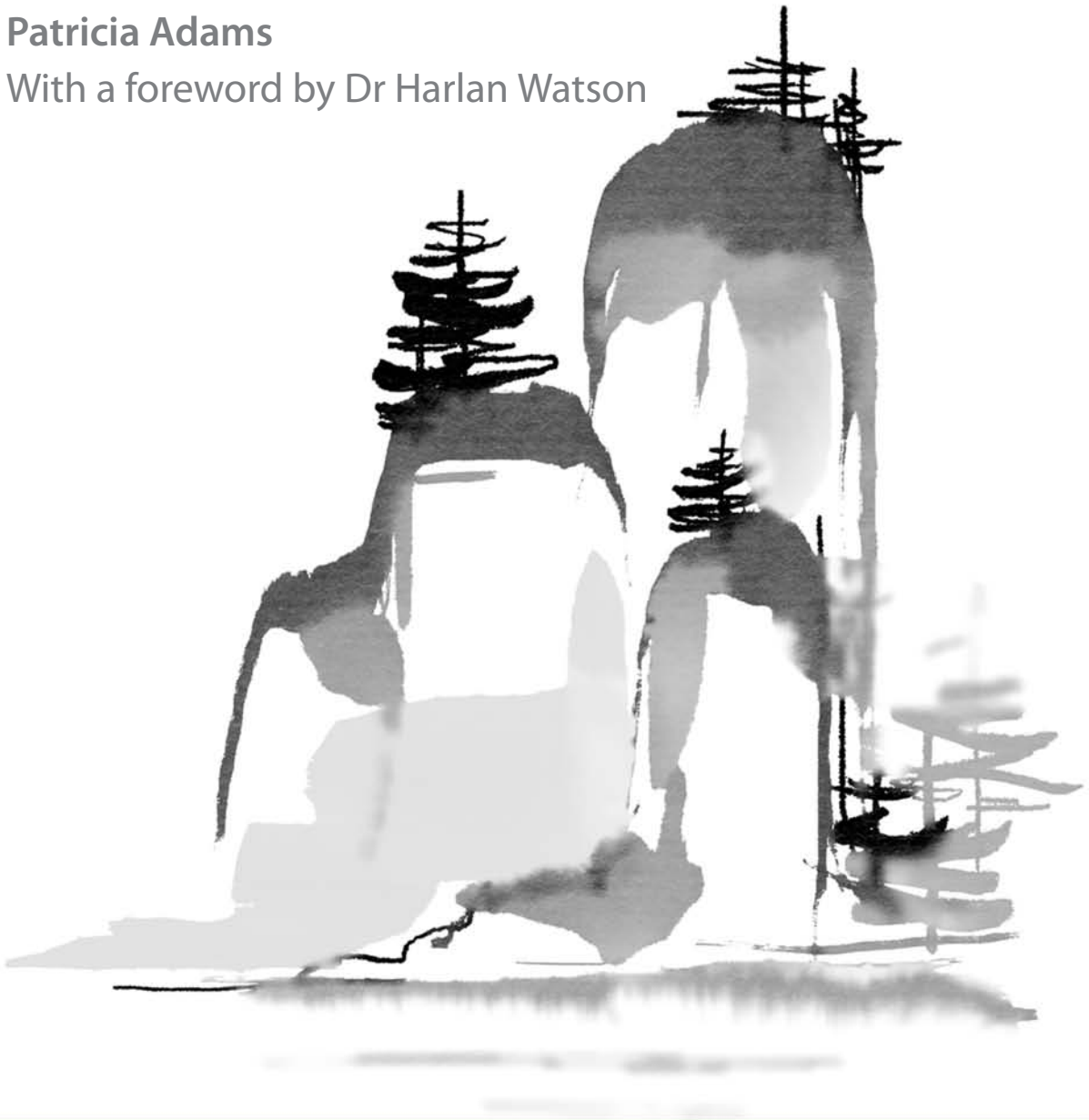
THE ROAD FROM PARIS

China's climate U-turn

Patricia Adams

With a foreword by Dr Harlan Watson



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Foreword

By Harlan Watson

Patricia Adams' December 2015 report, '*The Truth About China*, issued during the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) meeting in Paris, provided a richly documented history of China's climate change and energy policies and international negotiating strategies from the 1990s to Paris. This update, issued during the UNFCCC COP meeting in Katowice, Poland, brings that history up to date.

