Climate policy highlights: China's 13th Five-Year Plan and other recent developments

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What is this seminar about?

- Updates on recent climate and energy policies development helpful to research and analysis activities
- Regular monitoring & analysis carried out by ICCG's CPO observatory: climateobserver.org

  In this seminar:
  - China: 13th Five-Year Plan & related policies
  - EU: 2030 targets & ETS reform
  - Cooperation U.S. – Canada
  - Green Climate Fund projects

CLIMATE POLICY OBSERVER
monitoring climate policies

China’s 13th Five-Year Plan

中华人民共和国国民经济和社会发展第十三个五年规划纲要

- Adopted on March 16, 2016 at annual session of the National People’s Congress in Beijing
- policy framework for 2016-2020 period
- average annual GDP growth rate of 6.5-7%, measures to address poverty, urbanization, aging population, etc.

China's 13th Five-Year Plan Climate & Energy targets by 2020

- reduction of **energy intensity** by 15 percent compared with 2015 levels
- reduction of **carbon intensity** by 18 percent compared with 2015
- **energy consumption cap** of 5 billion tons of standard coal equivalent
- 15 percent **share of non-fossil energy** in primary energy consumption

13th vs 12th Five-Year Plan Climate & Energy targets

Previous targets (12th FYP) met and surpassed, new targets estimated to be manageable.

	12th FYP target (compared to 2010)	**12th FYP achievement (comp. to 2010)**	**13th FYP target (compared to 2015)**
Energy intensity	-16%	-18.2%	-15%
Carbon intensity	-17%	-20%	-18%
Non-fossil fuel percentage	11.4%	12%	15%

Energy consumption cap included in 13th FYP for the first time. 4.3 billion tons coal equivalent used in 2015.

China's 13th Five-Year Plan
Air, water & soil pollution

- ≥ 80% days with "good" or "excellent" **air quality in cities**
- limiting emissions of **PM2.5** down to 25% of total output
- -15% reduction targets for **sulfur dioxide** and **nitrogen oxides** (SO2 and NOx)
- -10% reduction target for **Volatile Organic Compounds** (VOCs)

- Targets to reduce **water consumption** and **pollutants concentration** (chemical oxygen demand -COD, ammonia nitrogen)

- **Soil pollution action plan** to reduce contaminants, including planning of nationwide pollution census after the first in 2007

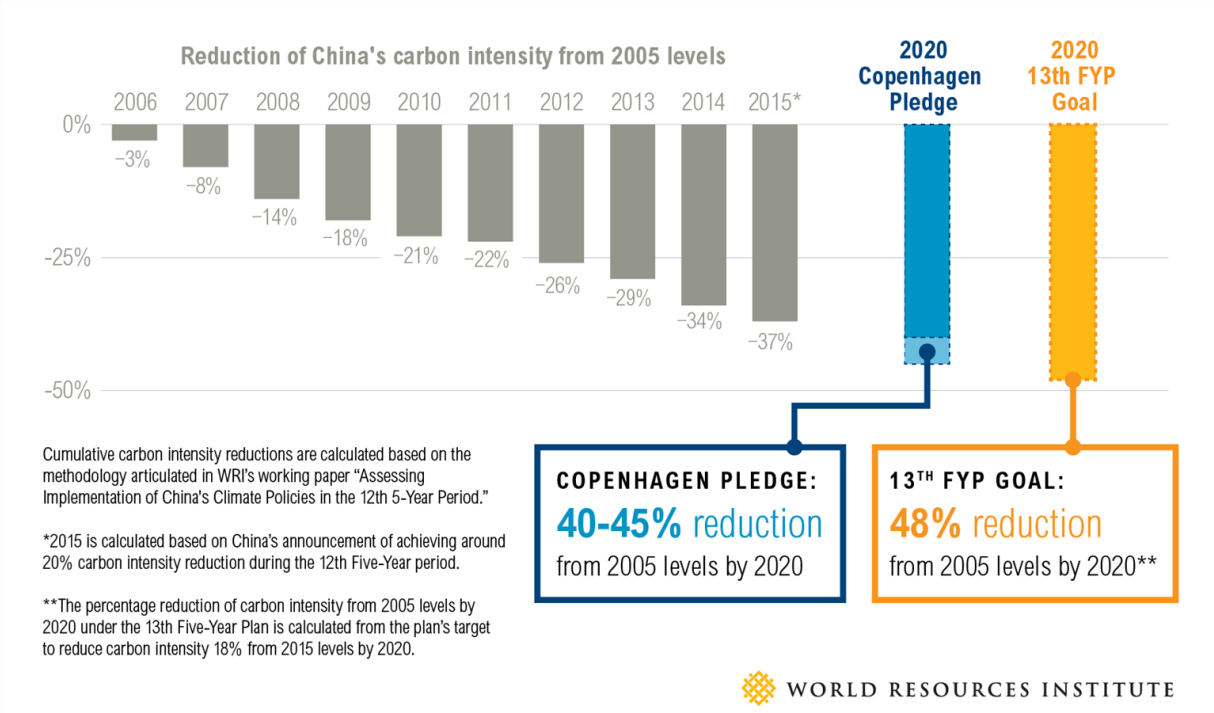
13th FYP coherent with China's current climate & energy pledges

