

Status of China's regional trading programs

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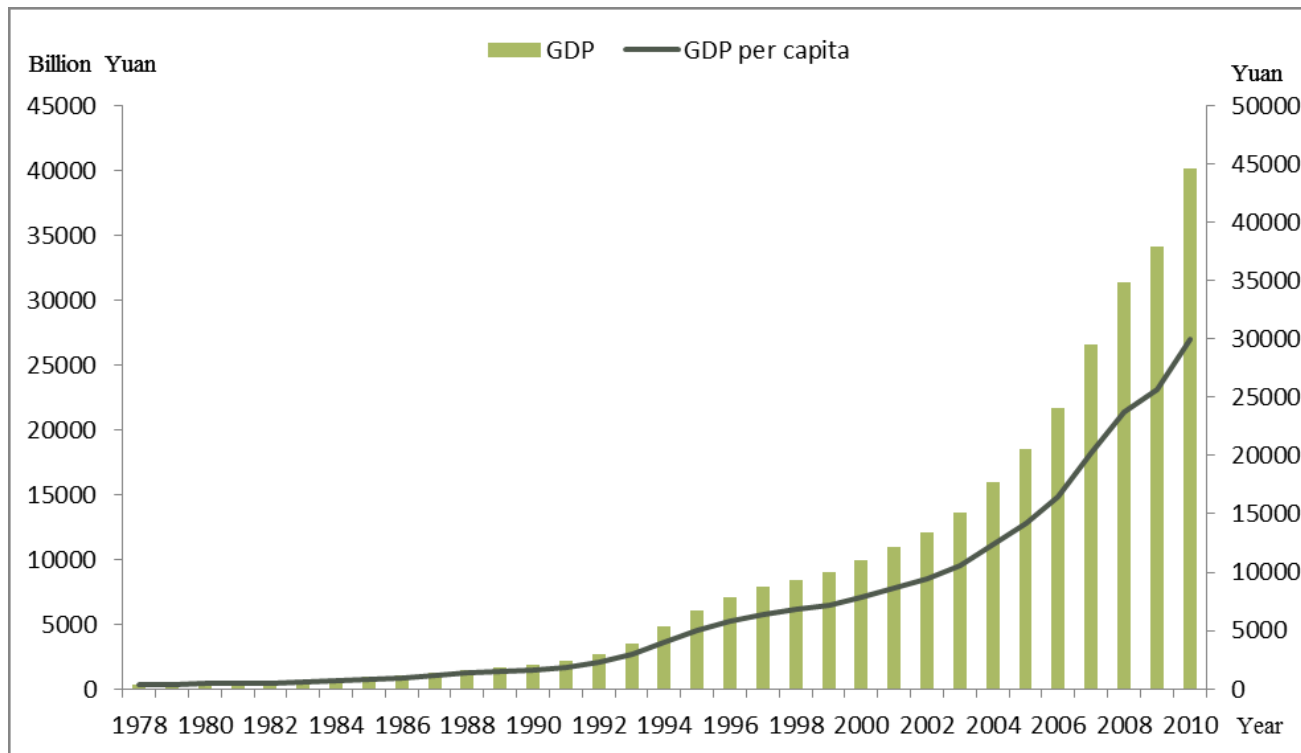
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March 8, 2013