As the world's largest energy user and largest emitter of carbon dioxide, China has been a major participant in international negotiations for nearly three decades, a major voice within the group of more than 130 developing countries that are parties to the UNFCCC, and a consistent opponent of legally-binding emissions targets for developing countries.

Adams argues that the Chinese Communist Party's 'highest priority' is to 'stay in power'. It is 'highly sensitive to domestic pressure, which has the potential to threaten its existence', but 'is much less concerned about international pressure'. This domestic focus requires:

- continuing economic growth (and continuing use of fossil fuels, particularly coal) to raise Chinese incomes in order to keep domestic 'opposition at bay'
- cleaning up air pollution produced by fossil-fuel use that has caused 'political unrest'.

China and the US played major roles in securing the 2015 Paris Agreement, and Chinese President Xi Jinping and US President Barack Obama were 'lauded as world saviours'. But the text contains no legally-binding emission-reduction targets – an absolute 'must have' for both countries – only a requirement that they submit voluntary emission reductions (so-called 'nationally determined contributions') on a regular basis. It also urges (but does not require) developed countries to provide $100 billion annually by 2020 to developing countries for mitigation and adaptation, a provision of major interest to China, which has hopes of being a major supplier of green technologies to other developing countries.

With US President Donald Trump's June 2017 decision to withdraw the US from the Paris Agreement, many in the environmental community look to China to assume the role of global climate leader. But Adams questions China's interest in assuming this role, as its energy demand has increased over the past year and the need for continued economic growth means securing new energy supplies will take priority over climate change concerns. In addition, only a small fraction of the $100 billion developed-country funding has been secured, further limiting China's interest.

The remainder of the paper surveys the status of China's domestic energy supplies (currently rather limited, with the exception of coal), the energy infrastructure (for example, oil and gas pipelines, as well as coal-fired plants) being developed through China's Belt and Road Initiative, and green energy investments, although these produce little usable electricity, despite immense increases in installed capacity.

I commend this paper to all those interested in China's energy and climate policies and in the many challenges it faces.

Harlan Watson, December 2018

Dr. Harlan L. Watson was Ambassador and a special envoy to the UNFCCC, and a senior climate negotiator and special representative at the US Department of State from 2001 to 2009 under President George W. Bush.

About the author

Patricia Adams is an economist and the executive director of Probe International, a Toronto-based NGO that has been involved in the Chinese environmental movement since its beginnings in the mid-1980s through the publication of books such as *Damming the Three Gorges* and Three Gorges Probe, a news portal published in English and Chinese. As editor of the English language translation of *Yangtze! Yangtze!*, the book by Dai Qing that helped inspire China's democracy movement, and as an author and contributor to books and journals on China's environmental crises, she is an authority on China's environmental policy. Ms Adams, a founder of the World Rainforest Movement and the International Rivers Network, has testified before Congressional and Parliamentary Committees in the US and Canada, and has often appeared in major media, including the BBC, CBC, NPR, *New York Times*, *Wall Street Journal*, the *Globe and Mail* and *National Post*.

In an earlier GWPF report,[1] I explained how the survival of the Chinese Communist Party necessitated ever-expanding use of fossil fuels to support improvements in the quality of life for the Chinese people and to deal with the air pollution that afflicted them. I predicted that China would not accept any agreement at the 2015 Paris climate conference that required it to reduce carbon dioxide emissions. This paper examines developments in Chinese energy policy since the conference.

1 Introduction

In 2015, US President Barack Obama and Chinese President Xi Jinping were lauded as world saviours for endorsing the UN Paris Agreement 'to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low-carbon future.'[2] As the world's largest emitter of greenhouse gases, China's leadership was especially valued, and lauded, even though the Paris agreement was non-binding and committed China to nothing. Nevertheless, Paris created a sense of momentum. Without China, Paris was lost, the press reported. China saved the day.

