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Can We Deliver the 2°C Target?

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The Royal Society, London, 16 January 2019

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The question

- Can the goal set out in the Paris Agreement on the response to climate change be delivered?
- The goals: to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels

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My answer

- It is quite unlikely to deliver the 2°C target set out in the Paris Agreement

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Arguments

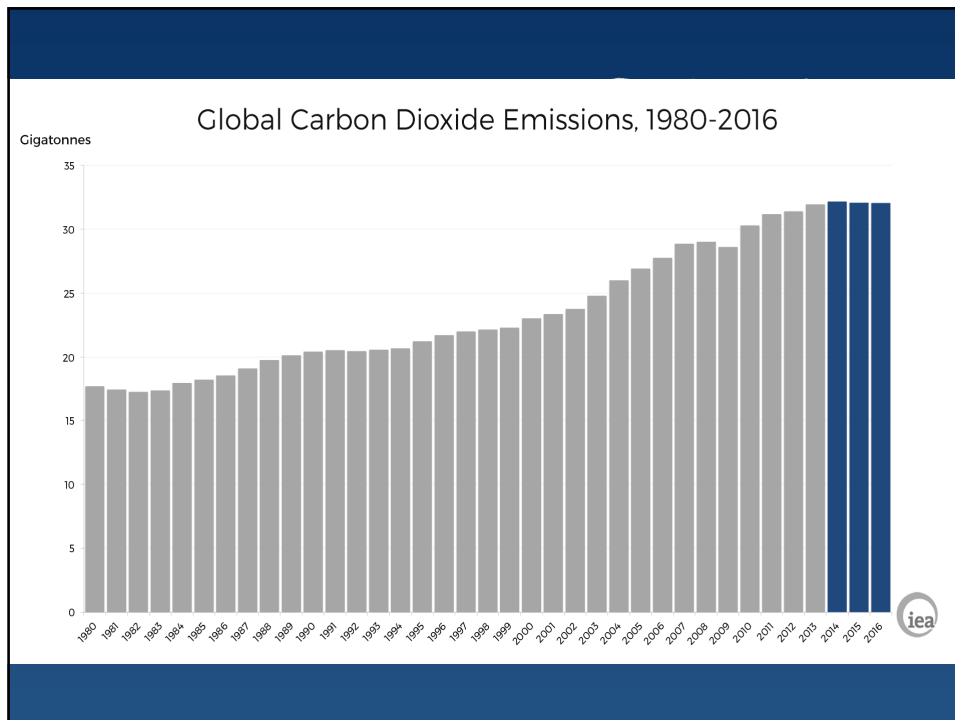
- NDC: Never aimed at target
- Implementation: Inadequate
- Conditions: Unavailable
- Governance: Need for reform

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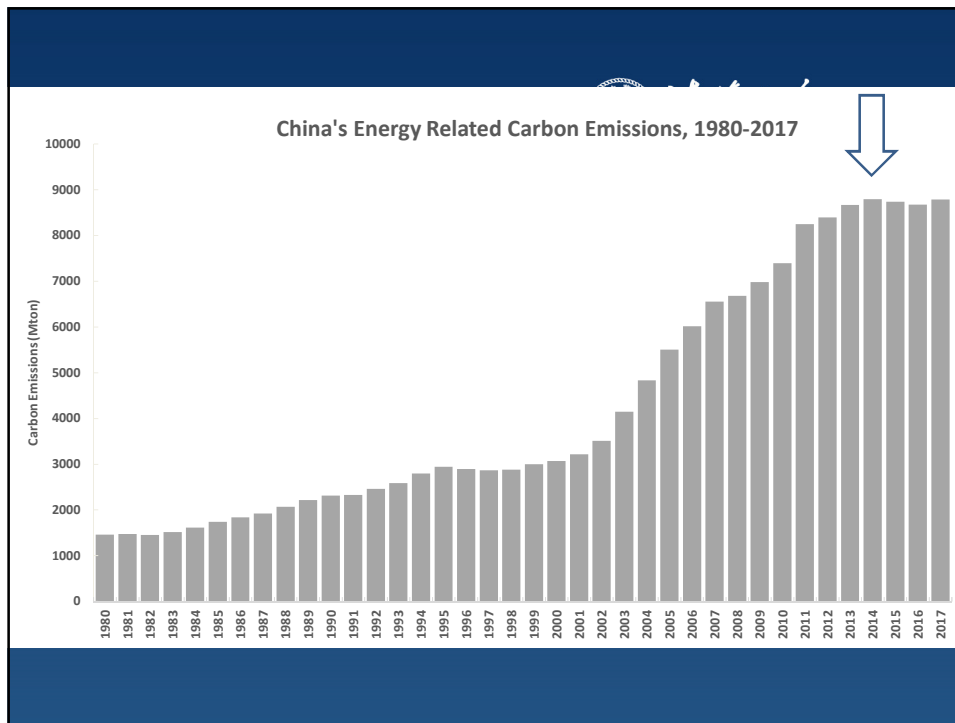
What is needed for 2°C

- For limiting global warming to below 2°C, the global emissions need
 - to peak by 2020
 - to decline by about 25% by 2030 and reach net zero around 2070

