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Trade war cuts U.S. LNG exports to China in 2018 (Reuters)

01-21-2019

The number of U.S. liquefied natural gas vessels that went to China in 2018 fell by around 20 percent from the prior year as the trade war between Beijing and Washington heated up.

In recent weeks, however, that dispute has cooled somewhat with talks in China this week between Chinese and U.S. trade teams raising hopes additional tariffs can be avoided.

As the trade war escalated during the last six months of 2018, only six LNG vessels went from the United States to China, down from 25 during the same period in 2017. China imposed tariffs on U.S. LNG in September.

That happened even though Chinese LNG purchases last year reached all-time highs and the United States sold record amounts of the fuel.

China, the fastest growing consumer of the fuel, became the world's second biggest LNG buyer in 2017 as the government weans the country off dirty coal to reduce pollution. The United States, meanwhile, is on track to become the world's third biggest LNG exporter by capacity in 2019 as additional export terminals enter service.

In total, 24 U.S. vessels went to China in 2018 - mostly during the first half of the year - versus 30 in 2017.

Companies proposing new U.S. LNG export terminals expressed optimism a new U.S.-China trade agreement could help advance their projects.

The U.S. LNG export industry has been particularly vulnerable to the U.S.-China trade war, Mike Sommers, head of the American Petroleum Institute industry group, said on Tuesday, adding that he hopes negotiators will soon resolve the dispute.

China imported about $447 million of LNG from the United States in 2017, about 15 percent of the LNG the U.S. shipped that year, making it the third biggest buyer of the fuel from the United States.

Prior to the slowdown, China was on track to import 141.6 billion cubic feet (bcf) of U.S. LNG in 2018, up from 103.4 bcf in 2017 and 17.2 bcf in 2016. It imported no LNG from the United States in 2015.

One billion cubic feet of gas is enough to fuel about 5 million U.S. homes for a day.

China likely bought less than 90 bcf of U.S. LNG in 2018.

To be sure, some of the handful of vessels that left the United States in December are still sailing across the Pacific and could stop in China.

In addition to the trade war, LNG analysts noted the slowdown in U.S. vessels going to China last year was also due to milder winter weather and an increase in exports from Australia and other LNG exporting countries closer to China.

China's CNOOC hols LNG offshore as warm winter cuts spot demand (Reuters)

01-16-2019

China's state-owned CNOOC is temporarily storing liquefied natural gas (LNG) in a tanker off South Korea as a warmer than usual winter cuts expected spot demand for the fuel, industry sources said on Wednesday.

China faced a severe winter gas shortage last year after switching millions of households to natural gas from coal for heating, prompting Chinese companies this winter to secure supply well ahead of time, they said.

However, the winter so far has been relatively mild and weather data from Refinitiv Eikon largely points towards warmer than usual temperatures ahead, leaving suppliers with high levels of inventory.

The LNG tanker "Neo Energy", which has a capacity of about 150,000 cubic metres, loaded the super-chilled fuel from the Bontang plant in Indonesia on Nov. 15 and has been floating the cargo since then, data from Refinitiv Eikon showed.

The vessel is currently anchored fully laden at Jisepo in South Korea.

China is the world's second largest LNG importer, but its storage facilities have lagged increasing demand, prompting the government to urge gas producers to build more underground storage.

Storing LNG on tankers is generally seen as riskier than holding crude oil on the water, given higher storage costs and the fact that LNG cargoes degrade over time by evaporating.

Storing the cargo offshore is part of CNOOC's policy of ensuring that supply is available in case of an emergency, a source familiar with the matter said, declining to elaborate.

A spokesman for CNOOC, one of China's big three state-owned oil and gas producers, could not immediately be reached for comment.

Trade sources said the company may have overbought cargoes in anticipation of a winter supply crunch after suppliers were left scrambling last year to find enough cargoes.

"Chinese companies have learnt their lesson from previous years and were adequately prepared this time," a trader familiar with the Chinese market told Reuters.

CNOOC spent $10 million in late 2017 to lease two tankers including the Neo Energy to store an emergency stash of the fuel under a short-term agreement to meet last winter's demand, Reuters reported.

At the time, CNOOC parked the two tankers between its receiving terminals in Tianjin in the north and Ningbo on the east coast, and moved the ships around to pick up new supplies once they were emptied, a source said.

Asian LNG prices are currently at the lowest seasonal average in two years, according to Eikon data.

China's record 2018 oil, gas imports may be cresting wave as industry slows down (Reuters)

01-22-2019

Amid increasing signs of China's industrial slowdown in 2019, data this week showing record oil and natural gas imports likely indicates a country at peak energy growth, with its thirst set to wane as the slowdown bites.

China's record intake for both crude oil and liquefied natural gas (LNG) in 2018 cemented its status as the world's largest oil and second-largest LNG importer.

But heading into this year, China's trade war with the United States is taking a toll.

On Tuesday, the National Development and Reform Commission, China's top economic planner, warned that economic pressure will impact the job market. This came only a day after data showed an uptick unemployment and that growth in the world's second-largest economy cooled to its slowest pace in 28 years in 2018.

"Trade war concerns have reduced global growth expectations and with it comes a lower demand of energy," said Alfonso Esparza, senior market analyst at futures brokerage Oanda.

Bank of America Merrill Lynch said this week it expected "a significant slowing in growth" in both China's economy and energy demand for 2019.

Few analysts expect an outright recession in China this year, but amid signs of slowing factory activity that began impacting natural gas demand in the fourth quarter of 2018, the data points toward a slowdown.

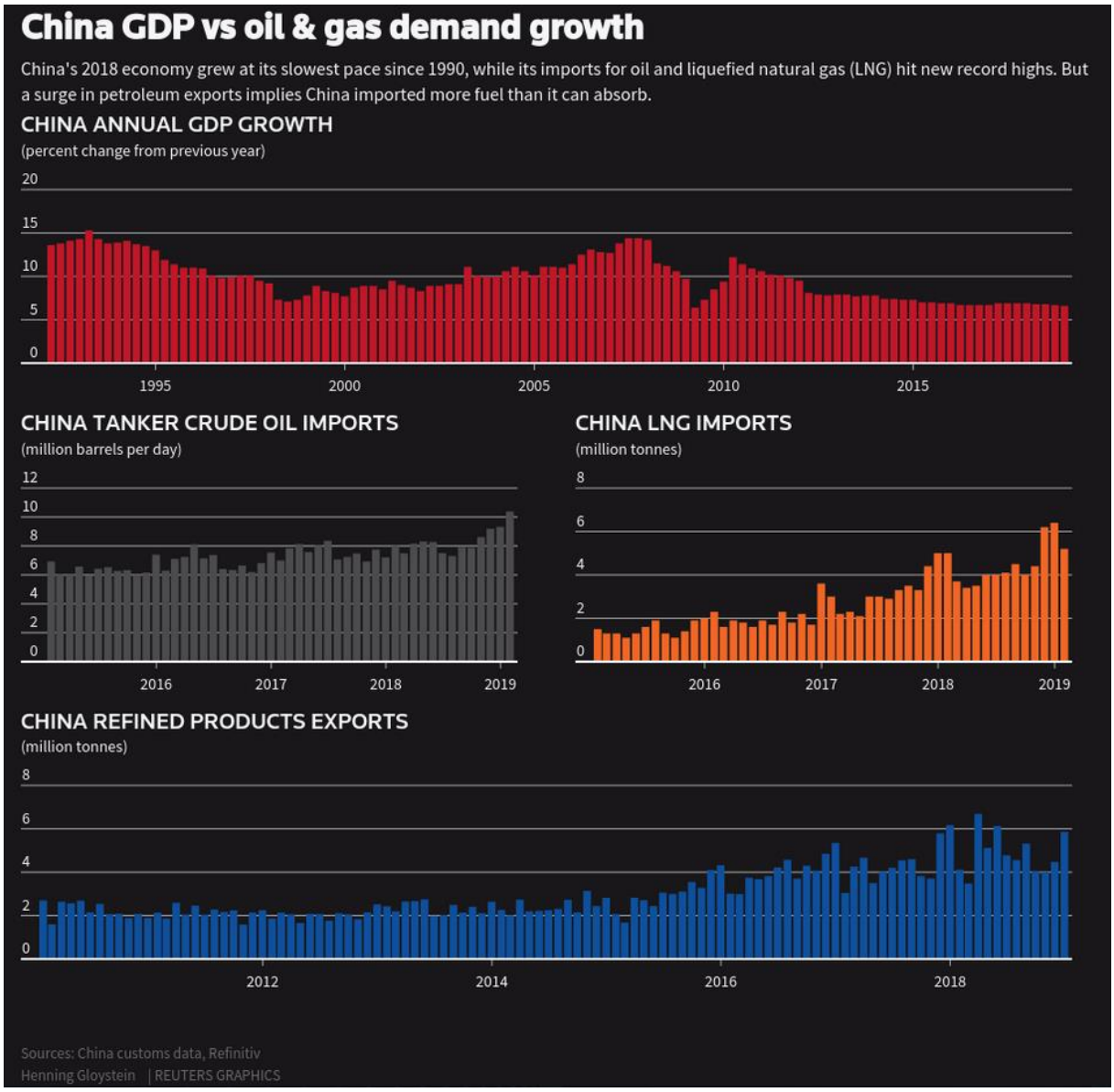
LNG tanker shipments into China are set to be just over 5 million tonnes in January, down from a record 6.4 million tonnes in December, Refinitiv ship tracking data showed, limited by not only warmer-than-usual winter temperatures but also slipping industrial demand.

The January shipments would be the lowest in a year despite China's program to move millions of households and factories from using polluting coal to cleaner natural gas.

"Economic slowdown (and) a more considered approach on coal-to-gas switching ... will mean LNG demand will slow in 2019," energy consultancy Wood Mackenzie said in a note this month, although it added that China's LNG imports would "still grow at around 20 percent, by far the largest source of LNG demand growth in the global market."

TOO MUCH FUEL

China's crude imports by tanker look set to peak in January, breaking over 10 million barrels per day for the first time, according to Refinitiv data. But that masks signs of slowing demand growth for both transportation and industrial fuels, according to analysts.



China's car sales fell for the first time in more than two decades in 2018, the country's top auto industry association said this month, dropping by 2.8 percent from a year earlier.

Property investment growth in December slowed to the second-slowest rate for 2018. Real estate is a key Chinese economic driver and construction is the source of much of the country's diesel demand.

China National Petroleum Corp this week said it expected diesel demand to fall by 1.1 percent in 2019. That would likely be China's first annual demand decline for a major fuel since its industrial ascent started in 1990.

Some of China's record crude oil imports were used to fill up strategic reserves, including at new storage sites in Jinzhou in the north and Huizhou on China's southern coast, meaning they did not reflect actual end-user demand.

Additionally, independent refiners increased their overseas orders at the end of the year to use up their annual import quotas received from the government for 2018.

But that meant they produced more fuel than even thirsty China can absorb, triggering record exports of refined products as refiners offloaded surplus fuel.
Tesla N.America Model 3 reservation list exhausted - sources

To contain the glut, the government has cut back import quota for independent refiners, while it may further raise fuel export quotas.

“Fuel exports will hit another record this year,” said Seng-Yick Tee, oil analyst with Beijing-based consultancy SIA Energy.

Analysis: China’s LNG demand growth to slow in 2019 on domestic production, pipeline imports (S&P Global Platts)

01-30-2019

China's LNG demand growth is expected to continue rising in 2019 in line with its industrial and residential gas use, but the pace of that growth is set to slow as domestic gas production and pipeline imports pick up.

The slowdown in China's economic growth is another bearish factor, but one with negligible impact on gas consumption, which is more responsive to fuel switching policies, according to S&P Global Platts Analytics.

The Chinese government's resolve to boost gas pipeline connectivity and storage capabilities will help ease distribution bottlenecks and seasonal demand shortages, reducing the country's dependence on LNG to meet demand fluctuations in the northern winter demand centers.

However, despite these bearish factors, China, the world's second largest LNG importer, will remain the biggest contributor to global LNG demand growth, with Platts Analytics forecasting its consumption will exceed Japan's by 2022 -- at 73 million mt a year.

PRODUCTION GROWTH BITES

China's gas demand is forecast to rise 11.4% on the year to 308 Bcm in 2019, less than the previous forecast of 16.6% growth, according to a recent report from China National Petroleum Corp.

More than half of that demand will be met by domestic upstream production, which is forecast at 171 Bcm in 2019, up 6% from 2018, as state-owned PetroChina continues to expand its upstream shale gas resources, CNPC said.

This means an additional 15 Bcm of gas would be needed to meet consumption in 2019.

With pipeline imports expected to increase by 5 Bcm this year -- mainly via the Central Asia-China gas pipeline, -- the remaining 10 Bcm will likely come in the form of LNG imports, according to Platts Analytics.

Upstream production is rising after the government announced plans to extend subsidies on unconventional natural gas production through 2025 and increase domestic output to 200 Bcm/year by 2020.

"This goal is ambitious and implies production would need to grow by an average of 17.5 Bcm/year, compared with average growth of 8.9 Bcm/year over the past four years. However, even if production reaches our assumption of 190 Bcm, it still implies faster growth," Platts Asian LNG Analytics Manager Jeff Moore said.

GREATER CONNECTIVITY, STORAGE

In 2018, the National Development and Reform Commission, the Chinese government's economic planning agency, launched a series of projects to enhance south-north gas supply connectivity to Hebei and Shandong, where natural gas tends to be in short supply over the winter.

These projects follow a critical supply imbalance in 2017, when poor south-to-north pipeline connectivity and limited truck deliveries forced northern LNG terminal operators to exceed nameplate capacity to meet the demand of more than four million households that had converted their coal-fired boilers into gas-fired ones earlier in the year.

The expansion of underground gas storage in northeast China has also alleviated distribution network bottlenecks and helped stabilize seasonal demand and price fluctuations in the broader Asian LNG markets.

China's biggest underground gas storage is currently being built by Liaohe Oil Field Company, a CNPC subsidiary, on Bohai Bay, a strategic location and home to a natural gas pipeline network that connects the heavily industrialized neighboring regions of Beijing, Tianjin and Hebei province.

RESILENT LNG GROWTH

Despite numerous bearish factors, there will always be upside potential for LNG imports in China.

The government's targets to reduce air pollution and move to cleaner burning fuels exemplified by its Blue Sky Policy and the Five-Year Plan will continue to drive gas consumption.

China added 10 million mt/year of receiving capacity with three new LNG terminals in 2018, while plans to increase its existing 70 million mt/year regasification capacity have been recently submitted to the government for review.

LNG send-outs from terminals have also been expanded, with Sinopec's Tianjin terminal allowing 24-hour loading of LNG on trucks to maximize efficiency.

Total-invested China gas field pumps record 2,24 bcm in 2018 (Reuters)

02-01-2019

*A north China natural gas field, invested by French oil firm Total, pumped a record 2.24 billion cubic metres (bcm) of gas in 2018, 11 percent more than a year earlier, according to China's state energy group CNPC that operates the field

* Total and CNPC signed a deal to jointly develop the Sulige South field in north China's Ordos basin in 2011 and production had started in 2012. This is one of the handful foreign-invested gas projects in onshore China

* The joint venture currently operates 594 gas wells with a daily output of 6.5 million cubic metres, CNPC said on Friday

* China's national oil companies are stepping up domestic drilling for oil and gas in a response to a government call to boost national energy security. China's gas output rose 7.5 percent last year to record 161 bcm.

* Apart from Total, Shell and Chevron are also producing gas in China in joint operations with CNPC.

China firms funding coal plants offshore as domestic curbs bite: study (Reuters)

01-22-2019

China has become a key backer for coal-fired power globally, funding more than a quarter of all new plants being developed outside its borders even as it clamps down on the polluting fuel at home, a study published on Tuesday said.

The top destinations are Bangladesh, Vietnam, South Africa and Pakistan, and about a quarter of the proposed capacity would use technology no longer allowed in China, the report by the Institute for Energy Economics and Financial Analysis (IEEFA), a U.S.-based think-tank, said.

"China is taking very forceful steps to slow down the increase in coal-fired power facilities in China, but is looking to take that capacity and sell it overseas," said Melissa Brown, IEEFA's energy finance consultant and an author of the report.

China, the world's biggest energy consumer, has been investing heavily in alternative fuels in order to cut its dependence on coal, a major source of smog as well as climate-warming carbon emissions.

It has closed down ageing mines and power plants, with the aim of cutting the fuel's share of total energy consumption from 69 percent in 2011 to 58 percent by next year.

But even as it slashes coal use within its borders, its financial institutions have committed or offered funding of $35.9 billion for 102 gigawatts (GW) of coal-fired power now being developed outside the country, the report said.

While overseas financial institutions like the World Bank aim to restrict new coal investments, Chinese state-owned enterprises and policy banks are becoming "lenders of last resort" for coal-fired power, it said.

State firms facing caps on coal production and targets to reduce consumption in smog-prone regions have responded by heading overseas. The Xuzhou Mining Group is now running projects in Pakistan and Bangladesh after closing collieries in eastern China's Jiangsu province.

China is involved in nearly 14 GW of planned coal-fired capacity in Bangladesh and 13 GW in Vietnam, the report said, adding that 23 percent of the 102 GW of China-invested capacity was classified as high-emission "subcritical" technology no longer in use at home.

"Ironically, many of the equipment types would no longer be suitable for use in China," said Brown, noting that many recipient countries "have lower environmental standards and are highly motivated to take investment in any form."

China brought its total renewable and nuclear generation capacity up to 749 gigawatts last year, raising its share of total power capacity from 34 percent to 40 percent in just three years, but Brown said China's role in financing coal-fired power could overshadow its clean energy contributions.

"There are a number of countries that would welcome China as a leading global developer of industrial-scale renewables, but what we've seen is that many Chinese companies have essentially exported technology for which there is increasingly no demand in China," she said.

As winter grips rural China, who's really paying the price for Beijing's clean air plan (South China Morning Post)
01-21-2019

This winter has been an especially cold one for Nie Hongwang. In previous years, the 50-year-old from a small village in Baoding in the north China province of Hebei would stockpile three or four tonnes of coal to use to heat the family home over the harshest winter months. But that all changed when his rudimentary central heating system was ripped out and replaced with an environmentally friendly natural gas-powered one under a government initiative designed to reduce air pollution.

While the idea might have worked on paper, for Nie and his fellow villagers in Niezhuang the switch has caused nothing but problems, with the high cost and unstable supply of the clean fuel leaving them freezing in their own homes through the coldest season of the year.

Even as he prepared a meal in the relative warmth of his kitchen Nie wore his quilted coat and as he spoke his words drifted on a waft of steam.

"It's still very cold even after I covered the windows with plastic sheets," he said. "It's also very expensive, even with the government subsidies. I can only afford to turn on the heaters for the bedrooms at night."

Northern China has long had a problem with smog, and the burning of coal for heating is a major contributor to it. In its efforts to improve air quality the central government has set a target to phase out residential coal-fired boilers in 60 per cent of rural areas and all urban parts of Beijing-Tianjin-Hebei and four neighbouring provinces and replace them with clean energy alternatives by 2021.

Local governments were given three years of financial subsidies to fund the programme and to date almost 6 million households in 28 cities have made the change, either to natural gas, electricity, solar power or "clean" coal.

Last year the Hebei government said the removal of coal-burning ovens had led to a 30 per cent drop in 2017 in levels of PM2.5 – the tiny airborne particles that are most harmful to human health. Levels dropped by a further 12.5 per cent last year and are forecast to fall by 5 per cent in 2019.

But for hundreds and thousands of rural families, the cost of achieving blue skies over northern China is huge.

Nie earns about 30,000 yuan (US$4,400) a year working in construction as a plasterer. Based on what he has spent so far, he said his winter heating bill – for natural gas – was likely to be at least 4,000 yuan, or almost three times what he used to spend on coal.

He said he was also worried about the financial burden on his son, so had asked him, his wife and two children to come and live with him.

Nie also has to cover the cost of heating his elderly parents' home. Last year that came to about 2,700 yuan – 900 yuan of which was covered by a government subsidy – but even that was only enough to heat their 20 square metre (215 sq ft) bedroom. He said he expected the bill to be higher this winter as the cost of natural gas had gone up by about 10 per cent.

"I fully support environmental protection and I'm glad that the air has got better," he said. "If only the cost was lower. I don't know what will happen when the three years of subsidies are over."

In the nearby village of Wuluohong, one of only a handful that has switched to electric power for heating, resident Wu Lanjing said that for many people the cost of running the new systems was prohibitively high.

“It costs 55 fen [0.55 yuan] per kilowatt-hour during the day and 35 fen at night,” he said. “I spent nearly 2,000 yuan in less than two months. It’s so expensive.”

He said he kept the oven on all day to keep the house warm for his two grandchildren, aged 13 and two, but most of his neighbours only did so at night.

To help reduce his bills, Wu said sometimes at night, when no one was around to see the black smoke it produced, he burned coal and other combustibles to keep the children’s bedroom warm.
We know all about the importance of having clean air and we hate black smog as much as everyone else.
Wuluohong resident Wu Lanjing

“We know all about the importance of having clean air and we hate black smog as much as everyone else,” he said. “But look around. You can’t see any electric heaters running except mine. People simply can’t afford it.”

But since Chinese President Xi Jinping put the creation of an “ecological civilisation” at the centre of his plans for reform, the concerns of Wu and many thousands of others appear to have been disregarded.

According to the Ministry of Ecology and Environment, Baoding was one of 10 worst cities for air quality last year. After an environmental protection inspection in November, authorities in the city were criticised by the Hebei government for their “lax control on burning polluting coal” and ordered to “improve political understanding … [of the] construction of an ecological civilisation”.

Several months earlier, in June, the provincial government itself had been criticised when environmental protection inspectors sent by the central government chastised it for its poor controls on the consumption and quality of coal.

Such intense scrutiny eventually trickles down to the public, and people across the region have complained of being harangued for using coal and threatened with fines and even public humiliation for doing so.

One of the worst examples was in the village of Zhaozhengdong in Quyang county. People there were bombarded with warnings blasted from loudspeakers or by patrolling inspectors about the risks they faced if they burned coal.

The threats came even though residents’ coal-fired boilers had been removed and a new natural gas system installed in the village two months earlier was not working, leaving people with no way to heat their homes.

Zhao Zhengong, 74, said he and his wife were left with nothing but a home-made oven – called a “small steel cannon” – which was just about powerful enough to warm bowls of water but provided no real heating.

He said it was so cold at night that he and his wife had to sleep with all their clothes on.

Quyang came under heavy criticism from the provincial government for its handling of the change to clean energy systems, but villagers remained under pressure.

Without natural gas to power their new boilers, residents were told they could use clean coal for heating, but that the burning of wood was still prohibited. The problem, however, was that the clean fuel was no good for starting fires, so people resorted to burning whatever they had.

That did not end well for two Zhaozhengdong men last month, who were taken away by the police just minutes after they used leftover “dirty” coal to fire up their ovens.

One of them was businessman Zhao Jiyong, who said he was interrogated for three hours and “shamed” by police for his actions.

He said he only resorted to burning the coal out of necessity after running up huge debts trying to set up a new property venture after his transport business collapsed with the demise of local coal mining industry.

Zhao's wife, Liu Yu, said the closure of the coal mines and the switch to clean fuels had a devastating affect on her and her husband.

"Out trucks were idle for six months, and then we were told that we were not allowed to use the 30,000 yuan boiler we bought last year," she said.

After her husband was released, Liu said the family had little choice but to pay to be connected to the public heating system, at a cost of 150,000 yuan.

"I feel my family has paid a big price for the environment," she said.

Lin Boqiang, director of China Institute for Studies on Energy Policy, said there was no doubt there was a price to pay for better air quality but it should be shared by the government, business and the public.

"It's understandable that people are worrying about the cost and whether the government subsidies will continue. That's all up for discussion," he said.

But people had to accept there was no turning back and clean energy was the future.

"Clean energy is not the problem, low wages are," he said. "What's needed are higher incomes and cheaper fuel. Better air quality comes at a price."

Nucléaire

China's fourth Westinghouse-designed nuclear reactor begins operations (Reuters)
01-11-2019

China's fourth Westinghouse-designed AP1000 reactor went into full operation after a trial run this week, the operator said, marking the completion of the first phase of the project after years of delays.

China signed a deal with the U.S. firm in 2007 to build four reactors, hoping to create a platform for Beijing's ambitious nuclear power expansion plans, but the roll-out of the unproven "third-generation" technology has been beset by safety concerns and design problems.

The second unit of the Haiyang nuclear power project on the eastern coast of China's Shandong province is now ready to go into full commercial operation after 168 hours of full-load operations, China's State Power Investment Corp said in statement on Thursday.

China put the world's first AP1000 into operation at Sanmen in Zhejiang province last September, four years later than originally scheduled. Two more went into operation at Sanmen and Haiyang later in the year.

The AP1000 is designed by U.S.-based Westinghouse, which was acquired by Brookfield Business Partners (BBU_u.TO) from Japan's Toshiba last August following bankruptcy restructuring.

The completion of the project brings China's total nuclear capacity up to 45 gigawatts, with 46 reactor units in operation throughout the country. Nuclear makes up about 2.5 percent of the country's generation capacity.

China has scaled back the pace of new reactor approvals and no new conventional project has been given the go-ahead in more than three years. It is now expected to fall short of its 2020 target to have 58 gigawatts of working capacity and another 30 gigawatts under construction.

At the government's annual energy meeting in December, officials made no commitments to approving and building any new projects in 2019, saying only that projects now under construction would be "pushed forward in an orderly manner".

Rolls-Royce in talks to supply Chinese nuclear plant in Essex (Financial Times)

01-21-2019

China's largest state-backed nuclear company is in talks with Rolls-Royce about supplying equipment for the power plant it hopes to build in Essex as it seeks to allay national security concerns about the project.

CGN is in discussions with the British engineering group over providing the control systems for the Hualong HPR1000 reactors the Chinese group plans to install at Bradwell on the Essex coast. Regarded as the central nervous system of a nuclear power plant, this technology not only drives the operation of the reactor, but allows it to be safely shut down should problems occur.

Using the British group's equipment would be a significant concession by CGN. The Chinese group has developed its own control systems which it hopes to export along with its reactor technology. But the move is seen as a necessary sop to ease concerns about Chinese companies building critical national infrastructure in the UK.

Britain's nuclear programme is in disarray following Hitachi's decision last week to shelve plans for a £20bn power station at Wylfa in Anglesey after financing plans for the scheme unravelled. That came two months after Toshiba pulled out of another project in Cumbria.

The latest withdrawal leaves just EDF and CGN as potential bidders for new nuclear projects. The two companies are linked. The French group is building the Hinkley Point station in Somerset with financial backing from CGN.

Theresa May's government has been less enthusiastic about Chinese investment than her predecessors, and Washington has raised concerns about Beijing taking civilian nuclear technology and transferring it to military uses.

Various countries have barred Chinese suppliers from telecoms and energy markets over fears that "backdoors" could give the Chinese government access to data or control over the equipment.

Huawei, the Chinese telecoms equipment maker, last month agreed to a series of technical changes to its UK practices after issues were raised by UK security officials.

CGN confirmed that talks were taking place and that Rolls was part of the approvals process it was going through with the UK nuclear regulator, but said no final deal had been struck. Industry sources said that Rolls systems would most likely be used if Bradwell went ahead.

"If the control system is built by Rolls and vetted by the UK nuclear regulator, the perception of switch-off risk is clearly reduced," said a UK nuclear industry source.

CGN has already made other concessions aimed at building trust. It has said that it would consider not operating the Bradwell nuclear power station after the plant's construction in order to deal with political

sensitivities. That is despite owning 66.5 per cent of the project under the deal it has struck with its partner, EDF of France.

Tom Greatrex, the chief executive of the Nuclear Industries Association, welcomed "CGN's awareness of the sensitivities, and their absolute determination to deploy their reactors and fulfil all the regulatory and other requirements that may be necessary".

Peter Atherton, an industry expert at consultancy Cornwall Energy, said the lack of bidders left the government with a dilemma.

"On the one hand they want Chinese nuclear investment in order to provide competition to the French but on the other hand there are very obvious security issues," he said. "If the government doesn't trust China to build mobile telecom networks how on earth can they trust them to build nuclear power stations?"

CGN has appointed senior figures from the contracting and nuclear industry to its UK subsidiary. Its British advisory board is chaired by Sir Terry Morgan, the former chairman of Crossrail and the HS2 high speed rail project. He was dismissed from both roles after serious delays and overruns at the state-run Crossrail project.

Rolls is a longstanding supplier of controls systems to the nuclear industry, having acquired the Merlin Gerin business of France's Schneider Electric in 2003. Its systems are installed in more than 200 reactors worldwide.

The UK group signed an agreement with CGN in June looking at ways they could collaborate on nuclear control systems technology.

Energies renouvelables

China powers up renewable energy but some wind farms still struggle to plug into grid (South China Morning Post)

01-28-2019

China's renewable power capacity rose 12 per cent in 2018 compared to a year earlier, official data showed on Monday, with the country still rolling out new projects despite transmission capacity concerns and a growing subsidy payment backlog.

China has been aggressively promoting renewable power as part of an "energy revolution" aimed at easing its dependence on coal, a major source of pollution and climate-warming greenhouse gas emissions.

Total capacity – including hydro and biomass as well as solar and wind – rose to 728 gigawatts (GW) by the end of last year, the National Energy Administration (NEA) said.

That amounted to 38.3 per cent of China's total installed power capacity, up 1.7 percentage points on the year and around 7 percentage points higher than at the end of 2015.

China hooked up another 20.59GW of new wind power capacity to its grid in 2018, the NEA said. New solar capacity reached 44.3GW, slightly higher than a figure given by an industry association earlier this month, but still down compared to 2017 following a decision to slash subsidies.