- Intended Nationally Determined Contribution (INDC) submitted to UNFCCC in June 2015
- U.S.-China Joint Presidential Statement on Climate Change (September 2015)
- U.S.-China Joint Announcement on Climate Change (November 2014)
- Copenhagen pledge (November 2009)

China's 13th Five-Year Plan 2020 carbon intensity target

Copenhagen pledge	13th Five-Year Plan
-40-45% compared with 2005	- 18 % compared with 2015

With new FYP, China estimated to reach a 48 % reduction in carbon intensity levels by 2020 compared to 2005 levels, exceeding the Copenhagen pledge. Climate envoy Xie Zhenhua recently said carbon intensity could be reduced by 50% by the end of the decade



China's INDC – 2030 Targets

- **peaking** CO2 emissions before 2030 (= U.S.-China announcement 2014)
- reducing **carbon intensity** by 60 - 65% by 2030 compared to 2005 levels
- 20% **share non-fossil fuel sources** in the primary energy mix
- expanding **forest stock volume** by 4.5 billion cubic meters over 2005 levels
- targeting non-CO2 GHG emissions

U.S.-China Joint Presidential Statement on Climate Change (Sept. 2015)

- Carbon intensity & forest stock targets for 2030 as in INDC;
- Priority to **renewable power generation**, fossil fuel power generation with **higher efficiency** and **lower emission levels**;
- 50% share of **green buildings** in newly built buildings by 2020;
- 30% share of **public transport** in motorized travel in big- and medium-size cities by 2020;
- **fuel efficiency standards** for heavy-duty vehicles (to be finalized in 2016 and implemented in 2019);
- "effective" control of **HFC-23 emissions** by 2020;
- ¥20 billion (around USD 3 billion) in **South-South climate finance**;
- **National emission trading system** planned to start in 2017

Status of Chinese ETS - National

- Nationwide ETS originally announced to start in 2016 but postponed several times. **Launch** expected in H2 2017
- **Sectors** covered: power, iron and steel, chemicals, cement, paper and nonferrous metals.
- **NDRC** in charge of design, **provincial and regional authorities** of implementation (ensuring compliance, applying penalties).
- Mostly **free allocation initially**, auctioned share to increase annually.

Official details yet to come. In March Tianjin pilot extended to 2018: unaffected in case the national ETS further delayed, allowed to continue after the planned launch.

Status of Chinese ETS - Pilots

- **7 regional carbon trading schemes** approved in 2011 and in operation from 2013: Beijing , Shanghai, Tianjin, Chongqing, Guangdong , Hubei, Shenzhen.
- **65 Mt of CCERs traded** in 2015, around EUR 165 million (Thomson Reuters, 2016).
- over **340 registered projects** in 2015 + around 900 projects waiting for the registration stage (Thomson Reuters, 2016).
- **Covered sectors** vary from 4 in Guangdong to 26 in Shenzhen, **number of enterprises involved** from 114 in Tianjin to 635 in Shenzhen.
- November 2015: **allowance prices** in Beijing and Shenzhen around CNY 40 (EUR 5.7), higher than in the other pilots (around CNY 10–25, or EUR 1.4–3.5) (ICAP, 2016).

