For the
UN Secretary General
Climate Action Summit
New York, 23 September 2019

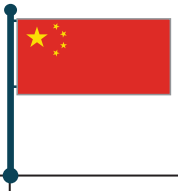
THE AMBITION CALL

The Ambition Call provides country recommendations for immediate climate action in response to the UN Secretary-General's request for countries to:

- present concrete, realistic plans that are compatible with the latest IPCC Special Report on global warming of 1.5°C
- enhance their NDCs by 2020 and
- reduce GHG emissions by 45% over the next decade, and to net zero by 2050.[1]

The 2019 Summit in Osaka saw the G20 countries (with the exception of the USA) reaffirming their commitments to fully implement the Paris Agreement.[2] Many have already announced their willingness to increase their mitigation targets, aiming for net-zero emissions by 2050.

CHINA



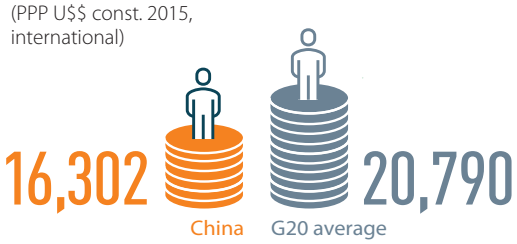
GREENHOUSE GAS (GHG) EMISSIONS (INCL. FORESTRY) PER CAPITA

(tCO_2e/capita)

Data from 2015 | Source: PRIMAP 2018

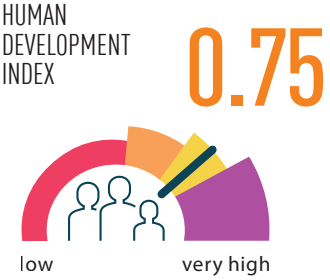
GDP PER CAPITA

(PPP U$$ const. 2015, international)



Source: World Bank 2017

HUMAN DEVELOPMENT INDEX



Data from 2017 | Source: UNDP 2018

RECOMMENDED ACTIONS

#1

Restrict investment in new coal.

#2

Increase electrical carbon efficiency.

#3

Enhance the NDC by bringing forward the date for China to peak $C0_2$ emissions.

Climate Transparency

Climate Transparency is a global partnership with a shared mission to stimulate a 'race to the top' in G20 climate action and to shift investments towards zero carbon technologies through enhanced transparency. Climate Transparency is made possible through support from the Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU), through the International Climate Initiative, ClimateWorks Foundation and the World Bank Group.

https://www.climate-transparency.org/

Energy Research Institute, National Development and Reform Commission was established in 1982 as part of Chinese Academy of Science. It is now under administration of the National Development and Reform Commission (NDRC) conducting policy assessments for the Chinese government. The research teams in ERI provide technical support to the national policy making process on climate change and energy by drafting policies and action plans. ERI supported the development of the 1st and 2nd National Communication of China, China's National Program on Climate Change, China's commitment for Copenhagen and Paris (COPs), national climate change strategies and National Emission Trading Regime design as well as the assessment of a carbon tax for China

http://www.eri.org.cn/

All endnotes see full version: https://www.climate-transparency.org/call-for-more-ambition-ahead-of-the-un-climate-action-summit

