

Implications of COP21 for China

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Three months after the historic Paris Agreement affirmed the ambition of 195 countries to keep global average temperature rises below 2 °C, the world had an opportunity to assess how the efforts of China, the world's biggest greenhouse gas (GHG) emitter, will measure up to its promises, at the annual meeting of China's National People's Congress (NPC), in Beijing in March.

How quickly big emitters like China and India migrate to a low emissions development model will largely determine the outcomes of the process that the Paris Agreement has begun. As it stands, the agreement, based on voluntary national pledges from the participant countries, falls well short of what is required. Its future success will depend on how far the signatories are willing to ratchet up their respective national ambitions in the review mechanism that was built in to the package.

How far China and India are able to tighten their national objectives will be determined, in turn, by the hundreds of smaller decisions on energy use, transport, industrial policy, land use, and city planning that will be taken in each country over the next five years. That was reason enough to keep a close eye on the outcome of the long domestic negotiations that resulted in China's 13th Five Year Plan, approved in March by the annual meeting of the NPC.

The details will come later as the plan works its way through China's state machine. The outline that was unveiled in March sets the strategic economic objectives, and fixes a number of key targets. These are intended to determine the direction of the economy and the priorities that provinces and cities, as well as the key state ministries, must respect in their own economic planning.

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Like the Paris Agreement, China's 13th Five Year Plan will not bring the world's average temperature rise below the 'safe' limit of 2 °C. But it does offer the reassurance that the world's largest industrial economy is continuing on a path, begun five years ago, towards a leaner, greener, more efficient, and more sustainable model, and that cleaning up the legacy of the previous 30 years – including its GHG emissions – remains a key priority.

Just a few years ago, China's behaviour in Copenhagen was among the many factors that contributed to the failure of COP15. By COP21, however, China had undergone some profound changes: the Chinese development model, with its high emissions, high investment, and low added value, was exhausted; China's leaders had been aware since the turn of the century that the time was approaching when rising labour costs, a shrinking workforce, and a cavalier attitude to the use of resources would deliver diminishing returns and slower growth. They also knew, if only from the example of neighbouring Japan, Taiwan, and South Korea, that the way through such difficult passages was to become leaner and more efficient, and to move up the value chain.

For China, the development and manufacture of low-carbon technologies became the key to maintaining

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prosperity in a carbon-constrained world. China could apply its unmatched experience of manufacturing at scale to lower the price of such goods as solar panels, and, through heavy investment in research and development, to become the technology leader in such sectors as low-carbon mobility, with the intention of supplying a growing export market. By the time the 13th Plan was approved, China was investing more in research and development per capita than was Europe. Deployed at home, low-carbon technologies would help to curb the pollution that was costing China 6 per cent of GDP every year and contributing to the government's credibility deficit. China had begun to see radical mitigation both as a necessity and as a huge opportunity. All other things being equal, it had a strong interest in a successful outcome to COP21.

Managing an outcome that satisfies 195 very different countries is a huge and multifaceted task. If not carefully managed, it can go wrong with alarming speed. The French team, led by Laurent Fabius, conducted the process with impressive skill, determined to avoid a repeat of the Copenhagen collapse. In the two years before the conference, diplomats circulated around major capitals to make sure the French presidency of the COP understood each player's red lines and ambitions, and to identify any domestic political obstacles that could throw an agreement off course. The French were not in the business of surprises.

China, too, was anxious to avoid surprises, in particular any surprise that resembled the closing days of Copenhagen, when the then prime minister, Wen Jiabao, had to resort to subterfuge to avoid negotiating directly with President Obama, Angela

Merkel, and other leaders in the last ditch efforts to reach a deal. Not even the prime minister could modify a position that had been agreed by the collective leadership back home. Nor was there any opportunity to repair the damage created by early toxic exchanges between the US and Chinese delegations.

The system the French designed – with voluntary pledges in advance and national leaders drafted in at the beginning to set the tone, instead of as a last minute rescue party for failing negotiations – removed much of the potential tension. Progress on climate cooperation between the USA and China in the years leading up to Paris removed even more.

In the domestic politics of China and the USA, the other plays a potent symbolic role: when Chinese imagine modernity and superpower status, images of the USA come to mind, along with a fear that the USA seeks to block China's path; when the USA imagines its own decline, China is usually blamed. The strategic rivalries between the rising and incumbent superpowers create tensions in a wide range of fields and geographies. But in climate policy, they have seen the virtue of cooperation.

In 2013, the US Secretary of State John Kerry and his Chinese counterpart, the State Councillor Yang Jiechi, announced a climate change working group within the USA–China strategic and economic dialogue. Progress was relatively swift: in addition to official level cooperation in such fields as smart grids, GHG accounting, and policy exchanges on transport and energy efficiency, President Obama and Xi Jinping made a public commitment in November 2014 to work towards an agreement in Paris. In November 2015, a further series of announcements and a satisfactory progress review gave added

momentum to the mood of optimism that the French presidency saw as critical to a successful outcome.

The annual report of the USA–China Climate Change Working Group (CCWG) gave an account of more than 50 cases of constructive engagement on climate change, clean energy, and environment that underscored their growing climate cooperation – a relationship that was to bear fruit in the Paris talks. Even Su Wei, the characteristically deadpan head of the Chinese negotiating team, spoke with a new warmth of USA–China cooperation at a Paris side event.

Domestic politics in China also played positively into the Paris process. Xi Jinping, the general secretary of the Chinese Communist Party and president of China since 2012, has succeeded in gaining control of many aspects of state power, coupled with a long running anti-corruption campaign that has cowed some important rival centres of influence. These developments have raised concerns about the trend of Chinese politics, but the concomitant weakening of China's collective leadership may have clarified the task of China's negotiators, who could be confident that they could take their cue from Xi. And when negotiations threatened to go off track, a telephone call between Beijing and Washington could relieve the pressure.

