Too toxic

Robert Templer

Heavy steel factories in Benxi, northeast China, 2013. Photo: WikiCommons

China Goes Green: Coercive Environmentalism for a Troubled Planet Yifei Li and Judith Shapiro Polity Press: 2020 Toxic Politics: China's Environmental Health Crisis and Its Challenge to the Chinese State Yanzhong Huang Cambridge University Press: 2020

By the time you read this, we will know the results of the US presidential election. *Inshallah*, touch wood, fingers crossed, Joe Biden will win. Donald Trump has wrought chaos in America and elsewhere: caging children taken from their refugee parents, allowing Covid-19 to explode across the country, and whipping up white supremacists in a way that has made people fear a breach in the thin skin of civilisation. Abroad he has undermined alliances, ripped up treaties and uncritically embraced some of the worst rulers on the planet. The guard rails of American politics and justice are twisted and scorched. It cannot end soon enough.

Trump is guilty of many follies, even crimes, but history may be harshest on his deeply ignorant policies on climate change and his undoing of the work President

Barack Obama did to come to an understanding with China on reducing greenhouse emissions. Biden's most pressing international task is to find a way to work with China to deal with global environmental threats; there is no time to waste. The United States fell out of the Paris Accord on 4 November, the day after the election.

Democratic presidents have long inherited great steaming piles of misery from their Republican predecessors: Jimmy Carter took on the mess of Watergate and the oil crisis; Bill Clinton came into office in mid recession; Obama took over George W. Bush's collapsing economy and catastrophic war in Iraq. Now Biden will inherit a pandemic, mass unemployment and the most fractious relationship with China in half a century.

A prospective Biden administration will face any number of challenges: China as a rising military power, China as a rising tech power, China's slow moving genocide in Xinjiang and its repression in Hong Kong; China as a threat to Taiwan; and China as a global competitor. Both Republicans and Democrats have abandoned the consensus that had prevailed since 1979: nobody now believes China will liberalise as it gets richer. While Covid-19 has damaged global perceptions of China, Trump has damaged support for the US even more and his incompetence and dishonesty in handling the pandemic have only weakened America.

Climate will override all these concerns. The United States, China and the European Union account for a majority of global carbon emissions. If they don't bring those down to zero in the coming thirty years there will be no possibility of holding temperature rises to a manageable limit by the end of this century. Action now is essential: lowering emissions takes time and while the Paris Accord of 2015 pushes nations to do that, it is a weak agreement with only voluntary targets. That was all China would accept.

Xi Jinping, eager perhaps to present China in its best light given how its soft power has been shredded by Covid-19, told the UN General Assembly in September that China aimed to be carbon neutral by 2060 and that its emissions would peak by 2030. Coming moments after a sullen speech by Trump, Xi's words positioned China as a leader on the issue after many decades in which it dragged its feet and delayed action. Many questions remain: how does China define carbon neutrality and what mechanisms will it use to get there? If it is serious about carbon reductions, why is China building another 121 gigawatts of coal-fired generating capacity, more than the rest of the world put together? (The answer to that is decentralisation of licensing. In 2014, Beijing shifted authority to approve coal plants to provinces, whose leaders saw them as an easy way to boost their growth figures.) The country will soon be flooded with coal plants that are not needed, often cannot be used because they lack sufficient water and

will fortunately not emit any carbon dioxide. Economists call these stranded assets.

Biden has announced plans for the US to reach zero emissions by 2050 and to commit to targets beyond those in the Paris Accord. Climate would be integrated into all diplomacy and trade deals, according to his election pledges, while he would commit trillions to rebuilding American infrastructure to develop a green economy. Covid relief, much need infrastructure upgrades and moves to a green economy will all come together.

All of that will be a major challenge, unless the Democrats win the Senate. Republicans are likely to focus on pushing tax cuts and austerity, as they always do when in opposition, and are unlikely to go along with a greening of the economy when their core supporters are often climate sceptics. In the US, cities, states and the private sector have moved ahead without the federal government, which instead of dealing with the problem has thrown yet more subsidies at carbon-based energy companies. A lot more could be achieved with the right policies, though Biden's first term is likely to be spent undoing the damage of the Trump years rather than making progress.

The breakthrough in climate policy came in 2013 at the Sunnylands meeting between Xi and Obama. The Chinese president had just risen to the top job and had

yet to start his imperial power grab. The two men were able to start a process that led the US and China, both previously obstructive players in global climate talks, to reach agreement in Paris.

Biden faces a very different environment. Xi's concentration of power and his changing of the constitution to allow him to rule indefinitely have shaken any faith in China either liberalising or being a responsible global player. Some of Xi's own missteps have meant he has played the hard nationalist card often and early, raising worries for his neighbours. The one bright spot has been climate policy, on which China has signalled that, as a country profoundly affected by the problems of rising temperatures, it is willing to do its bit.

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hina is now hitting new environmental walls. For four decades, the sole measure of success for governments at all levels has been GDP growth. The result has been an environmental catastrophe that continues to defy control.