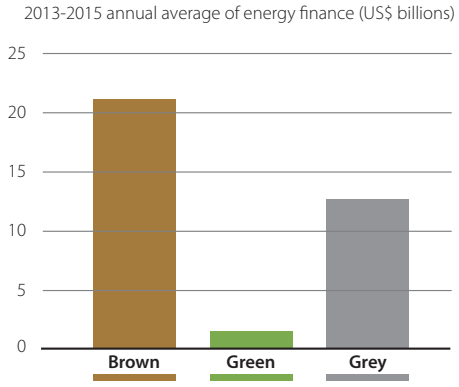
August 2019

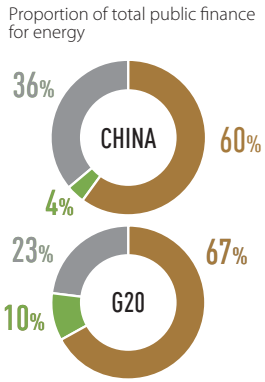
Restrict investment in new coal

#1

China has steadily ramped up its construction of new coal-fired power plants since 2017, with 199 GW of new coal capacity currently under construction. The government lifted a two-year ban on new coal capacity additions after a boom in industrial energy demand.[3] China's Electricity Council has recently proposed a cap on coal capacity at 1300 GW in 2030, which would allow for additional construction not yet planned. In addition to domestic coal, China is currently financing 102 GW of new coal capacity in foreign countries, making up 26% of the global total.[4] These are stark developments considering the IPCC Special Report on global warming of 1.5°C, which requires a global phasing out of coal-sourced electricity generation by 2050 at the latest and the cessation of new coal-fired power plant construction as of now.[5,6]

NATIONAL AND INTERNATIONAL PUBLIC FINANCE FOR THE ENERGY SECTOR





brown Coal, oil, gas, and fossil fuel-based power projects

grey Large-scale hydropower, biofuels, biomass, nuclear, incineration, transmission, distribution, storage, energy efficiency, other general electricity support

green Renewable energy projects (excluding grey financing)

Source: Oil Change International 2017

What does this mean?

Halting domestic coal production would bring important economy-wide benefits for China by reducing ambient air pollution, which reportedly causes 1.1 million premature deaths in the country annually, while increasing healthcare costs and slowing the economy due to lost working days.[7] The long lifetimes of coal-fired power plants mean building new ones brings a high risk of stranded assets, as electricity generation from renewables is forecast to be cheaper than coal by 2025.[8] If China successfully implements its national climate pledges, the discounted stranded asset value from underused coal capacity could be around $90 billion USD$_{2015}$ by 2030.[9] Finally, completely ceasing production of new coal could reduce more than 2.2 $GtCO_2$ annually.[10]

Additional development benefits

SDG 3

Renewables reduce air pollution when displacing polluting energy sources, such as coal.

SDG 8

Development of industry related to renewable energy and its supply chain supports full employment through creation of safe and decent jobs.

SDG 9

Development and integration of new clean technologies supports sustainable industrialisation and infrastructure upgrading.

SDG 11

When displacing coal fired power plants, renewables contribute to reducing the environmental impact of cities by reducing the amount of GHG and air pollutants from power generation.

SDG 15

Renewables contribute to conservation of natural habitats through reduced air and water pollution and decreasing water consumption, especially when displacing more polluting or intensive alternatives, such as coal.

Good practice in other countries

By 2024, **Chile** will close eight of its oldest coal-fired power plants – equivalent to 20% of its current coal electricity capacity (currently 40% coal share in their electricity mix). Chile will phase out its remaining 20 coal plants by 2040.

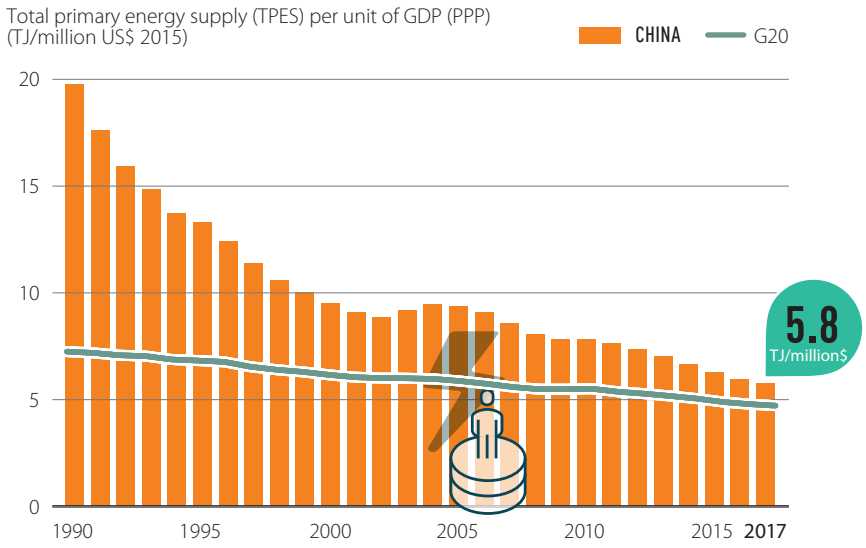
Indian's National Solar Mission includes a target of 100 GW capacity addition by 2022. The programme has significantly reduced spending on coal, with investments on solar energy exceeding those on coal for the first time, in 2018.

