

Strategy of Low-Carbon Development in China's 12th FYP and Low-Carbon City Construction in China

Zhou Jian

Institute of Energy, Environment and Economy, Tsinghua University

China is not only subject to the constraints of domestic resource endowment and environmental carrying capacity, but also confronted with the challenges associated with climate change and CO₂ emissions mitigation during her rapid industrialization and urbanization. Building green economy and low carbon development are among the basic approaches to realizing resource conservation and sustainable development of the economy and society.

China is now in the process of rapid industrialization and urbanization. Although China has been taking significant efforts to increase energy efficiency and promote new and renewable energy development and utilization, and achieved substantial progress, it is still difficult for China to change the trend of high growth in energy consumption and CO₂ emission in a short run. China's actual situation and the development stage she stays result in that China has more difficulties than developed countries in addressing climate change and achieving low carbon development. So China will be confronted with significant challenges and hard tasks in addressing climate change and achieving low carbon development.

The Chinese Government has promulgated national mitigation targets of 40-45% GDP CO₂ intensity reduction by 2020 before UN Climate Change Conference in Copenhagen. It is the strategic choice after energy intensity of GDP decreased by 20% 11th Five-Year-Plan period, which integrate the domestic saving energy, reducing consumption, building resource saving and environmentally friendly society and addressing global climate change, in line with China's development phase feature. To achieve the target, China will take even greater efforts and need more inputs of funds and technologies during 12th and 13th Five-Year-Plan period than 11th Five-Year-Plan period.

A significant reduction in GDP energy intensity and carbon intensity during China's industrialization phases will be the key measures and breakthrough points to achieve low carbon development. Therefore, Pursuing an innovative industrialization trajectory and building low carbon city are China's rational and strategic choice for well coordinating domestic sustainable development and addressing global climate change. Development pattern change and building low carbon industry and consumption systems are the core contents and key measures of China's green economy and low carbon city development of while substantial

reduction in GDP energy intensity and carbon intensity is the major objectives and feed-in points. In this context, China should strengthen technological innovation, promote low carbon industries, and enhance research, development and deployment of new energy technologies and energy efficiency technologies, facilitating the transit to a low carbon economy and society with technology innovations. China should also pursue an innovative industrialization and urbanization road and achieve wins both in global climate protection and domestic sustainable development by means of low carbon development. Five-province and eight-city low-carbon demonstration is expected to lead green and low-carbon development concept spreading, planning and implementation.

China's current sustainable development has been being bottlenecked by domestic resources and environmental carrying capacity. There are synergistic effects between carbon emissions reducing and domestic resource conservation, environmental protection, energy security policy, which can promote each other. Therefore, China should integrate domestic needs with international environment constrains, near and long term issues, local and national targets, pursue low-carbon development road with Chinese characteristics, and achieve win-win situation of protection of the global climate and domestic sustainable development.