

Green Banks in China: Progress towards Opportunities

—Session 2.2: Green Banks in emerging markets: Creating investment opportunities in new markets through targeted de-risking strategies

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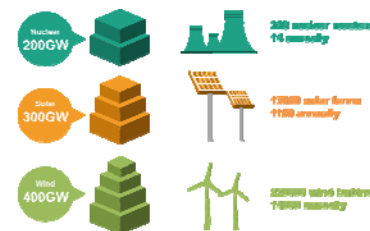
国家应对气候变化战略研究和国际合作中心
National Center for Climate Change Strategy and International Cooperation (NCSC)

Green Investments for China's NDC

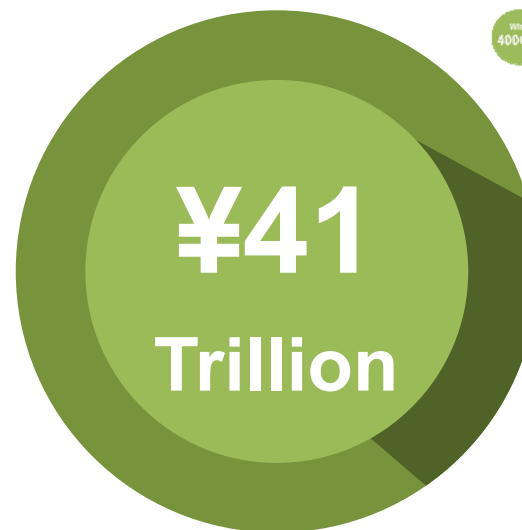
China's National Determined Contribution (NDC):

- (1) To achieve the peaking of carbon dioxide emissions around 2030 and making best efforts to peak early;
- (2) To lower carbon dioxide emissions per unit of GDP by 60% to 65% from the 2005 level;
- (3) To increase the share of non-fossil fuels in primary energy consumption to around 20%; and
- (4) To increase the forest stock volume by around 4.5 billion cubic meters on the 2005 level.

2005-2030



12th FYP (2010-2015)



Energy Efficiency Investment: 2.7

Low Carbon Energy Investment: 3.1

Low Carbon Industry: 8.4 (Yield)

Energy Efficiency Investment: 15.2

Low Carbon Energy Investment: 25.7 (Wind + Solar 11.3)

Low Carbon Industry: 23 (Yield)

GDP Contribution: >16%

1.6 Trillion RMB Investment Annually by 2030

Investment in the 13th Five-Year Plan

	Project Category	Required Additional Amount	Investment Needs (billion RMB)	Investment Needs (billion USD)
 Efficient buildings	 New green buildings	3080 million square meters	224.8	34.58
	 Existing building retrofit	2080 million square meters	1,426.2	219.42
 Green transportation	 Rail	3,000 km	2,400	369.23
	 Bus	181,000 public buses	627.1	96.48
	 Electric vehicles	4.8 million charging spots	132	20.31
	 Bike	171,350 public bikes	0.86	0.13
	 Urban roads	64,600 km	1292.1	198.78
 Clean energy	 Distributed solar PV	64 GW	500	76.92
	Total		6,603.06	1,015.85

Pilots to Boost Green Finance

South China's Guangdong, Southwest China's Guizhou, East China's Jiangxi and Zhejiang provinces and Northwest China's Xinjiang Uyghur Autonomous Region



On August 31st, 2016, People's Bank of China, MOF, NRDC, MEP, CBRC, CSRC and CIRC jointly published **the Guidance on Establishing Green Finance System**