China also completed another 8.54GW of hydropower capacity, mostly in the nation's southwest, bringing total hydropower to 352GW by the year's end.

China has tried to change the "rhythm" of renewable power construction to give grid operators time to raise transmission capacity and ensure clean electricity generation is not wasted.

Li Chuangjun, deputy head of the NEA's new energy section, said overall rates of waste in the wind power sector had fallen to 7 per cent last year, down 5 percentage points on the year.

The major wind generation regions of Xinjiang and Gansu in the far northwest, however, still failed to get around a fifth of potential wind power onto the grid over the period.

China's "energy revolution" has also involved the installation of new emissions control technology at its coal-fired power plants, still the dominant form of energy in China.

Around 810GW, or 80 per cent, of China's coal-fired capacity was employing "ultra-low emission" technology by the end of 2018, according to the transcript of a speech by Environment Minister Li Ganjie published on Monday.

But despite China's efforts to cut coal consumption and promote renewable power domestically, it has been criticised for backing new coal-fired projects overseas that use obsolete equipment no longer permitted at home.

China installed 18 percent less solar power capacity in 2018 (Reuters)

01-17-2019

China put just over 43 gigawatts (GW) of new solar generation capacity into operation in 2018, down 18 percent from a year earlier, an industry group said on Thursday, after a government move to curb new capacity and ease a subsidy payment backlog.

The new generation took the country's total installed solar power capacity to more than 170 GW by the end of the year, the China Photovoltaic Industry Association (CPIA) said.

China announced last year that it would suspend new projects after a record 53 GW capacity increase in 2017 left it struggling to find spare grid capacity and pay a renewable subsidy backlog amounting to more than 140 billion yuan ($20.69 billion) last year.

China is also aiming to gradually phase out direct financial support to the solar industry after a decline in costs, announcing last week that it would launch a series of new subsidy-free projects.

But solar manufacturers are already feeling the pinch, and warned last year they were facing closure after a surge in new production capacity in previous years sent component prices plummeting.

"Facing a lot of complicated domestic and overseas trends, the sector as a whole is under big pressures and substandard producers are expected to promptly exit the market," said Wang Bohua, CPIA vice-chairman, in a speech on Thursday.

Wang said output of solar equipment continued to increase in 2018 despite the decline in new domestic capacity, with solar module production up 14.3 percent to an equivalent of 85.7 GW.

Much of the surplus production was diverted to overseas markets, with solar component export earnings rising 10.9 percent from a year earlier to $16.11 billion, Wang said, according to a transcript published on CPIA's official WeChat social media account.

China's solar manufacturers have been accused of using subsidies to drive down prices and put foreign competitors out of business, but they claim they have been the beneficiary of a fierce competitive environment forcing them to reduce costs.

The United States imposed tariffs on China's solar products last year, and its share of China's exports fell from 5.9 percent in 2017 to 0.24 percent in 2018. The bulk of China's overseas shipments went to India, South East Asia and Europe.

China plans subsidy-free solar and wind projects (Bloomberg)

01-11-2019

China will start building pilot wind and solar power projects that won't receive national government payments as it pushes to improve the competitiveness of renewable energy and rein in subsidy bills. Shares of solar manufacturers surged in New York and Hong Kong.

Power prices from these pilot projects will be the same or lower than from coal-fired plants, the National Development & Reform Commission said in a statement laying out the policy on Wednesday. Subsidy-free plants may be exempt from participating in some power market transactions and will sign long-term power purchase agreements with grids at fixed tariffs, it said.

Regulators are seeking to cut the nation's surplus renewable power capacity, as well as its hefty subsidy bill, which followed its green energy investment boom. The government rattled the market last year when it decided to curb financial aid to solar developers to slow record growth rates and integrate existing capacity into the grid.

"This offers much-needed certainty for investment decisions," BOCI Research Ltd. analyst Tony Fei said in a note. "The solar PV supply chain could be more direct beneficiary."

GCL-Poly Energy Holdings Ltd., the world's biggest polysilicon maker, gained 4.2 percent percent in Hong Kong and Xinyi Solar Holdings Ltd. jumped 9 percent. Xinjiang Goldwind Science & Technology Co. Ltd.'s H-shares rose 5.5 percent. Manufacturers also gained in New York, with ReneSola Ltd. up 8.2 percent, JinkoSolar Holding Co. climbing 5 percent and Canadian Solar Inc. 2.5 percent.

The subsidy-free policy will remain valid for the entire life of the projects if they are approved and construction commences before end of 2020, the NDRC said. Projects that were proposed but not built within a certain time period will be scrapped to make room for non-subsidized plants, without providing further details. Some provinces, including Fujian, have already started canceling solar and wind projects in response to a government order to determine if developments would still be needed.

The push for the pilot plants doesn't mean national subsidies for all new wind and solar power projects will be canceled, National Energy Administration said Thursday in an explanatory statement on the policy. During the current phase, regions with superior resources and guaranteed power consumption will be the focus for the pilot projects, while other regions will continue to use auctions to lower power prices of renewable projects and subsidies, the agency said.

Other details in the NEA's statement include:

- Pilot projects will only be in regions where local authorities can ensure that power from these plants will be fully consumed and their construction won't squeeze demand for existing projects
- Demonstration projects won't be built in so-called "red-alert" regions, where construction of new renewable-power projects are usually not permitted as idle rates are the highest
- Local governments can set subsidy policies for a limited time for the pilots
- China will cut "unreasonable" fee charges for these projects and reduce their land costs
- Financial institutions will be encouraged to support construction of subsidy-free projects

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The price of Chinese solar panels are about to go up (Fortune)

01-24-2019

Prices of Chinese-made solar panels are about to see an upward swing, the head of one of the world's top manufacturers said Thursday at the World Economic Forum in Davos, Switzerland.

China hosts the majority of the world's solar panel production, which used to be staggeringly cheap. Solar panel prices fell around 30% last year after China cut subsidies, says Reuters. But now, companies like GCL large enough to survive are starting to recover.

"The party is over," Eric Luo, president of China's GCL System Integration Technology Co., told Reuters.

Smaller producers will likely have to close or consolidate, he added, leading prices to rebound 10-15% over the next couple years. Soon China's solar industry will be able to operate without any form of subsidy.

Northwest China, where there's more sun and affordable land, is already there, and the rest of the country is expected to follow suit within the year. If you still need subsidies by 2020, said Luo, "you just stop."

Despite the recent impacts of the U.S.-China trade war, the U.S. continues to be a major market for solar panel producers. GCL is expanding elsewhere, too, leading 75% of its solar panel shipments this year to be overseas, says Reuters.

China approves large new upstream dam project on the Yangtze river (Reuters)

01-15-2019

China has approved construction of one of its tallest dams, a 239-metre (784-foot) hydroelectric structure on the upstream section of its longest river, the Yangtze, the state planning agency said on Tuesday.

Hydropower is a clean and renewable source of energy but large-scale construction in southwest China has sparked accusations of damage to fragile ecosystems and inadequate compensation to thousands who have lost their homes.

As concern grows over the social and environmental costs of large hydroelectric dams, China has become more cautious of approving new projects in recent years.

"Great importance must be attached to environmental protection and migrant resettlement work during the construction," the state planner, the National Development and Reform Commission, said in a notice.

The reservoir of the Lawa hydroelectric project will submerge nearly 12 sq miles (31 sq km) of forest and farmland on the Jinsha branch of the Yangtze on the border between Sichuan and Tibet.

The project is envisaged to eventually consist of four turbines with a total capacity of 2,000 megawatts (2 gigawatts).

That compares with China's total hydropower capacity of 350 gigawatts by the end of last year, with about 270 GW contributed by large-scale projects, an industry group said last week.

State power giant Huadian Group will hold a stake of 48 percent in the project, with local firms holding the rest.

Planned total investment of 30.97 billion yuan ($4.59 billion) will include 2.19 billion yuan to cover the costs of relocating and compensating people displaced by construction.

Industry advocates say big dams are the most efficient way of bringing electricity to remote and undeveloped regions, and China has promised to improve the way it compensates displaced residents.

In its notice, the NDRC also said it would look at ways of using the new project to boost local income.

It has also launched a campaign to clear up "disordered" small-scale hydropower on the Yangtze, with an audit last year putting the number of projects along the river and its tributaries at 24,100.

Many new facilities are located in remote regions of Tibet, and the southwestern Sichuan and Yunnan provinces, where relocation and environmental costs can be minimised.

China's State Grid to spend $5.7 billion on pumped hydro plants (Bloomberg)

01-09-2019

State Grid Corp. of China, the dominant electricity distributor in the world's biggest energy consumer, will invest 38.7 billion yuan ($5.7 billion) to build five pumped hydro storage plants as part of the nation's efforts to ease idled solar and wind power capacity.

The projects, in Hebei, Jilin, Zhejiang, Shandong provinces and the far west Xinjiang autonomous region, will have a total capacity of 6 gigawatts and are expected to come online from 2026, the company said Wednesday in a statement.

Pumped hydro storage allow excess power to be saved by pumping water from lower to upper reservoirs when electricity demand is low, then releasing it back down to generate electricity when consumption is high.

China is utilizing technologies such as large-scale storage and ultra-high voltage power lines to help reduce renewable power waste. The nation aims to develop about 40 gigawatts of pumped hydro storage capacity by 2020.

Xinjiang and Jilin are among regions in China with the highest curtailment rates of renewable power. Overall, the nation idled about 2.9 percent of solar power in the first nine months of last year and 7.7 percent of wind.

China's Three Gorges rules out new domestic hydro projects (Reuters)

01-09-2019

China Three Gorges Corp (CTGC), operator of the world's largest hydropower plant, is turning to projects offshore, a senior official said, as domestic costs soar and space runs out on the country's crowded rivers.

"We don't have any plans to build more hydropower projects in China but will develop more projects overseas," said Sun Zhiyu, the company's vice-president, on the sidelines of a meeting on Tuesday.

"We already have business in more than 40 countries, and will focus mostly on South Asia, Southeast Asia, Africa and Latin America," he added.

The 22.5-gigawatt (GW) Three Gorges Project on the Yangtze river was completed in 2012 after a dam-building boom throughout China. Its turbines generate 100 billion kilowatt-hours of electricity per year.

CTGC, parent of listed China Yangtze Power Corp, has since completed other giant dams on the Yangtze upstream and its total hydropower generation capacity - including projects under construction - stands at nearly 70 GW, more than the total power capacity of Australia.

China's total hydropower capacity hit 350 GW last year, accounting for a fifth of total generation, but its reliance on large and disruptive dam projects has been controversial.

Advocacy groups claim capacity could safely be doubled, but the government has slowed down hydro approvals amid concerns about its devastating impact on communities and ecosystems.

While hydropower produces no emissions during generation, opponents say it contributes to global warming by submerging forest and plant life under water. Giant dams and reservoirs also cause biodiversity loss and put quake-prone regions like Sichuan under greater seismic pressure.

Worried about potential unrest, China has sought to improve the way "hydropower migrants" are compensated. Payments to displaced residents now account for half of a project's total costs, and tougher rules are set to be implemented next year.

China has also cracked down on small hydropower, said to have caused untold damage to aquatic ecosystems throughout the country.

However, industry advocates said at an industry meeting in Beijing on Tuesday that hydropower must still play a vital role in China's clean energy goals.

Wang Yinan, researcher with the Development and Research Center, a cabinet think tank, said new rules had raised costs and eroded investment incentives, and transmission capacity was also insufficient.

"Fake environment protection ideas and ignorant ecological views are flooding society and demonising hydroelectric projects, which will mislead national policies, national security and ecological protection, " she said.

Yankuang entered agreement with Air Liquide (Communiqué de presse de l'entreprise Yankuang)
01-05-2019

On the morning of January 4, Yankuang Group and Air Liquide Group (France) signed a cooperation framework agreement in Jinan, capital of Shandong province. The new energy business of Yankuang Group entered strategic breakthrough phase.

As one of the most potential clean energy globally, hydrogen energy could be widely used in transportation, electric power and other fields and was regarded as the final resolution for new energy vehicles. Pursuant to the agreement, Yankuang and Air Liquide will innovate cooperation models based on coal gasification hydrogen production technology and hydrogen resource advantages of Yankuang and experience in hydrogen energy infrastructure and operations of Air Liquide. The two organizations will develop complete hydrogen energy ecological industry chain in Shandong areas, build hydrogen energy infrastructure network, thus to jointly to promote Shandong hydrogen energy and hydrogen fuel cell vehicle solutions.

Yankuang has the world class technology of hydrogen production from coal, which can realize low-cost and large-scale. Since last year, Yankuang Group has accelerated the development of hydrogen energy and has reached cooperation intention with Taiwa Syoji Co., Ltd. (Japan) and International Energy and Environmental Protection Promotion Society (Japan) in use of hydrogen energy.

Mr. Li Xiyong, the Chairman of Yankuang Group and the Secretary of Yankuang Committee of the CPC, said that Yankuang has made a three-year plan for the group's hydrogen energy business, which focused on hydrogen energy, methanol, syngas, fuel cell power generation technology, etc. Yankuang will strength research on hydrogen energy technology, cooperate with domestic top-tier scientific research institutes to establish New Energy College, create supply-side industrial system covering hydrogen energy preparation, purification, storage and transportation, build demonstration for utilization of hydrogen energy vehicles, thereby promote the company to take the lead in transformation and development with high-quality and efficiency in replacement of growth drivers.

Electricité, réseau électrique

Changji-Ququan +-1100 kV UHVDC transmission project starts power transmission (Communiqué de presse de l'entreprise State Grid)
12-27-2018

On Dec. 31, 2018, Changji-Guquan ± 1,100 kV UHV Project, the world's first ±1,100 kV UHV DC transmission project, designed and constructed independently by China, successfully began full-voltage power transmission.

The Project was approved in December 2015 and construction began in January 2016. Starting from the Changji Converter Station in Xinjiang's Changji Hui Autonomous Prefecture and finishing in the Guquan Converter Station in Xuancheng, Anhui, it passes through Gansu, Ningxia, Shaanxi, and Henan in the process with a total length of 3,293 kilometers, a rated voltage of ±1,100 kV and transmission capacity of 12 GW. It is currently the world's largest and most technologically advanced transmission project with the highest voltage level, the largest transmission capacity, and the longest transmission distance.

±1,100 kV UHV DC transmission is the latest innovation in power sector in China. It adopts advanced high voltage, high current, low loss converting technology and equipment manufacturing technology which successfully enables improvement across the full range of DC voltage, AC voltage, and transmission capacity. For the first time, 10 GW level power transmission at a range of 3,000 to 5,000 kilometers becomes possible.

It marks a major technological leap and milestone in the field of high-voltage transmission in the world. The transmission capacity of a single ±1,100 kV DC project can meet approximately 1/2 of the electricity demand of a medium-developed Chinese province, while the economic transmission distance can meet the needs of cross-border and even inter-continental power transmission, and can greatly improve resource allocation capability of the power system.

Xinjiang is one of China's five major comprehensive energy bases, with conditions for the large-scale development of coal, wind, and solar power. The quality of coal resources in the Zhundong area is excellent and the development condition is outstanding, hence it is suitable for generation near the site. The area's proven coal reserves are 213.6 billion tons. The planned production capacity in the near future will be able to support 40 GW of coal-fired power installed capacity. Xinjiang is one of the nine large wind power bases planned and built in China, with a potential capacity of more than 200 GW. The use of advanced UHV transmission technology to implement large-scale "transmission of Xinjiang Power" can effectively promote the intensive development of the Xinjiang energy base and turn resource advantages into economic advantages. The Changji-Guquan ±1,100 kV UHV DC Project is a landmark project of "transmission of Xinjiang Power", which is of great strategic significance to efforts to promote the development of the Xinjiang energy base, stimulate economic growth, and achieve healthy and rapid development and long-term stability in Xinjiang.

Facing imbalance between power supply and demand, shortage of land resources and environment protection, the well-developed East China is in no condition to further expand local coal-fired power generation. Changji-Guquan ±1,100 kV UHV DC Project represents the "Power Silk Road" connecting Xinjiang and East China. It can transfer 66 TWh of electricity to East China every year to meet the demand of 50 million households and reduce coal transportation by 30.24 million tons per year (the equivalent of 25,000 trains with 20 cars each if calculated by train capacity), which is of great significance to to defend the blue of skies.

It is found that the Changji-Guquan ±1,100 kV UHV DC Project features total investment of 40.7 billion yuan, increases the output value of the power transmission and transformation equipment manufacturing by 28.5 billion yuan, and drives investment of 101.8 billion yuan in relevant industries such as power generation. Additionally, it has created 28,000 jobs and drives 13 billion yuan of GDP growth each year, while at the same time increasing tax revenue by 2.4 billion yuan.

Route de la soie électrique: la Chine va-t-elle nous inonder d'électricité low cost (Futura Sciences)

01-21-2019

Jouets, vêtements, télévisions, couettes, chaussures de sport, ordinateurs, panneaux solaires, trottinettes ou même mini Tour Eiffel... Les produits chinois ont envahi le monde. Un autre pourrait bientôt s'ajouter à cette longue liste : l'électricité. La Chine envisage, en effet, d'exporter de l'électricité à bas coût, issue de ses fermes éoliennes et solaires, via des câbles à ultra haute tension. De quoi tailler des croupières à EDF et consorts ?

En 2019, la Chine devrait achever une ligne à ultra haute tension de 1,1 million de volts (1.100 kV), reliant les grands barrages hydrauliques de la province du Xinjiang, au nord-ouest, à l'Anhui, sur la côte Est. Cette « autoroute de l'énergie », Changji-Guquan, permettra d'acheminer 12.000 MW d'électricité, l'équivalent de deux fois la consommation électrique suisse, sur 3.200 kilomètres. Soit, 50 % d'électricité de plus qu'avec les lignes ultra haute tension actuelles à 800 kV.

La revanche du courant continu sur le courant alternatif

Pour transporter l'électricité sur des milliers de kilomètres, la Chine s'appuie sur la technologie dite CCUHT (courant continu ultra haute tension ou UHVDC en anglais), dont la tension dépasse les 800.000 V (800 kV).

Cette dernière connaît un véritable renouveau depuis les années 2000, avec l'allongement des distances et des puissances transportées. D'habitude, le courant alternatif (AC) est privilégié pour transporter l'électricité, car cela permet d'utiliser des hautes tensions, donc de réduire les intensités et de limiter les pertes par effet Joule. Mais au-delà d'une certaine distance, le courant alternatif implique un ajustement permanent de la puissance, qui doit être compensé à intervalles réguliers pour maintenir la tension. Ces fluctuations de puissance entraînent des variations de fréquence, qui peuvent, à leur tour, perturber le reste du réseau. Le courant alternatif ne permet pas non plus d'interconnecter deux lignes de fréquences différentes, qui doivent alors passer par un transformateur en courant continu. La fiabilité des lignes en courant continu est également bien meilleure dans le temps et surtout, leur coût est près de deux fois inférieur à celui d'une ligne AC (en moyenne, 2 euros par kilomètre en terrestre et 3 à 5 fois plus, pour un câble sous-marin).

À peine 7 % de pertes sur 2.000 kilomètres

Pour toutes ces raisons, la CCUHT a rapidement pris le pas pour les mégaprojets chinois. La technologie reste pour l'instant dominée par les fabricants européens comme l'allemand Siemens ou le suédois ABB, ce dernier étant, d'ailleurs, fournisseur de la liaison Changji-Guquan. « Les transformateurs mis à disposition par ABB compteront parmi les plus puissants au monde », se félicite ainsi l'entreprise. Chacun pèsera près de 800 tonnes pour une longueur de 10 mètres. « La Chine a le meilleur rapport pertes-distance, atteste Steven Chu, ancien secrétaire américain à l'énergie. Leurs lignes sont capables de transporter l'électricité sur 2.000 km de distance avec à peine 7 % de pertes. Aux États-Unis, nous n'arrivons même pas à ce résultat sur 200 kilomètres ».

La Chine produit trop d'électricité et au mauvais endroit

Pour les Chinois, le développement de lignes à ultra haute tension devait d'abord répondre à un problème national : sa production énergétique est essentiellement située au nord et au centre du pays, où se trouvent les mines de charbon et où le vent et le soleil sont les plus forts, alors que 80 % de la population habite sur le littoral à l'est et au sud. Résultat : le pays affiche le pire taux d'effacement au monde (énergie qui aurait potentiellement pu être produite mais qui est non utilisée), avec 12 % pour l'éolien et 6 % pour le solaire. En 2016, 56,2 TWh d'énergie ont ainsi été gaspillés, selon un rapport de Bloomberg News Energy Finance. La Chine a tellement construit de fermes solaires et éoliennes qu'elle se retrouve avec une surproduction de 35 %, relate Bloomberg. Certaines installations, toutes neuves, ne sont même pas reliées au réseau, faute de besoin. Pour pallier ce gâchis, la Chine a donc entrepris la construction d'un réseau national à ultra haute tension : depuis 2006, 19 lignes à ultra hautes tension ont été construites dans le pays couvrant 30.000 kilomètres, dont six reposent sur la CCHUT.

Un « super réseau électrique mondial »

Forte de son savoir-faire national, la Chine vise désormais des horizons plus lointains et ambitionne de construire un « super réseau électrique mondial » pour écouler ses surplus. La compagnie nationale chinoise, State Grid, compte ainsi exporter l'électricité verte, issue de ses ressources renouvelables vers l'Europe, « lui permettant ainsi de réduire son empreinte carbone et sa dépendance au nucléaire », avance la compagnie. Grâce à ce plan, les émissions de CO2 européennes diminueraient ainsi de 67 milliards de tonnes,affirme Liu Zhenya, son P.-D.G.

Une électricité trois fois moins chère que celle produite en Europe

Il s'agit, en réalité, d'un nouveau pion sur sa « Route de la Soie », ce programme lancé en 2013 qui ambitionne de construire un vaste réseau de voies de communications terrestres et maritimes à travers la Russie, l'Asie et l'Europe, et qui est parsemé d'infrastructures de tous ordres (ports, bases militaires...). L'électricité excédentaire chinoise serait écoulée à un prix dérisoire pour venir concurrencer les centrales européennes. Liu Zhenya, le dirigeant de State Grid, expliquait ainsi lors d'une conférence à Londres qu'un barrage produisant 1 kWh à 3 centimes d'euros pourrait acheminer de l'électricité en Europe grâce à des

lignes CCUHT chinoises pour un coût de revient de 6 à 7 centimes. Par comparaison, le coût moyen du kWh en Europe pour les particuliers est de 20 centimes, d'après Eurostat. Avec une telle concurrence, EDF n'aurait plus qu'à mettre la clé sous la porte.

Brésil, Afrique… Les électriques lignes chinoises tissent leur toile sur la planète

Preuve que le projet est pris très au sérieux, le JRC, le Centre commun de recherche de la Commission Européenne, a publié en 2017 un rapport complet sur le sujet, étudiant la possibilité de trois itinéraires possibles pour une telle « route de la soie électrique » en fonction de leur coût, leur faisabilité et des enjeux géopolitiques. Les Européens ne sont pas les seuls visés par State Grid qui déploierait les tentacules de ses lignes haute tension partout dans le monde. Le pays a ainsi investi plus de 21 milliards de dollars au Brésil pour y devenir le numéro un de la production et du transport électrique. La première ligne CCUHT non chinoise, actuellement en construction, reliera le barrage de Belo Monte et les villes de la côte sud. Elle devrait permettre de réduire de moitié les pertes liées de transport. La plus forte concentration d'investissements concerne l'Afrique, avec pas moins de 39 projets d'infrastructures énergétiques annoncés, selon le cabinet de conseil RWR Advisory. State Grid devrait ainsi prendre le contrôle d'un projet de 2,8 milliards de dollars pour la construction d'un immense réseau électrique interconnecté pour les pays de l'Afrique du Sud.

Une nouvelle menace pour la souveraineté européenne ?

Il n'est pourtant pas certain que les Chinois arrivent à leurs fins. D'une part, le coût de construction d'une route de la soie Asie-Europe serait astronomique : entre 16 et 28 milliards d'euros en comptant les lignes et les transformateurs, estime le JRC. D'autre part, un tel réseau impliquerait une coopération étroite de tous les pays concernés, ce qui n'est pas prêt de se produire en raison des nombreux conflits dans les régions traversées. Enfin, il est peu probable que les Européens acceptent de bon gré de mettre leur avenir énergétique entre les mains des Chinois. Que se passerait-il si ces derniers décidaient soudainement de plonger la France dans le noir à la suite d'un désaccord commercial ou politique ? La Chine ne sera-t-elle pas tentée de tirer profit de sa domination une fois qu'elle aura mis au tapis les producteurs locaux ? Elle pourrait aussi imposer ses propres standards, accentuant encore son pouvoir technologique.

Malgré les ambitions chinoises, le rêve d'une Route de la soie énergétique pourrait donc bien être relégué au rayon des « éléphants blancs » à l'instar du projet Desertec, un vaste programme de construction de centrales solaires et de fermes éoliennes dans les déserts du pourtour méditerranéen, censé alimenter l'Europe en électricité. Faute de financement et victime de dissensions internes entre les partenaires industriels et la fondation responsable du projet, ce dernier semble s'être enlisé dans le sable.

Environnement

Changements climatiques

China's not too rich for World Bank loans, report says (Caixin)

01-15-2019

China has taken out low-cost loans from the World Bank for years. But as growth soared, propelling the country to the world's No. 2 economy with a $3 trillion hoard of foreign-exchange reserves, its borrowing has become a controversial issue and a target of criticism by the U.S., most recently by President Donald Trump's administration.

The U.S. blocked a plan to increase the bank's capital and lending capacity in 2017, partly because if felt China had ample borrowing ability of its own, was itself lending huge sums to other developing countries, and was getting an excessive amount of the bank's loans. In order to get Washington to endorse the proposal, which would also give Beijing a bigger shareholding in the institution, the World Bank's other member countries agreed to certain reforms that were announced in April 2018 and approved in October.

These included changing the principles that guide the bank's lending policies, including the types of projects to be funded, eligibility for borrowing and how countries should "graduate" from the assistance program. They also imposed higher interest rates on loans to wealthier developing countries.

A new analysis of China's relationship with the World Bank concludes that the country is still eligible for loans, given that the regions receiving money have per capita income levels below the threshold that would trigger a reduction in lending.

Global objectives

"Rather than end bank lending to China, the goal should be twofold," Scott Morris, the lead author of the report from the Center for Global Development (CGD), a Washington-based think tank focused on international development and aid, told Caixin. The World Bank should "adjust lending terms in order to generate higher profits, and ensure that all lending is meeting the 2018 objectives — namely, aimed at global objectives like reducing carbon emissions or increasing capacity, and lowering poverty in China's poorest provinces."

The World Bank's office in Beijing declined to comment on the report, which was released in Washington on Thursday.

China is one of the World Bank's top borrowers through the International Bank for Reconstruction and Development (IBRD), taking out loans of around $2 billion a year. The bank's data show that as of April 19, cumulative lending to China through the IBRD and the International Development Association (IDA), which China graduated from in 1999, was more than $60.5 billion for 416 projects. The portfolio is concentrated in environment, transportation, urban development, rural development, energy, water resources management and human development.

China crossed the threshold where discussions should begin about graduating from the lending program in 2016, when its gross national income (GNI) per capita rose to $6,895. But in the three fiscal years ending June 2016 to June 2018, it received loan commitments of $7.89 billion from the IBRD, according to the think tank report. The CGD report points out that China isn't the only country that has reached that threshold, known as the Graduation Discussion Income (GDI) — 29 borrowing countries were above that line in 2018, eight of which with higher per capita incomes than China.

Under the 2018 agreement, once countries surpass the GDI level, World Bank loans are supposed to be limited to two areas — global public goods projects, which have extra value beyond the borrowing country, and capacity building projects, which focus on institutional strengthening.

Although China nationally has surpassed the GDI threshold, just over half of provinces remain below that line. Even so, the CGD report shows that just 58% of lending has gone to provinces below the threshold, although many of the projects were started before the 2018 principles were adopted. But it also points out that loans disbursed to wealthier regions are being used for global public goods projects such as climate mitigation and pollution control, which are within the bank's remit.

The report's authors, Morris and Gailyn Portelance, said they found evidence that China's borrowing was broadly consistent with the 2018 principles of institutional capacity strengthening and global public goods-related engagement, although significant areas of bank engagement did not appear to fall within the parameters of the principles.

Future borrowing

China is likely to fight efforts to force it to exit the IBRD's lending program. The report points out the country is among several borrowers that have resisted "firm rules and automatic triggers" to graduating. It also benefits from the nonfinancial services technical support that come with the loans. In a blog post in January 2018, Morris said Chinese officials have often characterized their borrowing as a useful way to achieve a number of aims including project-level standards and disciplines that help improve operations at the local and provincial levels, particularly in western China.

Morris said the World Bank's portfolio of loans will need to change if it is to be fully aligned with the 2018 agreement, but that doesn't necessarily mean China will borrow less in future.

"The political pressure from the U.S. will remain and the selection of a new World Bank president could affect this issue a lot," he said, referring to the resignation of Jim Yong Kim on Jan. 9 and the battle that's likely to ensue between member countries to replace him. "But the risk of a U.S.-backed candidate pushing too hard would be to isolate China from the bank, a move that doesn't have support from the other major shareholders."

Voir le rapport du *Center for Global Development*

Databank puts info at world's fingertips (China Daily)

01-16-2019

The Chinese Academy of Sciences will release about 5 million gigabytes of data related to Earth sciences, biology and ecology from around globe, allowing scientists and officials worldwide to study and tackle issues in climate change, food security, disaster relief and environmental protection.