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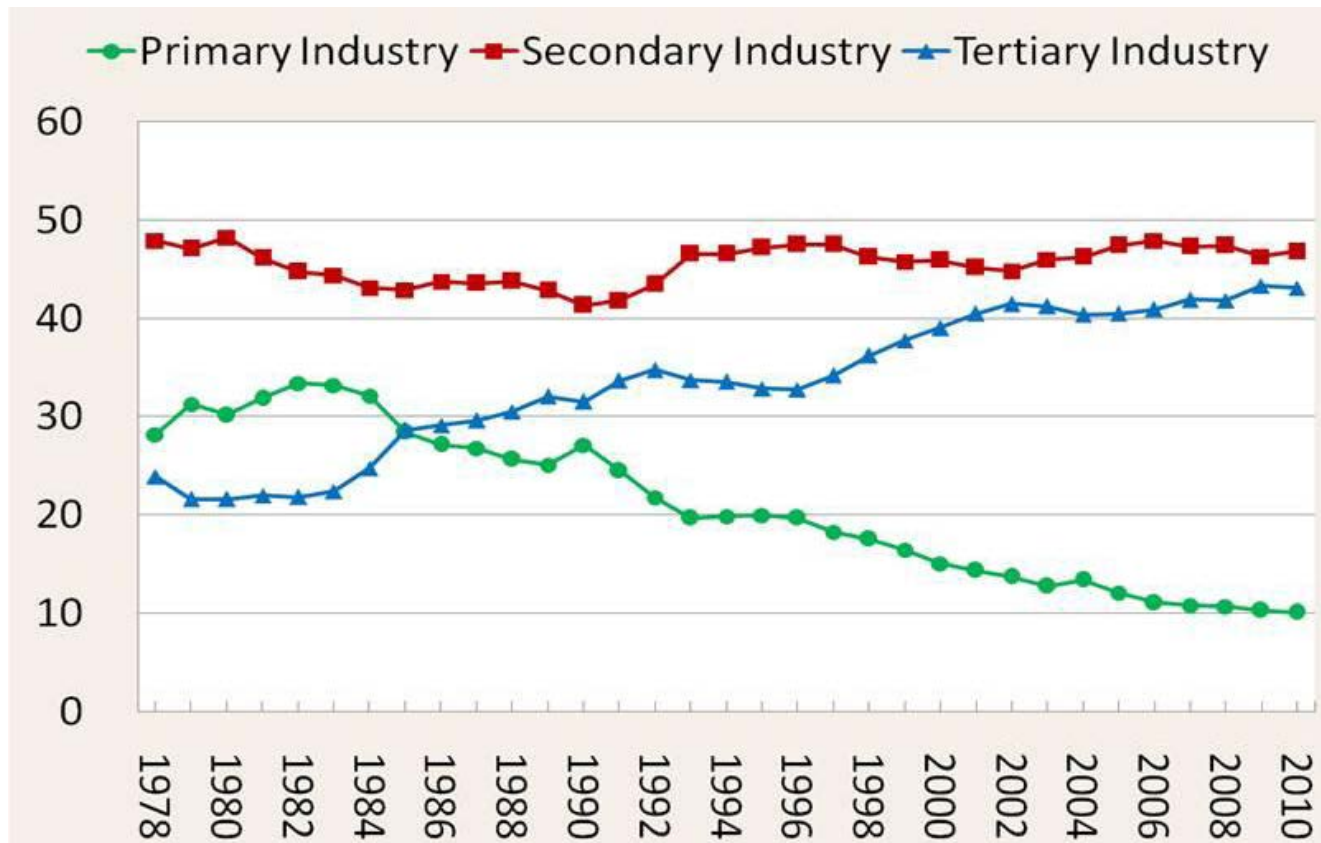
Background



- GDP:
 - 40 thousand billion RMB in 2010
- GDP per capita
 - 5,000 USD
 - Middle income level