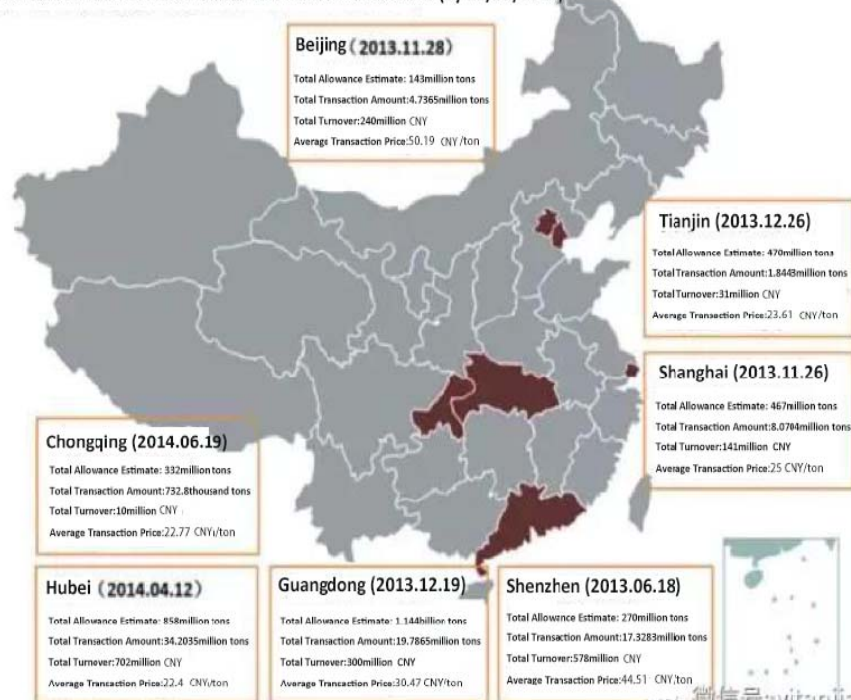
Five Tasks For Reform & Innovation

1. Supporting financial institutions to set up green finance departments or branches
2. Promoting green credits
3. Establishing trading markets for rights over emission, water and energy use
4. Setting up government service channels for green industries
5. Building risk control mechanism for green finance

Carbon Markets in China

- By the end of 2016, the total allowances traded was around 86 million tons CO₂e and transaction amount is around **2 billion CNY**, an average rate of **23 CNY/ton CO₂e**. Trading amount made up less than 10% of the total allowances, showing a lack of liquidity; CCER traded is about 81.11 million tons of CO₂e and transaction amount is about **720 million CNY**, an rate of **8.9 CNY/ton CO₂e**.
- By the end of March, 2017, the cumulated number of CCER in pipeline is 2871. 1047 programs were registered and around 400 CCER were issued, and issued emission reduction amount is around 72 million tons of CO₂e.
- Allocation methods of quota in the pilot area is dominated by grandfathering + benchmark method, and Guangdong tried auction.

Seven Pilot Carbon Market Accumulated Allowance Transactions (By 12/31/2016)



Pilot Region	Offset Mechanism
Beijing	5% max. and more than 50% should be generated by local projects of the city
Shanghai	5% max.
Shenzhen	10% max.
Guangdong	10% max. and more than 70% should be generated by local projects of the province
Tianjin	10% max.
Hubei	10% max. and all should be generated by local projects of the province
Chongqing	8% max. and all projects should be local ones that put into service after 12/31/2010, excluding water and power projects



Green Banks in China

China's CDM Fund, found in 2006, now has allocated 5.92 billion RMB of concessional loan to support 97 projects in 20 provinces, and leveraged 31.459 billion RMB of market capital. These projects generate over tens of millions tons of t CO₂e of expected emission reduction and potential.

*In September of 2016, China's Ministry of Science and Technology in partnership with Shanghai City co-launch the establishment of **Green Technology Bank**.*



China announces in UNFCCC high-level segment in Paris that it will make available ¥20 billion for setting up the **China South-South Climate Cooperation Fund** to support other developing countries to combat climate change, including to enhance their capacity to access GCF funds.

Registered Capital of China's Provincial Guidance Fund:
Country in sum, 700 billion RMB; Heilongjiang 134 billion RMB; Xinjiang 100 billion RMB; Fujian, Zhejiang 10 billion scale...

Huaneng Carbon Assets established the first carbon fund recorded at CSRC and successfully terminated in 2014 with AR of 16.1%, Shanghai Baotan established a 0.2 billion RMB largest CCER carbon fund, Jiatankaiyuan Investment Fund...

*PBC released guidelines for the issuance of **Green Bonds**, Green Finance Committee, China Society for Finance & Banking released China's definition of green bonds (Green Bond Catalogue). Green bond issuance reached 81.0 billion USD in 2016. First Half 2017 Chinese Issuance: USD 11.52 bn / RMB 79.39 bn, Total Q1 & Q2 Approved: USD 16.85 bn / RMB 116.3bn.*



Thanks for Your Attention!

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