The data can be accessed on the CASEarth Databank at data.casearth.cn, which was launched on Tuesday. Around 1.8 million gigabytes of content are remote-sensing data, 2.6 million gigabytes is on biology and ecology, and 0.4 million gigabytes is on the atmosphere and ocean, said Guo Huadong, chief scientist of CASEarth, the academy's Big Earth Data Science Engineering Project.

The databank also includes more than 3.6 million items on China's biosphere, 420,000 items on microbes and 490,000 items on paleontology, Guo said. It will update 3 million gigabytes of data every year, making sure users have the latest and most comprehensive data.

"A data platform like this can help scientists and officials make data-driven discoveries and policy decisions, and promote the integration of different scientific disciplines as well as worldwide collaboration," Guo said.

The databank is one of the latest achievements of the academy's five-year CASEarth project, launched last January, said Zhang Yaping, vice-president of the academy. The project aims to create a world-class interdisciplinary data-sharing platform that can help countries around the world to solve their developmental issues and achieve sustainable growth, he added.

"The openness and sharing of scientific data have been major resources and driving forces for scientific development around the world," said Zhang.

Last year, Chinese scientists discovered a fossilized turtle in southwestern China that lived about 230 million years ago using big data analysis. The roughly 2-meter-long animal, dubbed Eorhynchochelys sinensis, filled an evolutionary hole in how reptiles developed features such as beaks and shells, according to the journal Nature, where the finding was published.

As for government use, the databank can grant officials better insights into economic, social and environmental issues, said He Guojin, a researcher at the academy's Aerospace Information Research Institute.

For example, the databank can keep track of rice sheath blight in a given Chinese province. This allows local officials to quickly identify and deal with the disease, thus minimizing its effect on agricultural production, he said.

The databank also has a wealth of information on natural resources, water flow, climate, population distribution, disaster hot spots and archaeological sites. Countries involved in the Belt and Road Initiative can use such information to serve their developmental needs, He said.

Guo, of CASEarth, said these countries might not have the necessary infrastructures to collect or analyze scientific data in the scale or depth China can, "but China is more than happy to share its knowledge and collaborate with other countries to tackle common challenges".

At the same time, through data sharing and analysis, Chinese industries and companies can have a deeper understanding of the potential risks and opportunities of overseas investment, Guo said.

China is wasting a useful resource – and worsening climate change instead (Quartz)

01-30-2019

In recent years, China has been touting its efforts to fight climate change, including its vow to reduce greenhouse-gas emissions by cutting down coal production. Yet a new study reveals that the country has failed to control its emissions of methane, a common side-product of coal mining, which can be as much as 84 times worse than carbon dioxide when it comes to warming the planet than carbon dioxide.

In 2010, China set a goal to control methane emissions by using the gas extracted during coal mining for heating or electricity generation: it wanted to use 5.6 million metric tons of coal-mine methane by 2015. That's the equivalent of eliminating the entire methane emissions of Australia or Canada, according to a study by scientists at Johns Hopkins University.

But methane emissions continued to rise by around 1.1 million metric tons every year between 2010 to 2015, according to the study, which was published in Nature Communications today (Jan. 29).

Researchers conducted the research using GOSAT, a Japanese greenhouse-gas observing satellite launched a decade ago. Data from the satellite between 2009 and 2015 show that methane emissions increased faster in China, India, Central Africa, and South Asia than the global average.

China's failure to control methane emissions could be the result of several obstacles, noted the study, which cited analysis from the US Environmental Protection Agency and the International Energy Agency, an intergovernmental organization. Many Chinese coal mines are located in rural areas which lack the infrastructure (pdf, p.25)—such as pipes, compressors, or power plants—needed to bring methane gas to the market for use.

In addition, coal mines in China are often deeper underground compared to those in the US and Australia, for example. And even after operators get the methane out, they typically don't have the technical expertise (pdf, p.4) to use the methane for electricity production or heating. And local companies often aren't willing to take the coal-bed methane, because they don't have policies in place to pass on the cost of additional infrastructure onto consumers. Additionally, local authorities only have limited power to enforce national regulations.

It's essential for China to make use of the methane. It would not only help the country cut its greenhouse-gas emissions, but would help wean it off natural-gas imports. In November, China overtook Japan to become the world's biggest natural gas importer.

Voir l'étude publiée dans *Nature Communications*

Here's how climate change is going to affect China's energy use (World Economic Forum / Futurity)

01-15-2019

By the end of the 21st century, each degree Celsius increase in global mean surface temperature (GMST) would raise average Chinese residential electricity use by about 9 percent. Peak electricity use will rise 36 percent for every increased degree Celsius.

By 2099, scientists estimate mean surface temperature will be 2-5 C hotter than today. If consumption patterns remained similar to today, average residential electricity demand in China would rise by 18 percent at the low end and as much as 55 percent at the high end. Peak usage would rise by a minimum of 72 percent.

This finding has important implications for energy grid planning, but even without climate change, average household electricity consumption in China is projected to double by 2040 due to rising incomes.

"Our findings contribute solid evidence supporting China's low-carbon policy by showing how important increasing demand from the residential sector will be," says Libo Wu, a professor and director of the Center for Energy Economics and Strategies Studies at Fudan University in China.

To examine how customers responded to daily temperature changes, the authors analyzed data from more than 800,000 residential customers in the Pudong district of Shanghai between 2014 and 2016. They combined these data on consumer behavior with a variety of detailed climate model simulations to construct the relationship between projected mean global temperature change at the end of the century and localized projected impacts in China.

"This state-of-the-art approach has been applied to communities in the United States, but this is the first application in China," says Billy Pizer, a professor in Duke University's Sanford School of Public Policy and Duke Kunshan University in Jiangsu Province, China. Researchers have done most previous studies of these impacts in Western countries.

Although residential usage accounts for just one-fourth of total electricity consumption in Shanghai, researchers focused on homes because they are very responsive to temperature fluctuations. During extreme heat days (around August 1) and extreme cold days (around February 1), home usage increases more dramatically in response to temperatures than commercial or industrial usage, and drives peak consumption during these times.

For temperatures above 25 C (77 F), the authors found residential daily electricity consumption increased sharply—14.5 percent for every 1 C increase in daily temperature. For example, compared with a comfortable 20 C day, when electricity consumption is the lowest, a 32 C day led to a 174-percent increase in daily electricity consumption.

In the comfortable range between 13 C and 25 C (55 to 77 F), temperature change did not trigger residents to adjust their thermostats. When temperatures dipped below 13 C, electricity use increased with each 1 C drop, but more moderately.

The study found that high-income Chinese used more electricity during the winter. However, the response to hot summer days was similar for all income groups in Shanghai—everyone reached for the air conditioning.

“If we consider that more provinces would become ‘Shanghai’ as incomes rise, our results may ultimately be more broadly applicable,” says Yating Li, a PhD candidate in environmental policy.

The authors believe the results could apply to other urban areas in the Yangtze River Delta, which have similar climate and economic conditions. This metropolitan region includes Jiangsu, Zhejiang, and Anhui provinces, roughly one-fifth of China’s urban population and one-fourth of economic output of China (GDP).

The National 863 High Technology Research and Development Program of China supported the study. The Duke University Energy Initiative supported Li through the Energy Doctoral Student Fellow program.

Biodiversité, eau

China bans discharge from open-loop scrubbers in coastal waters: official (Reuters)
01-08-2019

China’s maritime authority has banned the discharge of “wash water” used in ships to strip hazardous sulfur emissions from engine exhaust gases from Jan. 1, in an effort to curb pollution of its coastal seas.

The ban on discharges from so-called open-loop scrubbers affects all rivers and ports along China’s coastline and includes the Bohai Sea, according to an official from the China’s Maritime Safety Administration (MSA).

The measure mirrors a similar move made in Singapore ahead of International Maritime Organization (IMO) rules that will ban ships from using marine fuels with a sulfur content of more than 0.5 percent from 2020, unless they are equipped with exhaust “scrubbers” to clean up sulfur emissions.

“We adopted the ban in designated regions mainly out of consideration to protect the environment and prevent sulfur content pollution in more acidic waters,” said the official.

The ban, however, will not be extended to all of China’s territorial waters because of the increased costs for the shipping industry, said the official.

China imposed tighter rules from the start of 2019 on sulfur and nitrogen oxide emissions from vessels in coastal areas, Hainan waters, and inland Yangtze and Xijiang river areas, according to the Ministry of Transport.

The wash water ban also took effect on the first day of 2019, MSA said. Ship operators are also not allowed to discharge any residue from wash water or burn it on the ships, it said.

“The bans will limit the use of scrubbers, and therefore high-sulphur fuel oil, in China, suggesting a strong uptick in diesel demand,” said research consultancy Energy Aspects in an email alert to clients on Tuesday.

To comply with the ban on wash water discharge in designated waters, shippers will have to switch to a closed-loop scrubber system or to low-sulphur bunker fuels such as gasoil, or diesel, and low-sulphur fuel oil.

Open-loop scrubbers use seawater to capture sulfur from engine exhausts before discharging this wash water back into the ocean after treatment. In closed-loop systems, scrubbing is performed using water treated with additives, recycling the liquid internally. Hybrid scrubbers are a combination of both.

China's effective ban on open-loop scrubbers is similar to action Singapore took in November to outlaw the discharge of wash water in port waters there from Jan. 1, 2020.

Singapore is the world's biggest hub for ship refueling, or bunkering. Some Chinese port cities are also increasingly targeting the multi-billion dollar bunkering industry, taking steps to show that they will be ready to meet the new IMO fuel standards.

China celebrates world wetlands day in Haikou (China Daily)

01-18-2019

More than 600 people from home and abroad on Friday celebrated World Wetlands Day in Haikou, capital of Hainan province, the primary venue for this year's annual celebration.

The day is held to highlight the value of wetlands and to reflect on how to better harness the natural power of the ecosystem, while coping with climate change.

A white paper on the condition of China's wetlands of international importance (Ramsar sites) was published at the gathering.

Ramsar site certificates were awarded to eight Chinese sites, designating them as important international wetlands, while accreditation certificates were given to 16 national wetland parks.

Haikou, Shanghai and Guangzhou were honored for their outstanding efforts in ecological conservation.

"Although wetlands support and help our lives, more than a third of all our wetlands were lost in just 45 years. Today wetlands are disappearing three times faster than forests," said Reiko Litsuka, senior advisor for Asia-Oceania, secretariat of Ramsar Convention on Wetlands.

China has attempted to highlight the role of wetlands in mitigating or adapting to climate change.

The National Forestry and Grassland Administration in 2016 agreed upon a number of key actions for the forestry sector in tackling climate change from 2016 to 2020, in a bid to translate China's strategic plans for climate change into tangible conservation practices.

"China has designated 57 sites as important international wetlands, established more than 600 wetland natural reserves and 1000-plus wetland parks around the country, with the national protection rate reaching 49 percent,"said Li Chunliang, deputy director general of the national administration.

At local level Haikou was honored as one of the first international wetland cities at the 13th Conference of the Parties to the International Convention on Wetlands, held in Dubai, the United Arab Emirates, in October last year.

This was considered international recognition of Haikou's ecological protection efforts in recent years.

The city has practiced the concept that "green water and green mountains are golden mountains and silver mountains", according to Ding Hui, mayor of Haikou.

"The benefits from wetlands are clear. China and Haikou city have been showing leading initiatives that need to be urgently amplified," said Reiko Litsuka.

"We can all contribute to reversing the loss of wetlands, so that we continue to benefit from the critical services they provide to nature and people," she added.

The dark harvest of Chinese "black ships" (The Interpreter / Lowy Institute)

01-25-2019

A US-based Center for Strategic and International Studies report (Illuminating the South China Sea's Dark Fishing Fleets) sheds new light on the size and behaviour of fishing fleets in the Spratly Islands.

It is critical to prevent the 'maritime militia narrative' from dominating the policy agenda.

The report reveals the presence of a large "dark fishing fleet" in the South China Sea and concludes that "most of these vessels serve, at least part-time, in China's maritime militia." But it overemphasises maritime militias, reinforces the popular narrative that China is militarising its fishers, and overlooks fisheries issues in the South China Sea.

For starters, it is unfair to view China's fishing militia program in isolation. It is widespread practice to arm fishing vessels in the South China Sea. All the key South China Sea claimant states consider their fishers as crucial players in safeguarding their respective claims in the disputed waters. Vietnam, for example, has a large fishing militia fleet operating in the South China Sea, and in recent years the Vietnamese government has devoted substantial effort to expanding its militia fleet in the contested waters.

Next, those Chinese fishing vessels that hide their activities while operating in the Spratlys could simply be "black ships" (fishing vessels without relevant legal permits). In the late 1990s, to prevent overfishing and control its massive fishing fleet, China introduced tight control of fishing permits. However, a huge number of "black ships" have been operating in Chinese waters and beyond. It was reported that in 2017, Chinese authorities confiscated or banned about 30,000 "black ships". These ships generally don't have an Automatic Identification System, or if they do, it is usually switched off after the ship sets sail.

One of the key points of evidence for the maritime militia claim is the strange patterns of behaviour displayed by the Chinese fishing vessels: "Chinese fleets in the Spratlys spend far less time fishing and far more time at anchor than is typical of vessels elsewhere". These strange patterns could be, at least partly, for other reasons.

Firstly, fishers from Hainan and Guangdong, as well as groups from neighbouring countries, have long engaged in reef fishing. With masks and breathing tubes, fishers dive in the shallow water around reefs to collect high-value species such as sea cucumber.

With the spectacular rise of Hainan's giant clam sector in 2012, Chinese and other fishers have begun illegally harvesting giant clams and sea turtles. Each big vessel carries several smaller boats to enable divers to easily move around reefs while it is anchored. Although the Chinese government has more recently made an effort to crack down on the giant clam business, illegal harvesting continues and the black market flourishes with rising prices. Due to this crack-down, the vessels are also more likely to turn off their AIS transponders while operating.

Secondly, some of these big Chinese fishing vessels could well be "support vessels" which simply sail to the Spratly Islands to purchase catches from Chinese fishers, conduct barter exchange with foreign fishers, and then provide supplies to other ships. Trading or barter exchange among fishers in the waters around the Spratly islands is common practice. The exchange is often informal. In May 2014, 11 Tanmen Chinese fishers were arrested by Filipino authorities for suspected poaching of hundreds of sea turtles in the disputed Half

Moon Shoal in the Spratly Islands. The sea turtles had, in fact, been collected by Filipinos and then sold to the Tanmen fishers.

In recent years, with rising production costs, declining stocks, and growing demand for high-quality marine catch, some Chinese fishers have found that it makes much more economic sense to switch from production to procurement: specialising in providing logistical support to other fishing vessels and collecting catches directly from both domestic and foreign vessels. The state-owned Hainan South China Sea Modern Fishery Group Company, often considered one of the leading maritime militia forces, specialises in collecting marine catches from fishers in the offshore waters of the South China Sea, at-sea processing, and providing supplies and logistic support to other fishing vessels.

Finally, some of the fishing vessels which appear to be merely transiting without fishing could be attracted by China's special fishing-fuel subsidies introduced in 1995 to cover fuel costs for long-distance sailing. Unlike the general fishing-fuel subsidy introduced in 2006 (which is not linked to actual fuel consumption and location of fish stocks) under this special subsidy program, fishers need to show evidence that they have operated in the Spratly Islands. Declining stocks and overcapacity has seen fishing in the South China Sea become increasingly uneconomical to many Chinese fishers. Some fishing vessels deliberately ride at anchor or transit through the Spratly islands with the sole objective of receiving a fuel subsidy.

Behind the "massive dark fishing fleet" in the South China Sea are much wider economic and social factors at work within China. To manage the fisheries of the South China Sea, it is critical to prevent the "maritime militia narrative" from dominating the policy agenda.

Voir le rapport du *Center for Strategic and International Studies*

Environmentalists want dam to stop desertification in Hoh Xil national nature reserve (China Daily)

01-29-2019

A Chinese environmentalist group is advocating the construction of a dam to prevent the desertification in the frozen soil area in Hoh Xil National Nature Reserve in Qinghai province, an isolated region in the northwestern part of the Qinghai-Tibet Plateau and an UNESCO World Heritage.

The dam's proposed site is near the reserve's Zhuonai Lake — a major breeding area for the once endangered Tibetan antelopes, according to Lu Shanlong, a professor at the Aerospace Information Research Institute, Chinese Academy of Sciences and a researcher with the China Biodiversity Conservation and Green Development Foundation.

After bursting its bank in 2011, the lake has bared much of its floor, which later became a major source of sandstorms wreaking havoc on the region's vulnerable ecology, he said.

Lu said the dam would help drive up the lake's water level to its original level and submerge its sandy rim, which would help to harness the sandstorms.

Zhou Jinfeng, the foundation's secretary-general, said the dam would also reduce the water flow to the lakes' downstream, whose rising levels threaten to flood the Qinghai-Tibet railway lines, roads, and inhabitants further down.

"The project is urgently in need," Lu said. "If we fail to act in time, the coming summer could rip the Zhuonai Lake's discharge opening larger and pose a great challenge downstream."

He was speaking at a panel discussion held on Monday following a January expedition organized by the foundation to study the region's desertification.

Qu Jianjun, a professor at the Chinese Academy of Sciences' Cold and Arid Regions Environmental and Engineering Research Institute, who also attended the discussion, said sand control in the region is important because it is also the headstreams of three rivers including the Yangtze River, China's longest.

"It is also the delivery room of the Tibetan antelope, and we cannot afford to let it develop on its own," he said, adding the project is a good way for human to intervene.

Exploitation of plateau lakes will end, Yunnan vows (China Daily)

01-29-2019

Legislators in Yunnan province said "revolutionary" steps will be taken this year, including shutting down tourism-related businesses in sensitive areas around major lakes to preserve the natural environment.

The move will illustrate the province's rejection of the current destructive model under which tourism leads to exploitation, deputies of the Yunnan People's Congress said on Monday.

City governments have enacted stricter regulations to help with the protection efforts. For example, in Lijiang, near Lugu Lake, all ports, hotels and other buildings inside the core protection zone will be ordered to move out, said Cui Maohu, the city's Party chief and a member of the provincial people's congress.

In Dali, a popular tourism destination, all 1,806 buildings inside the protection zone of Erhai Lake, a major body of water, had been demolished as of Dec 31, according to the city government. More controls will be enacted this year, it said.

"We will continue to protect the nine major lakes on the plateau, and take revolutionary measures this year," said Ruan Chengfa, Yunnan's governor, on Sunday as the provincial people's congress annual session opened.

Construction around the lakes will be banned and protective measures will be extended to reduce pollution from industries and farmland, rather than merely reducing pollutants in the lakes, Ruan said.

It is unacceptable for authorities to carry out the project passively, which means measures can only take place after money arrives from higher authorities, the governor said, adding that new approaches will be adopted to improve the allocation for pollution control funds.

This year, Yunnan plans to allocate around 18.7 billion yuan ($2.8 billion) to support protection of the nine major plateau lakes. Those lakes - including Dianchi, Erhai and Lugu Lake - are major resources that support rich biodiversity.

However, they have been hurt by severe pollution - an effect of exploitation by the tourism industry and real estate - according to a statement from the Ministry of Ecology and Environment in October.

The long-existing pollution problems have motivated the province to take tough punitive action against violators and has pushed the province to escalate its pollution control measures this year.

"The governor's vow to protect nine major lakes with revolutionary measures came at the right time, and will play a critical role in reducing pollution in the coming years," Yang Fuquan, a senior researcher at the Yunnan Academy of Social Sciences, said on Monday.

He added the pollutants discharged from the massive hotels and other buildings were a major source of pollution for Erhai Lake, and the provincial effort to forbid exploitation could help prevent pollution in other lakes.

The water quality of Erhai Lake increased to Grade II - the second-highest grade - in November. It was the first time lake had achieved such a good level since 2015, according to the provincial environmental monitoring institute.

Hainan seeks to create a world-class zone of ecological civilization (China Daily)

01-29-2019

Hainan province will seek greater cooperation with leading international institutions and think tanks as it creates a world-class ecological civilization zone using international standards, a senior environmental official said at a news conference on Monday.

While launching a large number of projects to help safeguard the top quality of its air, water and soil resources this year, Hainan will turn to ecologically excellent countries to learn from their experience and draw medium-and long-term plans for construction of the Hainan pilot ecological civilization zone, said Deng Xiaogang, director of the Hainan Provincial Ecology and Environment Department.

At a meeting in Beijing on Wednesday of the Central Committee of the Communist Party of China on deepening overall reform, the implementation plan for the (Hainan) National Pilot Ecological Civilization Zone was approved, along with a plan for Hainan Tropical Rainforest Pilot National Park.

The goal is to firmly establish and fully implement the concept of "green water and green hills are gold and silver mountains" and accumulate experience for the construction of ecological civilization across China.

Hainan has been vigorously promoting construction of the national rainforest park since last year, said Xia Fei, director of the Hainan Forestry Department.

Xia said Hainan will speed up the drafting of general and special plans for the development of the park, scientifically delineate borders and carry out a good registration of natural resources.

"The first batch of ecological relocations will start this year," Xia said. "The proposed tropical rainforest park would cover more than 4,400 square kilometers, with 39 townships in nine cities and counties, including Wuzhishan, Qiongzhong, Baisha, Changjiang, Dongfang, Baoting, Lingshui, Ledong and Wanning, all located in the middle of the tropical island."

He said that by 2020, Hainan is expected to complete all the pilot systems needed for building the tropical rain forest national park, the 11th for the country.

Before Hainan, China had set up 10 pilot national parks, involving 12 provinces and cities, including Qinghai, Hubei, Fujian, Zhejiang, Hunan, Beijing, Yunnan, Sichuan, Shaanxi, Gansu, Jilin and Heilongjiang.

Hainan has been chosen for its national strategic value of being a biological gene bank, said Xia.

As the only tropical island province in China, Hainan boasts rare rainforest resources, ecosystems and biodiversity. It has more than 4,000 vascular plants, of which more than 600 are unique to Hainan. There are more than 2,500 kinds of medicinal plants, and more than 800 kinds of medicinal plants have high economic value. There are more than 20 species of rare plants protected at the national level.

Hainan has drawn a red line of special protection around 27.3 percent of its land area and 35.1 percent of its sea area, where construction that will harm the local environment strictly forbidden, even if it might bring economic benefits to the island, said Ding Shijiang, director of the Hainan Provincial Natural Resources and Planning Department.

China unveils research center on Qilian mountains (China Daily)

01-17-2019

China has set up a research center on the ecological environment of the Qilian Mountains to protect the vast mountain range in Northwest China, according to the Chinese Academy of Sciences (CAS).

Led by the Northwest Institute of Eco-Environment and Resources, the research center is coordinated by other units such as Lanzhou University and Qilian Mountain National Nature Reserve Administration in Gansu Province.

The center will focus research on ecosystem restoration, water resource management as well as the ecological management of the Qilian Mountains under global climate change.

It will combine fundamental research and application research to conduct environment monitoring and assessment, providing support for the creation of the national park in the Qilian Mountains.

The Qilian Mountains, on the border of Gansu and Qinghai provinces, was designated a national nature reserve in 1988.

New toad species discovered in China (China Daily)

01-30-2019

Chinese researchers in biodiversity have announced that they have identified a new species of toad in Southwest China's Yunnan province.

The new Scutiger species (Scutiger tengchongensis) is found in the Gaoligongshan mountain range in southwest China, said Yang Jianhuan, a researcher from Hong Kong-based Kadoorie Farm & Botanic Garden.

The organization launched the research in 2014 in the Tengchong section of the Gaoligongshan National Nature Reserve, along with the Baoshan administration in the reserve.

It is the third new species found in their research -- the other two being Leptolalax tengchongensis and Leptobrachium tengchongense.

"The new amphibian inhabits montane stream areas along the main mountain ridges at an elevation of 3,000 meters," said Huang Xiangyuan, an engineer with the Baoshan administration.

The toads are found under stones and in earth along the streams, Huang said.

Scutiger, commonly called lazy toads, are widely distributed along the Himalayan mountains.

There are 23 types of Scutiger, 19 of which are found in China, Yang said.

The new species represents the southernmost record of the genus worldwide, and the new species is the smallest known member of the genus in body size, he said.

The research findings were published in the journal Copeia.

Located in the western part of Yunnan, the Gaoligongshan nature reserve is home to some of the richest fauna and flora diversity in the world.

China's greater Hinggan mountains sees expanding forest coverage (China Daily)
01-10-2019

China's largest State-owned forest area -- the Greater Hinggan Mountains in Inner Mongolia autonomous region -- has seen its forest coverage expand by over 1.38 million hectares over the past two decades.

According to the local forestry bureau, the area now has around 10.3 million hectares of forest, with a forest coverage rate of 78.39 percent.

The area boasts rich stores of natural resources such as forests, wetlands and wildlife. A total of 1,848 wild plants, 72 nationally protected wildlife species and nearly 1,000 rivers have been found in the area. The ecosystem of the forest area contributes greatly to water conservation and biodiversity in the region.

The management bureau of the forest area vows to increase the coverage rate to 80.8 percent by 2035 and 81.3 percent by the middle of this century.

Air

China's Henan underperforms on smog after winter surge (Reuters)
01-10-2019

The heavy industrial Chinese province of Henan met its target to cut air pollution in 2018 but underperformed the country as a whole after a surge in smog over winter, underscoring the challenges facing coal-dependent regions as the economy slows.

Henan, a major coal and metal producer in central China, is under heavy pressure to curb pollution and restructure its industrial economy as Beijing's five-year "war on pollution" expands to more regions.

It promised late last year that it would work to slash coal consumption by 15 percent by 2020, but many of its mining-dependent cities are struggling to find alternative sources of growth.

Over the course of 2018, concentrations of lung-damaging small particle pollution known as PM2.5 fell 1.6 percent from a year earlier to 61 micrograms per cubic meter. That beat its target of 63 micrograms, but is still well above China's national standard of 35 micrograms.

"The province's air quality has continuously improved," said Jiao Fei, the vice-head of the provincial environmental protection office, according to a transcript of a press conference posted by the Ministry of Ecology and Environment on Thursday

Still, A Reuters analysis of official pollution data showed that PM2.5 in nine industrial cities in Henan rose by an average of 12 percent in December, hitting 82 micrograms. It hit nearly 100 micrograms in November, more than double a year earlier.

Jiao blamed poor weather over the last two months of the year, saying that "diffusion conditions" in Henan were significantly worse than normal, leading to longer smog outbreaks.

"Heavy pollution weather conditions in Henan were much more severe than in Beijing-Tianjin-Hebei and other provinces," he said.

According to MEE data published this week, PM2.5 levels in 338 cities across China fell 9.3 percent compared to last year to an average of 39 micrograms. A total of 262 cities failed to meet the national standard of 35 micrograms over the year.

China vows no leeway for underperformers in war on pollution (Reuters)

01-21-2019

China will order detailed punishment measures for officials in regions that miss air quality targets this winter, refusing to accept unfavorable weather or mounting economic pressure as excuses, an environment ministry official said on Monday.

China is in the fifth year of a war on pollution to reverse the environmental damage of four decades of breakneck economic growth and last year cut concentrations of hazardous particles known as PM2.5 by an average of 9.3 percent in 338 cities.

But in the key northern control area of Beijing-Tianjin-Hebei, the concentration of such particles rose to an average of 73 micrograms per cubic meter in the last three months of the year, more than double the official 35-microgram standard.

That prompted fresh fears that local governments were turning a blind eye to polluters. Henan province, home to the worst performing cities in the last quarter of 2018, blamed "unfavorable weather conditions" for the rise.

"There is no way for local officials to evade punishment by using weather conditions as an excuse," said Liu Bingjiang, head of the atmospheric environment department of China's environment ministry.

"Similarly, the economic situation cannot be used as an excuse," he told a regular briefing.

"For those who failed to meet the targets, we will hold them accountable publicly and local governments will need to come out with detailed punishment measures."

The ministry has repeatedly warned that China's economic slowdown brought fresh challenges in the effort to curb smog. Economic growth fell to 6.6 percent in 2018, the lowest in 28 years, the statistics bureau has said.

But while China will try to take a more "nuanced" approach to pollution, aiming to make companies "feel at ease", Liu said it would show no leniency in punishing offenders.

China will impose even tougher ultra-low emission standards at steel mills this year, and has also pledged more action to clean up coal consumption in the north.

Ministry officials said weather, which accounted for about a third of air quality improvements in 2018, had already been factored into assessments of local officials' performance.

China has long used a tactic of naming and shaming city governments, forcing mayors to make public apologies and firing local bureaucrats, to ensure pollution is tackled.

"We have to win the war against air pollution, no matter what happens," said Liu. "There is no leeway for us and we will not retreat."

China's top steelmaking city issues 'orange' smog alert (Reuters)

01-27-2019

China's biggest steelmaking city, Tangshan, issued a second-level or "orange" pollution alert for a wave of smog expected to blanket the region, a website run by the city government reported on Sunday.

The alert for Tangshan, which is east of Beijing on China's coast, will be in effect from Jan. 28 until Jan. 30, it said.

Steel mills will have to curtail sintering operation by 30 to 60 percent, or even shut, based on their emission levels.

Other industrial plants in coke, cement, casting and pharmaceutical sectors were also ordered to reduce output during the alert.

Diesel-fueled trucks will also be restricted from transporting commodity materials, the website said.

Beijing won't strengthen 2019 pollution target (Caixin)

01-22-2019

Beijing will focus on maintaining the PM2.5 concentration average reached last year rather than reduce the target this year, the Ministry of Environment and Ecology announced on Monday.

China's capital surpassed its target last year when the average PM2.5 concentration dropped to 51 micrograms per cubic meter, said Liu Bingjiang, director of the ministry's Department of Atmospheric Environment.