13th FYP targets - Other measures

- **Shift from energy-intensive**, heavy industry- and exports – based **growth model**. Strengthening China's **green economy** path, strong emphasis on 'ecological civilisation'
- **R&D expenditure** to increase to 2.5% of GDP by 2020
- Planned **investment in energy saving** and **environmental protection** estimated to CNY 17 trillion (EUR 2.28 trillion), CNY 2.3 trillion (EUR 310 billion) in **clean energy**
- Reduction in **coal consumption and production**
- Investment in low-carbon infrastructure: CNY 3.8 trillion (EUR 510 billion) on **railways**, 2.4 trillion (€330 billion) on **grid**, of which 175 billion (€23.5 billion) on **smart grid**. Increase in **electric vehicles**.
- Increasing role of **financial markets** (e.g. green bonds)

Local initiatives

U.S.-China **Climate Leaders Summit**, Los Angeles (Sept.2015): group of 18 US cities and 11 Chinese cities

→ committed to peaking carbon emissions

- in 2020: Beijing, Guangzhou, Zhenjiang
- by 2022: Shenzhen, Wuhan
- by 2025: Guiyang, Jilin, Jinchang
- by 2030: Sichuan, Hainan, Yan'an

Debate on Chinese emissions

- China's Bureau of Statistics published new data on energy consumption in 2015:
  - Coal 64% of the total annual energy consumption (-3.7% over 2014, - 10% than in 2011)
  - Share of RES (incl. hydropower and nuclear) increased by 0.9% for a total of 17.9% of energy consumption.
- IEA (2016): in 2015 China's CO2 emissions declined by 1.5%, as coal use dropped for the second year in a row.
- Chinese emissions to peak earlier than expected?

  (Green and Stern, 2016)
- Uncertain reliability of Chinese data

  (Liu et al. 2015; Ivar Korsbakken et. al, 2016)

Other recent policy developments

- EU updates
- US/Canada
- Green Climate Fund

EU assessment of the Paris agreement

- The Paris agreement does not require a near term **revision of the EU 2030 targets**;
- Clear understanding of policy **implications of 1.5° C goal** needs to be developed;
- EU to participate in first **facilitative dialogue** to take stock on collective ambition and progress in 2018 and to take part in first global stocktake in 2023 EU;
- The Commission to **complete the work plan** for the finalisation of the EU post-2020 climate strategy to be ready in early 2019:
  - EU ETS phase IV revision
  - Proposals for an Effort-Sharing Decision
  - Proposal for the inclusion of LULUCF in the 2030 Framework

Review of the EU ETS Directive

May 20, 2016: Draft on EU ETS phase IV revision to be presented to the ENVI committee of the European Parliament. Final plenary vote in early 2017:

- 10-year phase: 2021 – 2030 (2 periods of 5 years)
- ETS sectors have to reduce emissions **by 43% compared to 2005** (30% non-ETS sector)
- increase of the **linear reduction factor to 2.2%** per year from 1.74% in Phase III
- allocation rules: 57% auction/43% free allocation
    - lower-income MS **10% allowances** to be auctioned
    - more stringent carbon leakage threshold: **50 industrial sectors** instead of 177 currently (90% of EU industrial emissions)
    - MS should compensate **indirect carbon costs** to carbon leakage sectors (currently 6 MS have such a policy in place).

