

The 14th Five-Year Plan: peaking China's greenhouse gas emissions and paving the way to carbon neutrality

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Policy insight

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This policy paper is intended to inform decision-makers in the public, private and third sectors. It has been reviewed by internal and external referees before publication.

1. Sustainable development and transition towards carbon neutrality in the post-COVID-19 world

Tackling the twin threats of COVID-19 and climate change

The world currently faces two crises: COVID-19 and climate change. The COVID-19 pandemic has caused severe damage to the world economy, disrupting lives, societies and politics. Yet despite the magnitude of the crisis, which is truly global, the risks posed by unmanaged climate change are likely to be still greater and longer-lasting than those posed by the pandemic. There is now widespread recognition across the world both that the threats must be dealt with simultaneously, and that we cannot go back to the old economic growth model, which was fragile and polluting.

For most of the world, tackling these twin threats will require both increasing investment and fundamentally changing industrial composition to increase sustainability. And for most of the world, it is crucial not to repeat the mistake that was made after the financial crisis of 2008–10 of an early relapse into austerity in the public finances, thereby choking off growth. For China it is important not to repeat a different mistake also made at that time, namely overinvesting in traditional high-carbon infrastructure. And, for China, the challenge now is not to increase investment – the rate is already very high – but to shift it strongly in the direction of low-carbon and less polluting activities and technologies.

China at centre stage in a rapidly changing world

The US–China strategic relationship and the shape of the global economy after COVID-19 have contributed to an external environment that is less favourable to China than it was a decade or so ago. And, as a result of the COVID-19 crisis, the world will likely continue to see a phase of deglobalisation, a trend that began in the middle of the last decade. China's share of trade in goods to GDP decreased over the past decade, but is still over 30 per cent. However, due to the global economic depression and the deterioration of the global trade environment, exports are facing increasing uncertainties and difficulties. The 14th Five-Year Plan (2021–25) needs to take, and has indeed taken, account of these challenges, in relation to external demand and geopolitical tensions, and put forward a new model of growth that shapes future development, contributing to China's own prosperity and a better world.

Sustainable growth is the only feasible path forward, and it is one of the few areas where a broad consensus might be reached globally. As China leads the world out of the COVID-19 crisis, it has a great opportunity, to build both a new vision for the country's own development and its relationship with the world. As one of the first major G20 countries to have made the transition from rescue to recovery following COVID-19, China can show the world that the crisis offers an opportunity for building back better. Moving strongly towards sustainable investment drives recovery, boosts growth and accelerates the transition to the inevitable low-carbon economy. These three crucial features of the next few years are mutually supportive. Failing to take this opportunity would give us a deeply dangerous world. China is at centre stage.

In September 2020, President Xi Jinping announced at the United Nations General Assembly that China will aim for carbon neutrality by 2060. This significant pledge shows China's long-term ambitions and priorities, and that the Chinese government has linked low-carbon development and carbon-neutral transition with the country's sustainable development strategy and long-term prosperity.

2. Peaking emissions early and the 2060 carbon neutrality target

President Xi's announcement that China will seek to reach net-zero emissions by 2060 is of huge importance and benefit for both China and the wider world. However, China will face real difficulties in achieving this target if its carbon emissions do not peak well ahead of 2030 to put the nation onto a net-zero pathway.

Peaking emissions: the sooner, the better

The timing of the peaking in emissions is of great significance. There is no time to waste if China is to enable such a dramatic transformation to take place within four decades. The earlier that China peaks its carbon emissions, the lower the peak value is, and the more favourable it will be to realise the 2060 carbon neutrality target. As China is still in the development stage of industrialisation and urbanisation, with a relatively high economic growth rate, its national energy consumption is likely to maintain the trend of growth over a certain period of time. Therefore, China must move strongly to strengthen the policy orientation towards low-carbon development, to curb the increase in carbon dioxide emissions associated with economic growth and increased energy consumption. Further, it is total world emissions over the coming decades that shapes global warming and the later and the higher the peak for China, the more difficult it will be for the world to meet the Paris Agreement target of keeping temperature rise to "well-below 2 degrees Celsius", and, we hope, 1.5 degrees.

