

China's Carbon Neutral Strategy and Policy Insights



Jihyun Jung

Ph.D., Research Fellow, Head of China Region and Strategy Team
Korea Institute for International Economic Policy

Responding to climate change is a major challenge for the international community, and it is a particularly difficult challenge for China, the world's largest carbon emitter and developing country. However, China is pursuing a carbon-neutral strategy to use these challenges as opportunities for new development. According to the World Bank report (2022), China's reform policy (i.e. rebalancing the economy from infrastructure investment to innovation, from exports to domestic demand, and from state-led to market-led resource allocation) can significantly lower the cost of China's climate action.¹ In the global green transition, as China pursues a strategy to maximize its strengths, such as resources, green transition technology, and state capitalism, and expand its global influence, the world economy, including S. Korea, is significantly affected, and the impact can be further expanded.

¹ World Bank. 2022. "China's Transition to a Low-Carbon Economy and Climate Resilience Needs Shifts in Resources and Technologies." worldbank.org, October 12.

In 2020, China officially declared its goal of carbon neutrality, namely “to achieve an emission peak in 2030 and achieve carbon neutrality in 2060”. This is a strategy that reflects China's mid- to long-term growth strategy (realizing the goal of the first stage of socialist modernization by doubling GDP in 2020 by 2035). First of all, by 2030 (the emission peak), China plans to reduce the carbon emission intensity (emissions compared to GDP), not the total amount of carbon emission. In other words, China plans to increase its total carbon emissions until it achieves its mid- to long-term growth targets. However, the rate of increase in total emissions was designed to be lower than the rate of GDP growth. From then until 2060, the plan is to rapidly reduce the total amount of carbon emissions by further strengthening emission reduction policies suitable for the changed economic and industrial structure, while utilizing low-carbon technologies developed and accumulated experience. Accordingly, in the short term, China is expected to prioritize controlling output in high-emission (high-pollution) industries, where the effect of reducing emissions can be quickly observed. Additionally, China will continue to promote supportive policies for the development of energy-saving and low-carbon technologies, as well as the expansion of renewable energy facilities.

To accomplish China's carbon-neutral ambition, green transition in energy (making up 53%) and industry (29%), together contributing to over 82% of China's carbon emissions, is crucial. For the green transition in the energy sector, China is focusing on policies like expanding non-fossil energy production, establishing a low-carbon energy supply system, and low-carbon and high-efficiency production of fossil energy. With regards to the green transition in the industrial sector, policies such as reducing pollution and carbon emissions, increasing industrial energy use efficiency, improving resource use levels, and establishing a green manufacturing system are being advanced. In addition, China is expanding market-based policies while focusing on non-market-based policies such as government-led direct regulation, public investment and subsidies. Regulations directly targeting on carbon emission reduction are implemented by region and major industry, and public investment (infrastructure, R&D), green finance, and subsidy policies are implemented for renewable energy such as wind and solar power, electric vehicles/hydrogen vehicles, and carbon treatment technology. Furthermore, the emissions trading system, initially as a pilot project at the regional level, was launched nationwide from 2021. In addition, China actively engages in international cooperation related to carbon neutrality, emphasizing its role and contribution in addressing global climate change. China places significant emphasis on the principle of differentiated responsibility, actively participates in global climate negotiations, and strengthens green cooperation with developing countries by utilizing the “Belt and Road Initiative” to consolidate developing countries' positions in the international community.

The green transition of energy and industry, which will dictate the success or failure of China's carbon neutral strategy, is having a significant impact on the global economy, including Korea. China's escalating protectionism for mineral and energy resources, which have gained increased importance in the global green transition, has recently secured greater justification as a global economic security issue. This is the reason many countries, highly dependent on Chinese resources and related technologies, such as rare earths, are increasingly apprehensive about supply chain shocks from China and China's resource weaponization. In particular, Korea is highly dependent on imports from China for energy and mineral resources and related processed products, so it can be directly affected by changes in China's domestic resource policies and export regulations. Given that this will not be a short-lived impact, comprehensive measures such as diversifying imports of resource-related items, strengthening supply chain cooperation with major countries, expanding policy support for the development of eco-friendly resource processing technology, and supply chain stabilization cooperation with China should be approached with a long-term perspective.

In addition, it is worth noting that China's carbon neutral strategy is helping Chinese companies improve their international competitiveness in the green transition. As Chinese companies secure cost-effective supply chains and enhance technological and price competitiveness in renewable energy industries such as solar and wind power and green transition-related industries such as electric vehicles, Chinese companies' competitiveness in the global market is rapidly strengthening. In response to this, Korea should formulate mid- to long-term strategies for technologies and industries in the green transition realm and fortify practical policies including trade and investment policies. Bolstering cooperation with a variety of global companies and pursuing mutually beneficial cooperation with China ought not to be neglected. **KIEP**