Review of the EU ETS Directive

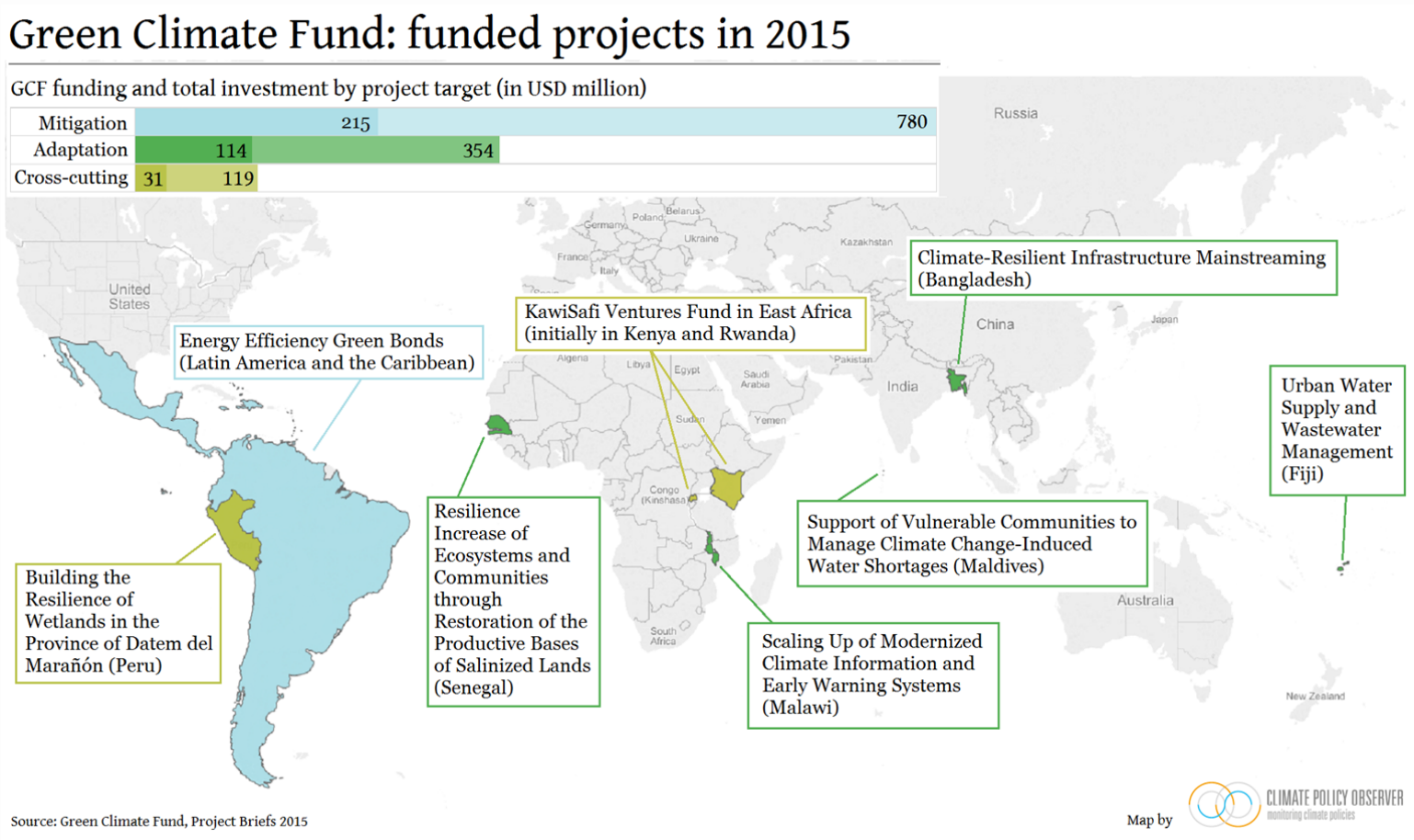
- **Market Stability Reserve** (MSR) operational from 2019 to prevent supply-demand imbalances: Backloaded EUAs (900 million postponed from 2014 to 2019) + 12% of allowances in circulation to be released when < 400 million.
- **Innovation Fund**: 400 million allowances to finance projects (up to 60% costs) in the areas of **RES and CCS** (NER 300) + **industrial demonstration** projects for low-carbon innovation
- **Modernisation Fund**: 310 million allowances to support **modernisation of energy systems** in lower-income Member States
- **Revenue Recycling**: MS are free to decide how to spend the auction proceeds, but at least **50% of the revenues** should be used for: climate purposes, climate financing actions in vulnerable third countries, compensation of indirect costs and/or skill formation and reallocation of labour.

US-Canada Joint declaration

Joint declaration by Barack Obama and Justin Trudeau on March 10:

- cut methane emissions from oil and gas sector by 40-45% below 2012 levels by 2025
- secure a deal on cutting commercial air planes emissions through the International Civil Aviation Organization, supporting the adoption of a global carbon offset measure expected in September
- to adopt a Montreal Protocol **HFC phasedown amendment** in 2016
- shared **strategy in the Artic**, to consider science-based standard for any future drilling