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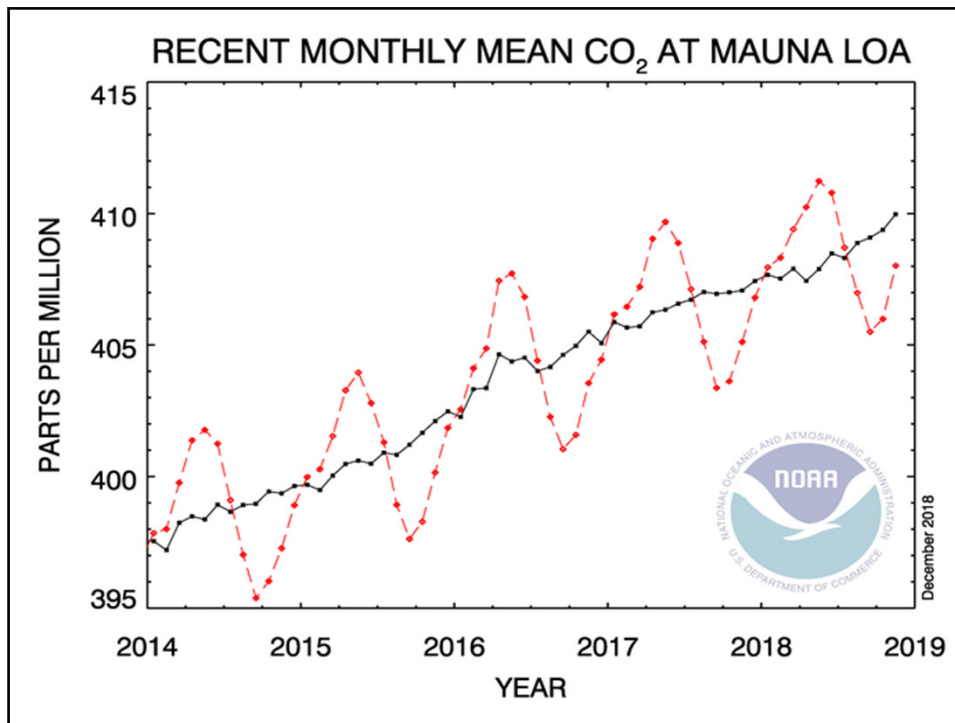


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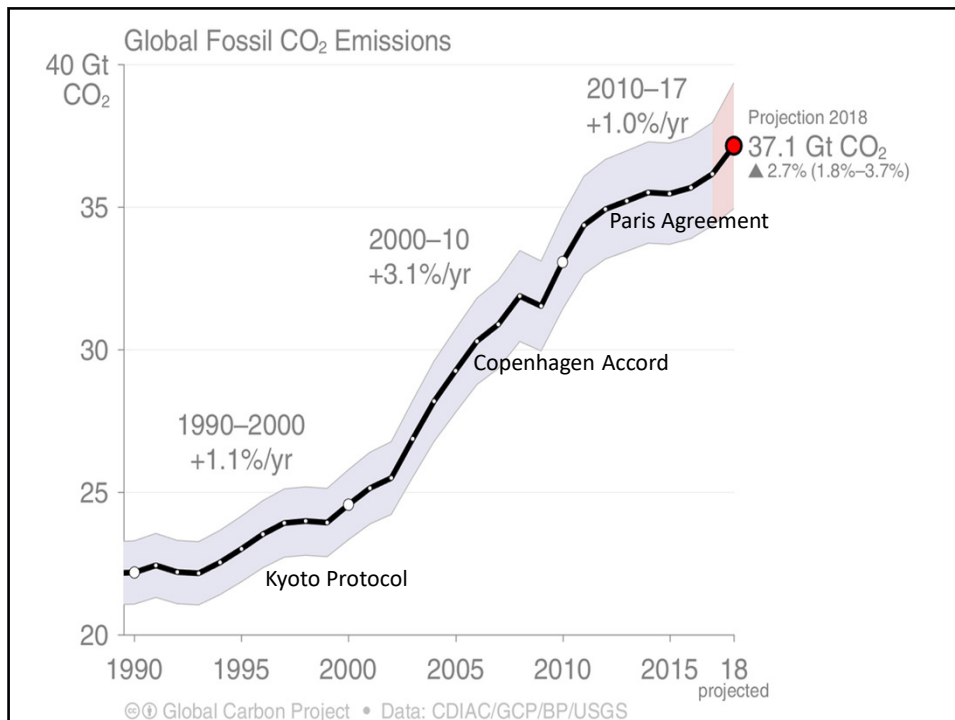
Where are we?

- The past five years has been the warmest since 1880
- Atmospheric CO₂ is at record high and growing at an alarming rate
- GHG increased 2.7% in 2018 after resumption of growth in 2017.