Beijing's efforts to control of the tiny but hazardous particles that create its infamous smog have had some success. The city has converted 1.1 million households from using coal to natural gas for heating, as well as moved "scattered and dirty" enterprises out of the city center.

Liu said that mobile sources – such as cars and trucks – accounted for 45% of PM2.5 emissions. In order to further the decline, Beijing will focus on "mobile and living sources." However, Liu added, unfavorable weather conditions could cause the average concentration to rise.

Déchets et économie circulaire

China starts new recycling drive as foreign trash ban widens (Reuters)

01-15-2019

China plans to launch 100 new large-scale recycling "bases" by the end of next year, part of a campaign to make better use of its resources after extending a ban on foreign trash imports.

A long manufacturing boom has saddled China with millions of tonnes of waste, much of which is buried in sprawling landfill sites or dismantled by hand in polluting backstreet workshops. It has vowed to tackle the problem by creating fully industrialized recycling bases and cutting off foreign supplies.

"Large volumes of solid waste are already impacting and restricting the high-quality development of the industrial economy," the Ministry of Industry and Information Technology said in a policy document issued late last week.

It said 50 new "comprehensive utilization" bases would deal with bulk solid waste and another 50 with industrial waste from sectors such as metals production, coal mining, construction, agriculture and forestry.

The bases will tackle waste with the biggest public impact, the ministry said, citing shared bicycles, packaging, batteries and solar panels as examples. They will also promote advanced technologies, products and recycling methods, it added.

Projects or companies approved to set up shop in one of these new bases can apply for special government funding, and China will also make use of new financing mechanisms, including green bonds, the document added.

China's recyclers have profited from waste shipped in from Europe and the United States, which is better sorted and therefore cheaper to treat than domestic material.

Imports reached 60 million tonnes a year at their peak, but the government has been steadily blocking shipments since 2017.

The initial 2017 ban on 24 types of imported waste, including plastic and paper, was extended at the end of 2018 to 16 new products, including scrap ships and automobile parts.

It said in December that it would also ban imports of more varieties of scrap steel, copper and aluminum from July, and another 16 products - including scrap stainless steel and titanium - will be blocked at the end of the year.

Total solid waste imports fell 48 percent on the year in 2018, and China eventually aims to block all imports that have readily available domestic replacements.

Many domestic recyclers have tried to move their facilities to Southeast Asia, despite tougher restrictions in Malaysia and elsewhere, and while some have started to switch to domestic feedstock, China still needs to do more to standardize and scale up the treatment of local waste.

"Some items just can't be imported anymore, including plastics ... but domestic waste and imports are handled by different people, and they are not part of the same system," said Wang Wang, secretary general of the China Scrap Plastic Association.

State Council promotes development of cities without waste (Communiqué du Conseil des affaires d'Etat de la République populaire de Chine)

01-24-2019

The State Council decided to promote a pilot program for cities without waste, according to a circular issued on Jan 21.

Cities without waste means an urban development model that is aimed at minimizing landfills and the environmental impact of solid waste by promoting green development modes and lifestyles, reducing solid waste from the source and transforming them into resources.

A total of 10 cities with necessary conditions and moderate scale will be selected nationwide to carry out the pilot program.

According to the circular, by 2020, an index system, an integrated management system and a technical system for construction of cities without waste should be established, and significant progress should be made in key areas in the pilot cities.

The circular emphasized macro guidance by the government while implementing green production in industrial and agricultural sectors.

It also advocated a green lifestyle to reduce household waste at the source and transform them into resources.

Comprehensive safety control of hazardous waste should be strengthened, it said, adding that new models of industrial development should be cultivated to energize market players.

Financial support and supervision of the pilot program should be enhanced, the circular stated.

China takes on illegal lead battery recycling in new plan (Reuters)

01-24-2019

China will crack down on illegal lead recycling and aims to raise the collection rate of lead acid batteries for recycling to 70 percent by 2025, the environment ministry said on Thursday in a new plan to tackle a major pollution problem.

China's growing reliance on batteries for cars, electric bicycles and energy storage has increased recycling demand, but much of it has been met by illegal, informal enterprises with poor health and pollution standards, the ministry said in a policy document.

According to a 2017 industry estimate, China produces around 3.3 million tons of waste lead batteries every year, and less than 30 percent of them are properly recycled.

Deadly Hebei chemical factory blast was years in the making (Caixin)

01-31-2019

"After the explosion, a swarm of journalists came. Now there's no sign of them," a villager complained, one month after a deadly chemical explosion on the outskirts of Zhangjiakou, the city in North China's Hebei province that will host most of the 2022 Beijing Winter Olympics' skiing events.

On the morning of Sunday, Nov. 28, an explosion occurred outside a chemical plant in Qiaodong district, killing 23 people and injuring 22. The official investigation found the blast was caused by a leakage of vinyl chloride gas from Shenghua Chemical Co. Ltd., owned by the state-backed China Chemical Group Co. (ChemChina). When the leaking gas met an open flame, it caused a deadly explosion that was so severe it burned to a crisp some trucks lining the nearby highway.

But after one month, public interest in the disaster waned. The provincial highway was cleared of debris and charred trees along the road were cut down. Only the south gate of the Shenghua complex, and the blackened office building across the road, remain as evidence of a tragedy that happened just two months ago.

Soon after the blast, on the evening of Nov. 30, 15 Shenghua employees were detained by police. Since then, "responsible persons" from the enterprise, its parent company, and the Zhangjiakou government have been interviewed by officials from the State Council, China's cabinet.

But leaking vinyl chloride gas is not the only environmental breach that has been attributed to the plant. Provincial officials found it to be violating environmental and safety standards on at least three occasions in 2018, 2017 and 2014. And people living in Beiganzhuang and Meijiaying villages around the plant said they had filed many complaints because of excessive pollution. But no changes were ever made.

"So many years and we've never had a single response," one of the local villagers said.

Wastewater pollution

At the end of December, Caixin discovered that many manhole covers on Provincial Highway 310 near the Shenghua complex had been removed. Beneath the surface, hot and pungent sewage was flowing in the huge underground pipeline. A villager from nearby Meijiaying village said that a well near the east gate of the complex, which often emits white gas that smells like ammonia, was also missing its cover.

The reason for the missing manhole covers? The explosion. Shenghua maintained private drainage pipelines that directly discharged wastewater contaminated with saturated vinyl chloride into the municipal pipeline network.

A circular released after a Dec. 2 meeting of the Security Committee of the State Council and the Ministry of Emergency Management reported that the gas storage tank holding vinyl chloride at the Shenghua plant operated through a water-sealed system. This involved water being used to maintain the correct pressure and resulted in the water becoming contaminated with the chemical.

"Wastewater containing saturated vinyl chloride is directly discharged into the local municipal pipeline network through a private drainage pipeline without treatment, which seriously threatens the safety of the municipal pipeline network," the circular read.

The Shenghua plant has been responsible for no shortage of troubles for the villagers. From when the land was expropriated to the company in 2009 to when it began production in 2012 and beyond, the villagers say they have been plagued by the effects of pungent odors, scattered dust, sewage discharge and accumulated solid waste.

But what really worries them is that the water pumped from deep wells is becoming harder and harder to drink. Even their crops have been poisoned.

In April 2013, villagers found that using water pumped from the wells to irrigate their newly-planted seeds killed the grass at the edge of the field. They also discovered the water they drank was progressively becoming saltier and had a peculiar smell. Many villagers told Caixin they saw a huge seepage pit enclosed by a fence near the river and near the Shenghua sewage treatment station.

Satellite photos taken by Google Earth also recorded changes around several villages at that time. A photo taken in December 2012 shows that there is indeed a “gourd-shaped” seepage pit along the Shahe River, and a large pit north of Shenghua’s sewage treatment station. Villagers pointed out to Caixin’s reporter that Shenghua drained the sewage at that time into the seepage pit by the Shahe River. They suspect that after the winter ice and snow melted, the contaminated water seeped into the soil and polluted the surrounding groundwater.

Years of waiting for an answer

Many villagers in Beiganzhuang said they had repeatedly asked governments at all levels to investigate the issue of groundwater pollution in the area. But the answer was always that “the groundwater is not polluted and is safe to drink.” In late May 2013, villagers massed to block the south and east gates of the Shenghua complex. About three days after the blockade, dozens of unidentified people brandishing sticks and knives rushed through the complex’s east gate in the early morning, smashing villagers’ cars and injuring one person.

After the incident, 67 representatives of the village visited Shenghua to discuss their concerns with Liu Wenxian, the then general manager. Many villagers told Caixin that Liu admitted to them that “the water was indeed polluted and could not be drunk.”

Shenghua eventually agreed to build two mechanical wells in an elevated position for Beiganzhuang. It also spent more than 3 million yuan ($446,000) in compensation, giving each person in the village about 2,000 yuan.

Residents of Meijiaying village also participated in the 2013 blockade. In August 2015, several of them took a complaint letter to the provincial environmental protection department.

“Shenghua Chemical's solid waste is dumped and sewage is discharged at will, seriously polluting the surrounding environment and underground water sources,” the letter said. “The pH level of the dumped industrial waste is 3, which means it has strong acidity. Villagers have repeatedly asked for water quality testing,” the letter continued. “The relevant departments only extract water samples, and the results of the testing have never been announced to the villagers.” Photos were attached as evidence.

The letter also alleged that the county environmental protection department was not effectively managing the Shenghua sewage treatment plant and the company was discharging its wastewater into a large pit.

The sewage treatment plant the villagers referred to was in the industrial park, next to the Shenghua sewage treatment station. When Caixin visited the site, the plant was not guarded. There were stacks of new radiators piled in one room, yet to be installed. Treatment ponds were filled with sewage. In the below-freezing temperatures, the sewage pool was covered with a thick layer of ice, and sewage spilling from pipes was frozen.

On Nov. 26, two days before the deadly explosion, the results of the Hebei authorities’ environmental inspections were published online. The report said that Shenghua was polluting the groundwater of Beiganzhuang and Meijiaying villages and the water required testing. The tests revealed the groundwater in Meijiaying was seriously polluted and was not drinkable.

At the end of December, environmental volunteer Chen Wenxi visited the Zhangjiakou Environmental Protection Bureau to discuss Shenghua’s pollution. Zhang Hongli, leader of the management group set up after the explosion, told Chen that the Zhangjiakou government could not disclose, without authorization, information about the disposal of chemicals after the explosion. “As for what happened before the accident, I don't know,” he said.

Zhang said the Zhangjiakou Environmental Protection Bureau had commissioned the national monitoring station and a qualified third-party testing agency to assess the groundwater quality of five surrounding villages. The official test report found the groundwater in all villages was fine and the test results had been reported to the municipal government.

Zhang also said that under normal circumstances, Shenghua's waste water was recycled within the plant — the plant has "zero discharge" — and he did not know the purpose of the seepage pit. The Zhangjiakou Environmental Protection Bureau did not reply to Caixin's inquiries about the pollution of groundwater from seepage pits.

Caixin was not able to get comment from Shenghua.

Not the first explosion

Residents around the Shenghua plant have long been accustomed to the effects of dangerous gases such as vinyl chloride and acetylene. Meijiaying villagers' houses are situated only a few hundred meters from the plant. Many villagers said they remember the chemical factories emitting a pungent smell at night. Some said that the highway would often be covered in a blanket of white dust. "It looks like morning fog and covers the road like a thin layer of frost," one villager said.

Many villagers told Caixin that when they ventured along the highway outside Shenghua complex they would need to cover their mouth, nose and eyes, or they would choke on the dust.

Most of the elderly people in Zhangjiakou remember a vinyl chloride explosion 27 years ago on the site of the Shenghua plant. It was then home to a resin factory and the December 1991 explosion caused five deaths and injured eight people. It was caused by sub-standard steel being used in production. The factory building also did not meet safety standards.

There was also a gas explosion, resulting in one death, at the Shenghua plant after it moved to the industrial park. The accident investigation report said the explosion was caused when sparks ignited acetylene produced by calcium carbide reactions.

Villagers said that black smoke was often seen coming from the huge chimneys of Shenghua's plant. Data produced by Green Net Environmental Data Center shows that between Nov. 1 and Nov. 27, the plant's total emissions were 63 times higher than the standard.

"If the online monitoring system detects that emissions are 63 times higher than the standard, it should have come up 'red' or with an alarm on our system," said Yu Xufeng, deputy head of the supervision center of Zhangjiakou Environmental Protection Bureau.

"Standard procedure dictates that the information center should transfer this information to law enforcement. I personally don't think that so much excess emissions would go unnoticed," he added.

Chen Wenxi, an environmental volunteer, gained access to the official penalty records of the Zhangjiakou and Hebei departments of environment and ecology. Shenghua was fined more than 10,000 yuan in July 2017 for not submitting impact assessment documents for the construction of new buildings at the complex.

"This is only a procedural penalty, and there is no information on regulatory penalties for emissions," Chen said.

After the Nov. 28 explosion, the future of this chemical enterprise is still unknown, but Meijiaying villagers suspect that the violations, dumping and pollution will continue as if nothing had happened.

Politiques et réglementations chinoises transversales

China's pollution control meets 2018 targets (Xinhua)

01-20-2019

China has met its annual target for pollution control in 2018, with more blue skies, cleaner waters and greener mountains.

"We have successfully delivered all the obligatory targets set for 2018 and stayed in line with the timetable outlined by the 13th Five-Year Plan," Chinese Ecology and Environment Minister Li Ganjie said during a work meeting that concluded on Jan 19.

Air quality has continued to improve with 338 major cities reporting good air quality on 79.3 percent of days, up 1.3 percentage points from the previous year, official data showed.

The density of PM2.5, a key indicator of air pollution, dropped by over 10 percent in 2018 from the previous year in three heavily-polluted areas, including the Beijing-Tianjin-Hebei region.

In terms of soil pollution control, Li said the country had reduced solid waste imports by 46.5 percent year-on-year, finished overhauls of all subpar garbage power plants and launch sweeping crackdown on the illegal transportation and dumping of hazardous waste in 2018.

Thorough action has been taken to clean up 1,009 "black and malodorous" water bodies in 36 major cities and 1,586 water sources, Li said, adding that "defense of lucid waters" would be a primary task for 2019.

China has pledged to coordinate its efforts on environmental protection and economic development in 2019.

At the annual Central Economic Work Conference held in December, authorities called for building on the achievements of 2018, making more effort in 2019.

One of the key challenges, analysts said, is finding ways to engage in pollution treatment without harming productivity.

Zhang Liqun, a researcher with the Development Research Center of the State Council, said the conference offered targeted prescriptions.

The conference made it clear that local governments must avoid the simple and unscrupulous practices of the past when dealing with environmental problems.

"This will give better support to balancing environmental protection with economic development and realizing mutually-enhancing interaction," Zhang said.

In 2019, China will put the Yangtze River restoration project in full swing, clean up more "black and malodorous" water bodies, achieve environment improvement in the Bohai Sea through comprehensive measures, and launch a water quality campaign in rural areas, Li said.

The country will also further reduce imports of solid waste and push for better air quality with better regional coordination and heavy-polluter revamps, according to the minister.

China regions losing 'momentum' in pollution fight: minister (Reuters)
01-28-2019

Some regions in China have lost "momentum" when it comes to tackling pollution, with local officials blaming the country's economic downturn on overzealous campaigns against smog, the environmental minister said in remarks published on Monday.

Minister of Ecology and Environment Li Ganjie said while some impoverished regions were struggling to transform their old industrial economies, regional officials should firmly resist the notion that the "war on pollution" had undermined growth.

"As our country's ecological protection efforts continuously increase in strength, some views in society hype up the impact of environmental protection on economic development, and we must clear-headedly and resolutely oppose this," Li told environmental ministry officials in a speech.

China's gross domestic product grew 6.6 percent in 2018, its lowest rate of increase since 1990, and Li's speech reflects concern among senior Chinese officials that a deeper downturn could derail the country's economic restructuring plans.

"Since the second half of last year, our country's economic operations have seen changes, and in those changes there are concerns, with complications in the external environment and downward pressures getting more severe," he said.

"The awareness of the importance of environmental protection has weakened in some regions, and momentum has slowed, with the economic downturn simplistically attributed to a vaguely understood idea of excessive environmental supervision."

In reality, he said, while some regions with smaller "historical burdens" were doing well, poorer industrial towns and "backward" rural regions continue to struggle when it comes to implementing state policies.

"Rural and urban development and environmental governance is imbalanced, and the environmental foundations and infrastructure in rural regions is severely lagging," he said.

Some regions were also still dependent on traditional industries, he added.

China was still ahead of schedule when it comes to meeting its goals, Li said, citing progress made to convert household heating from coal to natural gas as well as the campaign to cut foreign garbage imports, which fell 46.5 percent last year.

He also said rates of punishment had been stepped up, with total fines of 15.3 billion yuan ($2.3 billion) issued last year for environmental violations, up 32 percent on the year.

"There's a lot we should do, a lot we are able to do, and a lot we can do easily, and doing it will not only help promote environmental improvements, but would also directly promote economic development," he said.

China's first draft rules on chemicals hailed (China Daily)
01-29-2019

China's first draft regulation on the assessment and evaluation of chemicals' risks on the environment won widespread support among scholars and environmentalists at a panel discussion Tuesday, despite much room remaining for improvement.

Participants used lavish words to underscore the importance of the rules released by the Ministry of Ecology and Environment on Jan 8 for public discussion, as the country has emerged as a major producer and consumer of chemical products globally.

Liu Jianguo, a professor at Peking University's school of environmental science and engineering, spoke at the event organized by the China Biodiversity Conservation and Green Development Foundation. He described the rules as "badly in need", because sales of chemicals soared over the last few decades but regulation lagged behind.

"Chinese sales of chemicals now account for about 30 percent of the world's total, and is expected to reach 44 percent by 2030," he said. "But China's management of the chemicals is still exactly what it was 20 or 30 years ago."

Chen Huiming, a researcher at the Chinese Academy of Inspection and Quarantine and a veteran chemical expert, said at the event that though imperfect in terms of details, the rules themselves are revolutionary and a great opportunity for chemical controls.

"I cannot wait for it to take effect," he said. "Minor details could be revised later."

The researcher noted the rules, if passed, could help attract a huge number of resources from the State, which is crucial for the country's supervision in the sector.

Wen Xiangcai, deputy director of the China National Environmental Monitoring Center's physics division, described the rules as "extremely necessary" and said they signal that China is gradually turning from addressing the surface problems, such as pollution, to tracing their root cause.

"The rules come at the right time, as China endeavors to improve its governance capabilities and that of its ecological system," she said.

Opinion publique et environnement

How a corrupt testing system left pollution unchecked in China (Caixin)

01-17-2019

Despite investing huge material and financial resources into China’s war on pollution, glaring falsifications and outright corruption persist in some of China’s fundamental environmental monitoring data.

Environmental testing and monitoring was privatized in 2015, and has since become an enormous and lucrative industry. The work — which includes monitoring water quality at sewage plants, toxic emissions by appliances and vehicles, and levels of different chemicals in the air and water — is now largely performed by for-profit private companies.

“From the environmental impact assessment of large-scale projects to the detection of formaldehyde in newly renovated houses, these things affect the public,” an environmental protection official who was not authorized to speak to the media told Caixin. “The current chaos is unbearable.”

That same official recalled taking his child to an early education center and noticing the air there had a strange smell. He suspected that a high concentration of volatile organic compounds — chemicals emitted from paints, building materials and other sources that can damage human health — was responsible . But testing company certificates on the walls testified that the air was safe. “It was uncomfortable to spend too much time there. The children might have been seriously affected,” he said.

This was not an isolated case. In December, 26 tenants at apartments rented from Ziroom sued the rental company over unsafe levels of formaldehyde. In a 2015 documentary about China's pollution crisis called "Under the Dome," a truck labeled with a certificate saying it met the national emissions standards was found not to meet the standard at all — the certificate was fake.

Results of an inspection effort mounted in July by the Ministry of Ecology and Environment and the National Certification and Accreditation Administration found no sign that the industry had improved.

In Hebei province, for example, the Market Supervision Administration and the Provincial Department of Ecological Environment found that 18 of 60 testing and monitoring companies had serious problems requiring rectification; 39 had "general" problems; one had no valid qualifications; and one had stopped its monitoring and agreed to cancel its qualification. The report also named 16 companies that were violating environmental laws and regulations.

The legal representative of an environmental monitoring company in Shenzhen that was found guilty of fraud said it was only unlucky enough to get caught. The company had been doing the same thing as everyone else, the representative told Caixin on condition of anonymity. The person described attending a conference on testing and monitoring in Beijing six or seven years ago with more than 700 employees present. "What left the deepest impression was, one speaker asked if there were any laboratories that could say they had never faked data. Not a single person there could."

The battle against environmental pollution cannot be won without sound monitoring. Environmental testing companies should be rigorous, and firms involved should have authority and credibility. But a Caixin investigation shows marketization has left the industry in chaos.

The beginning of privatization

Until 2015, environmental monitoring was handled by local environmental protection bureaus. But that changed in February 2015 when the Ministry of Environmental Protection (now the Ministry of Ecology and Environment) issued environmental monitoring guidelines that opened the sector up to the market.

Fu Qiang, director of the Quality Management Department of the China National Environmental Monitoring Center, told Caixin that the move was an effort to make local administrations more accountable — the protection departments should not be "both an athlete and a referee," he said.

After the testing market was privatized, inspection companies sprang up like mushrooms. Perverse incentives followed. Price competition saw the falsification of data become a cheap option for companies that were trying to get off the ground. Li Heting, an employee at a testing company that was investigated, said new companies had already invested a great deal of money to begin operating, and the easiest way for them to start generating profits was to start issuing reports.

The easiest companies to access were sewage companies, which typically sought out the cheapest company to do the testing, Li said. New environmental inspection companies could produce fake reports for them at a minimal cost.

Zhao Junbin, who once worked at a government-owned monitoring agency, told Caixin that before privatization, the situation wasn't necessarily better. If a company needed something tested, it had to submit an application and pay a high price. If it wanted the results faster, "it would have to take the workers out for a meal," Zhao said. "And there were still unqualified test results. The application would come with an envelope stuffed with cash, and two days later, they'd be qualified." Zhao admitted he personally had dumped water samples out on the road before even testing them.

Zhou Kejin, from the Zhejiang Environmental Monitoring Center, published a paper in the Chinese journal Environmental Monitoring and Forewarning that said a lack of supervision in the private environmental testing industry was creating blind spots and gaps.

Penalties for environmental testing fraud are low. Li, of the tested environmental company, told Caixin that a falsified report could sell for millions of yuan, but that the maximum penalty if caught was 200,000 yuan ($29,600) for a company and 50,000 for an individual. “Even if their qualification is revoked or canceled, they still have the equipment,” Li said. “They can just make some superficial changes and apply for another qualification.”

Meanwhile, the departments that are supposed to regulate the industry are simply not up to the job. Environmental protection is complex and relies on experts from the environment protection departments, and they are not authorized to investigate a private testing company. That can be done only by the quality supervision department, which already has enough on its plate, including food, sanitation, motor vehicles and more. Misconduct identified by environmental protection officials must be referred to the quality supervision bureau, which must then investigate and decide whether to cancel the company’s qualification.

“The quality supervision bureau said they cannot manage it. This bureau manages hundreds of thousands of certificates in the province, including environmental protection, sanitation, food and medicine, and motor vehicles,” the regulatory official said.

Fraud in Guangdong

There are more than 200 environmental testing agencies in Guangdong province, with two-thirds of them in the Pearl River Delta region.

In August, an unidentified individual who claimed to be a qualification accreditation expert emailed an official complaint to the Guangdong Bureau of Quality and Technical Supervision. His title was the only thing that was fake. The complaint described in detail the testing and monitoring mess in the province, and accused 21 companies of fraud. “These environmental testing agencies issued a large number of false reports, seriously disrupting the environmental testing market, causing huge damage to the government’s credibility, and require investigation and legal penalties,” the email said.

On Aug. 20, the bureau submitted the report to the provincial environmental protection department. The complaint was later leaked and circulated, sparking an inspection.

“You could say this inspection was the most stringent one in recent years. People were anxious. Most of the (testing) companies in the two months leading up to it didn’t take on any new orders,” Sun Kun, head of a testing company in Shenzhen, told Caixin. Sun said that the companies were afraid that new orders could come from law enforcement posing as a real customer — but were also too busy fabricating “original” records.

According to Sun, the inspection team kept finding inconsistencies, like that detection equipment was supposedly used at different locations at the same time, and that reports did not match original records.

“Some of the falsifications were exaggerated and unprofessional, like the sampling volume not meeting the standard requirements,” Sun said. “If the sample amount is incorrect, the machine can’t read the data. Who’s going to believe you?”

A person close to the Guangdong regulatory authorities, who requested anonymity due to the sensitivity of the issue, assessed the content of the complaint as “pretty reliable.” When examining privately-held testing businesses, Guangdong authorities found that “70% to 80% were found to have falsified data.”

The report named Shenzhen Erqeen Testing Technology Co. Ltd. as one of the companies that used fraudulent data. "From very early days, the company was using data from a Guangzhou monitoring station to issue false reports. It was reported to the provincial party committee secretary by whistleblowers at the company. The quality supervision bureau went to investigate and finally fined the company," the report said. The fine was only 30,000 yuan.

Shenzhen Environment Technical Services Co. Ltd. (ETS) was found to have committed the most flagrant fraud. It was found that ETS employees never even went into the field for instrumental analysis, and merely fabricated data for reports. During the August investigations, the CEO of the company was arrested and taken in for questioning.

Lin Wen, an official at the Guangdong Department of Ecology and Environment, said the penalties should affect the individual's future ability to get credit. "The penalty system is actually of little significance. The organization can change its name. It can continue to make money," she said. "But if an individual is fined and has a permanent stain on his credibility, he will be limited in this industry in the future."

Opinion: China's carbon pricing system could become reference point for world (Caixin)

01-29-2019

On Aug. 8, 2008, thousands of people were in Beijing for the landmark Olympic Games. Not me. I was heading to China for an entirely different landmark: the public announcement of the Tianjin Climate Exchange (TCX), China's first carbon market pilot program, a joint venture I helped spearhead with the China Asset Management Corp. of PetroChina and the city of Tianjin as a joint venture with the Chicago Climate Exchange (CCX), the world's first integrated cap-and-trade system, founded by eminent economist Richard L. Sandor, well known in China for his work in financial innovation and known worldwide as "the father of financial futures."

We became known as "Dr. Sandor" and "Miss Paula" and with the hard work and diligence of our Chinese counterparts, TCX was launched.

When the official opening occurred that fall, many key officials attended and a small cannon shot golden confetti into the air. What an exciting day.

The era of official carbon pricing in China was beginning, an era that both demands and celebrates the stamina of the marathon runner. For the carbon pricing concept is not at all new, but implementing it is urgent.

So where are we today with regard to global carbon pricing and its relevance to climate change and reducing greenhouse gas emission?

Firstly, what is a carbon price? There are many answers, but a simple answer is that a carbon price hangs a price tag on every ton of greenhouse gas emitted into the atmosphere that would otherwise never be recognized. Without a carbon price, emissions waft into the atmosphere for free as byproducts of burning fossil fuels, and those emissions take up space in our thin atmospheric layer, trapping solar heat and wreaking havoc with our climate and weather patterns. And since the Industrial Revolution, dangerous greenhouse gas emissions have ridden by the millions high into our sky, where they have been hiding out of sight, paying no price for the ride.

A carbon price charges for that ride, making it expensive to pollute, also visible to all that there are "hidden costs" to this pollution. Sending emissions into the atmosphere no longer can be seen as a free good, but rather must be priced in terms of a debt we owe to the environment that has gone unpaid for decades.

Carbon prices are calculated based on various parameters. One parameter is the comparative cost per ton of shifting from fossil fuels to alternative cleaner fuels, such as solar and renewable energy, or natural gas. This shift involves engineering and technological costs, which can be calculated and applied to carbon pricing — a cost of doing new business, as it were. Also, carbon prices can include more intangible costs, referred to as the "social cost of carbon." such as the cost of poor public health from smog and particle pollution, which are also present when fossil fuels are burned, and which foul the air at levels as low as city sidewalks and require people to wear protective masks every time they step outside.

But regardless of how the price is calculated, it is expressed on a per ton basis — and the translation of intangible environmental costs into tangible financial terms represents a new international language that all nations can speak. And, ideally, the world wants carbon prices to be high, because the higher the carbon price, the more incentive for emitters to reduce emissions so as not to pay that price. Emitters may pay the price through various mechanisms, either a direct tax per ton, or a cap-and-trade system, which allows emitters to compete for a finite sum of emissions allowances, or both.

And investors can also use carbon pricing to illuminate potential financial risks facing a company. For example, if a given company emits 20 million tons of greenhouse gases per year, and each ton is priced — that company is carrying a liability at least equal to the carbon price of each ton. That liability will be a drag on a company's financial and operational outlook, and so the incentive is created to become as clean as possible and reduce emissions.

In China, of course, the world now awaits the operational launch of the national emissions trading market that was announced in Paris in 2015 at the historic COP-21 international meeting on climate change where all nations of the world committed to making greenhouse gas reductions in time to level off emissions growth by 2030. Since the original announcement, China has been refining the scope and terms of its national emissions trading plan, and when it is fully operational, it will represent the largest commodities market in the history of the world, perhaps, and could well become the global reference point for carbon pricing.

But China's market will not exist in a vacuum and encouraging signs have recently emerged worldwide. In the European Union, for example, which has operated a cap-and-trade system since the late 1990s, recent redesign and improvement in the program have helped tighten supply of allowances, and prices rose to 25 euros ($28.50) per ton in September, up from 4.50 euros in May 2017. And in the United States, which is lagging behind in climate change leadership at the national level, various states have taken leadership, notably California and the northeast states, which operate local-based carbon pricing systems where prices have also been climbing.

