KDI School of Public Policy and Management
- ▶ Korea Environment Institute
- ▶ Korea University College of Life Sciences and Biotechnology
- ▶ Korea Transport Institute