A year later, Donald Trump was elected President of the United States and, soon after taking office, withdrew the USA from the Paris agreement. Chinese state news agency Xinhua, like other media outlets around the world, called it a 'huge setback' in the global battle against climate change, lamenting the US retreat from the 'common aspiration of mankind for a low-carbon future.' China was thrust into a leadership position.[3]

Now, three years after Paris, China no longer basks in the role of climate saviour, and any sense of momentum has been lost. With the UN climate change apparatus having deflated and no longer serving China's financial purposes – to secure a share of a $100-billion green fund[4] while promoting exports of green technology – China's energy policy is focused on the Communist Party's two primary domestic needs: securing the energy to fuel China's economy and reducing the smog that undermines public confidence in the party. Failure to accomplish those two goals would represent an existential threat to the party.

2 Meeting China's energy needs

Over the past year, demand for energy is up substantially, as high as 15% in the case of natural gas.[5] Given the overwhelming need to boost economic growth, climate change issues are largely absent from official action: Chinese authorities are focused on securing these energy supplies.

Many of China's initiatives, including much of its 'Belt and Road' (BRI) development initiative[6] are focused on serving the country's need for energy, through the building of pipelines, power facilities[7] and ports in more than 70 countries. In particular it focuses on:

- securing natural gas and oil supplies:
  - imports through pipelines from Myanmar[8] and Turkmenistan[9]
  - planned imports via the nearly completed Russian 'Power of Siberia'[10] project and a proposed 'Power of Siberia 2' pipeline[11]
  - from the Middle East, via pipelines through Gwadar, Pakistan to Kashgar, China[12]
- securing LNG supplies from as far away as Equatorial Guinea, Angola, Peru, Trinidad and Tobago, Australia, Indonesia, Papua New Guinea, Malaysia, Qatar, the United States and Canada, as well as from Russia's Yamal project[13] along a Polar Silk Road.[14]

- securing oil supplies from Oman, Russia, Iran, Saudi Arabia, Angola, Iraq, UAE, Kuwait, Colombia, Kazakhstan, Congo, South Sudan, Brazil, Venezuela, and Canada.

In other words, it is using every means at its disposal except developing green energy.

China is most vulnerable in having rising demand for oil while domestic production falls as its mature conventional oil fields are depleted. To fully exploit the oil that it believes it will need in the future from the South China Sea, China is resorting to force by attempting to block oil exploration by all countries outside the region.[15]

President Xi Jinping has ordered state-owned companies to boost domestic production of both oil and gas, which they are struggling to do, in part because existing price structures make gas 'not a very profitable business'.[16] China's natural gas production, though rising from existing and new wells, isn't close to meeting the economy's booming demand. New supplies of shale[17] and syngas[18] have thus far been disappointing.

Given the paucity of domestic supplies, China has become the world's largest importer of crude oil and, according to the International Energy Agency (IEA), it will be the world's largest gas importer within two to three years.[19] Next to Japan, China is the world's largest importer of LNG, with imports surging last year by 50%.[20]

While China has boldly marched forward to expand its nuclear fleet, and now has 45 operating reactors and 15 under construction,[21] the industry is dependent on state subsidies and is therefore vulnerable to the debt-reducing campaign of China's leaders. Officials also remain nervous about the consequences of a Fukushima-like accident. In a country known for lax industrial and consumer product safety standards, Beijing knows China's population would blame the Communist Party and the state for a severe nuclear accident. Said one Chinese planning expert in 2016: 'The more reactors we have, the greater our liability.'[22]

And so coal remains China's mainstay. Demand has been driven up by the combined forces of economic growth, higher power consumption, natural gas shortfalls, and reduced hydropower.[23] According to the Chinese business news group, Caixin, 'despite China's long-term aim to reduce reliance on coal in the country's energy mix, consumption last year increased for the first time since 2013, rendering premature any celebrations that China's coal use had peaked.'[24] According to Bloomberg and Wood Mackenzie, despite its talk about cutting coal-mining capacity, China, already the world's largest producer and user of the fuel, plans to add more.[25] It may see net annual capacity additions of as much as 400 million tons by 2020, or about 10% of its current capacity.