Meanwhile numerous national governments remain on record as intending to create some form of carbon pricing mechanism in order to meet their obligations under the Paris agreement.

Recognizing this, and even despite fragmented public policy, many major companies have come to regard carbon pricing in some form as inevitable and have begun using an "internal carbon price" to in a sense practice the impact of mandatory carbon pricing in business operations. According to CDP, which began tracking internal carbon pricing in 2013, the number of companies globally using an internal carbon price jumped from 150 companies in 2014 to over 1,300 companies in 2017, including in China, Japan and Korea. And prices vary greatly, ranging from $4 to $100.

So, all in all, through carbon pricing, the free riding of pollution into the atmosphere is gradually ending, as it must.

The race to end climate change is on, as Olympian as the Olympics, and the gold medal winners will be all the people of the world.

Paula DiPerna is a special advisor to the Carbon Disclosure Project. She formerly served as the president of the Chicago Climate Exchange International and president of the Joyce Foundation in the U.S.

Opinion: strengthen safety net to protect wildlife (China Daily)

01-30-2019

LAST YEAR, the police in Meixian county, Northwest China's Shaanxi province, caught 48 suspects in their campaign against wildlife poaching. China Daily writer Zhang Zhouxiang comments:

The police found 1,029 animal carcasses held by the criminal gang of poachers, whose way of killing the animals was rather cruel. According to reports, they made DIY high-voltage devices using storage batteries and wires that they placed in the wild. Any animal coming into contact with the devices would be electrocuted. The poachers would then receive a signal notifying them of the death and they would collect the bodies of the animals. The meat of wild boars, rabbits and birds was packaged and frozen, while the paws of black bears - which can be sold for thousands of yuan on the black market - were cut off and musk was extracted from musk deer. Reports show they had "customers" in 12 cities in seven provinces.

It was on Taibai Mountain in the northern Qinling Mountains, Shaanxi province, that the gang committed their illegal deeds. By indiscriminately killing black bears and musk deer, which are protected species, and other wildlife, the poachers depleted the biodiversity of Qinling, which has long been known as a "genetic pool" for China.

Now the gang of poachers has been caught by the police and justice will be done. However, it will take a long time for the mountain's ecology to recover, as behind the 1,029 carcasses the poachers were caught with, there must be many more wild animals that they have killed and sold, as the investigators said there were four poaching teams on the mountains, and that their boss had been doing this for three decades.

It is better to prevent the poachers from hunting wild animals than to hunt them after they have already done their bloody deeds.

In other words, it is necessary to strengthen law enforcement so as to better protect the wild animals in Qinling, instead of seeking justice for them after they are killed.

For that purpose, the local residents must be made aware that such acts are illegal and be encouraged to report anyone poaching. An alarm system should also be installed on the mountain so that when poachers put such devices in the forest the police are notified. Only with joint measures will the wildlife be better protected.

Opinion: financing a greener future (China Daily)

01-08-2019

Pilot program shows that China's policymakers are eager to understand the links between the financial sector and low-carbon development

When the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change concluded in Katowice, Poland, on Dec 14, the world was awaiting signs of hope that the climate change challenge could be met. The encouraging 200-country deal notwithstanding, some reports show that not enough is being done to limit the global temperature increase to 2 degree centigrade, which experts consider necessary to prevent the worst effects of dangerous climate change. In addition, the Donald Trump

administration in the United States has rejected climate science and wants to blow off the Paris Climate Agreement, threatening to undermine the international cooperation that is critical to addressing one of the 21st century's most urgent and complex global problems.

Other countries (and US subnational actors), however, have not given up. Policymakers, researchers, and advocacy organizations around the world are pressing forward with the design and implementation of new climate solutions. One of the most promising of which is green finance - the effort to ensure that public and private investments in financial assets are both profitable and environmentally friendly.

It is estimated that China's green investment demand during the 13th Five-Year Plan period (2016-20) ranges from 6.6 trillion yuan ($957.6 billion) to 14.5 trillion yuan, but China's national and local governments are only able to provide a fraction of this capital. To meet the need for green financing, China needs policies that allow the market to provide clear signals of the environmental opportunities and risks of new products.

In 2016, the People's Bank of China, the National Development and Reform Commission, and five other ministries jointly issued the Guiding Opinions on Building a Green Financial System. In June 2017, a State Council executive meeting chaired by Premier Li Keqiang tasked five provincial-level regions - Zhejiang, Jiangxi, Guangdong, Guizhou and Xinjiang - to develop green finance reform and innovation pilot zones.

After slightly more than one year of implementation, the green finance work in the pilot zones has been fruitful. According to China's central bank, as of the end of March 2018 the balance of green loans in the five pilot zones had reached more than 260 billion yuan ($37 billion), with a 13 percent increase since the initial approval of the pilot zones. This rate of increase is higher than other loans in the pilot zones. As the total volume has expanded, the nonperforming rate of green credit assets was only 0.12 percent, 0.94 percent lower than the average nonperforming rate in the pilot zones.

Each pilot zone has tailored its policies to unique local conditions. For example, Huadu district in Guangzhou, Guangdong province, is highlighting overseas investment cooperation, especially financial cooperation with the Hong Kong and Macao special administrative regions and the support of overseas investment in local green finance. While in Guizhou province, the green financial products and services are focusing on modernizing agriculture, rural water conservancy projects and sewage treatment.

The pilot areas have established leading groups, and many have established robust policy frameworks consisting of provincial, municipal, district and industry regulations. But it is important to note that green finance involves not only the financial industry and regulatory authorities, but also the departments of the environment, development and reform, agriculture, housing construction and transportation. Policy formulation requires information sharing and cooperation among these departments.

Some pilot zones have set up special funds, as well as talent guarantee mechanisms and subsidies to attract new professionals to careers in the green finance industry. They have also given support to local green financial research institutions or platform institutions to strengthen exchanges and cooperation with other regions.

So far, so good. But what comes next?

Low-carbon considerations do not currently play a prominent role in the pilot area work plans. Although some pilot zones have proposed carbon actions - forest carbon sinks, carbon stock assessment, carbon inventory, carbon emission rights collateral, and carbon funds - these ideas currently lack the ambitious scale and comprehensiveness of green credit measures.

Low-carbon infrastructure should be divided into purely public welfare projects, quasi-public welfare projects, and commercial projects, depending on the products and services provided by the infrastructure and charging implemented based on the services used.

Certification methods also need to be unified and environmental performance emphasized. Almost all the pilot zones have developed certification methods and established green projects/enterprise catalogs, but the standards have not yet been nationally unified. Additionally, public information about regional standards is limited, making it difficult to fully understand the specific conditions of each pilot zone. This diversity of standards is hampering market integration, coordinated development, and international cooperation.

The Financial Industry Standardization System Construction and Development Plan (2016-20), released in 2017, lists green finance standardization as a key project. Standardization will lead to the adoption of product standards, information disclosure standards, and financial institution green credit ratings. The goal should be to build a complete green financial standards system, including national standards, industry standards, group standards, and corporate standards. From this perspective, the standards system adopted by Huzhou city of Zhejiang province stands out as relatively complete, with certification methods and specifications including green projects, green enterprises, and green banks already established.

Pilot zones also lack adequate access to environmental information, and lack knowledge about environmental protection, energy conservation, and emission reduction. During the 13th Five-Year Plan period, the core objective of China's environmental governance is good performance in environmental indicators. Green finance pilot zones should incorporate environmental indicators into their performance appraisal systems.

Green finance is off to a promising start in China. The implementation of a pilot program shows that policymakers are eager to understand the links between the financial sector and low-carbon development. The challenge now is to ensure that these pilots succeed - and pursue the right goals - so that China's leaders feel confident in issuing a robust national-level green finance policy framework in the coming years.

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Opinion: China-EU common carbon pricing initiative would send powerful signal (China Daily)

01-03-2019

Despite the numerous initiatives to reduce carbon emissions across the globe, the world desperately remains on a global warming trajectory of more than 3 C compared to the preindustrial era, far above the COP21 target. Without accelerated reduction of carbon emissions, global warming will continue to have disastrous consequences, starting with the increased frequency of extreme weather events, ending up in mass migrations and hence geopolitical instability, and jeopardizing life on our planet.

On the issue of climate change, Europeans and Chinese have a lot in common.

On July 16 in Beijing, at the 20th EU-China Summit, the two sides "acknowledged the urgency of addressing climate change and the importance of giving full effect to the Paris Agreement".

By launching what has become the world's largest carbon emissions trading market on Dec 19, 2017, China has shown its resolve to contribute to the fight against CO2 emissions. Since the launch of pilot carbon markets in China in 2011 the price of carbon has remained low: less than 30 yuan ($4.3) per ton. According to Jiang Zhaoli, the deputy head of the National Development and Reform Commission's climate change

department, the price of carbon needs to rise in China to 200-300 yuan, a level that he hoped to be attained by 2020.

Up to now the European Union has favored control of the quantities of carbon emissions over its price. It is unfortunate that in doing so, the EU is depriving itself of the most powerful device for cutting carbon emissions, which is the signal given to all those who emit carbon of the price they have to pay.

We know now that this price mechanism is efficient. For instance, a CO2 price was introduced in the United Kingdom 2011 budget and put into force in 2013. CO2 emissions were reduced by 15 percent from 2012 to 2015. During the same period, CO2 emissions fell by only 5 percent in the rest of the EU.

All around the world, putting a significant price on carbon is gathering momentum. Common sense tells us that with a higher price of carbon, activities which induce high greenhouse gas emissions become more costly relative to those that require less or no carbon. The best incentive for producers and consumers to shift their behavior from highly carbon intensive to low-carbon or even free-carbon products is to raise the price of carbon.

If the EU wants to reach its objectives and keep its lead in the fight against global warming, it is time for it to shift toward a carbon price-based system. We have to overcome political and social resilience to this carbon price targeting. We should not fool ourselves: The economic structures will have to adapt themselves to the energy transition and it is much better for industries to do this transformation in a smooth and foreseeable price environment, which contrary to preconceived ideas would lead to more economic growth and more employment.

When China launched its carbon market in December of 2017, EU Climate Commissioner Miguel Arias Canete said in a statement from Brussels: "As the US government turns its back on the fight against climate change, China, the EU and many others are forging ahead ... With both the EU and China committed to emissions trading, two major international players are championing carbon markets to meet their commitments under the Paris Agreement and curb emissions cost-effectively."

If the EU and China decided to engage in a protocol where they would agree to converge on the same price of carbon gradually enlarged to all emitters of CO2 in the two economies, they would give an extraordinary powerful signal to the rest of the world. They would together give a signal of their common appreciation of the threat facing humankind, and it would prove that both China and the EU are together courageously and efficiently addressing the major challenge of our time.

The author is former finance minister of France. This article is part of the Policy Preview Report for G20 Summit in Argentina. The author contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.

Transports

Ferroviaire

China gives urban rail another $34 billion boost to support growth (Caixin)

01-03-2019

China has approved plans for intercity railway projects in two eastern provinces involving a combined investment of almost $34 billion, as the government ramps up infrastructure spending to bolster slowing economic growth.

The National Development and Reform Commission (NDRC) has given the green light for Jiangsu and Anhui provinces to invest a total of 231.7 billion yuan ($33.8 billion) to build 1,063 kilometers (660.5 miles) of intercity railway lines, the economic planning agency said in a statement (link in Chinese) released on Wednesday.

Most of the investment, amounting to 218 billion yuan, will be in Jiangsu and pushes forward the province's ambition to have rail links to all its cities with populations exceeding 200,000 by 2025, according to the statement, which was dated Dec. 26.

Half of Jiangsu's spending will be funded by fiscal revenue and other types of equity capital provided by the provincial and lower-level local governments. The remainder will be raised from bank loans and other types of debt, the statement said. The funding plan for Anhui is similar, but the NDRC did not specify the amount of equity capital to be supplied by local governments.

The announcement is the latest in a slew of rail projects approved by the NDRC in recent months. On Dec. 13 the commission gave the go-ahead to the Guangxi Zhuang autonomous region in South China to invest 51.7 billion yuan to construct two railway links totaling 325 kilometers in length. Two days earlier, it greenlighted Shanghai's plan to build six new subway lines and 286 kilometers of new urban rail lines that will cost a total of 298.3 billion yuan over four to six years.

Downward pressure

At a key meeting last month to set economic policy for 2019, China's leaders vowed to increase spending on infrastructure including urban transport facilities, logistics and utilities as part of government efforts to expand domestic demand. Policymakers acknowledged "downside pressure on the economy" against the backdrop of a "complicated and grim external environment" — an apparent reference to the country's ongoing trade war with the U.S.

The Standing Committee of the National People's Congress (NPC), China's legislature, passed a bill last week to allow local governments to start selling bonds earlier than usual each year from 2019 to 2022, as Beijing seeks to boost local authorities' war chest to finance infrastructure construction.

For this year, the Standing Committee said local authorities will be able to issue 1.39 trillion yuan worth of new bonds before their 2019 quota is officially approved at the annual session of the NPC in March, an amount equal to 64% of the quota for the whole of 2018. The figure includes 810 billion yuan of special-purpose bonds, 60% of last year's quota for such debt, which is raised specifically for spending on infrastructure and utility investment.

Analysts widely expect growth in infrastructure investment to pick up this year on the back of greater policy support from the central government and a low comparison base last year. The year-on-year increase in infrastructure investment, excluding electricity, heating, gas and water supply, slumped to just 3.7% in the

first 11 months of 2018 from 20.1% in the same period the previous year due to a government campaign to crack down on "shadow banking" and off-balance-sheet borrowing by local governments to control financial risks and rein in debt.

Big problem

But some economists caution that the extra spending this year may not amount to a significant boost, given continuing constraints on their ability to raise money. The government is still maintaining a relatively tight grip on local authorities' off-balance-sheet borrowings and land sales, a key source of local fiscal revenue, are expected to slow due to a sluggish property market.

Although the government is increasing the amount of bonds local authorities can issue, the size of this legitimate on-balance sheet debt is dwarfed by the scale of their off-balance-sheet liabilities, Rong Jing, an analyst with BNP Paribas in Beijing, told Caixin.

"If the government only expands on-budget debt without meaningfully loosening curbs on off-balance-sheet borrowings, financing for infrastructure will remain a rather big problem this year, particularly as local government income from land sales is likely to decline from last year," she said.

"We don't think the rebound in infrastructure investment will be very strong," she said, estimating growth of 8% to 10% this year from 2018.

China unveils fully automated trains to travel at record speeds (China Money Network)

01-30-2019

China has unveiled fully automated trains on Tuesday to run at speeds of up to 160 kilometers per hour — twice as fast as its domestic counterparts, to link the new airport in Beijing with the downtown districts.

The twelve driverless trains, named "Baijing" which means "white whale" in Chinese, are said to become the fastest train fleet in China compared with its peers that currently operate at an average speed of 80 kilometers per hour.

The trains will take only 19 minutes to travel across the 41 kilometers between the Beijing Daxing International Airport and southwestern Beijing's Caoqiao subway station, China's official newspaper Beijing Daily reported, citing a spokesperson at Beijing MTR Construction Administration Corporation. The Beijing Daxing International Airport, expected to open in late 2019, is set to become the world's largest airport with eight runways serving 100 million passengers annually.

The spokesperson said that the new airport express has already entered into the stage of debugging, and it is expected to commence services in September.
Eight out of the twelve fully automated "Baijing" trains consist of eight carriages, three meters in width.

Despite the record-setting speed, the driverless trains will "run as stable as bullet trains" to provide a better travel experience than standard subway trains, said Zhang Bao, chief engineer at the equipment management department of Beijing MTR Construction Administration Corporation.

He said that the trains are equipped with devices for obstacle detection and derailment inspection as parts of the functions required to serve as driverless trains with a corresponding automated railroad operation system.

Zhao Jian: what's not great about China's high-speed rail? The debt (Caixin)
01-29-2019

People often see only the convenience of China's high-speed rail network and boast about it being the world's longest, but they turn a blind eye to its enormous debt and operating losses, as well as the serious deterioration of the country's transportation structure.

By the end of 2018, China's high-speed railway's operating mileage had reached 29,000 kilometers (18,000 miles). The cost of a high-speed railway is two to three times that of conventional railways. And because high-speed rail can only transport people, not goods, there may be sufficient demand for it only in large, densely populated areas, where the income from fares can cover the construction and operating costs.

At present, most of the country's high-speed rail lines have idle capacity, with the notable exceptions of the Beijing-Shanghai and Beijing-Guangzhou lines. The indicator that best reflects the efficiency of rail transportation is called "transportation density," which is the average transport volume per kilometer of railway per year.

In 2015, the transportation density of the Beijing-Shanghai high-speed rail line was the highest in China, reaching about 48 million passenger-kilometers. The Lanzhou-Urumqi high-speed rail line ranked the lowest, with 2.3 million passenger-kilometers. The average transportation density of high-speed rail in China was 17 million passenger-kilometers. By comparison, the average transportation density for Japan's high-speed rail system is 34 million passenger-kilometers.

Having the world's largest high-speed rail network with a low transportation density is indicative of significant financial risk. The ongoing construction of such a large high-speed network may place a greater debt burden on China Railway Corp. (CRC), which runs the network, and local governments, making it a "gray rhino," or obvious threat to the Chinese economy.

China's high-speed rail mainly relies on debt financing, and the construction of the high-speed railway has caused CRC's debt to surge almost tenfold from 476.8 billion yuan ($70.70 billion) in 2005 to 4.72 trillion yuan in 2016.

Although CRC's total passenger revenue reached 169.3 billion yuan in the first half of 2018, and could possibly reach 340 billion yuan for the entire year, its total liabilities have reached 5.28 trillion yuan as of September. Considering the amount of borrowing that local governments did to finance the construction of the high-speed rail network, the country is now laboring under an enormous amount of high-speed rail debt and the accompanying financial risks.

Resources are always limited, and the large investments in high-speed rail have meant less construction of regular railways, which has led to a serious imbalance in China's transportation infrastructure. Chinese people used to call rail the "Iron Boss," but since 2016, it has fallen behind road and water transportation for freight.

Because China's railway freight capacity cannot meet the demand, a large number of vehicles have been deployed to transport goods and raw materials, like coal, over the roads, which greatly increases logistics costs and seriously reduces overall efficiency in the transportation system.

Turning a blind eye

People often ignore the huge and growing debts of CRC, as they tend to believe that the central government has the money to cover its liabilities. The local governments' debts for the construction of high-speed railway lines remain hidden, as they are mixed with other types of debts. The debts together could be as high as 18.29 trillion yuan, according to some estimates.

The Beijing-Shanghai high-speed rail line — the county's most successful line — generates annual profits of about 10 billion yuan on assets of 220 billion yuan, but its return on assets stands at less than 5%, almost the same as the benchmark bank interest rate. If assets cannot create much income compared to debts, the government can only issue the currency to offset the debts. This may lead to serious inflation and create huge financial risks.

Bottom lines

The bottom line for the development of the transportation industry is to adapt the transportation structure to meet market demand. It is necessary to carry out a structural reform on the supply side of transportation — cut down on inefficient supply and expand effective supply; improve the quality of the entire supply system; and improve the adaptability of the supply structure to the demand structure.

First, the structural reform of China's railways should focus on solving the problem of the idle capacity of high-speed rail and the shortages of railway freight capacity.

Second, high-speed railways mainly meet the demand of consumers rather than the demand for transporting goods. Building high-speed railways in the central and western regions with sparse populations results in insufficient freight capacity and idle rail transportation capacity. This does no good to the economic and social development of those regions.

Third, China's urbanization has entered a stage of metropolitan development, and the metropolitan area is the engine of economic growth. Another key area of the nation's current railway construction should be rail transit in metropolitan areas. Commuter railways in metropolitan areas cannot only relieve the pressure on population, transportation, environment, employment and housing for megacities, but also help create a number of small and midsize cities along the commuter rail to accommodate larger population inflows. This can achieve a higher level agglomeration economy.

Zhao Jian is the director of the China Urbanization Research Center at Beijing Jiaotong University.

High-speed railway drags China forward (Global Times)

01-31-2019

As hundreds of millions of Chinese prepared to take the fast train home at a top speed of 350 kilometers an hour for the Chinese Lunar New Year, scholars honed in on an article dubbing high-speed railway debt a "gray rhino," heatedly debating the long-term and often-invisible social and economic benefits of the country's fast-expanding high-speed rail network.

"Beware of the gray rhino of high-speed railways," Beijing Jiaotong University Professor Zhao Jian wrote in an article published on Monday, pointing out that plans for further massive rail expansion could overburden local governments and the state-owned China Railway Corporation (CRC) like a 'gray rhino' that drags on the country's economic growth.

CRC, the operator of the world's longest and most modern high-speed railroad, had debts of about 5.28 trillion yuan ($787.4 billion) in the third quarter of 2018, financial portal chinabond.com.cn reported.

Zhao's argument immediately trended, drawing supportive voices and also an official backlash from scholars, brokerage researchers and bloggers.

Meanwhile as experts argued over infrastructure economics, millions of Chinese vied for train tickets on the 12306 ticket-booking website where trains and planes compete for their cash.

About 3 billion trips are expected to be made during this year's Spring Festival rush and more than 70 percent of the trains run at speeds of over 250 kilometers an hour, the Xinhua News Agency reported on January 22..

In 2018, China had more than 131,000 kilometers of track, of which more than 29,000 kilometers was high-speed, or more than two-thirds of the world total, Xinhua said.

Defenders of the high-speed rail system argued that apart from alleviating pressure on the overall domestic transport system, high-speed rail has also contributed to the Chinese economy in the past decade.

In particular, they noted how high-speed rail has reshaped the nation's tourism industry and increased the price of land along its routes.

"China's HSR [high-speed rail] program has played a key role in national economic development through improving transport connectivity between China's major cities as well as accelerating economic development of inland provinces," Rajiv Biswas, Asia-Pacific chief economist at IHS Markit, told the Global Times on Thursday. Tourism now accounts for about 5 percent of China's GDP, according to Biswas.

The economic impact of the high-speed rail network is far-reaching for China's GDP, Biswas said.

Total GDP is directly boosted by railway construction and annual passenger revenue, he noted, but the indirect economic multiplier effects are much higher.

Cong Yi, a professor at the Tianjin University of Finance and Economics, said that the high-speed railway integrated China's regions with long-term significance for the overall development of the economy.

Debt concerns

Some Chinese economists have expressed concern that the accelerated construction of the high-speed railway network created high-speed debt, together with operating losses and the concomitant financial risks.

But others cautioned that describing the debt as a "gray rhino" might be "a thing of the moment" and the argument "won't be strong enough if the matter is seen over the long term."

Zhu Dajian, director of the Sustainable Development and New-Type Urbanization Think Tank at Tongji University, said that "if you see this in the big picture, and over a longer time span, the debt issue related to Chinese HSR development is not so dangerous."

Urbanization still has growth potential of 10 to 30 percent, Zhu said, and Chinese infrastructure construction up to 2030 will be supported by strong demand.

"The construction of urban and city clusters needs HSR," Zhu said. For example, there was a pessimistic reception for the Beijing-Shanghai line, which eventually dispersed doubts by turning a profit at a much earlier date than anticipated, Zhu said.

The Beijing-Shanghai high-speed rail line turned a profit within three years of its operation and can now generate an annual profit of about 10 billion yuan, news site sohu.com reported.

Railway networks need time to prove profitable in the long term, Biswas noted. The tremendous size and growth of China's economy over the past decade has served to mitigate the debt burden of railway construction, he asserted.

Total Chinese investment in railway construction in 2018 reached $117 billion, Biswas said, of which high-speed was "only a part of the total." This was still only 0.9 percent of Chinese GDP in 2018, which was $13.7 trillion, he said.

The figures showed the deep capacity of the Chinese economy to absorb railway infrastructure development costs as "modern railways are a key driver for long-term national economic development," Biswas said.

More tracks

Domestically, the high-speed railway is something the central government has long promoted to the Chinese as a source of national pride and happiness. Abroad, HSR is one of China's export trump cards.

China aims to put a further 3,200 kilometers of high-speed rail lines into operation in 2019, CRC officials said at their annual work conference in Beijing in January.

Adjustments in railway construction are temporary and China's HSR development won't be altered in the mid to long term, Zhu said.

"HSR construction has not peaked and won't peak for a certain period of time," he said.

Zhang Jichen, a Beijing-based white-collar worker, has just booked a round-trip ticket on the newly opened Qingdao-Yancheng high-speed line from Beijing to her hometown of Lianyungang in Jiangsu Province.

Zhang told the Global Times on Thursday the ticket cost 450 yuan, "while the plane ticket was 880 yuan and the train is much more comfortable than plane."

It used to take about 14 hours for Zhang to travel the 1,024 kilometers by train from Beijing to her home in Lianyungang, or 90 minutes by plane. On the high-speed train, it takes six hours.

Metro, tram & bus, bicyclettes en libre-service

Powered by the State, China takes charge of electric buses, with Shenzhen taking the lead (South China Morning Post)

01-18-2019

It's 9pm when the first buses start arriving at the Shanghai Bashi Public Transportation depot. In the coming two hours, as they finish service around the city's Baoshan district, almost 300 drivers will bring their vehicles in to be cleaned, maintained and parked for the night.

The queue to enter the security gate grows, but the employee in charge of the petrol pumps has little to do; he battles boredom with his phone while buses pass by. And his future employment prospects look even bleaker.

Two-hundred forty of the buses here, at Shanghai Bashi's second-division depot, are fully electric, and it seems likely that, next year, no combustion engine will enter the premises at all. In an effort to curb pollution and noise, China's most populous city expects the substitution of all traditional vehicles in its public transport system to be completed two years ahead of schedule.

That helps explain why the queue of buses has moved on so swiftly to the washing tunnel.

“EV [electric vehicle] buses use a high voltage system that generates a lot of static electricity and, therefore, catches a lot of dust,” says depot manager Li Hong. “We can’t use water to clean the engine, so we have installed a high-pressure, dry-ice cleaning machine. It’s more expensive than conventional cleaning because the tunnel requires a powerful vacuum system to catch all the dust [which is stored in drawers inside the wall], but we save water and reduce the amount of particles in the air even further.”

Nicknamed Black King Kongs, Yutong buses are the latest addition to Shanghai’s municipal fleet. Although they don’t make much noise – “Around 50 decibels, half of what a combustion engine can create,” Li says – and so tend to catch jaywalkers by surprise, they are safer in other ways.

Zhang Hui, a Shanghai Bashi driver on Route 189, points to a black box on the dashboard of his Yutong. “This has a camera and the system can tell if I’m tired or distracted and sound an alarm,” says Zhang. Li dismisses widespread concerns about exploding batteries: “They’ve proven to be completely reliable and safe.”

One of four electric models acquired by Shanghai since 2016, the Black King Kong is also comfortable. Zhang is especially happy with his seat, which heats in winter and cools in summer. Passengers do not benefit from that particular luxury but seem to approve of the spacious, silent interior and the new ticket machines, which accept transportation cards, QR codes generated by phones, the near field communication (NFC) chips of smartphones, even good old-fashioned cash.

“But the most important thing is the range of the vehicle, because it can run up to 220km even with the heating on,” says Zhang, pointing at a display that reveals he’s travelled 136km (84.5 miles) today, and the battery retains 46 per cent of its capacity.

“Each year, we purchase buses with a longer range and higher specifications for less money,” says Li. “EV technology advances fast and main-tenance is easier than with combustion engines because these vehicles have fewer moving parts.”

A cleaner wearing a protective mask has finished with his vehicle, so Zhang drives his bus over to one of the depot’s 102 charging poles. Another employee plugs the Black King Kong in. If the battery had been completely discharged, it would have taken four hours to reach 100 per cent, or half that time if the pole were set to fast char-ging, in which case just one vehicle can be hooked up at a time, instead of four.

“The only thing I care about is having the bus fully charged by 4am, when my colleagues set out for work,” laughs Zhang.

He doesn’t know it, but Zhang’s bus saves the city’s 24 million inhabitants 356 tonnes of carbon dioxide, 28kg of nitrogen oxide and 26kg of parti-culate matter every year, according to the Shanghai Municipal Transportation Commission. And that calculation takes into account the pollution produced by generating the electricity needed to power each vehicle – about 300 kilowatt-hours for a full charge – based on the current energy production mix of the city.

“Whenever possible we charge the buses at night, when electricity is cheaper [0.3 yuan per kWh], and all operations are remotely supervised from our control room,” says Li.

Here, wall screens show the real-time charging status of each pole and employees can act swiftly if an error is detected – batteries can be damaged if they are overcharged, for instance.

The 240 electric buses at the Baoshan depot are just a fraction of the 9,368 owned by Shanghai operators, 55 per cent of the entire city fleet. Also plying the streets of Shanghai are 7,300 EVs of other descriptions – including mail delivery vans and cleaning trucks, as well as 8,000 rental cars, distributed across 3,600 pickup points; 1.2 million users make 50,000 daily trips in these cars. Additionally, Shanghai introduced its first batch of electric taxis in November.

These numbers, achieved so early in the EV era, would make any megacity in the world proud. New York, by comparison, expects to completely electrify its bus fleet only by 2040. Nevertheless, if it wishes to catch the city leading the charge in China, Shanghai will have to stomp down on the accelerator. Shenzhen retired its last combustion-engine taxis at the end of December, authorities claim, and has entered 2019 as the world's first city with an all-electric public transport network.

According to data offered by the Shenzhen transportation authorities to Post Magazine, China's Silicon Valley now operates 16,259 electric buses – triple the number in New York – made by four domestic brands, and 19,000 EV taxis: all BYD e6 vehicles. They are recharged at 5,100 public poles at 270 stations across Shenzhen.

The charging infrastructure adjacent to Futian Bus Station is operated by state-owned Potevio, and the frenzy here never abates.