Peaking by 2025: a realistic goal

China's first nationally determined contribution (NDC), submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, committed to peaking its carbon emissions around 2030. A more ambitious NDC is now needed to update its commitments on carbon emissions in the short to medium term: China should aim to peak by 2025, during the 14th Plan, and that is both feasible and in the best interests of China and the world.

Under the constraint of a given carbon budget for the next few decades, different transformation pathways and mitigation strategies yield starkly different results. Victoria et al. (2020) suggest that it is much more cost-effective to choose an "early and steady" mitigation path that takes more stringent measures to reduce carbon emissions in the first decade and continues the trend for the following decades, than to go for a "late and rapid" path that sets an initial insufficient target for the first decade which then requires a sharp carbon reduction later.

The peaking of carbon emissions must not be followed by a long plateau – a sharp reduction in emissions is required from the peak. Green and Stern (2015) suggested that a new development model based on "better quality" growth¹ can boost China's economic growth while driving down its carbon emissions. That would mean China should change the way it grows its economy, with a dynamic process of major structural transformation and economic upgrading lying at the heart of China's 14th Five-Year Plan. The post-pandemic recovery, at the beginning of the 14th Plan, presents an important opportunity to accelerate this transformation to a low-carbon, more advanced economy.

¹ For a definition and features of the new model see page 3 in Green and Stern (2015).

3. Planning for post-COVID, high-quality and sustainable growth in the 14th Five-Year Plan

Following the announcement of the carbon neutrality goal, the transition to a low-carbon economy will not accelerate automatically, nor will net-zero emissions of major industries be achieved easily, unless substantial and ambitious reform measures are put in place. The new growth model and sustainable development that is implied by the 2060 carbon neutrality goal will also need to be rooted in existing social-economic goals and policies that have been articulated by China. The 14th Five-Year Plan is crucial in spearheading such efforts.

The first five years in shaping the route to 2060

The 14th Five-Year Plan is of particular significance beyond the challenge of COVID-19 recovery and the carbon neutrality target because the plan period of 2021–25 will mark the first five years of China's new journey to realise a modern socialist country (the overarching Long-Range Goal to 2035), on the path to the goal for the centenary of liberation of achieving "a great modern socialist country" (by 2049). The 14th Plan, covering the vital first years of the crucial initial decade of the four leading to the 2060 deadline for achieving carbon neutrality, will be the start that shapes the route. If China can reach a carbon peak by the end of the 14th Plan (i.e. by 2025), and then bend the emissions curve downwards quickly, it would significantly increase the likelihood of, and lower the costs of, reaching its neutrality target by 2060, and of the world achieving the climate targets under the Paris Agreement.

The Central Committee of the Communist Party has released proposals, as part of formulating the 14th Plan and the Long-Range Objectives through to the year 2035, that outline China's major economic and social development goals for the next 15 years. These goals and the 2060 climate targets are mutually supporting. China's vision for "eco-civilisation" or "a beautiful China", and its broad development goals for 2035, embody an innovative, sustainable and low-carbon approach to the country's development, and provide additional guidelines for strategies to achieve carbon neutrality by 2060. Simultaneously, the 2060 climate targets can reshape the economy for a sustainable future and lay the foundation for China's long-term, high-quality development, helping China deliver its articulated objectives and goals.

Strengthening the role of natural capital and a shift to green recovery and growth

China's new path to sustainable growth, transitioning from quantity to quality, should be focused on investment and innovation in four types of capital that are central to wellbeing and wealth: human, social, physical and natural capital (Hepburn et al., 2020). A narrow focus on traditional or badly designed or low-quality physical capital will undermine the other three forms of capital and put long-term prosperity at risk. The role of natural capital in economic recovery must be strengthened. The management of natural resources such as land and water can help upgrade and transform traditional industries, and the transition of the economy from labour-intensive to technology-intensive would naturally mean more efficient use of natural resources. These are mutually reinforcing.