A recent report from the activist group CoalSwarm included satellite imagery that shows many coal-fired power projects that were halted by the Chinese government have quietly been restarted. In total, 46.7 gigawatts (GW) of new and restarted coal-fired power construction are either generating power or will soon be operational. If all the plants reach completion, they alone would increase China's coal-fired power capacity by 4%.[26]

Abroad, it is the same story. By the end of 2016, as part of the Belt and Road Initiative, China is involved in 240 coal-fired power projects in 25 BRI countries with a total installed capacity of 251 GW,[27] making it the most important global player in the development of coal-fired power projects.

3 Meeting China's environmental needs

China has made progress on reducing air pollution since Paris, largely due to fossil fuel switching from coal to gas. Scarcely any of the credit goes to wind and solar, which produce little usable electricity, despite immense increases in installed capacity.[28]

China's green energy fleet of wind and solar, though the world's largest, account for only 2.7% and 0.5%, respectively, of China's electricity needs.[29] According to the Brookings Institution, renewable energy's share of total electricity generation, including hydro, increased by only 0.7% in 2017.[30] China's real-world failure to realize the utopian promise of green energy is partly to blame for its current environmental woes. But they are also partly the result of the extent to which Chinese renewable plants have to be switched off; Chinese curtailment rates are the worst in the world, according to Bloomberg New Energy Finance.[31] Researchers found, for example, that Chinese wind farms generated electricity at 37–45% of their annual technical potential during 2006–2013 compared to 54–61% in the United States and that this gap between the US and China is significantly driven by delays in grid connection, curtailment due to constraints in grid management, suboptimal turbine model selection, wind-farm siting, and turbine hub heights – inefficiency factors that are locked-in for the lifetime of wind farms.[32]

While green energy investments have been suboptimal, construction subsidies, tax benefits, and sweetheart price incentives have left China with so much unusable green-energy capacity that Greenpeace estimated curtailed wind power in 2016 would have powered Beijing for an entire year.[33] 'Guaranteed electricity prices incentivised the development and roll-out of renewable energy, but they didn't create demand for that power,' says China Dialogue.[34]

When western countries abandoned the subsidies to solar and wind power in their own countries and enforced anti-dumping policies on Chinese equipment, Beijing responded with a raft of subsidy schemes that led to soaring numbers of domestic installations. So generous were those subsidies and so undisciplined was the 'market' that the Ministry of Finance is now left with a subsidy backlog (money it owes the industry) of US$18.71 billion.[35] For China Longyuan Power Group, the country's biggest wind power producer, unpaid government subsidies represented most of its accounts receivable, and 29% of its revenue in 2017.[36]

Moody's Investors Service saw it coming, warning that the rapid expansion in renewable energy capacity would strain the government's obligations on subsidy payments. 'Moody's believes that the government will have to look for alternatives, including making further cuts on renewable energy tariffs for new projects to achieve the long-term goal of grid parity.'[37]

That subsidy regime is now ending.[38] To relieve itself of its subsidy liabilities, China's super-planner, the National Development and Reform Commission (NDRC), the Ministry of Finance, and National Energy Administration (NEA) are slashing subsidies and capping investment in the solar and wind industries.[39] At the same time, China is introducing a renewable energy quota system, which will require each province or energy retailer to source a certain percentage of electricity from renewables or to buy green energy certificates[40] from renewables developers who are unable to bring their power to market, in effect downloading the cost of renewable power onto market actors, such as power networks and electricity suppliers and ultimately onto electricity consumers.

Because green energy is unable to tackle China's urban pollution crisis, the government has turned to natural gas. But obstacles of the central planners' own making have hampered this conversion.