Increase electrical carbon efficiency

#2

In 2018, China's electricity demand reached 6,840 TWh, marking the second continuous year of growth and the country's highest peak since 2012. This trend is largely due to a boom in activity in the industrial sector, which alone accounts for almost 70% of electricity demand.[11] Along with the replacement of coal by electricity for space heating in rural North China and electrification of transport, increased electricity demand will be a long-term trend. This growth is primarily fuelled by coal, which drove a 2.3% increase in national CO_2 emissions in 2018.[12] While China has already fulfilled their carbon intensity targets for 2020 and is set to meet the 2030 target of 60-65% below 2005 levels, this level of ambition is not a Paris-compatible pathway.[13,14] While policies have already addressed energy efficiency, further measures needed to lower China's energy intensity, which was still above the world average as of 2017.[15] To keep global warming in line with a 1.5 °C degree scenario, countries need to reduce demand, electrify the economy and decarbonise the electricity sector by 2050.[16]

ENERGY INTENSITY OF THE ECONOMY



Source: Enerdata 2018

What does this mean?

Implementing more stringent energy efficiency policies is attractive for China, as this could tackle energy security, energy poverty and air pollution levels, while reducing CO2 emissions without jeopardizing economic growth in the country.[17] High priorities for energy conservation in China include switching from coal and gas to renewable energy sources in emission-intensive sectors (industry, buildings and transport), replacing coal with electricity-based processes in industry sub-sectors, continuing large-scale deployment of electricity generation from renewable sources, and restricting ongoing and planned investments in energy-intensive infrastructure.

Additional development benefits

SDG 3

Higher efficiency can reduce air pollution and related non-communicable diseases. This benefit occurs when efficiency is applied to polluting energy sources, such as fossil fuels and bioenergy.

SDG 7

Increasing energy efficiency and reducing energy losses addresses energy demand, which can help increase energy security by cutting energy imports in countries that rely on trade for energy supply.

SDG 8

Improvements in efficiency increase productivity (higher economic output per unit of energy). Increased energy efficiency supports more efficient use of resources and reduces environmental harm from energy use.

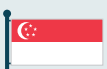
SDG 9

Energy efficiency supports sustainable industrialisation through more resource-efficient power supply. This helps upgrade infrastructure and increase the sustainability and resource-efficiency of industries, helping them adopt cleaner technologies.

SDG 11

Increasing energy efficiency and reducing energy losses contributes to reducing the environmental impact of cities, as less fuel is needed for the same amount of power generated (e.g. reduced air pollution).

Good practice in other countries



In 2010, **Singapore** implemented an 'Intelligent Energy System' to enhance the efficiency and resilience of the country's power system. This helped reduce the average interruption time to less than one minute per customer per year.