The COVID-19 pandemic has provided a window of opportunity to act through 2021. At this critical time, the formulation of the 14th Five-Year Plan must be focused on promoting the high-quality growth agenda post-COVID-19 and shifting towards a green growth approach for ensuring more efficient and sustainable development. In the short term, green recovery through mobilising investment in a number of green industries can stimulate strong economic growth and create far more secure, high-quality jobs (UNEP, 2011), both directly and indirectly (Bowen and Kuralbayeva, 2015).

Investment in traditional high-carbon sectors is to be avoided, for its costs in terms of natural capital depletion harm the foundations of long-term economic growth and wellbeing. In the medium and longer run, green investment and consumption can cultivate new growth points, which can establish China's new competitive advantages globally and enhance the resilience and sustainability of its economic development. Early action in China, in 2021, will help raise ambition in the rest of the world as countries set out their targets and plans for the crucial COP26 of the UNFCCC in Glasgow in November 2021. China's actions can help shape the world's vision of the future.

Huge structural changes in China require the right macro-level policies

The structure of China's economy will change rapidly in the coming decades, with a shift to a service economy, growth in the importance of the private sector, an accelerated pace of digital transformation, and a continued growth of the urban population, which is set to reach 75–80 per cent of China's total population in the next three to four decades (Gu et al., 2017). Thus, the transition to sustainable growth will be associated with massive changes across economic and social sectors. It will involve structural transformation of industry towards higher skills and technology, with less material input; new technologies, putting to work the extraordinary advances of recent times; recasting energy and transport systems; much stronger investment in natural capital and sustainable infrastructure than in the past; investing in different ways in human capital, in both education and health; strengthening community and social institutions; and much more.

It is crucial for China to adopt the right kind of policies and institutional structure to pull through the very strong changes during the transition, to put in place the investment, technological changes, structural changes and sectoral reforms needed, and to manage the inevitable dislocations so that all can benefit from the new opportunities. To turn these strategies into action, overall planning at the macro level is needed. Some planning in China has gone way beyond the physical allocation of investment and resources and is now about the economic and other policies that can foster action in an economy that is ever increasing in its market-orientation, allowing the market to play a still stronger role in guiding the allocation of resources, technology and R&D investment.

Multiple benefits from international collaboration

The advance of the green economy in China will be more effective if it is pursued alongside other countries and using multilateral mechanisms including the international financial institutions (IFIs), G20 and the World Trade Organization. Given where the world is now after the profound economic shock of COVID-19, there are quadruple wins to international collaboration. First, expansion of demand in many countries moving together, for classic Keynesian reasons, benefits all. Second, a clear commitment to growth, in its new forms, across many countries, generates strong expectations to drive investment everywhere. Third, scaling up new markets for new goods and technologies fosters innovation and lowers costs. Fourth, we all benefit from lower greenhouse gas emissions, less pollution and better biodiversity.

Given its size, influence and creativity, it is crucial that China takes a lead in multilateral mechanisms across the board, and in particular in finance, through international organisations such as the Asian Infrastructure Investment Bank, World Bank and Asian Development Bank, to mobilise investment towards clean energy industries, including wind, solar PV, hydrogen and nuclear. It is vital also that China works with the International Monetary Fund (IMF) and the World Bank in helping tackle the great financial stresses that many countries now face. This action includes fostering new issues of IMF Special Drawing Rights (SDRs) and putting them to use for climate action and sustainable development.

Putting forward more ambitious and quantified targets for energy and climate in its work for the 14th Plan and strengthening commitments for COP26 will deliver a clear message that China will work closely with other countries in ratcheting up actions to combat climate change, promoting clean technologies and innovation, pursuing sustainable development and establishing more common goals and mutually beneficial cooperation.

The returns to and need for international collaboration have never been greater. The world is beginning to recover from COVID-19. There is a new administration in the USA with a strong focus on climate and a greater spirit of internationalism. More and more countries have set targets for net-zero emissions. The private sector too is increasingly setting such targets at the level of the firm, including many at the China Development Forum. This is a moment for China's leadership: the 14th Plan can help lead the world to zero-carbon but it must be ambitious and embody a peak in emissions by 2025. The consequent gains to China and the world would be immense.

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