"There is space to charge 20 buses at any given time, but we run around the clock," says manager Li Shurong. "Operators prefer to charge at night and save some money, but there are not yet enough charging stations for such a large fleet."

Shenzhen's achievement is the culmination of a process that began ahead of the 2011 Universiade – the sporting event for university athletes was chosen as a trial for electric buses – and an example for the rest of the world from the most polluting country on Earth.

The city had, in 2009, been named among the 13 in which elec-tric public transport projects would be piloted, and Zheng Jingyu, who oversees the bus fleets for Shenzhen's transportation commission, said ambitions soared after Xi Jinping took charge of the country in 2013.

Countrywide policy had been set at the 18th National Congress of the Communist Party, in 2012, during which green development was made a priority and the building of an ecological society a long-term goal. "Green mountains and clear water are equal to moun-tains of gold and silver," Xi reminded his countrymen a year later.

According to a Bloomberg New Energy Finance study published last year, China introduces 9,500 new electric buses – equivalent to London's entire fleet – every five weeks. The study also estimates that of the 385,000 electric buses in operation worldwide, 99 per cent run in China. In contrast, only 1.6 per cent of vehicles in Europe are electric and the percentage drops to a marginal 0.5 per cent in the United States.

"There are several reasons behind Shenzhen's success," says Zheng. "First and foremost is the sound economic environment. This makes the huge investment needed to substitute so many buses possible. Then comes the open and innovative character of the city; both its citizens and its government are keen to try new things. It was the first place where China experimented with open-ing up reforms and now it pays more attention to environmental protection.

"Finally, the fact that many automakers produce in the vicinity is also very relevant."

BYD, an acronym for Build Your Dreams, manufactures most of Shenzhen's buses and all of its taxis.

Last year, the company broke sales records for five months straight and became the second largest manufacturer, behind BJEV, of EVs in China, with close to 30,000 units sold in December.

The avenue leading to the company's headquarters, in Shenzhen's Pingshan district, bears the company's name and is lined with solar-powered street lamps, also manufactured by BYD.

"The sun gives humanity a second chance," claim the subtitles in a promotional video played to all visiting media that portrays the company as "an example of sustainability".

BYD says it believes the future lies in the combination of renewable energies, energy storage technology (i.e. batteries) and electric vehicles. And its idea of urban mobility is three-tiered: an under-ground rail system, electric surface transportation and elevated monorail networks, for which it has developed SkyRail, a medium-density, fully integrated, driverless, straddle-type system.

“China is developing a new kind of compact, high-density city where, in the future, private cars will have no place,” says Vicente Guallart, the Spanish architect awarded the first prize in the bid to develop Shenzhen’s Xiangmihu district. “We believe metro systems and surface automated electric buses, along with driverless sharing vehicles, will be the choice of transport.”

Guallart’s project includes a “green corridor” that links sea and mountain and leaves a lot of space for pedestrians and bicycles.

“We can’t learn much from China’s urban planning in the last 20 years, but the ambition to undo past mistakes is laudable and it may become a trendsetter in the future,” says Guallart.

At BYD’s main manufacturing plant, an electric car is assembled every 90 seconds. The majority of the work is done by robots, so the humans manning most production lines just supervise the machines as they go about their labour.

Among the EVs produced in Pingshan is the e6, “the world’s most widely used pure electric taxi”, according to Isbrand Ho, managing director, BYD Europe. He is keen to point out that the model was chosen by Taiyuan, the capital of Shanxi province, for its all-electric taxi fleet, the world’s first, a feat achieved in 2016.

“The core elements of EVs are the engine and the bat-tery,” explains Richard Li, a PR manager accompany-ing Post Magazine during a visit to the Shenzhen plant in which BYD produces batteries.

Located in the Kengzi district, it is a fortress; photography is strictly forbidden and visitors must put tape over the camera lenses of their phones before being allowed to enter the premises.

The plant would be ideal as the setting for an apocalyptic Blade Runner-esque sci-fi film. In huge cold-lit rooms criss-crossed by thick silver tubes, where people seldom venture, anodes and cath-odes are produced. Conveyor belts and robots are strictly moni-tored because, with 14 gigawatt-hour (GWh) of electricity in play, safety is the top priority.

“We work at full capacity and we must expand to meet the huge demand,” says Li. “Last June, we built an even bigger, 24 GWh, factory in Qinghai province [which is rich in lithium] and the plan is to increase production there to 60 GWh in 2019.” That would make it the world’s biggest battery factory.

BYD buses are assembled in Shanwei, a coastal Guangdong city about 100km to the northeast of Hong Kong. Industry 4.0 hasn’t yet reached here; the hiss of robots having yet to replace the clanking of hammers.

It takes 18 days to build a bus, and the factory can deliver a maximum of 36 a day.

“We will also spend three days designing each bus to match a client’s requirements,” says Li.

The final assembly line is a riot of colour, the logos of many cities adorning the gleaming bodywork, although the red and blue livery of Guangzhou is most prominent on our visit.

“Everybody wants to excel in clean energy transportation to meet national targets ahead of schedule,” says the PR manager.

Forward thinking Shenzhen may be, but it has not ironed out all of the wrinkles yet. Charging piles require space and must be well-spaced, which has resulted in almost 80 per cent of those in Shenzhen having been sited on land leased from private companies, which makes operations more expensive and less predictable. With short-term contracts there comes the risk that the facilities will have to be relocated regularly. There is also an urgent need to train staff to maintain the vehicles.

Cities that wish to follow Shenzhen's example also "have to have financial muscle, to invest the huge amounts of money required to buy the vehicles", says Zheng. An average electric bus costs about 2 million yuan (US$297,000), four times the price of a diesel bus, the two-ton battery accounting for roughly half of the total. Even with generous local and national subsidies – which are ex-pected to drop by 20 per cent next year – not every city can afford a fleet of EVs.

"We haven't yet calculated the cost of operating electric buses throughout their life cycle, but we believe they're more expensive than conventional ones," says Zheng.

Shanghai authorities, however, have done the maths.

"For each 50,000km [close to a year's mileage], our diesel buses require an average of 20,000 litres of fuel. That means they cost 130,000 yuan to operate at current diesel prices. An electric bus, however, costs only 35,000 yuan for electricity per year," says Li Hong, at the Bashi depot. "Each charging pole costs 100,000 yuan and electric buses will run for eight years [four years less than conventional vehicles, due to the degeneration of batteries] before being decommissioned. So, in all, they are still a bit more expensive for the city.

"But these calculations don't take into account the benefits for health and the environment."

Buses follow set routes and it's easy enough to park them beside charging poles at night, while they are out of service. Taxis are a different story.

"Although drivers' income has increased with the adop-tion of electric cars, because fuel is more expensive, it's harder for them to charge the vehicles," says Liu Pengnan, the Shenzhen government official in charge of taxis (his preferred job title). "Charging stations are not yet evenly distri-buted throughout the city and sometimes drivers have to go far and wait long to get serviced."

Chen Fuming makes his living by driving a BYD e6 taxi through the streets of Shenzhen.

"The car is more comfortable than the Volkswagen we used to drive, and clients are happy. But I'm always worried when the battery goes down to 30 per cent or less, because I may have to refuse a customer who is in for a long ride," says the middle-aged driver. "With a conventional car I would never have this problem, because refuelling takes just a few minutes."

Hong Kong chose the BYD e6 for a trial run in 2017, but was unimpressed: "High production cost, limited service life, long charging time and low energy density of e-vehicle batteries are the key constraints for electric vehicles to take up commercial transportation duties," claimed the Environment Bureau in a paper submitted in May that year to the Legislative Council's environ-mental affairs panel.

Similar concerns are hampering the switch to electric taxis in Shanghai. "[Taxis] run an average of 350km per day [double the dis-tance of buses], so we need a car with at least 450km range," says Wang Dajun, deputy director of the Shanghai Municipal Transport-ation Commission. "Some companies have tried the BYD e6, but they don't seem convinced yet. They worry about the vehicles' maintenance because the headquarters is far from the city."

Shanghai has instead chosen to trial another locally developed vehicle, the Roewe Ei5, and the manufacturer has established a team to monitor the cars' performance and make necessary adjustments.

“We will wait to gather enough data before we make a decision on which model to choose,” says Wang.

The one thing all those interviewed for this story agree on is that EV technology improves quickly and prices fall fast. “It’s just a matter of time before they match and even surpass the capabilities of combustion vehicles,” predicts Wang.

BYD believes China’s push for electrification will eventually benefit the whole world because the company considers public transport the first of three steps towards the electrification of all ground transport. “Then we have logistic vehicles and, finally, private cars,” says Richard Li.

Public investment brings the economies of scale this technology requires to mature and be cost-competitive.

“Chinese people are not so sensitive to the environ-mental bene-fits, so price is key for success,” says Liu Jing, finance professor at the Cheung Kong Graduate School of Business, in Beijing. “China’s centralised model allows the government to direct state-owned enterprises on what to do and force them to build the required charging infra-struc-ture, even if it’s not yet economically viable, and to buy electric vehicles. Eventually, this first step will make the use of private EVs practical and competitive. Plus, because electric bikes are already widely used, the Chinese are acquainted with the technology and its peculiarities.”

With the aim of making EVs attractive to private drivers, the Shanghai government has teamed up with the Lian Lian app to list all charging stations in the city and direct drivers to the nearest.

“There are already 200,000 charging poles installed in Shanghai: 36,000 are public, 32,000 belong to the bus companies, and the other 132,000 are private. Owners of the latter [individuals who have invested in a private pole to charge their own EV] can choose to list theirs and charge for their use when they’re available,” says Wang. “This not only makes it easier to own an electric car but also boosts the sharing economy.”

Private owners also benefit from free licence plates [which are green as opposed to the conventional blue], whereas the owners of new petrol-driven cars have to pay up to 90,000 yuan for one and wait to be lucky in a draw, which EV owners are exempted from, too.

Most mainland cities are introducing similar measures, with comparable results. In Beijing, 400,000 people are on the waiting list for one of the 54,000 plates the city has allocated for zero-emission cars.

In all, according to the China Association of Automobile Manufacturers, 1.26 million new energy vehicles (NEVs) – which also include hybrids and the rare hydrogen-fuel-cell cars – were sold last year, up 62 per cent from 2017.

China clearly leads the world in EV take-up, and delegations from all corners flock to Shenzhen to learn from its experience. One small corner of the country is failing to keep up, though; both the taxi and bus pilot programmes in Hong Kong have failed miserably. Why?

“Each city has its own peculiarities,” says Zheng, the Shenzhen official clearly uncomfortable with the question. “It’s not possible to copy and implement someone else’s model. Hong Kong is trying different things and needs to study all possibilities.”

Despite the robust growth in their number, NEVs make up only 0.6 per cent of vehicles on China’s roads. But Beijing’s ambitions know no bounds; authorities have set a goal to increase the output of NEVs to 2 million by 2020, and expect 25 per cent of all vehicles sold in 2025 to be green.

“China is setting an example for the rest of the world and can be a good influence for developing countries,” says Liu. “Its size has already managed to make solar energy affordable, and I believe the same will be true for electric vehicles.”
When it has achieved that, China will have another problem to contend with: the mass recycling of spent batteries.

Concerns over Chinese ‘spying rail car’ could delay progress in US transport system (Global Times)

01-13-2019

Claims that Chinese-made subway cars could spy on US politicians are groundless and could delay progress in US rail transportation, a Chinese railway expert said.

The comment came after the Massachusetts Bay Transportation Authority (MBTA) told the Global Times in an email statement that it has robust controls in place to maintain the security of its system, addressing concerns that subway cars made by a Chinese rolling stock producer could be used for espionage.

On January 7, the Washington Post ran a story, raising concerns that subway cars made by State-owned China Railway Rolling Stock Corp (CRRC) could conduct surveillance of US officials as they ride the lines, secretly record sensitive conversations and leave loopholes in its software for hackers.

Sun Zhang, a railway expert and professor at Shanghai Tongji University, told the Global Times on Sunday that the Hollywood spy thriller-like allegations are groundless and stem from a growing momentum by the US to check China's leading industries, from the railway industry to telecom equipment.

The report came less than one month after CRRC said on December 18 that it had completed the production of a pair of subway cars in its US factory in Springfield City, Massachusetts. It was the first pair of next-generation rail cars built to replace cars that have served the Orange Line of Boston for decades. The MBTA is the owner.

"The safety of the T's [nickname for the Boston region transit authority] systems is of the utmost importance and the MBTA has robust controls in place to maintain the security of the system," the authority said in its statement to the Global Times over the weekend.

The agency added that no software components for the new cars are produced in China, and it said it has stringent controls during the rail cars' design process, and it closely manages the implementation of all connected vehicle components.

The authority will examine cyber-security hazards through an overall system safety analysis, based on the US Department of Defense's Military System Safety Standard.

CRRC declined to comment when reached by the Global Times.

Sun said the concerns raised in the Washington Post report are "like giving up eating for fear of choking."

"As rail cars get smarter, it is normal for them to have connected systems such as surveillance cameras and sensors. Saying No to such technologies will delay progress of the US in this specific field."

While no US company makes subway cars, it is likely some lobby group is behind the story to make room for Europe and Japanese manufacturers and isolate Chinese manufacturers, Sun noted.

Aviation, aérospatial

China approves new airport worth$4.7 billion in Hubei province (Reuters)
01-16-2019

China's state planner approved on Wednesday a new airport worth 32.06 billion yuan ($4.7 billion) in central China's Hubei province.

The airport, where the Chinese cargo airline SF Airlines will have a base, is expected to accommodate 1.5 million passengers by 2030, the National Development and Reform Commission said.

Chinese airlines finally get a lift after a bitter 2018 (Bloomberg)
01-11-2019

After their worst annual performance in seven years, shares of Chinese airlines are surging on stable outlook for oil prices and a strengthening yuan.

The nation's top-three state carriers -- Air China Ltd., China Eastern Airlines Corp. and China Southern Airlines Co. -- had their Shanghai-listed stocks upgraded by brokerages including Credit Suisse Group AG. Analysts cited a solid outlook bolstered by optimism crude oil prices will be capped this year and that the U.S. and China will soon resolve their dispute over trade. Macquarie Group Ltd. also raised its rating on the stocks.

Shanghai-listed A-shares of Air China, China Eastern and China Southern soared 4.5-6.5 percent Friday, while their Hong Kong-listed stocks advanced 4.7-8.6 percent. Shares of China Southern have already advanced 10 percent this year in Shanghai, while Air China has risen about 6 percent and China Eastern 7 percent. Each of the three Shanghai-listed stocks has at least 18 buy rating and maximum three sell from analysts tracked by Bloomberg.

"Overall, in our view the reducing macro risks with easing U.S.-China tension should bode well for the airlines," Credit Suisse analysts Lok Kan Chan and Kenneth Fong wrote in a research report Thursday. "We reiterate our constructive view on the China airlines sector driven by solid air demand with low penetration, ongoing supportive policy."

Although policy makers in Beijing have given the airlines more freedom to increase fares and tightened supply of flight slots to help increase passenger yields -- a key measure of industry profitability -- the 5.3 percent slide in the yuan and crude oil gain for the most part of last year added to their costs and weighed on their earnings. The shares of the three carriers slumped about 40 percent in 2018.

While fuel costs top the expenses typically for Asian airlines, a weaker yuan compounds the woes by raising finance costs for companies that earn in the local currency but pay for imports -- such as expensive aircraft -- with dollars.

Unlike its peers elsewhere, Chinese airlines don't hedge against fuel, leaving them vulnerable to volatility in oil prices. Price of Brent oil was on a steady climb to $86 per barrel in early October before nosediving to just a tad above $50 in late December. It last traded around $61 in Asia.

A one percentage point increase in oil will drag down earnings of the three carriers by two to three percentage points in the next two years through 2020, Credit Suisse said. China Southern, it said, will feel the biggest impact given its big fleet size and higher fuel consumption.

Better ROE

Credit Suisse expects Brent at about $63 to $65 this year and next and forecasts the yuan will hover around 6.8 to the dollar, providing some stability to the carriers. Bank of America Merrill Lynch predicts the currency to rise to 6.65 per dollar in the near term on a possible deal between the U.S. and China as the two parties negotiate a settlement to their dispute.

"Investors would refocus on yield improvement that could drive better ROE (return on equity) in 2019," the Credit Suisse analysts wrote, lifting mainland-listed shares of Air China and China Eastern to outperform and China Southern to neutral. The brokerage also boosted target prices of the Hong Kong-listed shares of the three carriers on which it already had outperform rating.

Air China's ROE stands at 8.7 percent, compared with 10.9 percent for China Southern and 6.65 percent for China Eastern, according to data compiled by Bloomberg.

China's air travel demand remains resilient despite a slowdown in the world's second-biggest economy amid the prolonged trade conflict with the U.S. The country is set to unseat the U.S. as the world's biggest air travel market by as early as 2022.

The Civil Aviation Administration of China has mandated moderate increase in flight capacity since 2018 as aggressive expansion of flights over the past few years had stretched airports beyond their capacity, causing massive delays.

The aviation regulator has kept this year's targeted growth of passenger traffic largely unchanged from actual increase in 2018, providing a favorable supply condition for airlines to increase fares and improve passenger yields.

China to collect samples from moon this year (Reuters)

01-14-2019

China will launch a probe to collect samples from the moon around the end of this year, a space official said on Monday, weeks after Beijing hailed the successful touch down on the far side of the moon.

The Chang'e-4 lunar probe landed on Jan. 3 and transmitted the first-ever "close range" image of the far side of the moon.

China's National Space Administration applauded the event as a first that "lifted the mysterious veil" of the far side of the moon and claimed it as a major achievement for the country's ambitious space program.

The tasks of the Chang'e-4 include astronomical observation, surveying the moon's terrain and mineral makeup and measuring the neutron radiation and neutral atoms to study the environment of its far side.

The Chang'e-5 mission, set to collect samples from the near side of the moon, will be carried out at the end of the year, while another probe will be sent to Mars by 2020, Wu Yanhua, deputy head of the space administration, told a briefing, according to an official online transcript.

The Chang'e 5 mission will lay the ground work for further probes to be sent to the moon's south pole and possibly to return samples from the far side of the moon, depending on the results collected in the upcoming mission, Wu said.

Tests carried out by future missions could lay the groundwork for building on the moon's surface, by testing technologies like 3D printing or the use of moon soil in construction, he said.

"China, the United States, Russia and European nations, among others, are all exploring whether or not to build a base or research station on the moon," he said.

The moon is tidally locked to Earth, rotating at the same rate as it orbits our planet, so most of the far side - or "dark side" - is never visible to us. Previous spacecraft have seen the far side, but none has landed on it.

China has made space exploration a top priority in recent years, as it races to catch up with Russia and the United States and become a major space power by 2030. Beijing plans to launch construction of its own manned space station next year.

Nasa says it will work with Chinese space agency on lunar landing research (South China Morning Post)

01-19-2019

Nasa has confirmed that it will work with its Chinese counterpart on lunar landing research, saying the cooperation would be "transparent, reciprocal and mutually beneficial".

In a statement on Friday, Nasa said it had held discussions with the China National Space Administration "to explore the possibility of observing a signature of the landing plume" of the Chinese lunar lander Chang'e 4, using its own spacecraft's instruments.

The Chang'e 4 made a historic soft landing on the far side of the moon on January 3.

Nasa's statement confirmed a similar announcement by Wu Yanhua, deputy chief commander of the China Lunar Exploration Programme, that US space scientists had sought permission to use its spacecraft and relay satellite to help them plan a future mission.

Nasa said its scientists had been exchanging, collecting and analysing data with the Chinese team since the soft landing, and its lunar orbiter was expected to pass over and take pictures of the landing site on January 31.

The cooperation comes against the backdrop of heightened tensions between Washington and Beijing, with Chinese technology products under intense scrutiny in the United States amid national security concerns. That scrutiny of Chinese products – from Huawei's telecoms equipment to Hikvision surveillance cameras – and pressure on Beijing to scrap its state-driven "Made in China 2025" industrial strategy has put a spotlight on their growing technology rivalry.

The dispute was further complicated last month with the arrest in Canada of Huawei executive Sabrina Meng Wanzhou at the request of the US over alleged Iran sanctions violations.

Although Nasa was banned from bilateral cooperation with China in 2011, it can do so with congressional approval, and the statement suggested the collaboration on lunar landing research had already been cleared by the administration of President Donald Trump and Congress.

The US space agency emphasised that the cooperation would be "transparent". "All Nasa data associated with this activity are publicly available," the statement said.

The two sides also agreed that any significant findings resulting from the activity would be shared with the global research community at the UN Committee on the Peaceful Uses of Outer Space meeting in Vienna next month.

The research is important for Nasa's robotic lunar surface missions, which will begin as early as next year. The US campaign to return to the moon – the first in 40 years – has been brought forward by Trump, who has also directed collaboration with international and commercial partners.

China, which has long been excluded from the international space station and many other outer space joint research projects, saw it as a "great opportunity".

"This time, we have such a great opportunity … we are willing to work with them," Wu Weiren, chief scientist of the lunar programme, told state broadcaster CCTV on Tuesday.

He said the Nasa scientists made the cooperation request at an international meeting a few years ago, also asking China to extend the lifespan of its Queqiao relay satellite and to allow a US beacon device to be placed on the Chang'e 4, saying it would help the US plan its own lunar landing strategy.

According to Chinese state media, the United States is among half a dozen countries that have collaborated with China on the lunar project. Other partners include Germany, Sweden, the Netherlands and Saudi Arabia.

Provincial satellite receiving station put into use in Nanyang (China Daily)

01-10-2019

The city of Nanyang has recently introduced a new provincial-level satellite receiving station, the only ground reception center in Henan province for the Fengyun-4 Weather Satellite.

Fengyun 4 is part of China's new generation of geostationary meteorological satellites intended to make up the high-altitude component of the country's planned space-based weather forecasting system that will extend into the 2030s. The satellite is equipped with cutting edge technology such as a lightning imager and space monitoring equipment.

The newly operational center will receive real-time data from Fengyun 4, which will then be processed and used for the improvement of weather analysis and forecasting, prevention and mitigation of meteorological disasters, response to climate change, and monitoring of the natural environment, space and weather. It will enhance early warning capabilities in case of emergency.

Data gathered from the satellite will also be applied to agriculture, forestry, water conservancy, energy, environment, transportation and aviation, effectively improving the city's abilities to respond to natural environment-related emergencies, prevent air pollution, build a water environment-friendly society, and conserve water while carrying out the South-to-North Water Diversion Project.

Routiers

China sets up freeway for high-speed autonomous driving test (China Money Network)

01-22-2019

China has launched a closed highway for self-driving tests in Jiangsu Province, according to a statement from the Traffic Management Research Institute under the Ministry of Public Security today. The launch shows the intention to make it easier for self-driving tests to take place on any road in the country.

From Nantong City to Wuxi City, the closed highway for the testing of autonomous vehicles has a total length of 4.1 kilometers. The test area is a one-way three-lane road separated by a green belt, with an emergency parking zone.

China's provincial authority has instated a 24-hour patrol at the test location, along with over 20 monitoring cameras to oversee the traffic condition from a monitoring base.

The testing area in the southern part of China's Jiangsu province is less affected by extreme weather throughout the year, and is on relatively flat terrain. The geographical features give the test road a straight and smooth surface with an open view.

Several high-speed self-driving tests will be carried out in the section, including conversion to manual operation, and response to traffic signs, obstacles, vehicles ahead, motorists and pedestrians. Other tests are to include parking, starting and automatic emergency braking.

Compared with the United States where the first rules for autonomous cars were developed in 2011 in Nevada, China is lagging a few years. However, the gap is now narrowing quickly. In April 2018, China's Ministry of Transport enabled road-testing of autonomous vehicles in all provincial and city governments across the country.

British energy major BP backs Chinese EV charging start-up PowerShare (China Money Network)

01-25-2019

BP Ventures, the investment vehicle of the world's oil and gas supermajor BP, has invested in the series A round of financing in Chinese electric vehicle (EV) charging start-up PowerShare, said BP in a statement released on its website on Thursday.

The deal, which did not disclose the financial details, was reported by the Financial Times to stand between US$1 million to US$5 million. Chinese private equity firm DETONG Capital Partners also poured money into the new round.

"China is the world's largest EV market and a key market for BP," said Lamar McKay, BP deputy chief executive, in the statement. As BP Ventures' first direct investment in China, the investment in PowerShare marks the latest attempt made by BP Ventures to expand its presence in the Chinese mobility market.

PowerShare was founded in 2015 to operate as an internet of things (IoT) technology-based company providing services in the field of e-mobility. The Shanghai-based company provides an online platform that connects EV drivers, charge point operators and power suppliers, streamlining the charging experience from locating a charge point through to paying for the power supply.

Its cloud-based system allows power suppliers to optimize their operations by continuously monitoring and balancing the power demand from vehicles with the supply capacity of the grid.

BP Ventures has recorded investments worth over US$500 million in technology companies across more than 45 entities to date. The company said that it is actively looking at direct investment opportunities in China in its five strategic areas, namely advanced mobility, power and storage, carbon management, bio and low carbon products and digital transformation.

The company announced to invest US$10 million in the NIO Capital US Dollar Fund to support the fund's work exploring opportunities in China's new energy vehicle ecosystem in July 2018.

Voir le communiqué de presse de BP

VW is setting up electric car charging stations in China (Bloomberg)

01-10-2019

Volkswagen AG is setting up a network of fast-charging stations in China with local partners as part of its multibillion-dollar push to boost electric-vehicle sales in the world's largest market, people familiar with the matter said.

Volkswagen and long-standing carmaker partner China FAW Group Co. will each own 30 percent of the venture operating charging facilities nationwide, said the people, who asked not to be named as the discussions are private. Two other Chinese companies will hold the rest, the people said.

Global manufacturers such as Volkswagen and Ford Motor Co. are shifting their focus to electric cars as waning sales of gas guzzlers led to the first full-year slump in China's auto market in at least two decades. While electric vehicles make up just a few percent of total car sales, the growth rates are impressive, and China is targeting sales of 2 million new-energy vehicles in 2020 as part of a push to clean its air and reduce dependence on imported oil.

The charging venture is part of Volkswagen's plan to invest 4 billion euros ($4.5 billion) together with partners on electrification and smart cars this year, the people said. The companies will jointly invest an initial 1 billion yuan ($147 million) in the venture and plan to increase their bets over the years, they said.

Talks for the venture are near completion and it is scheduled to be set up in the first half of this year, the people said. SAIC Motor Corp., another VW partner, is ready to get on board, with more Chinese auto and battery makers expected to join in future, the people said.

A Volkswagen spokesman in China declined to comment. FAW didn't have an immediate comment, while calls to an SAIC representative went unanswered.

In November, Volkswagen said it was exploring the construction of a public fast-charging network in China that allows drivers to refill their vehicles in 15 minutes for a driving range of 400 kilometers (249 miles).

China's using its EV blueprint to promote hydrogen cars (Quartz)
01-29-2019

A decade ago, there were almost no electric cars on Chinese roads. Today, the country sells more battery-powered electric cars—upwards of 1 million in 2018 alone—than the rest of the world combined. The Chinese government now wants to do the same for hydrogen-powered cars.

In 2009, China launched a program known as "Ten Cities, Thousand Vehicles" to promote electric vehicles (EVs), with battery electric vehicles (BEVs) and plug-in hybrids (PHEVs) now both widely in use in the public transport and private-car sectors. This year, China's considering rolling out a similar plan to develop hydrogen-powered cars, or fuel-cell vehicles (FCVs).

China plans to promote FCVs in a number of cities such as Beijing, Shanghai, and Chengdu, Securities Times, a state-backed news outlet (link in Chinese), reported yesterday (Jan. 28). The program to promote FCVs will be following a similar pattern to the plan adopted by China in 2009, the outlet said.

In the Ten Cities plan, China aimed to have 30 cities adding a total of 30,000 new-energy vehicles (NEVs) in three years, with the main focus on public transport. The program has helped popularize BEVs and PHEVs in China, and sales of the vehicles continue to grow rapidly in China, despite a slowdown in car sales in the country in 2018.

FCVs have advantages such as shorter refueling times and longer driving ranges because the chemical process behind them is more efficient than those of BEVs and PHEVs. Their commercialization, however, was limited due to obstacles such as a lack of refueling infrastructure. There were only around 12 hydrogen refueling stations as of 2018 in China, Securities Times said.

There are growing signs that China now wants to promote FCVs. The country's oldest carmaker, First Automobile Work, announced plans to mass-produce fuel-cell Hongqi cars this year. The Hongqi was a car favored by China's political elites, including former chairman Mao Zedong. Later, Wan Gang, former science and technology minister and the founder of China's EV roadmap, advocated in December the development of FCVs, especially in public transport. In mid-January, the southern city of Foshan announced a plan to build at least 22 hydrogen refueling stations in the city as part of the plan to boost the fuel-cell industry.

The growing interest in FCVs comes at an important juncture for the development of China's EV market, as the government hopes to rely more on market forces to boost EV use by phasing out subsidies. China's subsidies for FCVs, however, will remain unchanged until 2020, according to Securities Times.

Logistique & fret

Logistics to go "greener" in Chinese coastal province (Xinhua)
01-30-2019

China's eastern coastal province of Zhejiang should take the lead in going "greener" in logistics, the provincial legislators and political advisors said Tuesday.

Zhejiang, known for its private businesses and home to e-commerce giant Alibaba, should promote economical packaging standards against over-packaging, said Cong Yanqing, deputy to the Provincial People's Congress, at the annual session of the congress.

Cong said more environmentally-friendly packing materials should be introduced in Zhejiang, as the province's express delivery market has grown rapidly over the years.

