China's Emissions Trading System Design: Features, Experiences and Lessons

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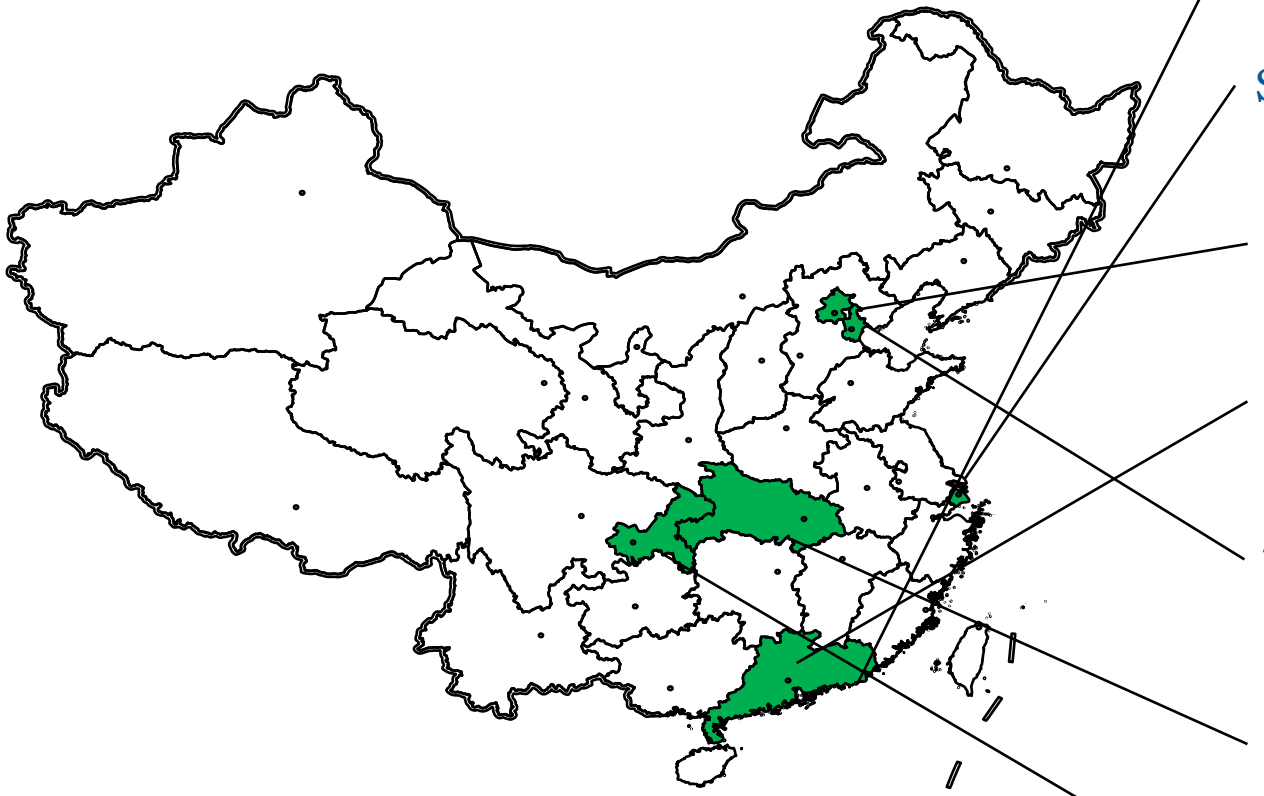
1. Broad Context for Developing National ETS

- Long command-and-control policy tradition
- Deepening reforms comprehensively and many policies interacting with ETS implemented in parallel
- “Crossing the river by feeling the stones” philosophy and tradition
- Decision to pilot emissions trading in seven provinces and municipalities in late 2011
- Experiences and lessons from the pilots vital to the development of China’s national ETS