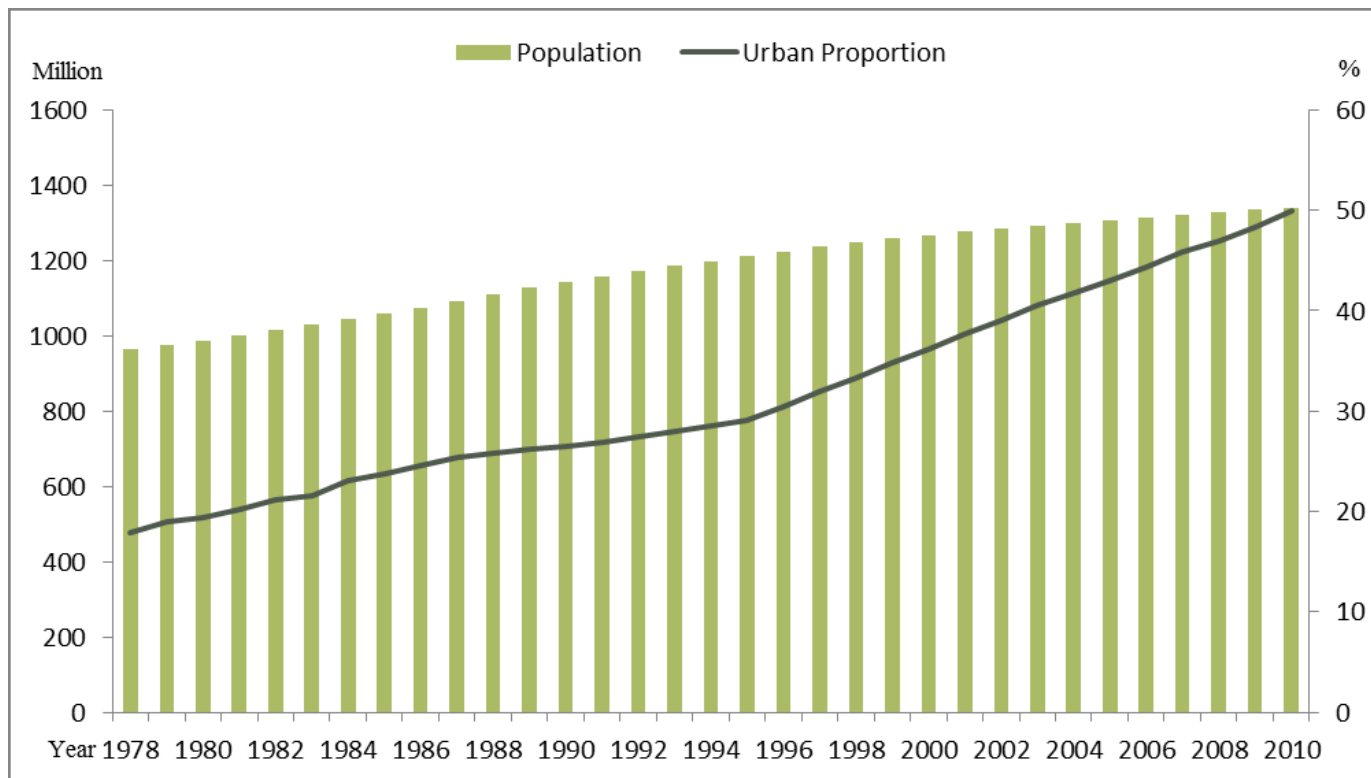
Background

- China's economic structure
 - During industrialization phase



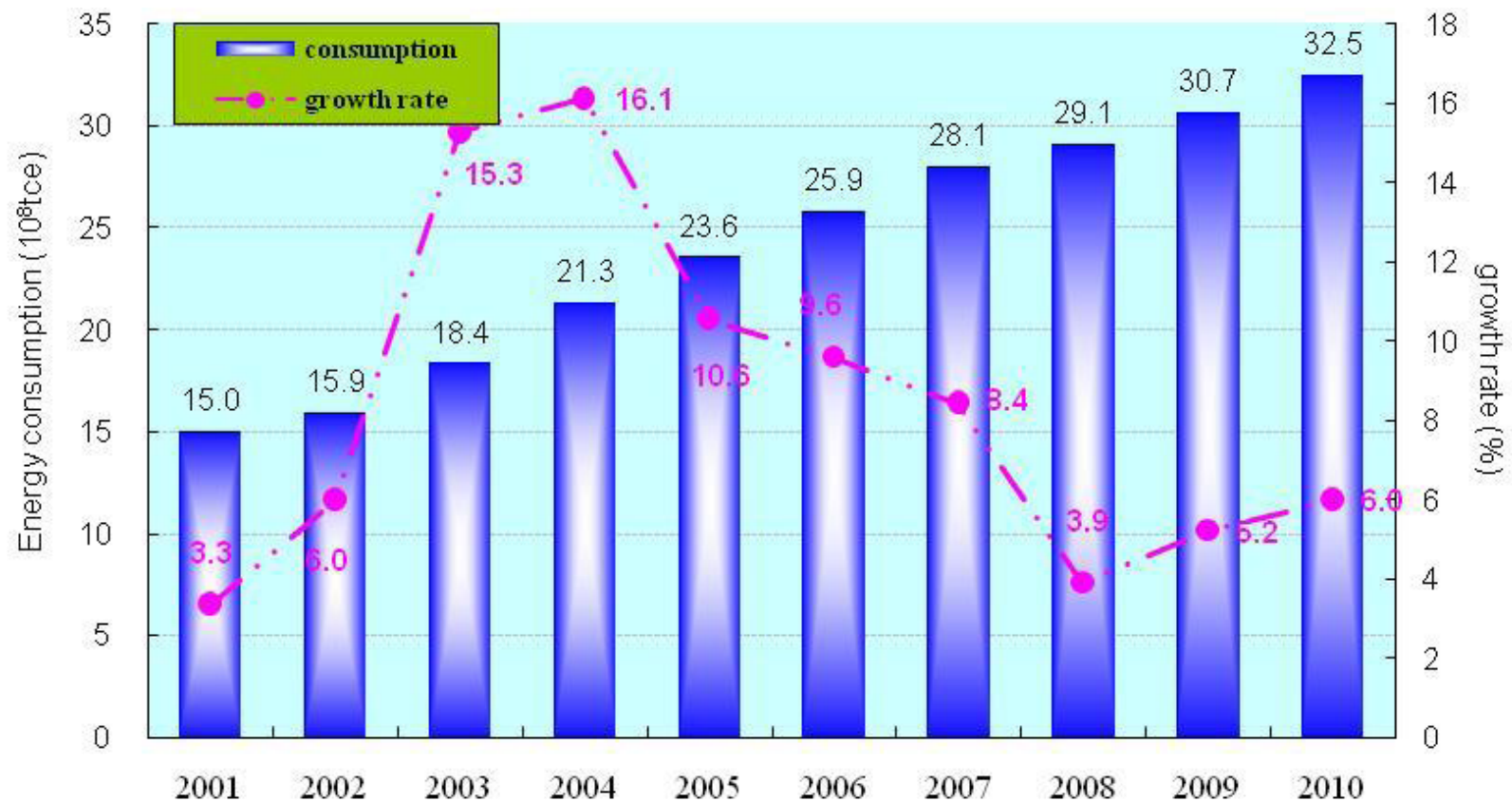
Background

- China's population and urbanization
 - Population: 1.35 billion
 - Urbanization: 50%



Background

- Energy consumption 3.25 billion tce in 2010
- Decoupling of economic growth and energy consumption during the 11th FYP

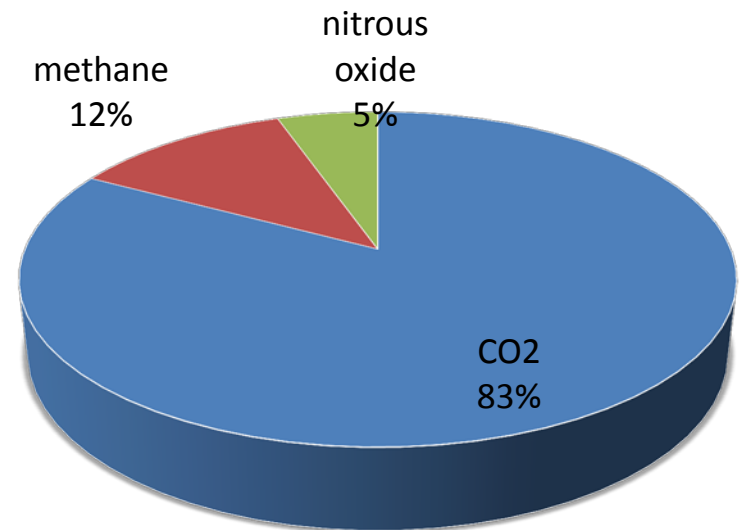


Background

- Policy context, objectives and envisioned role for new market instruments
 - China set the target to reduce its CO₂ emissions per unit of GDP by 40–45 per cent by 2020 compared with the 2005 level.
 - A binding target of reducing the CO₂ emissions per unit of GDP by 17% during the 12th Five-Year Plan period was established.
 - China initiated low carbon pilot projects in five provinces and eight cities.
 - The National People's Congress approved Outline of the 12th Five-Year Plan, which clearly mentions that China will establish statistical and verification systems for GHG emissions and gradually establish a carbon emissions trading system.

Background

- Overview of China's GHG emission
 - According to China's National Program on Climate Change, China's total GHG emissions in 2004 were 6.1 billion tons of CO₂ equivalents.
 - After removing the amount of carbon sink, the net emission of GHG in China in 2004 was 5.6 billion tons of CO₂e.
 - China is still at a lower stage of development with a huge population.