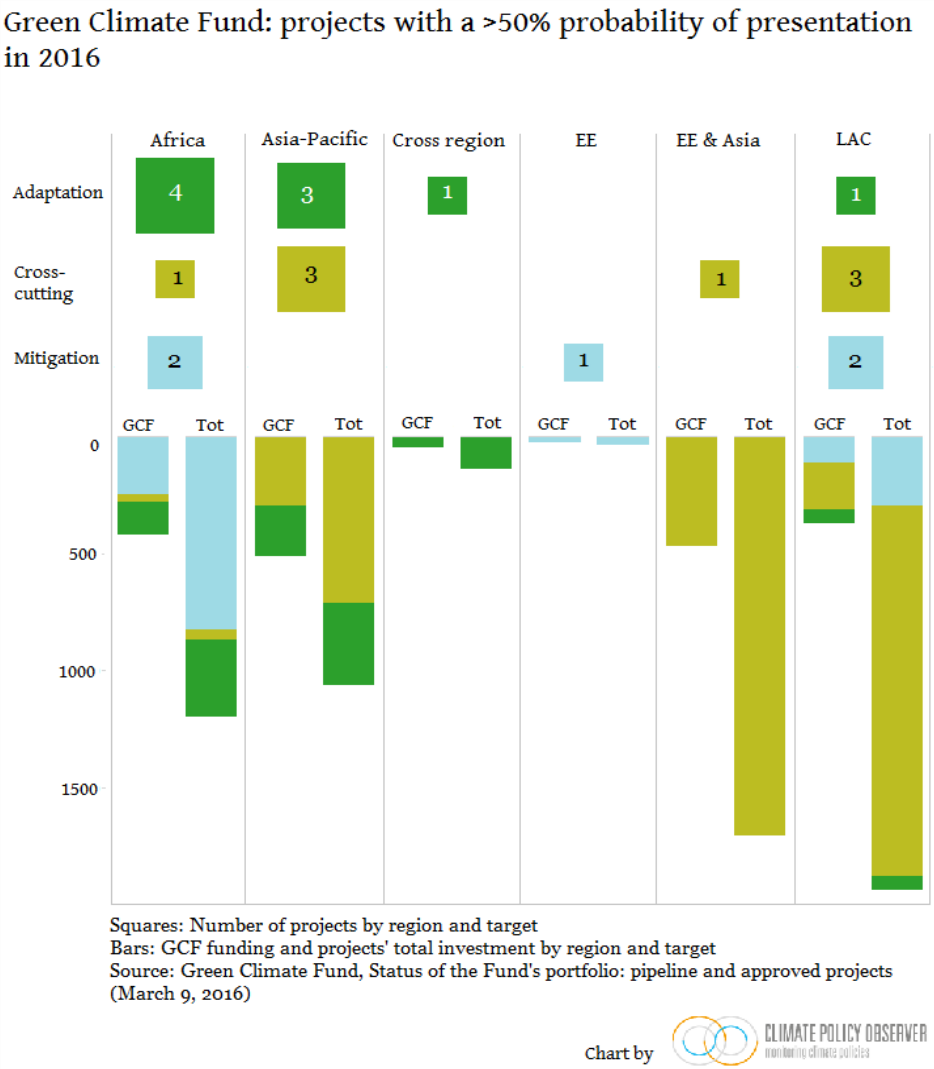
Green Climate Fund



Official start of the first eight projects which received financial approval in 2015 (total initial GCF investment: USD 168 million, around 300 million considering GCF financing allocated for the post-pilot phase of LAC green bonds project)

Green Climate Fund/2

- **USD 10 billion** in pledges from over 40 governments
- **2016** aspirational **target** of **USD 2.5 billion** in funding proposals
- **2016 pipeline** includes **22 projects** and programs worth around USD 5.4 billion (GCF financing : **USD 1.5 billion**)
- **cross-sectorial projects** to receive the lion's share of the planned investment (USD 1 billion), remaining GCF support equally split between adaptation and mitigation projects (around USD 250 million each)



Coming soon…

- April 22: **signing ceremony of the Paris Agreement** at UN headquarters in New York.
  - U.S.(18%), China (20%), India (4%) announced to sign on that day, EU member states (12%) “asap”.
  - Fiji, Marshall Islands, Palau, Maldives already ratified.
  - UN expect about 120 nations to sign on April 22.
- To enter into force: at least **55 Parties** to the UNFCCC accounting for at least **55% of the total global GHG** emissions have ratified (art. 21).
- May 2: UNFCCC expected to release an updated synthesis report on the aggregate effect of INDCs.

Thanks!


Fondazione Eni
Enrico Mattei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