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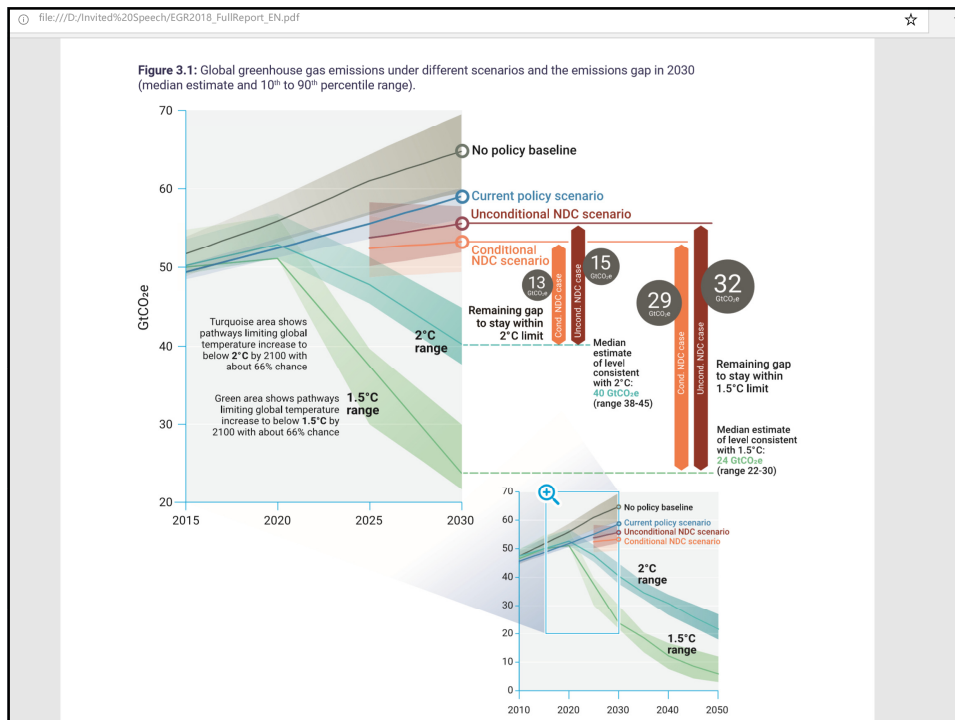


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Emissions Gap 2018

- Emissions will not peak by 2030 even if countries fully implement their climate commitments.

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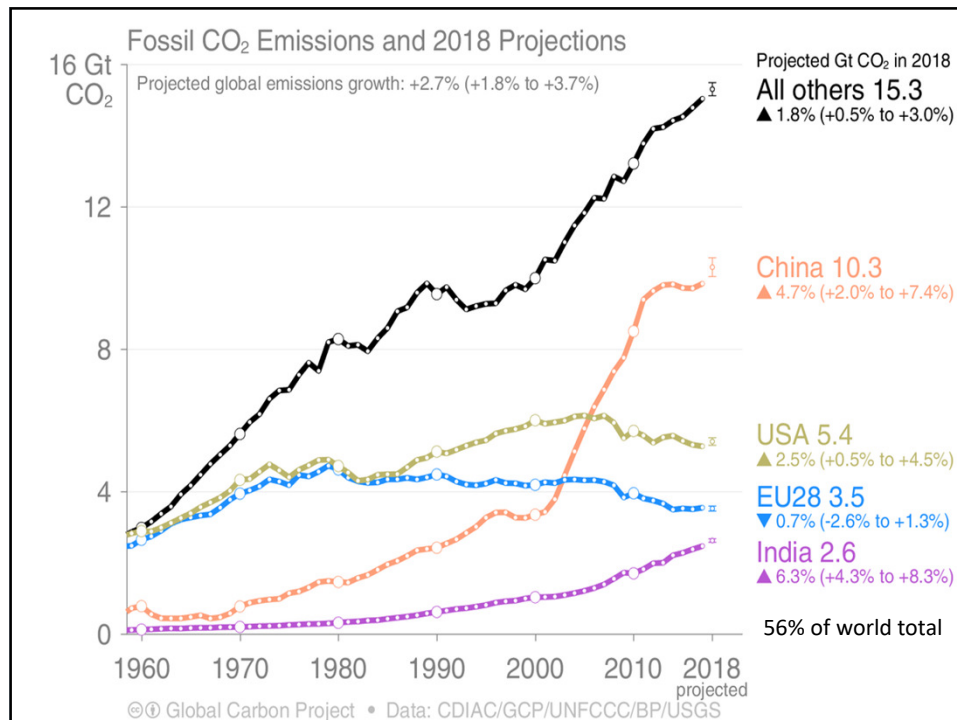


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Inadequate NDC's

- Unconditional NDC would result in 3.2C
- Conditional NDC 3C

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Global emissions are back growing

- After 2014-2016 slowdown, 2017 grew 1.6%, and 2018 2.7%
 - * China, up 4.7%
 - * India, up 6.3%
 - * Others (largely developing), up 1.8%
- Countries that need faster reductions:
- * USA, up 2.5%
 - * EU, down 0.7%
- Australia increased for the last four years

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Emissions Gap 2018

- The emissions gap is larger than previously estimated. This gap has grown compared to 2017 reports.
- G20 countries (78% of world emissions) are not yet on track to meet their climate commitments under the Paris Agreement

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Only 6 of the World's 20 Largest Economies Are On Track to Achieve Their Paris Climate Commitments
EXPLAINING THE UNEP GAP REPORT

	PER CAPITA GHG EMISSIONS IN 2030 COMPARED TO 2015	ON TRACK TO MEET COMMITMENT?
Argentina	-6%	Not on track
Australia	-29%	Not on track
Brasil	-22%	On track
Canada	-33%	Not on track
China	+17%	On track
European Union	-23%	Not on track
India	+67%	On track*
Indonesia	+15%	Uncertain
Japan	-13%	On track
Mexico	-2%	Uncertain
Republic of Korea	-21%	Not on track
Russia	+33%	On track*
Saudi Arabia	+19%	Not on track
South Africa	0%	Not on track
Turkey	+102%	On track*
United States (2025)	-25%	Not on track