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After Paris, with China's good intentions on climate mitigation re-affirmed, attention shifted to implementation and the implications of China's promises for domestic and international energy. There is little doubt that China can fulfil its INDC pledges – some analysts predict that China's emissions could peak as early as 2025, well before the

promised 2030 (see, for instance 'New study finds China's emissions likely to peak by 2025', LSE/Grantham Research Institute, 8 June 2015). Looking further ahead, several studies suggest that China could supply more than 60 per cent of its total energy needs, including transportation, from renewables by 2050. This would include 85 per cent of its electricity supply (see 'China 2050 High Renewable Energy Penetration Scenario and Roadmap Study', Energy Foundation China, 20 April 2015).

How far and how quickly China will be prepared to increase its ambition will depend on a number of factors, including the outcome of the wider political and economic uncertainties that the regime is facing. At its November 2015 plenary, the Chinese Communist Party announced five concepts – innovation, coordination, green development, opening up, and sharing – with which it intends to guide the next phase of China's development, aiming to restructure heavy industry, improve the environment, and enhance efficiency. In the outline 13th Plan, ten of the 13 mandatory targets relate to the environment, natural resources, climate mitigation, or ecosystems.

The most important energy related targets in the plan are the pledge to reduce energy intensity by 15 per cent compared with 2015; to reduce carbon intensity by 18 per cent, on a 2015 baseline; to cap total energy consumption at 5 billion tonnes of coal equivalent (the current level is 4.3 billion tonnes); and to increase the proportion of non-fossil fuels in primary energy consumption to 15 per cent. The 18 per cent carbon intensity reduction target would set China on track to reach, and in all likelihood surpass, the high end of its 2020 climate target of a 45 per cent carbon intensity reduction, on a 2005 baseline.

Coal, the big bad beast of China's energy mix, continues to dominate, but



it is in decline: coal use fell 2.9 per cent in 2014 and a further 3.7 per cent in 2015. Although the details of China's coal statistics are notoriously problematic, the trend seems clear: already China's coal-fired power stations are running below economic levels, with utilization rates characteristically below 50 per cent. But in one sign of a familiar dysfunction in China's policy implementation, even as rates of return on new coal plants were falling below the level necessary for the plant to pay for itself, and the national government talked of promoting the move out of coal, provincial and local governments continued to grant permissions for new coal generation in what risks becoming one of the world's larger stranded asset creation programmes.

According to a Greenpeace analysis, in 2015 China's central and provincial governments approved 210 new coal-fired power plants, with a collective capacity of 169 GW and potential emissions of around 780 million tonnes a year. However, given China's overall energy demand level and the fact that any new demand is likely to be met by renewables, hydro, or nuclear, even if the plants were built they are unlikely to run at anything close to full capacity. In March, in an effort to regain central control of coal plan approvals, the National Energy Administration (NEA) ordered 13 provincial governments to stop issuing approvals for new coal-fired power plants until the end

of 2017 and instructed a further 15 provinces to stop building new coal power plants that have already been approved. It remains unclear how many of the plants approved in 2015 will be affected.

There is less confusion on coal supply: in December 2015, Xinhua News Agency reported that China planned to close 1,000 coal mines and suspend new capacity approvals until 2019, with an expected cull of 1.3 million jobs in the coal sector over the 13th Five Year Plan. Overall, China aims to reduce coal's share of primary energy in 2016 to 62.6 per cent. Over the longer term, some analysts have suggested that China could meet 80 per cent of its energy needs from non-fossil sources by 2050.

Under the 12th Five Year Plan, China surpassed its energy and carbon targets: between 2011 and the end of 2015, energy intensity fell by 18.2 per cent and carbon intensity declined 20 per cent. Slower economic growth and an accelerating decline in heavy industry should make the 13th Plan's carbon and energy intensity targets highly achievable. China's veteran special representative for climate change, Xie Zhenhua, assured an audience in Hong Kong in February ('China's climate envoy bullish on hitting reduction goal for 2020', *South China Morning Post*, 23 February 2016) that China would have no difficulty in hitting its 2020 targets of cutting carbon

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intensity by 50 per cent below 2005 levels, if China met its 13th Plan energy saving goals.

If carbon intensity was cut by 50 per cent by 2020, according to Xie, China could easily peak emissions and cut carbon intensity by 60–65 per cent on 2005 levels by 2030, in line with China's ambition to build a green, service economy. The transition to 2030 would be eased, he said, with investments of 4.1 trillion Chinese Yuan Renminbi (US\$628 billion) in green, low-carbon industries, with the creation of 69 million new jobs.

Over the coming year, planners at every level of China's government will put flesh on the bones of the 13th Plan. How smooth the process will be is uncertain: slower growth, popular discontent at job losses, and the difficulty of implementing reforms to the energy market will need to be dealt with. The temptation to continue with infrastructure investment will be strong, and already the plan has attracted criticism for its projected investment in expanding high speed rail and in building new airports. But if China succeeds, the benefits of its transition will spread well beyond China. If it fails, the impacts will be equally widely felt.



The post-Paris agenda: challenges ahead for Latin America

Lavinia Hollanda

The Paris Agreement indicates that in the coming years, the world is going to move to a low-carbon economy, and the energy sector should be responsible for promoting

big changes in the global climate scenario. The terms of the agreement are comprehensive and ambitious, based on common but differentiated responsibilities among countries, and

the energy guidelines and contribution targets of developed and developing countries differ in many points. This means that both the developed and developing world will have to make