GHG emissions in 2004 in China

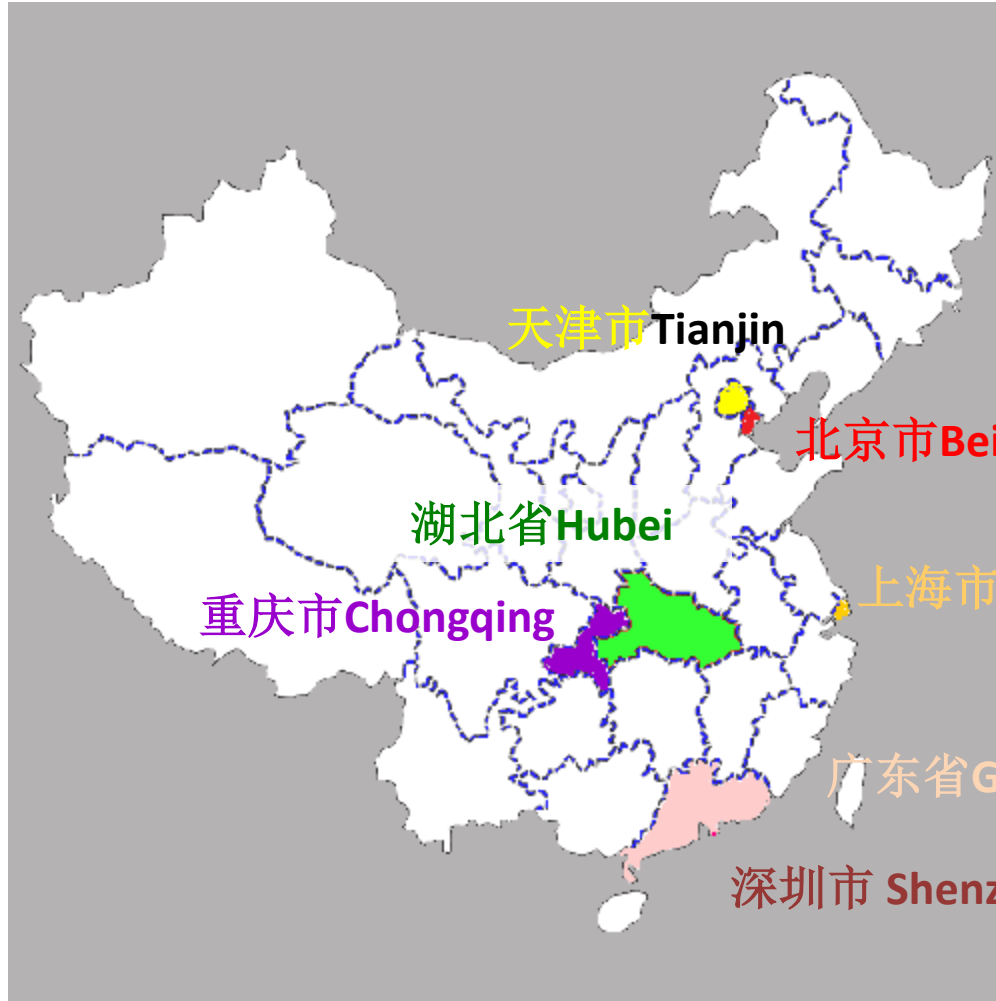
Background

- Interest in carbon market
 - Emissions trading could help achieve the objective of controlling GHG emissions at lower costs.
 - The Government of China will, according to the requirements of the Outline of the 12th Five-Year Plan, gradually establish a market system for carbon emissions trading to promote the achievement of its carbon intensity reduction objective.
 - The National Development and Reform Commission (NDRC), is prompting with great efforts the establishment of a carbon market.
 - To promote trading of voluntary credits generated on a project-by-project basis
 - To organize relative provinces and municipalities to introduce emissions trading systems.
 - Try to establish a unified national system in 2015.

Background

- Key relevant initiatives
 - Strengthening local capacity to compile local greenhouse gas inventories
 - NDRC has published guidelines for compilation of provincial greenhouse gas inventories, and initiated the work on the compilation of local greenhouse gas inventories.
 - Plans to organize research on guidelines for emission accounting for key sectors
 - NDRC is now organizing research on the methodology for emission accounting for key sectors, and will publish guidelines for emissions calculation.

Pilot project at local level



- **Why these regions?**
 - **Level of economic development**
 - Relatively development
 - Strong economic power
 - Large carbon emission volume
 - **Potential market volume**
 - Large cap
 - Many market players
 - Trading volume