Source: UN Environment Emissions Gap Report, 2018.
Note: Per capita emissions and commitments implied by unconditional NDCs.
*current policy trajectory more than 10% lower, indicating weak NDC

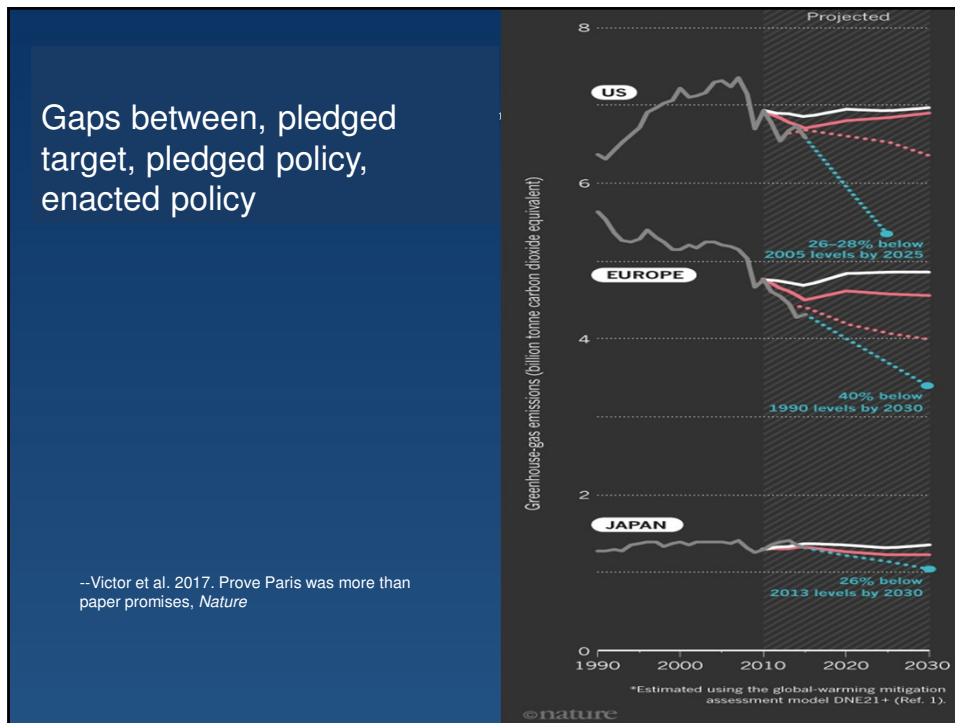
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No major advanced industrialized country is on track to meet its pledges

- Wishful thinking and bravado are eclipsing reality.
- Countries in the European Union are struggling to increase energy efficiency and renewable power to the levels that they claimed they would.
- Japan promised cuts in emissions to match those of its peers, but meeting the goals will cost more than the country is willing to pay.
- Even without Trump's attempts to roll back federal climate policy, the United States is shifting its economy to clean energy too slowly

Victor et al. 2017. *Nature*

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US

- Withdraw from the Paris Agreement
- Trump administration is removing 78 environmental protection rules
- EPA will loosen emissions standard for coal plants
- Climate change issue is becoming more politicalized and polarized.

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US

- Under Trump, the gap between what was promised and what will be achieved has widened as the federal government seeks to revoke the US Environmental Protection Agency's Clean Power Plan, to roll back limits on the emission of the potent greenhouse gas methane and to reverse energy-efficiency policies. Many companies, cities and states in the United States have vowed to keep cutting emissions but, for now, most of those are still just claims.

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Japan

The costs of meeting Japan's pledge are high, and they are poised to increase to levels that are unsustainable politically for industries that must be competitive worldwide. Programmes aimed at moving quickly to the most efficient equipment in the steel industry, for example, will force retirement of capital stock much faster than makes sense for the market.

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China's Carbon Market

- High expectation in 2015
- Limited sector and scale
- Low carbon price is low

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China

- Economic pressure and climate commitment. Loosen air pollution control target, return of haze weather in Beijing, increase in ozone pollution. Target change: PM2.5 reduction by 3%, comparing to 15% previous year
- Coal consumption rebound for the third year
- US-China relation and the divided view of climate community in China
- Suborned solar policy. NDRC and MoF terminate any approvals for new subsidized utility-scale PV power stations in 2018
- Jan 7, 2019, NDRC issues policy push wind and solar subsidy free by the end of 2020

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Brazil

- Withdrawal for hosing 25th COP
- President Jair Bolsonaro threatened to withdraw from the Paris Agreement, and promised to remove some protections for the Amazon rainforest

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Clean energy investment

- 2018 Q1-Q3: Total investment \$211.4billion, 2% below that of the first 9 months of 2017
- **Global economy:**
- World Bank and IMF cut global economic forecast from **3.9% to 3.7%** for 2018 and 2019.

