

The development framework for China's 'green' policies

The leadership of China has made clear in recent messaging and key policy documents, that its commitment to carbon emissions reductions will never be allowed to derail the economic development that has been central to lifting almost a billion of its people out of poverty.

Addressing the Davos World Economic Forum virtual summit on 17 January, Chinese President Xi Jinping called on the rest of the world to take the same approach, particularly as gathering financial storm clouds prepare to unleash further economic chaos. In this "period of turbulence and transformation", Xi called for nations to adhere to a "people-centred philosophy of development" which places "livelihoods front and centre" in the global economy.

In his speech, the President reminded his audience that "The wealth of a country is measured by the abundance of its people." It is only due to his nation's "considerable economic growth" that the Chinese people are "living much better lives", albeit with much hard work left to do. It is crucial, he said, to "first make the pie bigger, and then divide it properly through reasonable institutional arrangements. As a rising tide lifts all boats, everyone will get a fair share from development, and development gains will benefit all our people in a more substantial and equitable way."

Xi discussed the world crisis which nations must work together to rectify: "The Human Development Index has declined for the first time in 30 years. The world's poor population has increased by more than 100 million. Nearly 800 million people live in hunger. Difficulties are mounting in food security, education, employment, medicine, health and other areas important to people's livelihoods. Some developing countries have fallen back into poverty and instability due to the pandemic. Many in developed countries are also living through a hard time."

In a reference to nations reining in easy monetary policy, he specified: "If major economies slam on the brakes or take a U-turn in their monetary policies, there would be serious negative spill-overs. They would present challenges to global economic and financial stability, and developing countries would bear the brunt of it." He called instead for "new drivers of economic growth" to be explored, to create "steady and solid progress in global economic recovery". Coordination of the "intensity and pace of fiscal and monetary policies" could help "prevent the world economy from plummeting again".

(Recall that China was unique among major nations in resisting the move to "quantitative easing" money-pumping after the 2008 global financial crisis, instead directing increased credit into infrastructure and other productive sectors.)

Advancement protects the environment

Specifically on the environment, Xi was crystal clear: "we should never grow the economy at the cost of resource depletion and environmental degradation, which is like draining a pond to get fish; nor should we sacrifice growth to protect the environment, which is like climbing a tree to catch fish".

In a comprehensive paper, *Executive Intelligence Review* Arabic Editor and board member of the Belt and Road Institute in Sweden, Hussein Askary, reviewed China's approach to climate change and "green" policy. The paper, "[China's Green Transition: Putting people's development and livelihood first!](https://www.brixsweden.org/China%20s%20Green%20Transition%20Putting%20people%20s%20development%20and%20livelihood%20first!)", is available at [brixsweden.org](https://www.brixsweden.org).

At the outset Askary stressed that you cannot judge China's declarations in the same terms as that of other nations: "As in many other aspects of political economy and governance, China's definitions, visions, and actions differ significantly from those promoted by Western political leaders and think tanks. Dealing with the climate issues follows the same pattern."

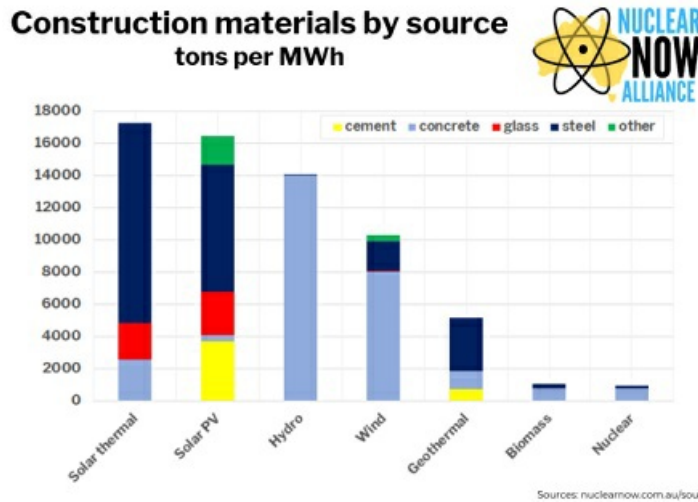
Askary writes that while most nations tend to deal with climate issues in a "negative" way, by shutting down fossil fuel capacity or ending the use of certain resources, China has adopted a "positive" approach, utilising scientific and technological progress to solve environmental issues. Expansion of the industrial process, rather than rolling it back, at once advances the nation and creates the capacity to address environmental concerns realistically.

Askary documents this approach in a number of Chinese leaders' speeches and policy papers. In his keynote address at the Asia-Pacific Economic Cooperation (APEC) CEO Summit in November 2021, for instance, President Xi declared that "Without development, it will be impossible to pool the economic strength necessary for achieving green transition." That same month, in a statement released just days ahead of the Glasgow COP26 Climate Summit in October-November 2021, Chinese Premier Li Keqiang declared that China would "build coal-fired power plants as appropriate in line with development needs, and continue to phase out *outdated* coal plants in an orderly fashion. Domestic oil and gas exploration will be intensified." (Emphasis added.)

In terms of its international commitments, Askary reports, China will not stop building new coal-fired power plants or using other fossil fuels until 2030. At that time plants will not be closed; they will be upgraded until around 2060 when carbon "neutrality" (a balance between emissions and mitigation via increased forestation, etc.¹) is scheduled to be achieved. There will be no "phasing out" of plants,

unless they are outdated; most will be transformed with the introduction of new, advanced technologies. As President Xi spelled out at Davos, these phase-downs occur only “in the course of finding reliable substitution in new energy ... [to] ensure steady economic and social development”.