The figures are astounding. Yanzhong Huang's *Toxic Politics* lays it all out. In 2011, Hebei province *failed* to

report more steel than Germany produced (it was evading government controls). Between 2011 and 2013, China used more cement that the United States did in the twentieth century. Half a million new vehicles join permanent traffic jams each week. The economic achievements are incredible but so is the environmental cost. The amount of sulphur dioxide and industrial dust produced per tonne of steel from Hebei is six times that of steel made in Germany. The province, which has a population slightly bigger than Thailand, has seven of the top ten most polluted cities in the country.

Agriculture is one of the largest sources of greenhouse gases and water pollution. China uses about 40 per cent more fertiliser than needed. China uses twice the pesticides of the world average. Nearly 80 per cent of fresh water is not fit for human consumption. A fifth of all river water is too toxic for any human contact at all. Unless you live in India or have been near a major forest fire, you won't have experienced air pollution like that in China. Twenty per cent of farmland is impregnated with heavy metals, a problem that goes back to the early days of the Revolution.

Judith Shapiro's *Mao's War against Nature*, published nearly a decade ago, explains much of the country's predicament. Views of nature have been shaped by three traditions: Taoism, Buddhism and Confucianism. Taoism was in harmony with nature, Buddhism required respect for nature and Confucianism allowed

dominance of nature. Maoism was a militarised form of Confucianism, requiring the submission of nature but with application of massive force. Mao's rule blasted the environment by sidelining science and expertise; the warnings of environmentalists were dismissed in the military struggle to master nature. He also promoted an insane utopianism: fields produced more wheat when seeds were sowed closer together; farmers and scientists knew better, but nobody could speak up. Mao wanted China standardised: one language, one time zone, one approach to farming. One knife cuts all. On top of this, he ordered massive relocations of people to marginal lands. The effect was to render them barren and useless.

Under Mao, human and environmental degradation went hand in hand, each new movement resulting in vast damage to people and their land. The crushing of environmental dissent and the dismissal of expertise have a long history in China and have been key to the way the People's Republic has bequeathed its children a poisoned land. The Maoist view of nature continued up to 2013 when China officially decided it would switch to 'ecological civilisation', supposedly a new way of managing its economy. This idea, now included in the constitution, is part of what Shapiro calls 'coercive environmentalism'.

In the past five years, China had planned to spend US$1.5 trillion or about 13 per cent of GDP on

environmental improvements. Nobody knows how that money has been spent but what is certain is there is much scepticism about Xi's vision. *China Goes Green* by Yifei Li and Shapiro suggests that Xi's new approach is more about his tightening his authoritarian grip than it is cleaning up the country. It owes as much to Mao as it does the green movement.

For a start, the new environmentalism is still based on political campaigns, relying on top-down enforcement, sometimes on a massive scale, to ensure obedience. These are often conceived as 'battles', much like the disastrous fights against sparrows in the 1950s, when children were sent out to beat saucepans, keeping birds in the air until they died of exhaustion. (The result was a plague of crop-destroying insects that would have been eaten by the birds.) These battles still don't work. Trying to control pig waste pollution, the State Council launched a national battle in 2013 to ban small-scale farming in many rural areas. By 2016, hundreds of thousands of farms had been closed with very little compensation, driving many into poverty. The aim was to concentrate farming into huge industrial feed lots. In 2019, an outbreak of African swine fever raged through the new farms, killing 100 million pigs and sending pork prices soaring. The State Council did what British politicians call a 'reverse ferret' and announced new subsidies for small pig farms.

Xi's war on pollution caused the usual overreactions

among provincial officials, particularly those who feared the arrival of anti-corruption investigators. At various stages from 2017, 40 per cent of China's factories were closed by officials or by owners trying to forestall inspections. Closing down factories—and often destroying their equipment—is one way to move up the value chain and send polluting manufacturing elsewhere but these sorts of campaigns—capricious, bullying and corrupt—don't create the enduring change of mindset that China needs. And too often is it all about *shaji jinghou*, killing the chicken to scare the monkey. Big polluters are too powerful to close down. Environmental inspections are just another power play to enforce the party's whims.

Li and Shapiro's book is filled with horrifying, and sometimes risible, anecdotes about the failures of environmental management and the ways it is used to enforce party rule. Officials left wheat to rot in fields in an impoverished province because chaff from harvesting made the automatic air quality sensors report to Beijing that the area had missed pollution targets. Targets that don't build in bottom-up consensus tend to fail. Or they result in money-wasting over-investment in some areas while failing to tackle other forms of pollution. A rush of construction of waste water plants to meet targets means many were never switched on. Cities were happy to spend the money on the one-off construction costs (higher GDP figures!) but didn't want to spend their budgets on

running them. Sometimes the costs are even higher. Tree-planting targets have resulted in ecological damage to marginal areas and massive social disruption from relocations. Often the trees just die.