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Fiscal policy faces political resistance

- Fiscal policy reform can play a key role in creating strong incentives for low-carbon investments and reducing GHG emissions. Revenues from carbon pricing can be used for reducing other taxes, increase spending on social issues or compensating low-income households. Well-designed fiscal reform packages can reduce the costs of mitigating emissions, thereby making these fiscal reforms more socially acceptable.
- Yellow Vest Movement
- Other countries

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The Paris logic is not working

- The Paris agreement gives countries the flexibility to set their own commitments. The idea is that as each country implements its own pledge, others can learn what is feasible, and that collaborative global climate protection will emerge. That logic, however, threatens to unravel because national governments are making promises that they are unable to honour.
- Ambition is no substitute for action.

Victor et al. 2017. *Nature*

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The political logic

Climate change is an issue of huge public interest, especially in countries in which governments feel they must be seen to lead on global solutions. It is easy for politicians to make promises to impatient voters and opposition parties. But it is hard to impose high costs on powerful, well-organized groups. No system for international governance can erase these basic political facts. Yet the Paris agreement has unwittingly fanned the flames by letting governments set such vague and unaccountable pledges.

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Seeking truth from fact 实事求是

- The pledges of NDC's are voluntary
- They is not legally binding
- Implementation faces multiple challenges
- The UN-lead climate process is not working as well as we would like to believe

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European Commission > Energy, Climate change, Environment > Climate Action > EU Action > International action on climate change >

Climate negotiations >

Climate Action

Home About us > Climate change > EU Action > Citizens > News & Your Voice > Contracts & Grants >

Climate strategies & targets > Paris Agreement

Emissions Trading System (EU ETS) >

Effort Sharing: Member States' targets >

Low Carbon Technologies >

Transport >

Protection of the ozone layer >

Fluorinated Greenhouse Gases >

Forests and Agriculture >

Adaptation to climate change >

EU budget & LIFE >

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Climate negotiations >

Paris Agreement

Road to Paris

Non-state initiatives

Bilateral cooperation >

Policy Documentation

Flash

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[Download the plugins](#)

The Paris Agreement: the world unites to fight climate change

At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal.

The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C.

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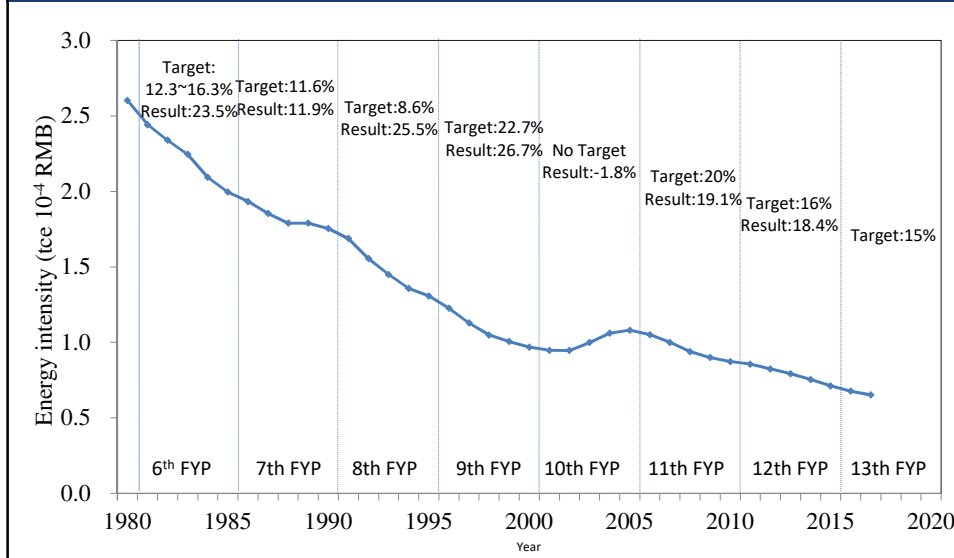
What work well

- Domestic policies and actions
- Technological innovations and deployment
- Investment in technology
- Consensus about climate change science
- Decoupling the economy from fossil fuel
- Young generation mobilization

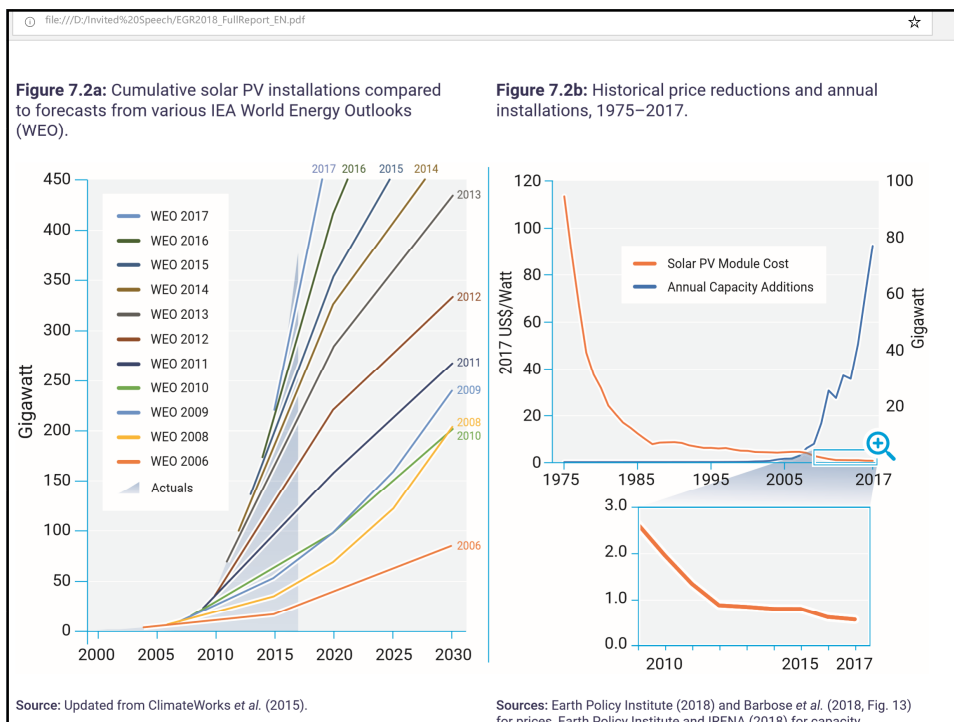
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3. Energy intensity at all time low