Pilot project at local level

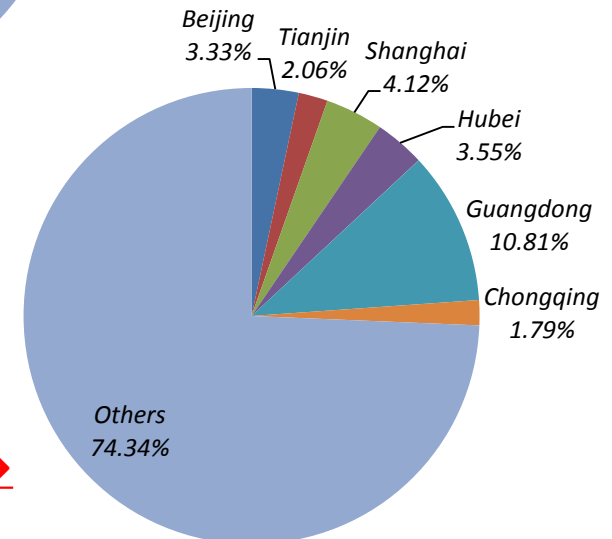
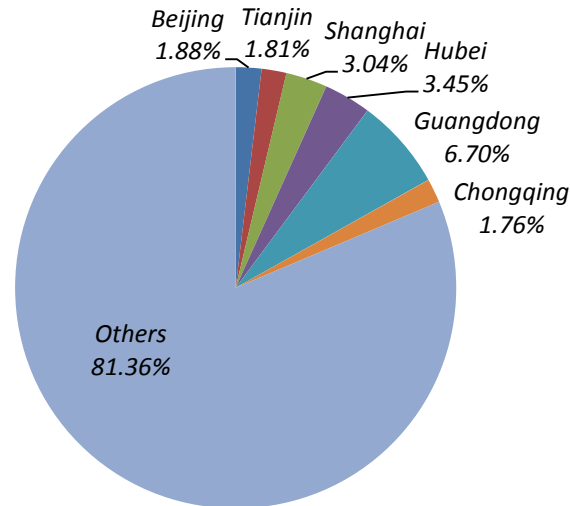
Key index of pilot project provinces

	GDP per capita (RMB)	rank	Energy intensity (tce/10,000 RMB)	rank
Beijing	71935	1	0.582	1
Tianjian	71012	2	0.826	7
Shanghai	65334	3	0.712	3
Chongqing	27472	14	1.127	14
Guangdong	44070	6	0.664	2
Hubei	27876	12	1.183	20