China’s commitments occur within the context of its development philosophy—“with a view to expediting the development of industrial structures, production modes, living patterns, and spatial zones that will conserve resources and protect the environment”, as the National Development and Reform Commission (NDRC) spelled out in its October 2021 white paper, “Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy”. Any reduction in pollution and carbon emissions “must be balanced with the need to ensure the security of energy, industrial chains, supply chains, and food, as well as normal daily life”, states the paper. China will “resolutely safeguard our development rights and interests”, it insists. The white paper was released one week before the Glasgow Summit.



This graphic from nuclearnow.com.au shows that nuclear power uses the least construction material per unit of energy produced. Photo: nuclearnow.com.au

China’s pledged emissions reductions correlate with more efficient means of energy production, with new technology ensuring that the same level of productivity is achieved with less energy input. Quite apart from sustainability issues, creating more work for less effort and less resource input is the challenge that has always driven mankind’s expanded capacity to survive on this planet. This is achieved by aiming at a progressively higher “energy flux density”—a higher concentration of energy output per area of work—whereby more work is accomplished with the same or less power supplied. For example, compare the amount of energy produced by a field of solar panels to the amount produced by a nuclear power plant. As shown graphically by nuclearnow.com.au, an Australian website dedicated to the revival of nuclear power, a 1 gigawatt nuclear power plant produces the same amount of power as 11 million solar panels, or 939 wind turbines, which are relatively diffuse (i.e. not dense) energy sources. The amount of land area required for nuclear power is 30 times less than that required for wind, and 15 times less than for solar; diffuse energy sources are also far more resource-intensive to build, measured per unit of energy output, than nuclear. (See Construction materials by source, see graph this page, and Land-use intensity graphs at <https://nuclearnow.com.au/why-nuclear#density>)

Concrete plans

China is especially focused on development of hydro and nuclear power (p. 6); increasing research and development of cutting-edge low-carbon technologies; developing new grid technologies to integrate input of renewable power and storage technologies, involving electrochemistry and compressed air energy storage; new photovoltaic technologies; and large-scale recycling of industrial waste.

An additional 40 gigawatts of hydro power capacity is planned. New projects include those on the upper Jinsha River, the upper Lancang River, the middle section of the Yalong River, the upper Yellow River and on the lower Yarlung Zangpo River. On the nuclear front, the paper states that China “will push forward demonstration projects for advanced reactor types including high-temperature gas-cooled reactors, fast reactors, small modular reactors, and offshore floating reactors, and conduct demonstrations on the comprehensive utilisation of nuclear energy.”

In “China’s Action Plan for Carbon Dioxide peaking before 2030”, produced by the Department of Conservation and Environmental Protection in October 2021, a stark difference to the neoliberal policy Australians are familiar with is evident: “Based on China’s energy resource conditions of [being] rich in coal but poor in oil and gas, we must insist on construction before destruction, stabilise energy stock and expand energy increment. We must keep national energy security and economic development as the bottom line, strive for time to realise the gradual replacement of new energy, and promote the

smooth transition of energy low-carbon transformation.”

The world’s first 4th-generation pebble-bed gas-cooled reactor commenced operation in China’s Shandong Province in December 2021 (p. 6). China is set to “move faster to make breakthroughs in key technologies and equipment, and foster industry clusters for the manufacturing of high-end nuclear power equipment”, reports the document. Meanwhile, China, which has recently broken temperature and duration records with its experimental fusion energy reactor (“Fusion breakthroughs can transform life on Earth”, AAS, 16 June 2021), “will step up R&D in advanced nuclear energy technology, particularly cutting-edge and disruptive technologies such as controlled nuclear fusion.”

The paper indicates that China is engineering a major industrial leap forward, overhauling the entire existing system of energy production, transmission and consumption across its whole economy, Askary reports. This includes advances in the energy efficiency of construction, transportation, lighting and heating across all sectors, and replacement of equipment, machinery and infrastructure of all types. This will not be achieved by cutbacks or austerity, but by new investment and adoption of new technologies. To take transportation infrastructure as an example, due to its commitment to development, China is (inadvertently) far more “green” than Australia, because of the high volume of freight moved by rail rather than road transport. It now plans to increase the volume of rail-ship container transportation above 15 per cent annually.

On the seeming clash between the pursuit of development and protecting the environment, Xi elucidated at Davos: “As a Chinese saying goes, ‘The momentum of the world either flourishes or declines; the state of the world either progresses or regresses.’ The world is always developing through the movement of contradictions; without contradiction, nothing would exist. The history of humanity is a history of achieving growth by meeting various tests and of developing by overcoming various crises. We need to move forward by following the logic of historical progress, and develop by riding the tide of development of our times.”

Footnote:

1. In terms of environmental mitigation policies, in addition to ongoing, comprehensive programs to clean up pollution, China is a world leader in reforestation with campaigns to green the deserts. A 2019 NASA study showed that over 20 years, China contributed more than 12 per cent to making the whole planet greener. See “Satellites confirm global greening”, AAS, 29 May 2019.

By Elisa Barwick, Australian Alert Service, 9 February 2022