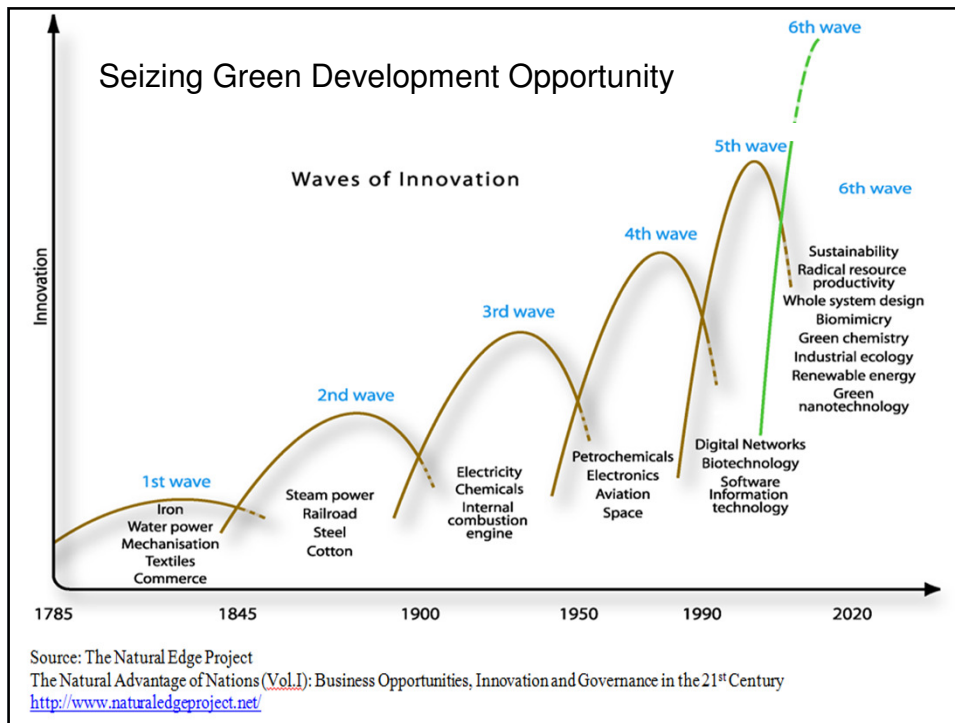
Long-term trend of energy intensity, showing energy-saving targets and results for each Five-Year Plan (FYP) period (Adapted from Qj, King et. al 2013. *Nature Geoscience*)



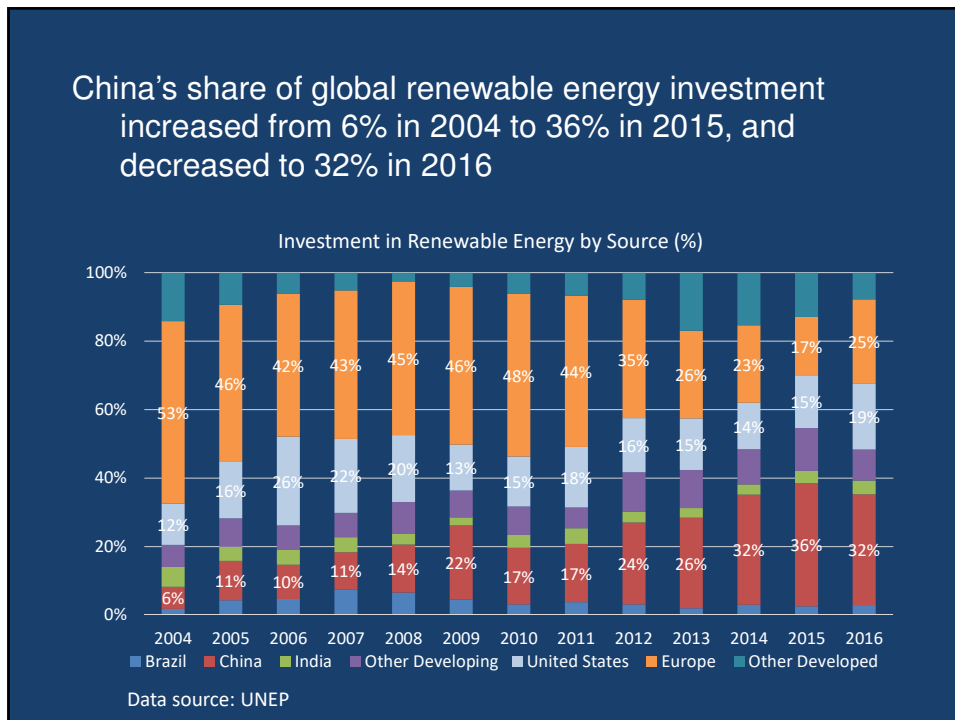
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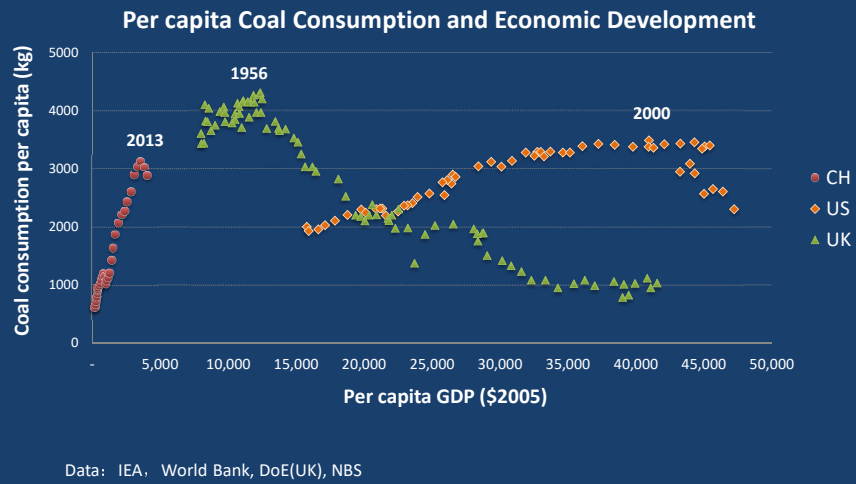