A number of cities in Zhejiang have welcomed the idea of "going paperless" with their delivery services, said Tong Wenhong, member of the provincial committee of the Chinese People's Political Consultative Conference (CPPCC) and the Chief Personnel Officer of Alibaba.

Moreover, more cities have joined the campaign of recycling the packaging waste with rewards, said Tong. "During last year's Single's Day on Nov. 11, 13 million cardboard boxes were recycled in Alibaba's 5,000 recycling stations located in 200 cities," said Tong.

According to official figures, the volume of parcel express delivery in China reached 50.5 billion last year, a year-on-year increase of 25.8 percent.

Beijing maps consolidation plan for China's maritime industry (Seatrade Maritime News)

01-21-2019

China's central government is planning the consolidation for several industry sectors to optimise the state-owned regional assets structure and reduce horizontal competition.

The government will actively promote the consolidation of several industries, including shipping, shipbuilding, power, iron and steel, environmental protection and offshore equipment according to State-owned Assets Supervision and Administration Commission (SASAC).

Government officials and leading industry players joined in the meeting held by SASAC, representatives from China's largest shipowner, China Cosco Shipping Group attended the meeting. China leading shipping companies Cosco and China Shipping completed consolidation in 2016; another two Sinotrans CSC and China Merchants completed their major business integration in 2017.

A merger of the two state shipbuilding companies China Shipbuilding Industry Corporation (CSIC) and China State Shipbuilding Corporation (CSSC) has also been long speculated.

The 2019 industry reform plan will continually follow the guidelines of recent years to push the consolation among traditional industries, strengthen internal streamlining and optimise state-owned assets layout.

In 2018, the state-owned companies posted RMB29.1trn revenue, an increase of 10.1% year-on-year; RMB1.7trn total profit, hit a record high.

CSSC to build and finance 36 newbuilds (Seatrade Maritime News)

01-22-2019

China State Shipbuilding Corporation (CSSC), has inked newbuilding contracts for 36 newbuildngs worth a total contracts value of over RMB10bn ($1.48bn) and financed by its Hong Kong leasing arm.

The vessels will be built at a number of different yards under the CSSC umbrella and CSSC (Hong Kong) Shipping Company, will provide financing service to all 36 newbuildings.

The batch of newbuilding contracts includes four 174,000 cu m LNG carriers, eight 13,000 multi-purpose heave lift vessels, four 300,000 very large crude carriers (VLCC) and twenty feeder containerships, plus letter of intent for four 95,000 dwt bulk carriers and seagoing fishing vessels.

At the top end of the scale Mitsui OSK Lines (MOL) has ordered two plus two 174,000 cu m LNG carriers at Hudong Zhonghua Shipbuilding.

Zeamarine will build four 13,000 tonne-class heavy lift vessels at Hudong Zhonghua Shipbuilding and two 13,000 tonne-class heavy lift vessels at HuangPu Wenchong Shipbuilding.

On the container feedership front Atlantic Geneva has ordered four 2,400 teu containerships at Jiangnan Shipyard, and eight 1,100 teu containerships at Huangpu Wenchong Shipbuilding and Chengxi Shipyard.

In terms of bulkers Pangaea is to build two plus two 95,000 tonne-class bulk carriers at Guangzhou Shipyard International.

Meanwhile CSSC (Hong Kong) Shipping Company itself booked two plus two 300,000 tonne-class VLCCs at Shanghai Waigaoqiao Shipbuilding.

As a part of cooperation plans, CSSC (Hong Kong) Shipping Company also signed joint venture letter of intent with three Qingdao-based companies and a system engineering research institute owned by CSSC for the development of intelligent ocean economy and construction of seagoing fishing vessels.

The RMB10bn deal is a good start for CSSC and Chinese shipbuilding industry in the year of 2019 and the largest batch of newbuilding orders placed in recent global shipbuilding market.

China Merchants Energy shipping sees profits double in 2018 (Seatrade Maritime News)

01-22-2019

China Merchants Energy Shipping (CMES) expects to record around RMB11.3-RMB12.5bn net profit in 2018, $1.84bn a huge increase of 84%-104% year-on-year.

The company's improved performance was due to the contribution delivery of a Very Large Ore Carrier (VLOC) fleet and the improvement of dry bulk business. In addition, the very large crude carrier (VLCC) market rebounded strongly in the fourth quarter of 2018 and brought positive effects to its financial sheet.

CMES recently received one 400,000 tonne-class VLOC through its subsidiary Hong Kong Ming Wah Shipping (HKMW). The vessel was built by China Merchants Heavy Industry (Jiangsu), it is one the ten VLOCs China Merchants Energy Shipping ordered. Four of the ten VLOCs were built by Shanghai Waigaoqiao Shipbuilding (SWS) and four were built by Qingdao Beihai Shipbuilding Heavy Industry, the remaining two were assigned to China Merchants Heavy Industry (Jiangsu).

Incorporated in Hong Kong, HKMW is the dry bulk arm and a subsidiary of China Merchants Energy Shipping Co., Ltd (CMES).

The company currently owns and operates twenty 400,000 tonne-class VLOCs and another four in order.

China Navigation acquiring dry bulk businesses of Hamburg Süd (Seatrade Maritime News)

01-21-2019

Part of the Swire Group and headquartered in Singapore CNCo will acquire the dry bulk shipping businesses of Hamburg Süd which include Rudolf A. Oetker (RAO), Furness Withy Chartering and the bulk activities in Alianca Navegacão (Aliabulk).

Through the acquisition CNCo will takeover a fleet of 45 vessels in the handysize, supramax, ultramax, panamax and kamsarmax sectors. The move will expand its dry bulk fleet established in 2012 which consists of a fleet of over 100 handysize, supramax and ultramax vessels comprising owned, long term and short term-chartered tonnage.

James Woodrow, managing director of CNCo commented: "There are some very natural synergies between the businesses and we are delighted to acquire such an experienced and high-quality team and business that complements our own modern eco fleet and helps to develop our strategic expansion in to the supramax/ultramax segment."

For Hamburg Süd, which was acquired by Maersk in December 2017, the sale sees it moving to focus on container shipping, although for the time continues to own the tanker business of RAO Tankers.

Read more: Maersk Line closes acquisition of Hamburg Süd to give it 19.3% market share

"With this step, Hamburg Süd is focusing as planned on its liner business with its two container shipping brands, Hamburg Süd and Aliança," said Arnt Vespermann, ceo of Hamburg Süd. "As part of Maersk, the world's largest liner shipping company, this clear focus is a logical step."

Financial details of the deal were not disclosed and it is expected to close by end first quarter 2019, subject to regulatory approvals.

China builds rescue centre on artificial Spratly Island in South China Sea (South China Morning Post)

01-30-2019

China has added a maritime rescue centre to its facilities on an artificial island in the South China Sea, pressing on with plans to turn the outpost into the biggest logistics hub in the disputed waters.

The Ministry of Transport said on Tuesday that the centre had been built on Fiery Cross Reef to serve the Spratly Islands, also known as the Nanshas.

The announcement comes six months after China stationed the Nanhaijiu-115 rescue ship at Subi Reef, another artificial island in the Spratlys.

The rescue centre would provide stronger and more comprehensive support to rescue missions and would be part of the ministry's "South China Sea rescue bureau" , the ministry said.

"It is a measure to implement international treaties and ensure safety of navigation and transport in the South China Sea region," it said.

Fiery Cross has grown from a rocky outcrop a few years ago into a 2.8 sq km (692 acre) artificial island.

Last week military mouthpiece The PLA Daily published a high-definition photo of the island, showing it complete with a harbour for large ships, a lawn by the 3km (1.86 mile) runway and more than 100 buildings.

The island has a weather observatory, ocean and hydrology monitory station and coral restoration facilities, in addition to a lighthouse and a hospital.

Previous satellite images of Fiery Cross showed domes for radar equipment, communication facilities, hangars, missile positions, underground tunnels and high-frequency radar antennas and other military facilities.

The island has housing for more than 1,000 troops, with fresh water supplies, solar panels, a vegetable greenhouse and sports facilities.

Yet Fiery Cross is only the third largest island that China ha sbuilt in the Spratlys – Subi and Mischief reefs are nearly double its size.

Fiery Cross is also less of a target for US "freedom of navigation" operations, with a patrol by the USS William P. Lawrence in 2016 so far the only incident of its kind.

In addition to mainland China, the Spratlys are claimed also by Vietnam, the Philippines, Malaysia, Brunei and Taiwan.

China claims almost the entire South China Sea, but only controls seven reefs in the Spratlys, which were all transformed into islands through massive land reclamation between from 2014.

Beijing has been trying to establish de facto administration in the region, including providing humanitarian help to fishing and cargo vessels passing by the busy sea route.

The Nanhaijiu-115 and its sister ship the Nanhaijiu-117, have up to 10 professional divers on board and have saved 16 people in eight missions in the past six months, according to state news agency Xinhua.

Institutional investors throw weight behind delivery enterprise Yimi Dida (Caixin)

01-15-2019

Chinese supply chain logistics company and delivery service Shanghai Yimi Dida has received 1.8 billion yuan ($266 million) in series D investment, the company announced Monday.

Institutional investors include Boyu Capital, Hopu Capital, GLP Capital and Source Code Capital.

This is Yimi Dida's sixth round of investment since its founding in 2015, and brings its total investment so far to around 3 billion yuan, according to public information.

Yimi Dida will use the new capital injection will to acquire institutional clients, construct key delivery stations and develop new technology, Chinese media reported.

Construction

Construction, urbanisme

China spends $256 billion on Shantytown redevelopment in 2018 (Reuters)
01-22-2019

China's housing ministry said on Tuesday investment in a massive shantytown redevelopment project totaled 1.74 trillion yuan ($255.68 billion) last year.

Construction began on 6.26 million housing units in 2018, the ministry said on its website. China set the 2018 full-year target at 5.8 million units.

The social project also boosted broader property demand in China as residents were encouraged to use cash compensation to buy a new home when their existing one was demolished, analysts said.

China must prepare for economic difficulties in 2019: premier (Reuters)
01-16-2019

China must prepare for difficulties this year as the economy faces increasing pressure, state radio on Wednesday quoted Premier Li Keqiang as saying.

China aims to keep economic growth within a reasonable range in 2019, Li said, adding that the government will boost investment in public services and infrastructure and expand consumption.

China, northern Europe deepen partnership on green urbanization (China Daily)
01-21-2019

China will further cooperation with northern European countries on developing a green urbanization market in China, aiming to strengthen international coordination and establish green and sustainable development partnerships according to officials from both sides.

"Under the current economic and social background, green and sustainable development is the key for all countries to share the benefits of globalization," according to Hu Sishe, vice-president of the Chinese People's Association for Friendship with Foreign Countries.

CPAFFC, together with the China "Urban-townization" Promotion Council, have organized a conference with a theme of sustainable development and international cooperation in green urbanization, aiming to establish a green and sustainable development mechanism.

"Cooperation is vitally important for solving all of the challenges the world has faced in the global ecological environment," said Laurent Fabius, chairman of the United Nations Climate Change Conference in Paris, who was invited to the conference.

The current urbanization in China will be the world's biggest, fastest and most influential process of its kind in the world, incubating a huge potential market based on different levels of city clusters in China, said Zheng Xinli, vice-president of CUPC.

Incorporating the Chinese green urbanization market with northern Europe's sustainable development technology and innovation will provide a new path for both sides' future development, he said.

China and northern European countries already established cooperation partnerships in 2017 in the fields of entrepreneurship and business, sustainable development, research and education and cultural communication, said Svein Thorstein Berg, managing director of Nordic Innovation, who looks forward to deeper cooperation between China and northern European countries.

China focus: Xiongan New Area construction to gain momentum (Xinhua)

01-16-2019

North China's Hebei Province will mobilize the resources of the entire province to build Xiongan New Area, a landmark project for regional coordinated development, the provincial government said.

According to its annual government report, Hebei will make efforts to realize 10 major projects centering on such areas as infrastructure, transportation, ecological restoration of Baiyangdian Lake, and building smart city.

The provincial government will push forward the construction of Xiongan "in an orderly and effective way" in 2019, said the report.

In April 2017, China announced the establishment of Xiongan New Area, which, about 100 km southwest of Beijing, spans three counties in Hebei Province.

"The construction of Xiongan New Area will soon enter a new stage," said Chen Gang, vice governor of Hebei who also heads the management committee of Xiongan.

So far, work has started on projects including intercity railways between Beijing and Xiongan and the afforestation project, and a public service center has been put into use.

Earlier this month, China's central authorities approved the 2018-2035 master plan for Xiongan.

According to the plan that stresses high-quality development, Xiongan will become a modern city that is green, intelligent and livable with "relatively strong competitiveness and human-environment harmony by 2035."

According to the province's annual government report, Xiongan will be the location for Beijing's non-capital functions, a new home for Beijing's colleges, hospitals, business headquarters and financial and public institutions.

The plan emphasizes the coordinated development of Beijing, Tianjin and Hebei, said Yang Baojun, president of the China Academy of Urban Planning & Design that worked on the general plan.

Xiongan will become a significant part of the Beijing-Tianjin-Hebei city cluster, taking over Beijing's non-capital functions and providing a Chinese solution to "big city malaise," he said.

The province will also make efforts to designate innovation resources in Xiongan.

"China aims to build Xiongan into a globally influential city led by innovation-driven development, so attracting talent and developing high-tech and high-end industries are emphasized," Yang said.

Moreover, environmental protection and ecological restoration in Baiyangdian Lake, the largest wetland ecosystem in north China, will continue to be reinforced this year.

"Ecological protection and green development are prioritized in Xiongan, with a planned 70 percent of water and trees to cover the area," Yang said.

Earlier this month, a plan on the 2018-2035 ecological restoration of Baiyangdian Lake was also approved by the central authorities.

Last year, more than 6,600 hectares of trees were planted in Xiongan and another afforestation project of the same size is expected to be completed in 2019, according to Hebei's forestry department.

"A green lifestyle, such as walking and cycling, will be encouraged as well as public transport in the area, and the number of cars will be controlled," Yang said.

Beijing and Tianjin have also promised to support the construction of Xiongan New Area.

According to the annual government report of Beijing, three schools and a hospital will be built in Xiongan with the help of three prestigious schools and a hospital in Beijing. Construction work on the schools and hospital will start in 2019.

Moreover, the Beijing section of the intercity railway between Beijing and Xiongan will be put into operation, and construction work on a highway connecting Beijing and Xiongan will also start this year.

According to the annual government report of Tianjin, the city will also serve in the construction and development of Xiongan by coordinating in industry development, ecology and public service.

Tianjin will promote a series of measures including sharing talents and technologies, pushing forward construction of transportation infrastructure connecting Tianjin and Xiongan, and creating convenient access to the sea for Xiongan.

Immobilier

China's 2018 property investment up 9.5 % YoY (Reuters)

01-21-2019

Real estate investment in China rose 9.5 percent in 2018 from a year earlier, slowing from a 9.7 percent gain in the first 11 months of the year, official data showed on Monday.

The property market, a key growth driver, has been cooling in recent months, adding to pressure on China's slowing economy. Further weakness, or signs of recovery, could impact the pace and scope of further stimulus measures expected from Beijing this year.

Property sales by floor area increased 1.3 percent year-on-year in 2018, easing from a 1.4 percent rise in January-November, data from the National Bureau of Statistics showed.

China can no longer rely on real estate for growth. It's now turning to railways and more debt (CNBC)
01-25-2019

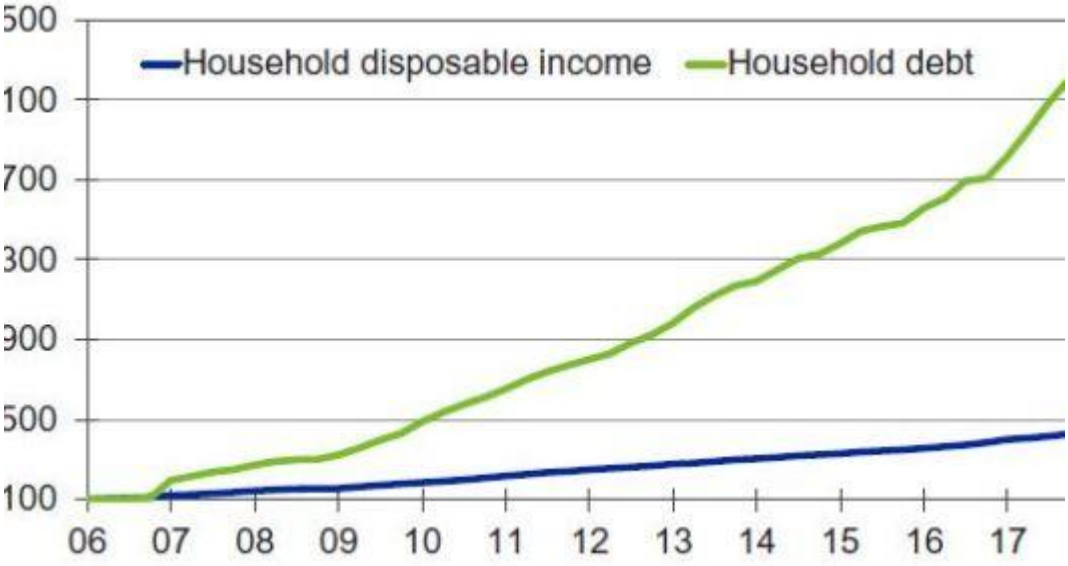
Chinese authorities face an ever-growing list of challenges — be it an ongoing trade fight with the U.S. or headwinds in domestic demand — and it appears they don't have many tools left to spur the economy amid a slowdown.

The real estate market in China has traditionally played a major role in its economic development, household wealth and public sentiment. Real estate has been used by Beijing to stimulate growth during previous downturns, including one just three years ago.

But along with a Chinese penchant for investing in houses, persistent expectations of government support sent prices and the household debt burden soaring.

That's created a delicate situation, one which analysts expect Beijing will not touch this time around, except to keep prices steady.

Household debt growth outpacing disposable income



Source: Moody's Analytics

Junheng Li, founder of China-focused equity research firm JL Warren Capital, estimates 61 percent of Chinese urban households live in homes less than 10 years old. She also notes there are many older units that are still in good condition.

Some "simple math shows that continuously building new homes to stimulate investments and meanwhile create the false impression of wealth effect coming with home price appreciation is about to hit the wall," she said in a January report. "Chinese policy makers are fully aware and highly alert not to send the wrong signal to the home buyers that home prices will continue to hike."

High housing debt

As Beijing tries to shift its economy to one that's driven by consumption, the worry is that consumers will not have the means, or the enthusiasm, to spend. Already, retail sales growth has slowed significantly amid uncertainty about U.S.-China trade tensions and the impact on economic growth.

Economists at Moody's Analytics pointed out in December that Chinese disposable income has grown at an average annual rate of 10 percent for the last six years, while household debt — of which the majority is tied to housing — has grown at an average rate of 20 percent a year. In the past year, the average rate of household debt growth climbed to 26 percent, the report said.

It's unlikely that the housing market will lead China out of the latest economic slump. In the last few years, government intervention has cooled the market, and real estate's contribution to growth has fallen slightly to about a third or a quarter, according to Dan Wang, analyst at the Economist Intelligence Unit.

In fact, several China watchers have said the property market poses the greatest risks for China in the year ahead.

On Tuesday, Lynda Zhou, Fidelity International's chief investment officer of equities in China, said an unexpected sharp drop in housing prices would be a "black swan" event. A black swan event is an unforeseen occurrence that usually has dire consequences, which Chinese President Xi Jinping warned of earlier this week when he was talking about challenges to China's economy.

Infrastructure spending is key

China's rapid ascent to becoming the world's second largest economy has brought with it a slew of problems.

The Communist Party-controlled government has so far managed to keep a handle on growth. But it's an ongoing challenge that faces repeated tests. To prevent a sharp economic slowdown this time, analysts said Beijing has only one primary option for spending: infrastructure.

"This round of economic decline is due, to a large degree, to a downturn in individual and private sector confidence," Qian Wang, managing director and chief economist, Asia-Pacific, at Vanguard Investment Strategy Group, said in Mandarin during a press event in Shanghai earlier this month. "In this situation, we are concerned that stimulative economic policy may be slowly losing its effectiveness, and may not work as quickly."

Wang expects the government's announcements on tax and fee cuts to have a positive effect in the long term, but in the short term, authorities will need to stimulate through infrastructure spending.

Here, the Chinese government has moved swiftly after pausing many plans for railway development because of concerns about debt buildup. Some have criticized Beijing's crackdown on leverage in the last two years as overly harsh, contributing to the slowest pace of gross domestic product growth in 28 years in 2018.

The National Development and Reform Commission suspended approvals of urban transit projects in August 2017. But in the second half of last year — primarily in December — the Commission gave seven major Chinese cities the green light for such projects, Nomura's chief China economist Ting Lu and his team pointed out in a Jan. 18 report. As of publication, total investments into such projects reached 714.2 billion yuan ($105 billion), the report noted.

"The acceleration in the pace of these project approvals suggests that Beijing has become more concerned with the economic slowdown and is keen to pick up urban transit investment (a key portion of infrastructure investment) to increase demand and stabilise economic growth," Lu said in the report.

Alternative funding methods

The hope is that developing projects such as high-speed rail will bring temporary jobs, economic growth and investment to lesser known areas. Amid concerns about high-debt levels, analysts said China is trying some alternative financing methods such as private partnerships and project-based debt issuance.

Infrastructure spending can also come in the form of investment in technologies such as 5G and the internet, Vanguard's Wang said.

With its "Made in China 2025" plan, Beijing aims to turn the country into a global technology leader. In a Jan. 22 report, the Economist Intelligence Unit found that cities which have aligned themselves with the central policy generally have better growth prospects.

However, it's unclear how quickly and to what extent increased spending on such infrastructure projects will help economic growth. China has already built an extensive high-speed railway network, especially in the most prosperous regions. And in another major issue for authorities, the private sector which creates most new jobs is struggling in a financing and operating environment that still favors state-owned enterprises.

"The debt-driven model, China cannot totally abandon it," the Economist Intelligence Unit's Wang said. "When consumption cannot drive growth, debt-driven infrastructure spending is necessary."

Sujets transversaux

Initiative Ceinture-Route (Belt and Road Initiative – BRI)

China's digital silk road is looking more like an Iron curtain (Bloomberg)

01-28-2019

The first billboard that greets passengers arriving at the airport in Lusaka, before Pepsi's "Welcome to Zambia," is an advertisement for Bank of China. Nearby, a Chinese company is building a sleek terminal. On the road into the capital city, near the office of Chinese telecom company ZTE Corp., another billboard features surveillance cameras made by Hangzhou Hikvision Digital Technology Co. At the national data center built by Huawei Technologies Co., a Chinese man in a bright orange vest walks toward a building that houses government servers.

This southern African nation, a former British colony rich in copper and cobalt, is spending $1 billion on Chinese-made telecommunications, broadcasting, and surveillance technology. It's all part of China's "Digital Silk Road," a subset of its "Belt and Road" initiative that contributes an estimated $79 billion in projects around the world, according to RWR Advisory Group, a Washington consulting firm that tracks Chinese investment. That funding has boosted development in Zambia and many other countries, but it comes at a price.

Most of the digital infrastructure projects in Zambia, like the more visible airport terminals and highways, are being built and financed by China, putting the country at what the International Monetary Fund calls a high risk of debt distress. It's also given rise to fears that what has long been a thriving and stable multiparty democracy is veering toward a Chinese model of repression.

“We have sold ourselves to the Chinese,” says Gregory Chifire, the director of an anticorruption organization who fled the country after being sentenced in November to six years in prison on what Amnesty International calls trumped-up charges. “People’s freedom to express themselves—their freedom of thought, their freedom of speech—is shrinking by the day.”

Zambian government officials defend their reliance on Chinese technology and deny it’s being used for political purposes. “The government has the responsibility to invest in infrastructure,” says Dora Siliya, the information minister. “Zambia’s model for development is neither the West’s nor China’s but an attempt to take the best from both. We have a Zambia model.” The Chinese Embassy in Lusaka didn’t respond to requests for an interview.

What’s playing out in Zambia is part of a larger contest between the U.S. and China for dominance over the future of technology and global influence. Companies from both countries sell tech products around the world, but Chinese businesses are offering a wide range of gear and relatively cheap financing in countries from Zimbabwe to Vietnam. They have an advantage in developing nations such as Zambia, which are looking to modernize their technology infrastructure.

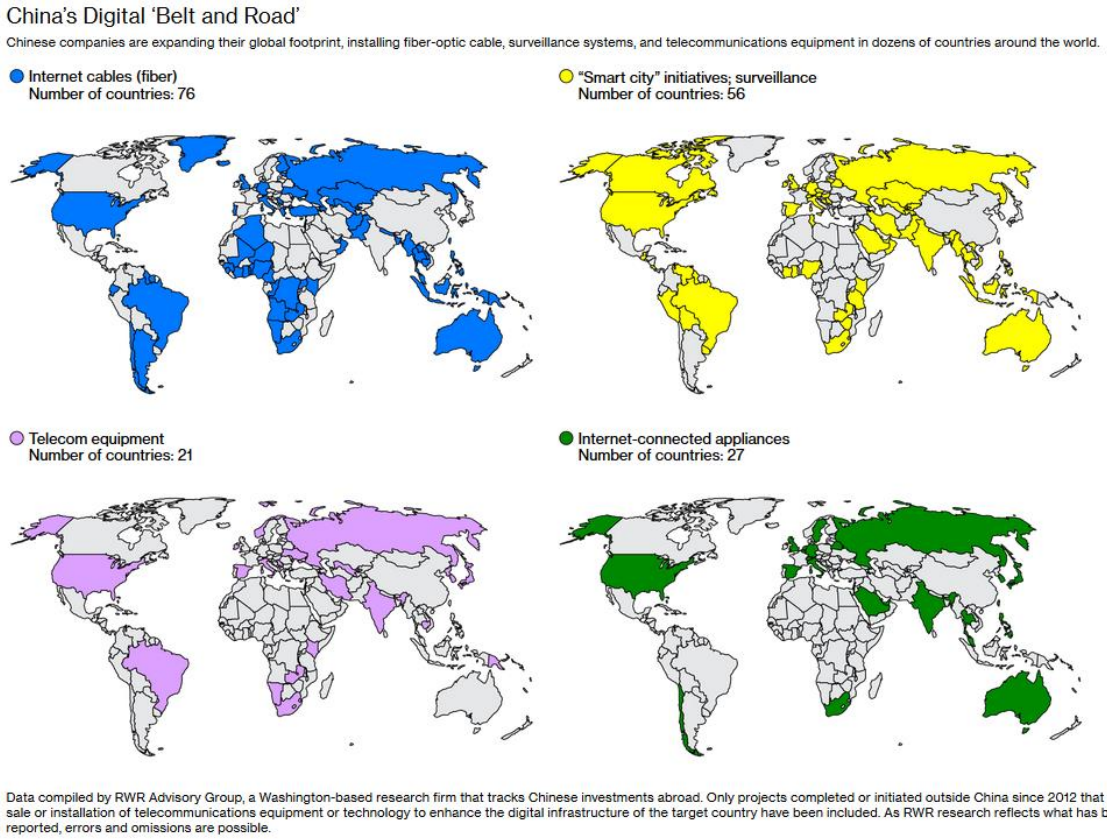
The rivalry risks dividing the world with a digital iron curtain. The potential for bifurcation is already noticeable, as U.S. allies including Australia and New Zealand have banned Huawei and ZTE from providing equipment for 5G wireless technology on national security grounds and Canada arrested Huawei Chief Financial Officer Meng Wanzhou in December on allegations she defrauded banks to violate Iranian sanctions. Huawei and ZTE are both private companies and have pushed back against allegations that they’re pawns of the Chinese government.

China is exporting to at least 18 countries sophisticated surveillance systems capable of identifying threats to public order and has made it easier to repress free speech in 36 others, according to an October report published by Washington watchdog Freedom House. “They are passing on their norms for how technology should govern society,” says Adrian Shahbaz, the author of the report, which found that Zambia had slipped in the group’s ranking of national internet and media freedoms for the past two years. Nadège Rolland, a senior fellow at the National Bureau of Asian Research, a Washington think tank, says, “There’s a 1984 component to it that’s kind of scary.”

Discussions with government officials in Lusaka often begin with a history lesson. First comes the what-did-the-West-ever-do-besides-exploit-us part, followed by a version of the China-has-always-been-our-friend speech. It’s a convenient way to defend the growing reliance on Chinese projects that’s raised Zambia’s debt to that country to $3.1 billion, about one-third of its total foreign debt, according to government estimates.

That’s the way it plays during a December interview with Brian Mushimba, Zambia’s minister in charge of transport and communications. He’s from Zambia’s Copperbelt, one of 16 children. He studied engineering at the University of Arizona, worked at Pratt & Whitney in Hartford, and has an American wife. But he’s a firm defender of China’s development agenda, saying it’s lifted millions of people out of poverty and offers the same to Zambia. “China has not only done this but is willing to share and give cheap financing for us to also do it,” he says, sitting in his office in a one-story colonial-era building with peeling pale-peach paint. “Their model is very interesting, very different from how the Western world interacted with Africa. China serves as a model worth replicating.”

The 44-year-old minister has invoked the “China way” of dealing with the internet when threatening to ban Google and Facebook, which has provided a platform for disinformation campaigns in Myanmar and other countries. He’s called “fake news” a threat to national security and urged self-censorship, saying the government has the ability to monitor all digital devices in the country. A draft cyberlaw scheduled for debate in the National Assembly this year would create an agency with the power to determine whether information published online threatens national security, punishable by jail time, something free-press advocates say could be applied to news organizations that expose corruption. Criticizing President Edgar Lungu in social media posts has already landed several people in prison on charges of defamation.



