

GREEN INNOVATION IN CHINA

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EAI Background Brief No. 1674

Date of Publication: 11 November 2022

Executive Summary

1. Green innovation is indispensable for attaining China's goals of carbon peaking and carbon neutrality. The role of the state is critical in green innovation. The Chinese government has initiated policies in recent years to mobilise research institutes, local governments, state-owned enterprises (SOEs) among others in this area.
2. China is a leader in the world of green innovation. It accounted for 26% of the global public energy research, development and demonstration (RD&D) spending in 2020. Outcomes of green innovation in China are also impressive. Environmental technology-related patent applications in China increased by over 30 times between 2000 and 2019.
3. China's innovation system, consisting of actors including government research institutes, universities, local governments and firms have given their support particularly in indigenous innovation. A whole-of-nation approach to green innovation has also been promoted recently.
4. China has initiated several major national scientific programmes to support universities and research institutes in their basic (energy) research. At the local level, initiatives have also been launched to support this endeavour.
5. Firms in the areas of renewable energy and energy efficiency-related technologies are given tax rebate for R&D activities. International collaboration in new green technology is an important mechanism to promote innovation.
6. SOEs have invested heavily on R&D in low-carbon technologies. Many leading SOEs in the energy sector have leading in-house research institutes.
7. The government also sets up and manages industrial guidance funds, some of which target start-ups with green technologies.

8. However, the synergy between research institutes, universities and firms still needs to be improved. The resource allocation of government scientific programme/R&D subsidy is not very effective.
9. Another concern is the decrease in foreign funding of R&D activities under the indigenous innovation policy target.