2. Overview of ETS Pilots in China



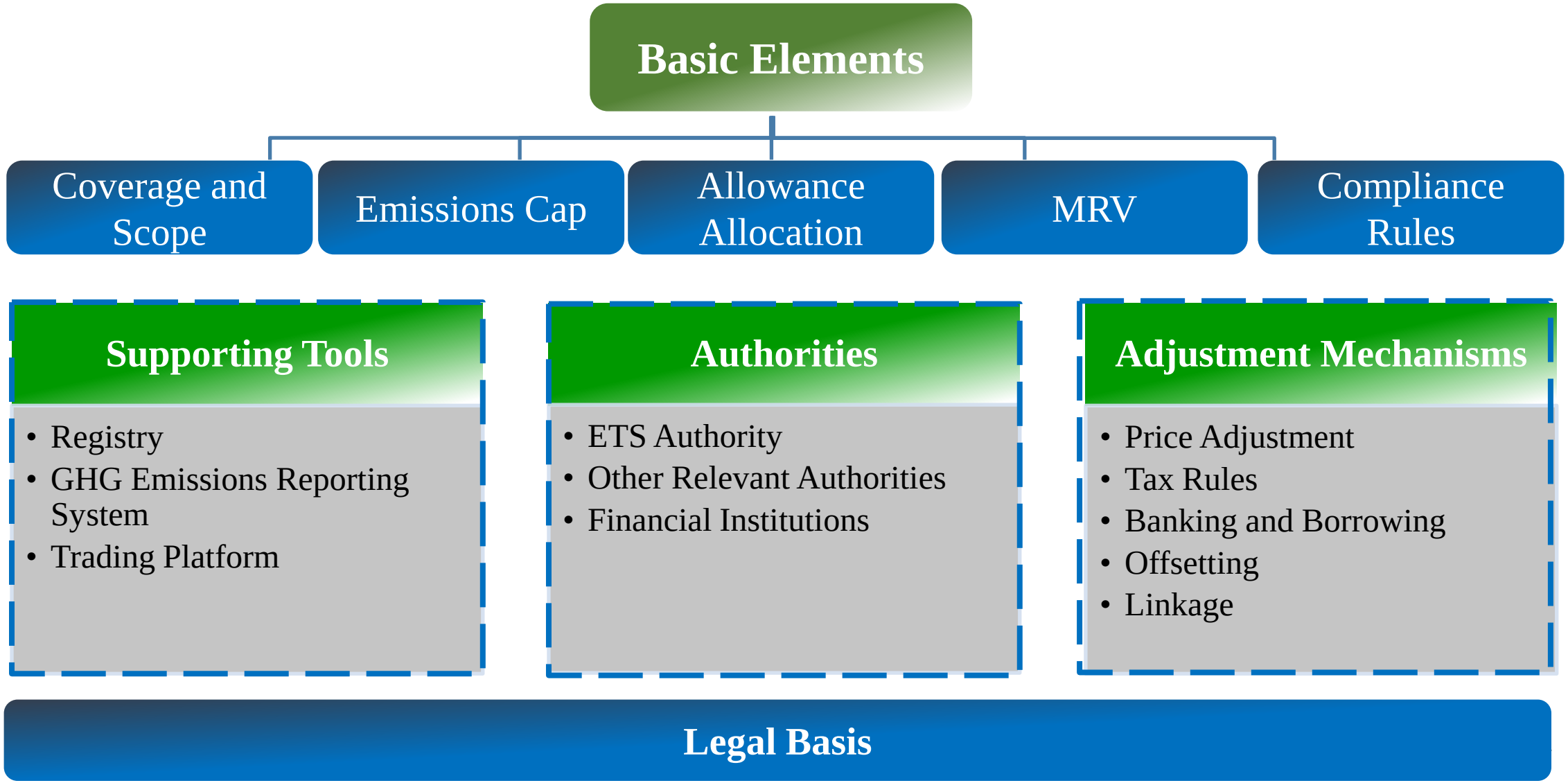
2013

Shenzhen	06/18
Shanghai	11/26
Beijing	11/28
Guangdong	12/19
Tianjin	12/26

2014

Hubei	04/02
Chongqing	06/19

Key Elements of an ETS



2.1 Legal Basis

- "Governing the country in accordance with the rules of law" requirement
- Strong legal basis is needed
- Different legal basis in different pilots
  - ✓ Decision of the standing committee of the local People's Congress,
  - ✓ Decree of the Provincial or Municipal Governor
- Administrative licensing is necessary for the ETS operation but can not be established in ministry decree or municipal/provincial governor's decree
- Vital role of the standing committee of the local People's Congress

2.2 Coverage and Scope (as in 2015)

		Beijing	Tianjin	Shanghai	Hubei	Guangdong	Shenzhen	Chongqing
Sectors covered	Electricity and Heat	√	√	√	√	√	√	√
	Iron and Steel		√	√	√	√	√	√
	Non-metal Processing Industry (cement, ceramics, etc.)	√		√	√	√		√
	Chemical Industry		√	√	√			√
	Petrochemical Industry	√	√			√		√
	Oil and Gas Exploration		√					
	Non-ferrous Metals			√	√			√
	Textile and Paper			√	√		√	√
	Domstic Civil Aviation			√				
	Transport Stations	√		√				
	Service Industry (mainly buildings)	√		√			√	
	Other Sectors	√			√		√	√

2.2 Coverage and Scope (as in 2015)

	Coverage Threshold	Number of Covered Enter.
Beijing	10,000/5,000 tCO_2	~490/~
Tianjin	20,000 tCO_2	114
Shanghai	Industrial: 20,000 tCO_2 Non-Industrail:10,000 tCO_2	~197
Chongqing	20,000 tCO_2e	242
Hubei	60,000 tce (~150,000 tCO_2)	138
Guangdong	20,000 tCO_2	202
Shenzhen	3000 tCO_2	635