While Mushimba acknowledges that the idea of governance "with less dissenting views" is in conflict with Zambia's democracy and free press, he denies the government is trying to stifle expression and says it's just enforcing the law. "The internet is a powerful tool that can't be left to run wild," he says. "The government has good intentions—the good intention to keep peace, order, and security in the country."

Talk of restrictions doesn't sit well with Richard Mulonga, the 39-year-old founder of Bloggers of Zambia, a group that's been urging the government to follow European standards of cyberlaw. Mulonga, a photojournalist fired from his job at a state-run newspaper after he posted pictures on his blog that the paper wouldn't publish, says free-speech advocates are fearful. "Citizens have the right to hold power to account," Mulonga says, sipping coffee in a Lusaka hotel lobby, a Facebook pen clipped to the collar of his black T-shirt. "Only through free expression can we participate in democracy."

In 2013 and 2014 the government blocked at least four websites by using a technique typically associated with censorship in China, according to the Open Observatory of Network Interference, a global network that collects data on internet tampering. It couldn't prove Chinese equipment was involved, but its report cited information that Zambia had installed internet monitoring and blocking equipment from ZTE and Huawei. State-run Zambia Telecommunications Co. and its regulator declined to answer questions. A Huawei spokesman in Lusaka says he's unaware of the company's technology being used for such purposes.

"They'll be able to spy on all political opponents and control all the political activity. The potential for misuse is enormous"

Zambian Watchdog, which focuses on corruption, was one of the websites blocked. Today, its posts are regularly called "fake news" by government officials. Representatives of the group didn't respond to requests for comment. But editors of the Mast, a newspaper often critical of the government, were willing to talk about the climate of fear engendered by new technologies.

“Being a newspaper, if you’re going to call a source, it means they know who you’re calling,” says editor Larry Moonze, sitting at a conference table in one bedroom of the two-bedroom house where the newspaper is produced. “Media institutions are working under fear of the government, with the help of the Chinese,” adds Chief Executive Officer Likezo Kayongo, whose brother founded a predecessor publication that was raided and shut down in 2016.

ZTE is also installing cameras in public spaces in Lusaka as part of a $210 million “Safe City” project. The contract was canceled in 2013, over irregularities in how it was awarded, then reinstated in 2015, government officials confirm. The project is designed to increase policing power in a city that’s already one of the safest in southern Africa.

In China, authorities use surveillance systems with facial recognition software to compare citizens against government databases, allowing them to track those with dissenting views as well as criminals. In Zambia, “there will be no political uses,” says Chileshe Mulenga, permanent secretary at the Ministry of Home Affairs, which is in charge of the project. “We are not passive. We are defending our interests.”

Representatives of ZTE in Zambia and China declined to talk about the company’s projects. Huawei spokesman Hansen He was more talkative. He says his company’s “Smart Zambia” initiative, which includes plans to bring mobile and broadband connectivity to rural villages without coverage and to put government functions online, is supplying technology for what Zambia wants to do and the support to make sure it works. “We just provide the solutions,” he says. “They are the operators to run it.”

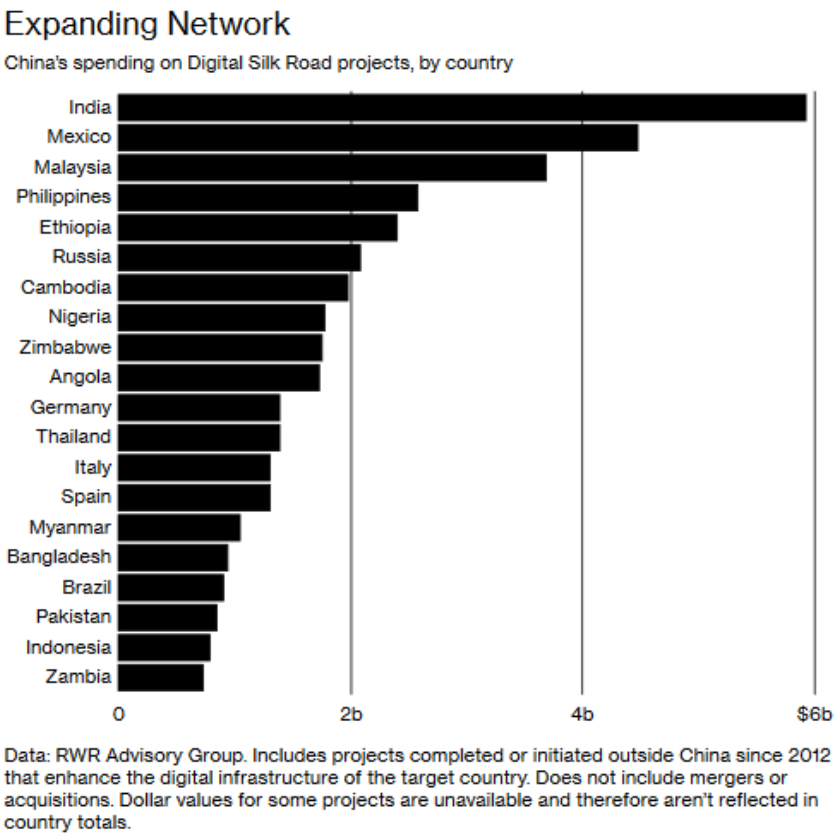
Huawei also built Zambia’s national data center, which handles all government data and storage. Zeko Mbumwae, the center’s general manager, says officials have no concerns that the gear could be used for Chinese intelligence or data-gathering purposes. “Once someone’s built you a home, you change the locks,” he says. “That’s what we did.”

Another Chinese-funded project is the migration from analog to digital TV, which is being handled by TopStar Communications Co., a 60-40 venture between Beijing-based StarTimes Group and Zambia’s state-owned broadcaster, ZNBC. Chifire, the anticorruption activist, has called it “one of the biggest financial scandals in modern-day Zambia.”

The country of about 17 million people is spending $282 million on the switch, or about $16.60 a person. That’s 46 percent more on a per-person basis than South Africa is spending. Zambia borrowed almost all of the funding from the Export-Import Bank of China. Independent stations complained that they were being turned into content providers for the government’s network and protested the $72,000 in monthly fees for TopStar to carry their channels. They said the fees would put them out of business, leaving only a Chinese company and its state-run partner as the nation’s primary TV outlet. “We’re not refusing to pay,” says Costa Mwansa, CEO of Diamond TV. “What we are refusing is figures that will kick us out of business.”

The government says Zambia’s digital migration is expensive because the project includes eight new studios, broadcasting vans, and trips to China to train hundreds of ZNBC journalists. Anyone who criticizes the cost is comparing apples to oranges, says Siliya, the information minister. “The corruption assumption being perpetuated is wrong.”

Similar debates are going on across Africa and other continents as Chinese digital infrastructure spreads its roots. In neighboring Zimbabwe, where Hikvision surveillance cameras are being installed in the capital, Guangzhou-based CloudWalk Technology Co. won a contract last year for Africa’s first artificial intelligence project. It stalled when the government asked for a discount after learning that facial data would be transmitted to China to help the company perfect its technology, says Shingi Magada, a China-based Zimbabwean consultant who helped broker the deal. “We were just giving away our data,” he says. Hikvision has come in with a competing offer, and the Zimbabwean government is keen to go ahead at the right price, he adds. Neither Hikvision nor CloudWalk responded to requests for comment.



In Mauritius, off Africa's east coast, Huawei is installing 4,000 cameras. Opposition politicians fear an increase in monitoring and surveillance. "It's really Big Brother," says Xavier-Luc Duval, a former deputy prime minister who now leads the opposition at the National Assembly. "They'll be able to spy on all political opponents and control all the political activity. The potential for misuse is enormous."

Concerns that Chinese technology could be used for spying flared last year when Le Monde reported that data had been transmitted from the African Union's headquarters in Addis Ababa, Ethiopia, to China nightly for years. The $200 million building was built by a Chinese company with Chinese funding. China dismissed the allegations. The organization, after accusing China of spying, backtracked.

In Vietnam, hackers took over screens and audio communications in the country's two major airports in 2016 to broadcast propaganda supporting China's claims in the South China Sea. The incident caused an alarmed Vietnamese government to warn its agencies and companies to reduce their reliance on Chinese equipment, which was believed to have played a role.

Potential threats to national security like these have prompted the U.S., Australia, and Japan to take countermeasures against the spread of Chinese technology. The three have opposed plans by Huawei to lay submarine cable connecting Australia to Papua New Guinea and the Solomon Islands in the South Pacific. But a Huawei cable project within Papua New Guinea is going forward despite efforts by Western governments to supplant it.

The U.S. is having better success blocking the rollout of Huawei's 5G telecommunications systems, with Australia, New Zealand, and Japan among countries going along with a ban. "All this is leading to a pretty contested environment and a growing sense of heading toward an us-vs.-them mentality," says Jonathan Pryke, director of the Pacific Islands program at the Lowy Institute in Sydney. "It's risky to go back to the Cold War mentality."

The U.S. recently moved to inject $60 billion into the Overseas Private Investment Corp. to increase funding for projects in the developing world to counter China's spending. And on Dec. 13, U.S. national security adviser John Bolton announced a new strategy for Africa to fund infrastructure projects, saying that Chinese influence has put the continent at risk. The U.S. is the largest donor to Africa, but most of its money goes toward health, agriculture, and clean-water projects. Bolton said the U.S. will try to ramp up funding for other projects. He cited Zambia as being particularly at risk.

To activists like Chifire who have suffered or fled the country, the China model appears ascendant. "What is remaining about democracy in Zambia," he says on a phone call from a location he wouldn't disclose, "is the name."

From the silk road to the stars (China Daily)

01-31-2019

With its successful landing on the far side of the moon, China has opportunity to push for collaborative efforts for the peaceful exploration of space

With its successful landing of a probe on the moon on Jan 3 - the first ever on the far side of the moon- China helped humanity take another step toward becoming a space-faring civilization.

Unfortunately, in the world we live in, this success was not only uncelebrated in the West, it was viewed by many from a confrontational perspective. US President Donald Trump has already declared that he wants to create a new Space Force by 2020. The plan is to make that space force the sixth branch of the military. Without leadership, space could become the next major conflict zone and any space activity could be seen as a provocation by competing forces.

With many global challenges, we can and should not waste resources on a military space race. Current weapons technology means the consequences of a future space war could also be fatal for humanity. At the same time, it is obvious that the resources for military expansion into space would be much better used if they were invested for peaceful purposes - as well as addressing urgent global challenges such as world poverty, growing inequity and the accelerating ecological collapse due to biodiversity loss and climate change.

With its successful moon landing, China now has the attention of the world and thereby an opportunity to help shape the direction of global space exploration. A new direction for space exploration could also help set a new standard for global collaboration. Clarifying that space exploration should be peaceful is a good first step. However, the current situation provides us with a unique opportunity and China should consider establishing a three-pronged approach to sustainable space exploration that would be integrated into an ecological civilization agenda.

First, a new set of global goals for space exploration should be presented. The International Space Station(ISS) where the United States, Russia, Japan, Europe and Canada collaborate, has demonstrated that international space collaboration is possible. A global action plan to develop the technology to prevent future asteroid impacts through the capacity to detect, track and deflect asteroids could be one of humanity's greatest collaborative achievements, and reduce one of the main long-term threats to human civilization. China could also propose a global approach to the first human settlement on Mars, and help ensure that the settlement is built on sustainable technologies. These initiatives should be science driven with total transparency and a research agenda where people all around can collaborate.

Second, the excellent work by United Nations Office for Outer Space Affairs, which demonstrates the benefits of space exploration for global sustainability, should be accelerated. China could challenge all countries and companies active in space exploration to make relevant solutions for key global challenges

available for free. An even stronger link between space exploration and global sustainability would help strengthen peaceful collaboration.

Third, it is time to integrate global infrastructure development on earth with peaceful space exploration. The establishment of the first permanent colony beyond Earth is within reach. This generation could be the first one to experience how we as Homo Sapiens became a space-faring species. A long-term plan for equitable and sustainable space exploration is an important part of such a journey.

By exploring how all major infrastructure investments on earth can help accelerate and guide space exploration in a sustainable direction, we can ensure that space becomes a shared project that is about increased benefits and knowledge for all. The development of technology on Earth and in space should support each other so that they can help us move beyond our destructive industrial civilization and focus on the transition to a global ecological civilization.

As the largest infrastructure project on the planet, the Belt and Road Initiative could lead the way by integrating not just traditional sustainability goals, but also by helping develop and deliver on sustainability goals for an emerging space civilization.

We already see leading thinkers arrange events such as UN Industrial Development Organization's "BRIDGE for Cities- Belt and Road Initiative: Developing Green Economies for Cities". During the BRIDGE event in 2018, links between the Belt and Road Initiative, space exploration and sustainability were discussed with representatives from both China and Europe. Hopefully, we will see more meetings in 2019 at which a peaceful space agenda can be discussed in the context of global sustainability goals.

It will take some time getting used to thinking of humanity as a space civilization. However, many of the children born today will be alive in 2100 and by then, we will most certainly be a space civilization. The question is: What kind of civilization will that be? Let us do what we can so that those alive in 2100 will be able to look back at 2019 as the year when, despite many conflicts and problems, the world took the first significant steps toward a space based ecological civilization.

The author is a senior adviser at the Research Institutes of Sweden. The author contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.

China-Africa friendship unbreakable, one-China principle reinforced (Xinhua)

01-07-2019

China-Africa friendship is unbreakable and the one-China principle has been consolidated and strengthened in Africa, State Councilor and Foreign Minister Wang Yi told reporters at the end of his four-nation Africa trip.

Wang's trip to Ethiopia, Burkina Faso, Gambia and Senegal on Jan 2-6 continued a 29-year tradition of making Africa the first international visit of the year by the Chinese foreign minister.

In the face of some deliberate attempts to discredit China-Africa cooperation, African governments and people have stood up to dispel the rumors and firmly adhered to a friendly policy towards China, which manifested the unbreakable friendship between the two sides, Wang said.

He added that the leaders of the four African countries appreciated China's cooperation with Africa and thanked China for its support for the development of African countries and the improvement of people's livelihood.

Speaking about rising unilateralism, Wang said African countries have great expectations for China's role in defending multilateralism. The four countries are willing to strengthen coordination with China, jointly defend their rules of multilateralism and promote the democratization of international relations, he added.

A large number of China's key projects in Africa have brought tangible benefits to local people. With the alignment of the Belt and Road Initiative with African Union's "2063 Agenda," as well as the development strategies of all countries, the Belt and Road Initiative is expected to launch cooperation with a higher quality and higher level on the African continent, Wang said.

Among the four countries that Wang visited, Burkina Faso and Gambia resumed diplomatic ties with China in 2018 and 2016, respectively.

The leaders of the two countries said the resumption of diplomatic ties with China is an independent choice and a correct decision that has been supported by the people and is in line with their national interests, Wang said.

The two countries will continue to unswervingly pursue the one-China principle, and adherence to the principle has become a political consensus that all parties have followed on the African continent, Wang added.

Wang: China welcomes France as Belt and Road partner (China Daily)

01-25-2019

China welcomes France to be an important partner of the Belt and Road international cooperation, State Councilor and Foreign Minister Wang Yi has said.

Wang made the remarks at the 18th session of the consultations of the coordinators for the China-France Strategic Dialogue with Philippe Etienne, foreign policy advisor to the president of France, in Paris on Thursday.

He told Etienne China is willing to strengthen the alignment of policies and development strategies with France, and improve cooperation in exploring the third-party market.

China is also willing to align the Belt and Road Initiative with the European Union's Euro-Asian connectivity strategy, and conduct cooperation with the EU based on the spirit of openness, inclusiveness and transparency, Wang said.

Noting this year marks the 55th anniversary of the establishment of diplomatic relations, Wang said both countries should take it as an opportunity to deepen bilateral ties.

Both sides should give full play to the China-France Strategic Dialogue, strive to promote high-level exchanges and enhance pragmatic cooperation, he noted.

Two-way trade and investment should be boosted between China and France, Wang said, adding that China welcomes France could continue to actively attend the China International Import Expo to be held in Shanghai this year, and is ready to import more quality French products in line with the market needs.

He called on the two sides to deepen cooperation in key fields such as nuclear energy, aviation and aerospace, finance, and enhance military, cultural, educational, arts and tourism exchanges.

He also stressed China's readiness to strengthen communication with France within the framework of the United Nations, G20 and the World Trade Organization to safeguard multilateralism for the development of globalization in a more balanced and inclusive way.

Etienne said France is willing to make joint efforts with China to boost bilateral comprehensive strategic partnership through the mechanism like the strategic dialogue.

He said that France supports the EU taking a full part in the international cooperation on the Belt and Road Initiative.

His country is ready to strengthen cooperation with China on the fight against unilateralism, G20 agenda, realizing the Paris agreement on climate change and others, and to join hands with China to safeguard the multilateral trading system, Etienne said.

Cold war games: U.S. is preparing to test the waters in icy Arctic (Wall Street Journal)

01-11-2019

The Navy is planning to expand its role in the Arctic as climate change opens up more ocean waterways and the U.S. vies with great-power rivals Russia and China for influence in the far north.

A Navy warship will sail through Arctic waters in coming months on what's known as a freedom of navigation operation, or FONOP, said Navy Secretary Richard Spencer in an interview with The Wall Street Journal this week. It will be the first time the Navy has conducted such an operation in the Arctic.

The Navy also is planning to station resources in Adak, Alaska, which would mark a return to the onetime World War II and Cold War base that operated from 1942 to 1997, when U.S. troops were withdrawn. The new detachment could include surface ships and P-8 Poseidon patrol and reconnaissance aircraft, he said.

"The concept is, yes, go up there," Mr. Spencer said, adding that plans for new Arctic operations are in early stages. "We're developing them as we speak," he said.

The Arctic has become a markedly more contentious military and commercial environment as the changing climate has led to greater ice melt in the summer, opening more navigable waterways and leading to greater sea traffic in once-impassable lanes.

The National Snow and Ice Data Center found that 2018 saw the third-lowest Arctic ice level since satellite data collection began in the late 1970s, part of an adverse trend the center says threatens to further accelerate global warming and negatively affect climate patterns. This could open up more trans-Arctic maritime routes, according to the Government Accountability Office, allowing exploration of untapped petroleum reserves and threatening the borders of countries once insulated by thick ice off their coasts.

The U.S. and allied militaries have used freedom of navigation operations around the world to assert the rights of ships from the U.S. and elsewhere to operate freely in waterways where there are territorial disputes, hoping to discourage or counter excessive claims. Dozens of such operations in the South China Sea have targeted excessive Chinese maritime claims around islands and outposts across the region.

The Arctic mission will be the first time the U.S. Navy will undertake a FONOP in the Arctic, according to Cmdr. Jereal Dorsey, a Navy spokesman. Mr. Spencer said that the planning hasn't yet addressed which ports would be visited or which ship will be used.

Russia has long worked to develop its Arctic capabilities because of its lengthy northern coastline and use of Arctic waters for trade and national defense, including establishment of military bases.

China, which has declared itself a near-Arctic power, issued a comprehensive Arctic policy last year that included a desire to build a "polar silk road" and to ensure its freedom to operate in the region.

Adak, which sits at the end of the Aleutian Islands near Russia, once served as a U.S. naval facility and still has a functioning airstrip used for commercial flights. The base was closed in the 1990s as part of the Base Realignment and Closure Program, better known as BRAC.

The decommissioned naval station was taken over in 2003 by the Aleut Corporation, founded in the 1970s to settle Alaska-native claims against the federal government. With only a few thousand acres of the island still under government control, the Navy is currently in talks with the corporation, Mr. Spencer said. The Aleut Corporation didn't respond to a request for comment on the matter.

"It has some amazing facilities," Mr. Spencer said. "Could we bring some surface ships there? Yes."

The Navy's planning is part of a broader move by the U.S. military to expand its influence in a region it has discounted, according to experts and military officials, and doing so is likely to pose a series of challenges.

Expanded military operations in the far north will require coordination with the Coast Guard, which handles a large portion of search-and-rescue missions and other U.S. surface capabilities in the Arctic. Mr. Spencer hasn't said whether the Navy plans to move into some of these roles, but has said the Navy will work with the Coast Guard.

The Coast Guard also operates the only U.S. icebreaker in the region, a cause of concern among some lawmakers and defense officials because Russia operates dozens of icebreakers and the Chinese are building a fleet of such vessels. The most recent U.S. defense budget includes authorization for new icebreakers, though the first one won't be ready for use for years.

Ships that regularly sail in icy waters must be ice-hardened or winterized, to withstand the pounding and stress of thick ice and cold temperatures. The Navy's current fleet hasn't been designed to operate in icy waters, the GAO said, but some experts and lawmakers have said the issue will have to be addressed.

The Navy is preparing changes to its official Arctic operations policy to include a broader focus on surface warfare, Mr. Spencer said. Existing policy focuses in large part on the Navy's submarine and air patrol capabilities—not surface navigation.

Sen. Dan Sullivan (R., Alaska) said in an interview that surface navigation was important to emphasize the U.S. role as an Arctic nation.

"I've been pressing them to do something—not just with submarines," Mr. Sullivan said. "It kind of defeats the purpose if you can't see it."

The Navy has moved to expand its footprint in the Arctic region in other ways recently. It launched what officials called the Second Fleet in August to focus on the North Atlantic and on expanding Marine Corps training for extreme cold-weather operations.

Currently, 600 Marines are training in Norway, with that country's forces, and are preparing for land warfare in Arctic conditions, part of a longstanding commitment to such operations.

The coming Arctic freedom of navigation operation and plans for expanded missions in the far north are planned, in part, to better understand how to work and operate in the extreme cold, Mr. Spencer said.
"We've got to get up there and learn," he said. "There's no other way to do it."

Researchers evaluate biological invasion risks in Belt and Road countries (Xinhua)
01-28-2019

Chinese researchers have conducted a comprehensive study evaluating the risks of biological invasions in countries participating in the Belt and Road Initiative (BRI).

Researchers from the Institute of Zoology under the Chinese Academy of Sciences analyzed the invasion risks of 816 alien terrestrial vertebrates, including 98 amphibians, 177 reptiles, 391 birds and 150 mammals in those countries.

Research results showed that 15 percent of the Belt and Road countries face extremely high risk of biological invasion. The researchers identified 14 invasion hotspots facing high invasion risks with both high introduction risk and habitat suitability overlap, a majority of which fall along the six proposed BRI Economic Corridors.

Biological invasions not only threaten native species and biodiversity, but also affect the development of the local economy. The Belt and Road countries may have different susceptibilities to invasive species due to different financial and response capacities.

There is a strong imperative to identify those areas with high invasion risks, and those species with high invasive potentials to develop biosecurity strategies.

Based on their findings, the researchers recommend the launch of a collaboration project targeting early prevention, strict surveillance, rapid response and effective control of biological invasion in the Belt and Road countries to ensure green and sustainable development.

The research was published in the journal Current Biology.

Voir l'étude publiée dans *Current Biology*

Malaysia cancelling $20 bln dlr China-backed rail project: minister (Reuters)
01-28-2019

Malaysia's economics minister said on Saturday the country will cancel the $20 billion East Coast Rail Link (ECRL) project with contractor China Communications Construction Co Ltd.

Mohamed Azmin Ali said at a media event that the cost of the project was too great, while giving an assurance that Malaysia would welcome all forms of investment from China on a case by case basis.

Myanmar official suggests downsizing or relocating dam that frayed China ties (Reuters)
01-29-2019

A top Myanmar investment official on Tuesday suggested alternatives such as downsizing or relocating a stalled Chinese-backed dam project that has strained ties between the neighbors.

Myanmar angered China in 2011 when its former quasi-civilian government suspended the $3.6 billion Myitsone hydro-power dam in the country's north amid environmental concerns.

Asked about the dam at an investment conference, Thaung Tun, chairman of Myanmar's investment commission, listed several problems, from an earthquake fault line running under the project site to a large catchment area affecting residents.

"Catchment area would be twice the size of Singapore. This would mean that a lot of villages will have been displaced from their accessible land. That is the issue," Thaung Tun told reporters at the conference in the capital Naypyitaw.

Thaung Tun listed several alternatives, including scaling back the dam, moving it to a different location, or offering the operator an alternative project. He did not say if the government had a preferred option.

Myanmar had to consider its relations with China, its largest trade partner, and "was working hard to find the solution," he said.

Spearheading these efforts is a commission launched by Aung San Suu Kyi's government, which came to power in 2016, to review the dam. Myanmar also began informal talks with Beijing and dam operator Yunnan International Power Investment, a unit of State Power Investment Corp.

China's Foreign Ministry said in a statement sent to Reuters that the dam was a "commercial cooperation project" already agreed upon by both countries and had been through a complete approval process.

"Relevant bodies and companies in China and Myanmar are in communication about this project, positively and appropriately handling problems that arise in the project's cooperation process," it said.

Finding a solution is critical for Suu Kyi, who has benefited from Beijing's support at the United Nations following a 2017 army crackdown that drove 730,000 Rohingya Muslims out of the former Burma.

Myanmar also needs Beijing's help in peace talks with several ethnic armed groups operating along northern and eastern borders with China.

Thaung Tun said original plans for the dam were not "thought out" and failed to consider the impact on the community and the environment.

The dam in the northern state of Kachin is very unpopular. Suu Kyi's ruling National League for Democracy (NLD) lost a seat in Kachin by-elections last year and party officials have voiced concern about their popularity in ethnic minority areas ahead of the 2020 general election.

China's Yunnan province, the planned destination for about 90 percent of the dam's electricity, now has a power surplus, Thaung Tun said.

"There's no need for this dam now," he said.

On Monday, Nobel laureate Suu Kyi opened the first government-led investment conference by calling on global investors to put their money in Myanmar, seeking to offset the negative impact of the Rohingya crisis and slow pace of economic reforms.

Autres

China state planner approved 189 fixed asset investment projects in 2018 (Reuters)
01-22-2019

China approved 189 fixed asset investment projects last year, including projects in the high-tech, energy, transportation and water conservation sectors, the state planner said on Tuesday.

China added 4,100 km (2,550 miles) of high-speed railway track and six civilian transport airports in 2018, Meng Wei, spokeswoman at the National Development and Reform Commission (NDRC), told reporters.

Meng also said China had completed its targeted overcapacity cuts for coal and steel under the government's current five-year development plan, which ends in 2020.

Chinese polar research ship Snow Dragon hits iceberg in Antarctica (South China Morning Post)
01-22-2019

The collision happened at around 11am Beijing time on Saturday in foggy conditions in western Antarctica's Amundsen Sea, state broadcaster CCTV reported on Tuesday.

The Xue Long, or Snow Dragon, icebreaking research ship was on its 35th Antarctic expedition when the collision took place. It had been travelling at 3 knots, or about 5.5km/h, at the time.

The force of the collision broke the ship's mast and left about 250 tonnes of snow and ice piled up on its prow and front deck.

Photos also showed that blocks of ice had fallen into what appeared to be the ship's front navigation control room.

China's Ministry of Natural Resources said no members of the crew were injured, but the sides of the ship had been damaged. The ship's engines, water tanks, navigation and communications equipment were still operating as normal, it said.

The ministry said it immediately dispatched responders to repair damage to the ship and monitor the safety of the crew on board.

At present, the Xue Long is the only Chinese icebreaker in service, with the Xue Long 2 expected to enter service in 2019.

The vessel was built in 1993 in Ukraine, and was upgraded in 2007 and 2013 to extend its service. It has been used to maintain China's scientific presence in the Antarctic.

The Amundsen Sea has experienced large-scale loss of ice in recent decades, which is believed to be a result of climate change.

China, Finland to boost cooperation in services, climate change, Li says (China Daily)
01-15-2019

China would like to work closer with Finland in trade, services, technological exchanges, climate change, green development and clean energy, Premier Li Keqiang told visiting Finnish President Sauli Niinisto on Tuesday.

Li said there is great potential for both countries to cooperate in economic and technological scenarios. China, with a huge market, can provide opportunities for Finland's technological innovation and will better protect intellectual property rights, which is in line with China's own transformation of its development model and also beneficial to learning advanced technologies and concepts, he said.

Premier Li said China firmly supports European integration and considers the EU a vital contributor to world stability and free trade. He said he is looking forward to the new round of China-EU leaders' meeting.

Finland is to chair the European Union in the second half of this year and is expected to contribute to closer China-EU relations and the solidarity and prosperity of the regional bloc.

Niinisto, who is on a state visit to Beijing, said he is glad to see the new achievements China has made during every one of his visits to the Asian country. China is becoming a stabilizer for the world and Finland attaches great importance to bilateral relations, he said.

The Northern European country is willing to strengthen exchanges among enterprises from both countries, especially small and medium-sized ones, technological innovation, and clean energy while safeguarding the multilateral trading system, he added.

UNEP hopes to work with China on communication strategies (China Daily)
01-14-2019

The UN Environment Programme (UNEP) is looking forward to more cooperation with China on initiatives that focus on helping people develop greener lifestyles, Naysan Sahba, director of UNEP's Division of Communications and Public Information, said in Beijing.

Sahba said China's war against pollution was remarkable.

"I think that last year, a cessation of imports of certain waste was an important step and showed how the country is going to manage its base resources," he said. "Also, China is very clearly now a leader in climate action and is a key player in multilateral processes on the global stage. All that can be translated into very strong global leadership."

Sahba said he hoped UNEP and China can cooperate more in developing the country's communication strategies, such as on the illegal trade in wildlife, including advocacy, social mobilization, and behavioral changes at the subnational level. UNEP is now developing a guideline and tool kits to support training.

"You cannot transform someone's mindset about how they live with just a 30-second TV show or a tweet," he said. "You actually need a dedicated behavior change program that isn't just committed to raising awareness, but is actually transforming the knowledge base of citizens."

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