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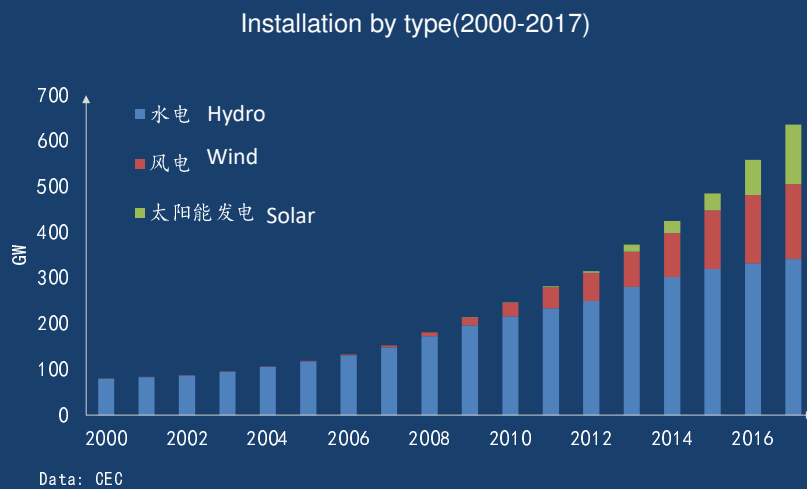
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Total and per capita coal consumption peaks as the economy grows