2.3 Cap Setting

- Announced caps (Guangdong, Hubei, Chongqing) and unannounced caps
- Composition of the announced caps
  - ✓ Allowances for covered entities
  - ✓ Reserved allowances: new-entrants, auctioning market adjustment
  - ✓ Guangdong: ~10%, Hubei: 8%
- Not full use of reserved allowances
- Different approaches for setting real caps
  - ✓ Top-down approach
  - ✓ Bottom-up approach
- Nominal caps and real caps
- Flexible cap determined by ex-post adjustment of free allowances

2.4 Allowance Allocation

- Very diversified approaches in the pilots
- Auctioning
  - ✓ Voluntary auctioning
  - ✓ “Mandatory” auctioning
- Free allocation
  - ✓ Historical emissions-based
  - ✓ Historical intensity- and current production-based
  - ✓ Historical production-based benchmarking
  - ✓ Current production-based benchmarking
  - ✓ Current emissions-based
- Many innovative approaches used for the first time

2.4 Allowance Allocation

- Mixed approaches for one sector or even one entity
- Vital role of current production-based approaches in the pilots to address policy restrains, development uncertainties and political objections
- Ex-ante initial allocation and ex-post adjustment due to the use of real output level
- Challenges related to ex-post adjustment, e.g. verification of key parameters, such as current output level

2.5 MRV System

- Divergent MRV rules and practices in the pilots although MRV is considered a very technical component
- Major differences in the pilots
  - ✓ Accounting guidelines, e.g. accounting boundary, key parameters
  - ✓ Monitoring requirements, e.g. monitoring plan preparation and approval
  - ✓ Eligibility requirements on the third party organizations and individuals
  - ✓ Accreditation authority
  - ✓ Verification rules and procedures
  - ✓ Reporting requirement, e.g. system, information, reporting forms
  - ✓ Supervision of third parties, e.g. assessment rules and procedures, penalties
  - ✓ Contractual arrangements

2.6 Compliance

- Diversified non-Compliance Consequences
  - ✓ Financial penalties up to fixed amount or unlimited amount proportional to outstanding allowances (3-5 times market value)
  - ✓ Credit system
  - ✓ Eligibility for preferential policies
  - ✓ Publication of non-compliance behavior etc.
- High compliance rate if surrender of allowances before the extended deadline is considered compliance
- Delayed surrender a common phenomenon in most pilots

2.7 Offsetting and Banking

- Divergent offsetting rules
  - ✓ Limitation
  - ✓ geographical origination
  - ✓ project types
  - ✓ mitigation vintage, etc.
- CCER not fully used for compliance: lack of supply, not well defined compliance strategies
- Many entities choose to banking allowance

2.8 Impacts of the Pilots on the National System Design

- Diversified Design of the Pilot Systems
- Top-down development roadmap
- System with unified rules
- Necessary strong legal basis
- Benchmarking allocation approaches the first choice
- Real production-based rather than historical production-based allocation
- Effective MRV system
- Comprehensive compliance rules, rather than solely relying on financial penalty
- Reference value of technical rules of the pilots

3. Key Issues in China's National System Design

- Roadmap debate
- Regional differences
- Coordination with other relevant policies, e.g. addressing overcapacity policies
- Evolving policy context
- Different development stages of the sectors to be covered
- Possible impacts on the economy
- Division of responsibilities

4. Key Features of China's National System Design

- Unified rules for all regions
  - Level playing ground for companies in different regions
  - Avoiding the risk of racing to the bottom
  - Achievable with strong central government
- Flexibilities given to the provincial authorities
  - Extension of coverage and scope
  - Stricter free allocation rules
- Benchmarking approach the first choice
- Real production-based allocation
- Proper definition of sub-sectors and benchmark values
- Ex-post cap determined by bottom-up approach

4. Key Features of China's National System Design

- Coordination between allowance allocation and system ambition
- Comprehensive compliance rules
  - Grace period
  - Credit system
  - Eligibility for relevant preferential policies
- Flexible system design
- Double regulation by covering indirect emissions
- Division of responsibilities
  - Rules setting by central government
  - Rule implementation by provincial authorities
- Comprehensive compliance rules
- Rules on trading, auctioning, and offsetting are still under development

5. Challenges

- Lengthy legislation process
  - ✓ Priority given to strong legal basis at the national level
  - ✓ National Development and Reform Commission's Decree issued in Dec. 2014
  - ✓ Proposed State Council regulation submitted in 2015
  - ✓ Continued efforts on legislation
- Competition/coordination with other policies such as "double control" of both energy consumption amount and intensity, trading of right to use energy, power sector reform, renewable energy development policy, air pollution control policies, etc.
- Government reform undergoing

Thanks

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