Pilot project at local level

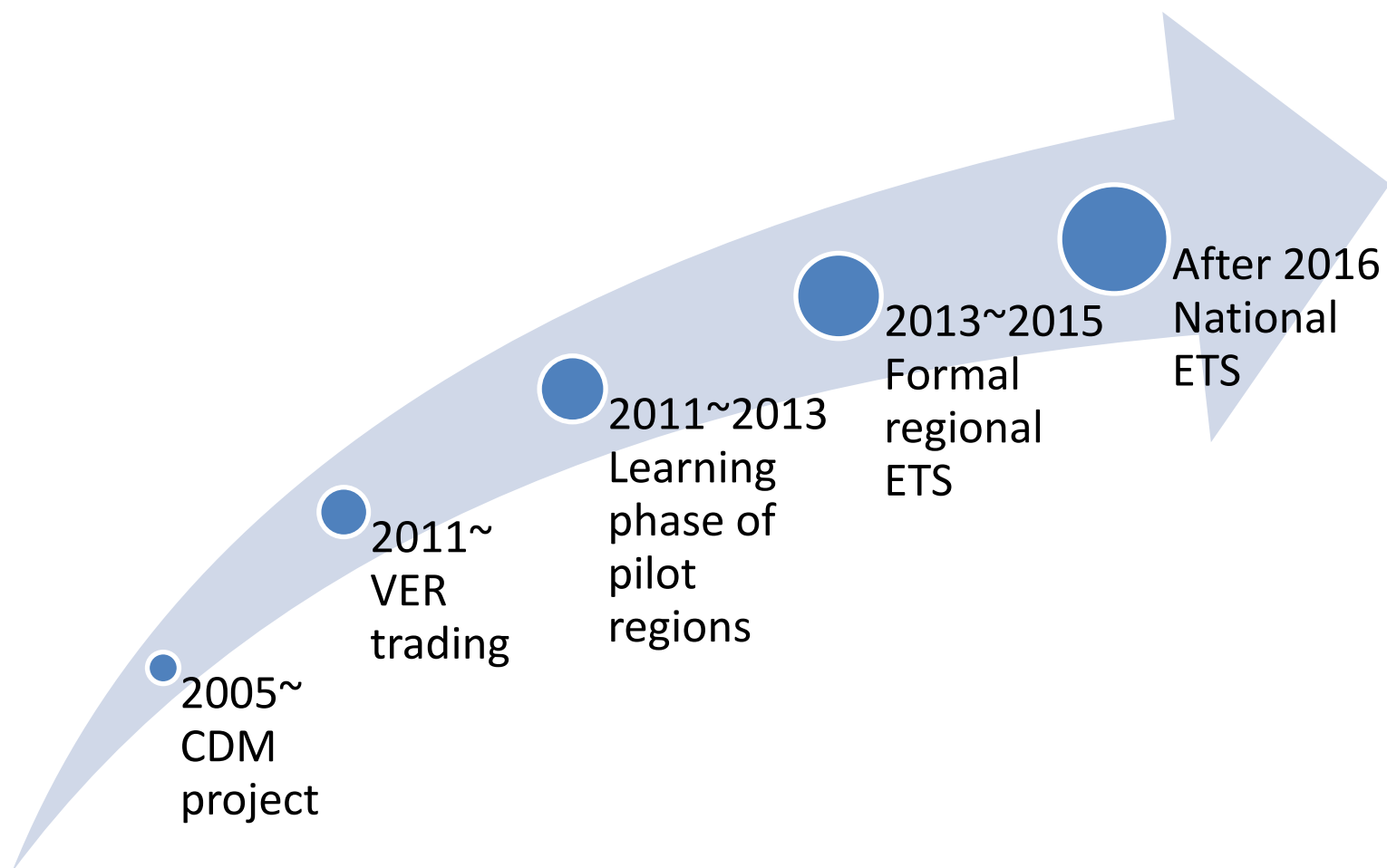
→ **CO2 emission share: 18.64%**

Regions	Targets in 12 th FYP
Beijing	18%
Tianjin	19%
Shanghai	19%
Hubei	17%
Guangdong	17%
Chongqing	19.50%
Shenzhen	(19.50%)



GDP share: 25.66% →

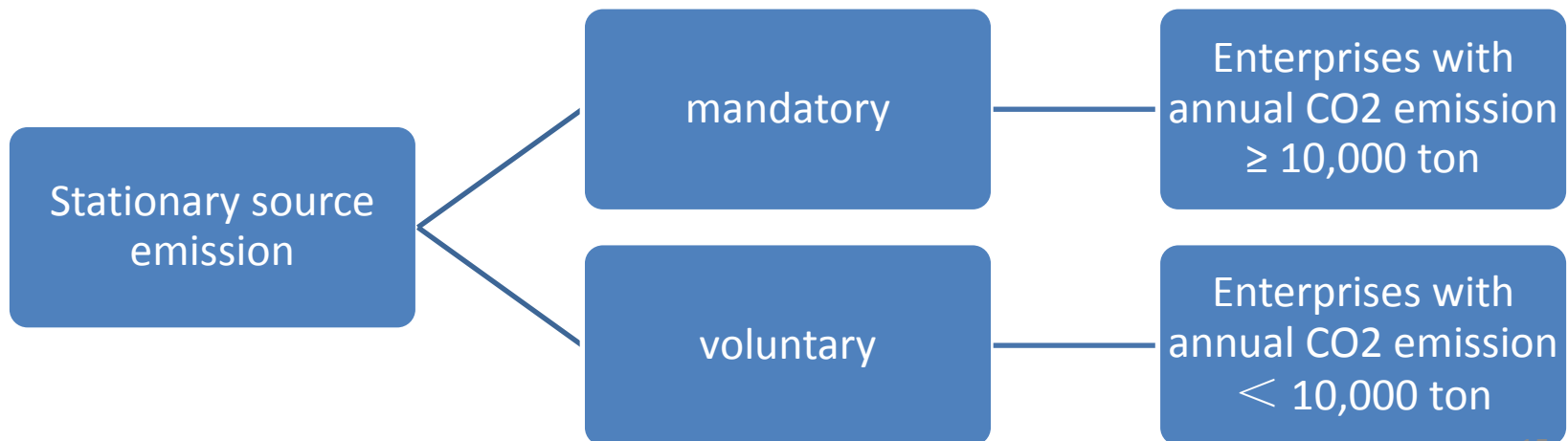
Pilot project at local level



Overall layout roadmap of China's ETS

Pilot project at local level

- Beijing– published “**Proposal on the regulatory framework for the pilot emission trading scheme**”
 - Trade subject: enterprises with stationary source emission
 - GHGs included: CO₂
 - Trade system: under construction, prior to local exchange