In a botched attempt to reduce smog last year, the NDRC ordered China's centralized district-heating plants in 28 northern cities to burn gas instead of coal, only to discover that the gas plant, supply, storage and pipeline facilities needed to fully implement the directive didn't exist. Millions of people were left in the cold, including shivering school children

whose images went viral on China's Internet.[41] Coal and gas supply chains were thrown into chaos, prices skyrocketed and the NDRC quickly reversed its policy and ordered the coal-fired heating plants to restore operations.

This year, to avoid a repeat of the same central-planning fiasco, the government relaxed its environmental policies but also banned new smog-producing industrial facilities in key cities and permitted coal-burning and smog-causing production in parts of the country where air quality was a lower political priority.[42] While PM2.5 measurements of pollution improved in the Beijing–Tianjin corridor, more distant provinces suffered a decline in air quality. The average levels of pollution for the country as a whole remain 72% higher[43] than guidelines set by the World Health Organization.[44]

To avert gas shortages in future, the NDRC is approving construction of new LNG import terminals and gas storage facilities. But according to Mikkal Herberg, energy security research director for the Seattle-based National Bureau of Asian Research, 'Their storage and pipeline capacity is very limited. It's not something they're going to fix in 12 months. It's going to take a number of years.'[45] In the meantime, LNG is being transported around the countryside on specially designed trucks, called 'pipelines on wheels.' 'We haven't seen this kind of volume in trucked LNG anywhere else in the world' said Xizhou Zhou, head of China energy research for IHS Markit. 'This market in China is a reflection of the market distortion caused by regulated city-gate prices, increasing supply and demand, and price volatility.'[46]

Although China promised under its commitment to the Paris Agreement to 'peak' emissions around 2030, to decrease carbon dioxide emissions per unit of economic output and to use more green energy, China's greenhouse gas emissions increased by 1.7% in 2017 and are projected to grow by 4.7% in 2018.[47]

With green energy an abject failure in terms of meeting China's need for either energy or clean air, all that's left is propaganda. To that end, the NDRC said it is considering floating a national pricing 'framework' on pollutants by the end of 2020 'to curb environmental damage while keeping the economy afloat.'[48] China's carbon market has been scaled back and is now low-key.

Beyond that, China's central government makes little mention of carbon emissions and climate change, except in official propaganda, such as in preparation for the upcoming UN Conference of the Parties in Katowice, Poland, where the main goal will be to produce a 'Rule Book' by which participant countries will commit to reduce carbon dioxide emissions and to disclose how well they have done in this regard. But without the $100 billion per year for the Green Climate Fund, China will have lost much of its motivation to keep up the pretence and leverage over other parties, and the *raison d'être* for the entire enterprise will collapse. Since Paris, the Green Climate Fund has obtained only a small fraction of the $100 billion it claimed, including from lame-duck President Barack Obama whose commitment was later cut by President Trump. The fund now languishes, with dwindling resources and beset by internecine conflict.[49] The collapse of a commitment to reduce greenhouse gases by the US and the EU gives China an 'out'. The failure to marshal the $100 billion eliminates most of its reason to stay in.

To the extent that China tries to keep the ruse going, it will argue that, like the Third World nations it purports to represent, it should not be held to the same standard of emissions reductions and disclosure as the developed nations. But the world has changed in another way since the Paris Agreement was signed: China's promises and propaganda are no longer believed.

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About the Global Warming Policy Foundation

The Global Warming Policy Foundation is an all-party and non-party think tank and a registered educational charity which, while openminded on the contested science of global warming, is deeply concerned about the costs and other implications of many of the policies currently being advocated.

Our main focus is to analyse global warming policies and their economic and other implications. Our aim is to provide the most robust and reliable economic analysis and advice. Above all we seek to inform the media, politicians and the public, in a newsworthy way, on the subject in general and on the misinformation to which they are all too frequently being subjected at the present time.

The key to the success of the GWPF is the trust and credibility that we have earned in the eyes of a growing number of policy makers, journalists and the interested public. The GWPF is funded overwhelmingly by voluntary donations from a number of private individuals and charitable trusts. In order to make clear its complete independence, it does not accept gifts from either energy companies or anyone with a significant interest in an energy company.

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