Xi's Belt and Road Initiative, first raised in 2013, is taking problematic Chinese environmental mismanagement global. Xi has taken it so seriously that in 2017 the programme was written into the Constitution, alongside ecological civilisation. For a start, the BRI involves the construction of coal-fired power stations, about the worst thing for the climate possible and absolutely unnecessary given that solar is now cheaper than coal. China has built five times as much coal-fired capacity under the scheme as wind or solar, often taking on projects rejected by Western funders. Even as it reduces its footprint at home, its shadow impact on the environment grows overseas.

The evidence gathered by Li and Shapiro sends a chill through the reader. They make a convincing case that China is not really tackling pollution; it is simply hardening its hold over its people. To fix its environmental crisis, China is exporting the problem along the Belt and Road, following on the heels of Europe and America, which pushed their problems on to China. Environmentalism is becoming Xi's mechanism to ensure the continuation of authoritarian rule while heading off social discontent.

Huang's book buttresses the case made by Li and Shapiro. Not only is the pollution horrendous, but the political system is incapable of fixing the problem. Hundreds of thousands are dying each year and millions are chronically sick. Pollution is now costing so much—some estimates put it as high as 13 per cent of GDP—it may mean China is caught in the middle income trap, unable to pull itself up to fully developed status. State environmental policy is crisis driven and reactive: air pollution only became a priority only when it started provoking protests.

Wind farm in Xinjiang, northwest China. Photo: WikiCommons

Elephant trunks are ‘said to be fatty and crisp and are particularly well suited to being roasted’, according to the Tang dynasty writer Liu Xun. Herds of pachyderms once roamed forests as far north as Beijing, but it was not their tasty trunks that led them to be eradicated in all but the tiniest corner of Yunnan. China got colder during the first millennium BCE, while demand for agricultural land has grown ever since. China was once covered in forests, but those were mostly gone by around 800 CE. Asian elephants need forest cover, as they dislike direct sun and the heat that comes with it: to kill them, Chinese farmers would trap them in an area, cut down the trees and leave them to die of sunstroke.

The loss of forest cover led to floods and the eradication of many species, though this was not seen as a bad thing. As far back as Mencius, who lived in the fourth century BCE, wild animals were seen as a threat. Describing the Duke of Zhou centuries before, he wrote: ‘He drove the tigers, leopards, rhinoceroses and elephants far away, and the world was greatly delighted.’

Mark Elvin's masterful book, *The Retreat of Elephants*, chronicles the environmental history of China over three millennia of human expansion and climate change. Warming and cooling shaped the cycles of war, plenty, famine and natural disaster, but throughout, a rising population pushed society towards its environmental limits. Farmers were never in tune with nature: the people liked individual trees next to temples or by graveyards but they hated forests. By the eighteenth century, the population had run into a barrier of environmental capacity and technology. To replenish the land after each harvest required ever more work and fertiliser. When the weather or diseases were unfriendly, people starved in their hundreds of thousands. It was one of the most precarious of the great civilisations.

Europe was not nearly as close to its environmental limits at the same time, nor had it deforested its land, resulting in shortages of wood. China could never have conquered the world as it could never have built the necessary boats. Europe required far fewer inputs and less labour to return farmland to its state before cropping. Unlike China, Europeans left land fallow or grew restorative legumes. Hitting an environmental wall as Europe was expanding its empires and therefore its access to resources set China back for centuries. It has recovered its economic position only in the past forty years, when it too gained access to resources from around the world.

China could learn from its history. Set aside the Duke of Zhou, set aside Mao and even set aside Xi's spurious ecological civilisation. What is needed is both the application of technology and the changing of minds and behaviour. A genuine green economy can grow only from the roots up and won't be brought into existence with a military-style campaign. It requires a thousand, even a million, different policies and attitudes at all levels of the state. Leadership matters, but coercion can be counterproductive. China needs policies that don't encourage environmental disasters to bulge up where the government is not pressing down, as is happening now.

Barbara Finmore, a director at the Natural Resources Defense Council, presents a more positive view in her *Will China Save the Planet?*, albeit one that appears to be careful to avoid giving offence to the government in Beijing. Her view is that China's economic muscle and its ability to push such technologies as electric vehicles will enable it to lead the world. The private sector could provide some of the nearly US$700 billion a year China needs to transform its economy. While acknowledging the shortfalls in policy, she points to a variety of positive trends such as the export of green technology. China is now the largest exporter of solar and wind technology. But it is not enough. The policy failures are too great and the system is not going to find any answers if it puts social control ahead of real environmental gains.

There is an opportunity for change in a year's time, when the delayed global climate summit will be held in Glasgow. China could win back much of the goodwill it has lost by coming prepared to take the lead on deeper cuts in emissions and new plans for finance and technology sharing. The United States could also undo some of the damage of the Trump years with an ambitious agenda to rebuild not just its own economy but also the lost impetus towards climate action. Necessity, technology and public support are coming together in a way that demands action.

There is no time to be lost.

Robert Templer is the managing editor of Mekong Review.