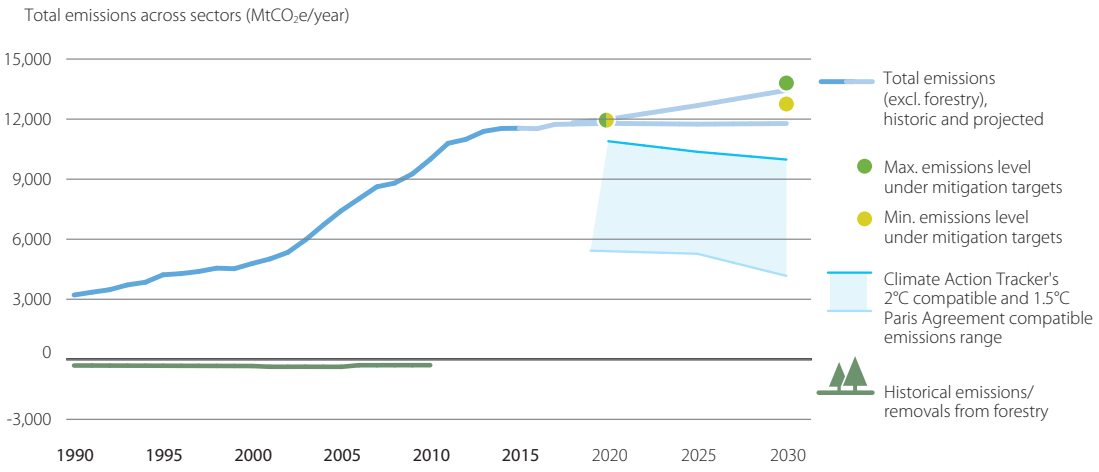
To meet growing electricity demand while meeting its emissions reduction target, **South Korea** aims to implement a nationwide smart grid network by 2030. Reported transmission and distribution losses are among the lowest in Asia (around 3.5% in 2012).

Enhance the NDC by bringing forward the date for China to peak $C0_2$ emissions

#3

China's current unconditional NDC commitment pledges a peaking of CO_2 emissions by 2030 at the latest, which, provided others do the same, would lead to a warming of between 3°C and 4°C, exceeding the 1.5°C limit.[18,19] China could achieve this target even earlier.[20] Ahead of the Paris Agreement in 2015, the National Resources Defense Council admitted that China's emissions peaking close to 2020 would aid global aspirations for peaking earlier as well.[21] As the world's largest GHG emitter and developing country, still in the process of industrialising and urbanising, China needs to peak their CO_2 emissions well before 2030 to improve its chances of aligning to a Paris-compatible scenario.[22]

COMPATIBILITY OF CLIMATE TARGETS WITH THE PARIS AGREEMENT



Source: CAT 2018

What does this mean?

With the reformation and additional implementation of new policies, China could peak their $C0_2$ emissions by as early as 2023.[23] These policies could include a carbon tax on non-covered sectors in the new emissions trading scheme, entrepreneurial incentives for low-carbon firms, and emissions intensity reform of the industry, transport, and building sectors. Implementing more ambitious policies to peak emissions between 2020-2025 could reduce China's GDP carbon intensity by 71% from 2005 levels by 2030 and reduce coal consumption to 9.9 billion tonnes by 2030.[24]

Additional development benefits

SDG 3
Substantially cutting emissions when moving to a low-carbon economy will reduce air pollution due to reduced fuel use as well as tackle associated diseases like respiratory problems.

SDG 8
Development of a new low-carbon industry will support employment opportunities through the creation of safe and decent jobs.

SDG 9
Development and integration of new clean technologies will support sustainable industrialisation and infrastructure upgrading.

SDG 11
Switching to a low-carbon economy will contribute to reducing the environmental impact of cities by reducing the amount of GHG and air pollutants from these areas.

SDG 12
Switching to a low-carbon economy requires sustainable management and efficient use of natural resources.

Good practice in other countries

In the framework of the Paris Agreement, **Japan** committed to reduce GHG emissions by 26% below 2013 levels by 2030, which will require national emissions to peak by 2020.

South Africa's NDC aims for emissions to plateau between 2025 and 2035, followed by a decline. Due to the steady decrease in costs for wind and solar, most recent scenarios indicate an earlier peak is possible.[25]

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