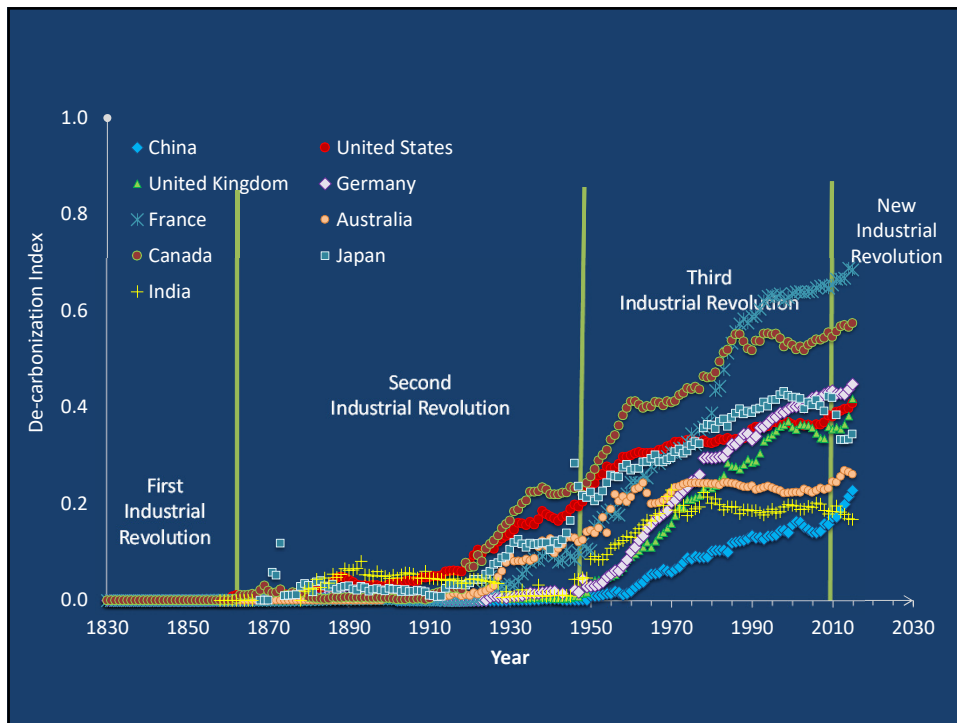


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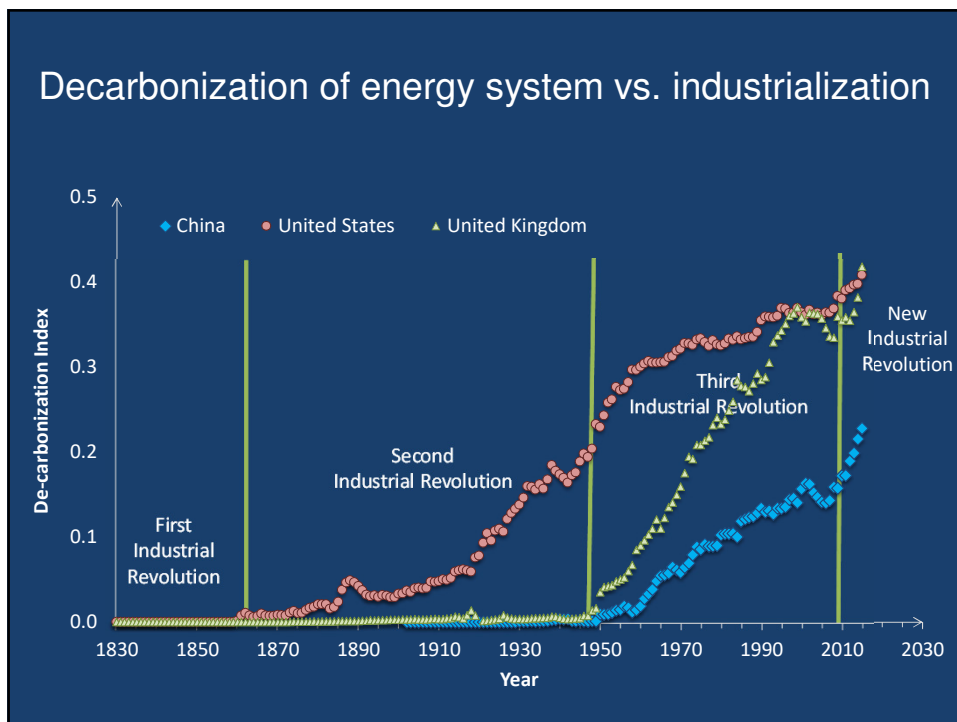
Driver for the decarbonization: accelerated substitution of coal by renewable sources



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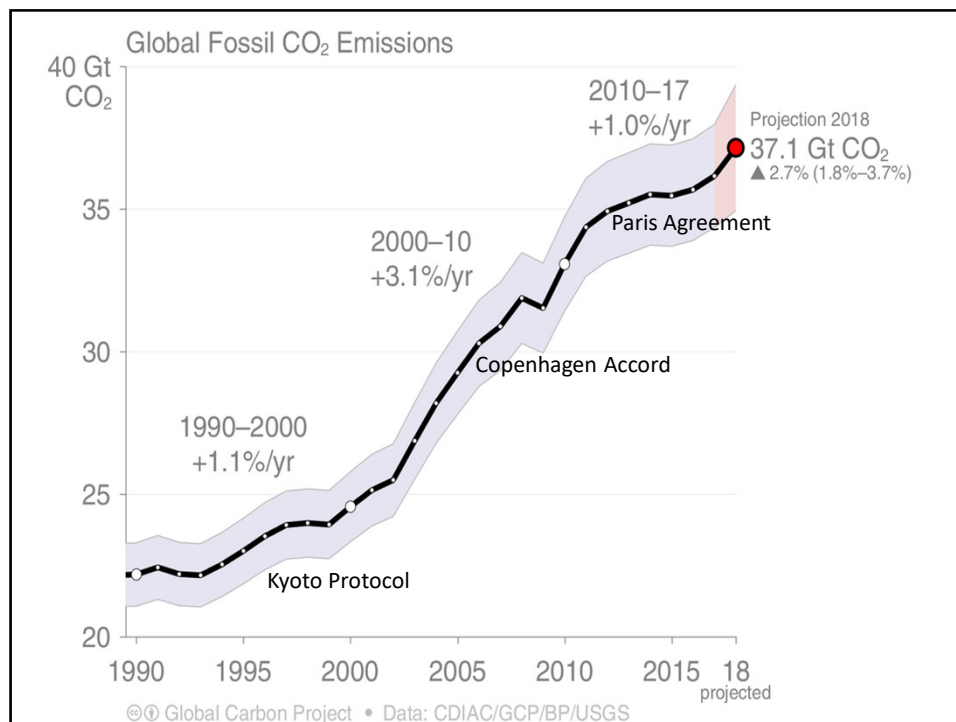


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What do not work so well

- Targets are not met
- Finance is not available
- Tech transfer did not occur as a result of the UNFCCC process
- Emissions did not respond to the UNFCCC process
- Carbon market does not meet expectations

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Reform climate governance

- Rethink the stakeholders
- Redesign the approach
- Redefine the roles of UN and governments
- Retune the models
- Reinforce the technological change
- Rebalance the economy
- Reshape our culture
- Rebuild our civilization
- Reassure our common future

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Thank for your attention!

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