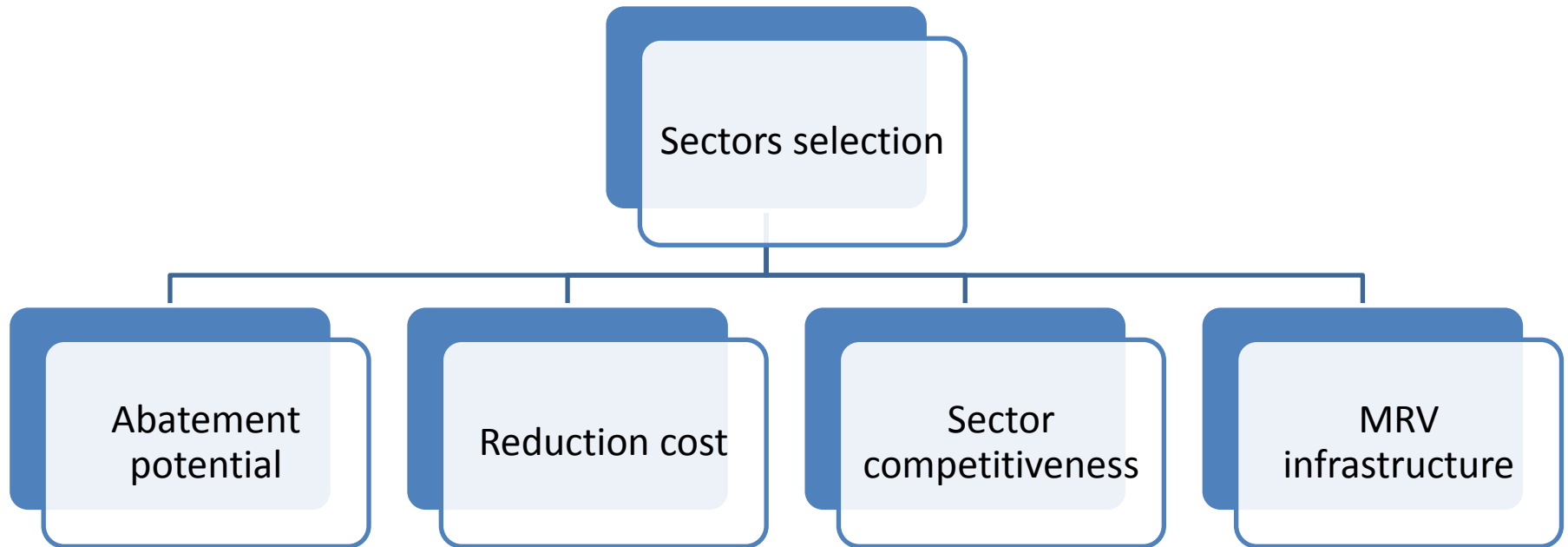


Pilot project at local level

- Cap
 - Account CO2 emission cap according to the target of carbon per unit of GDP decrease during 2011 to 2015
- Allocation
 - Free allowance of 2013 will be allocated according to average annual emission of 2009-2011
 - Little allowance will be auctioned by government in the future
 - Enterprises should submit allowance annually. Allowance can't be borrowed and will be cleared by the end of 2015.

Pilot project at local level

- Sector selection



Pilot project at local level

- MRV
 - Reporting system for enterprises entered into mandatory carbon market.
 - To publish “GHG accounting guideline” for various sectors
 - Appointed public and private energy service companies (ENSCos) to take on the responsibilities for the monitoring and auditing of the energy consumption in the city
 - Report GHG inventory at enterprise level including accounting methodology and monitor method adopted.
 - The report should be verified by the 3rd party.

Pilot project at local level

	2020 GHG emission	Industries covered	Allocation	Register system	MRV	Regulation
Beijing	GHG inventory, model forecast	≥ 10,000 ton CO ₂ e	Average emission of 2009-2011	Draft	Energy consumption report	Published
Tianjin	Forecast	Industries with high energy consumption		Draft	Database of emission factors	Draft under discussion
Shanghai	GHG inventory, model forecast	≥20,000 ton in industry sector; ≥10,000 in service sectors	2009~2011 history emission	Framework established	Report system according to sectors	Published
Hubei	2020 GHG emission report	≥60,000 ton	Under discuss	Research report	Draft “MRV regulation”	Draft incentive regulation
Guangdong	2015 GHG emission forecast (tech + economic structure)	Industries with high energy consumption	New entrance and existing		National key energy consumption enterprises investigation	Draft
Chongqing	Accounting report	Enterprises with annual emission beyond 20,000 ton CO ₂		Under design	Draft technical report	Draft under discussion

Challenges and Problems

- Lack of legislation
 - Except for Shenzhen
- Impact to industries, especially to power industries
- Allocation
 - Rule of fair and transparent to be achieved
 - Allocation to new entrance
- Cross-regional trade
- Unified emission trading system be established

Thanks for your attention!

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2013.3.8