

Keio-Tsinghua

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# Pilot SO<sub>2</sub> Emission Trading In China

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- *Background*
- *Emission Trading*
- *Pilot SO<sub>2</sub> Emission Trading*
- *Experiences*

*Reference:*

*[www.google.com](http://www.google.com)*

*[www.cet.net.cn](http://www.cet.net.cn)*

*<SO<sub>2</sub> Emission Trading in China>*

■ *Background*

- *Serious SO<sub>2</sub> pollution*  
*tens of million tons SO<sub>2</sub> per year*  
*70% south cities and 30% nation land*
- *Prevention and Control*  
*Technologies*  
*Policies*

## ■ *Background*

*1982, emission fee*

*1992, emission fee increased.*

*1996, total emission control*

*1998, two control zones*

*2000, Air Pollution Prevention and Control Law*

*2003, Regulation on Emission Fee Levy and Application*

*Problem: high cost; cross area pollution; low efficiency of monitor...*

## ■ *Emission Trading*

### ➤ *Concept*

### ➤ *Basic Characteristics*

*Definition of responsibilities of authority and stakeholders*

*Permit definition and distribution plan;*

*Trading modalities and procedures;*

*Completed, consistent and accurate measure;*

*Transparent emission report;*

*Effective registration and monitor system;*

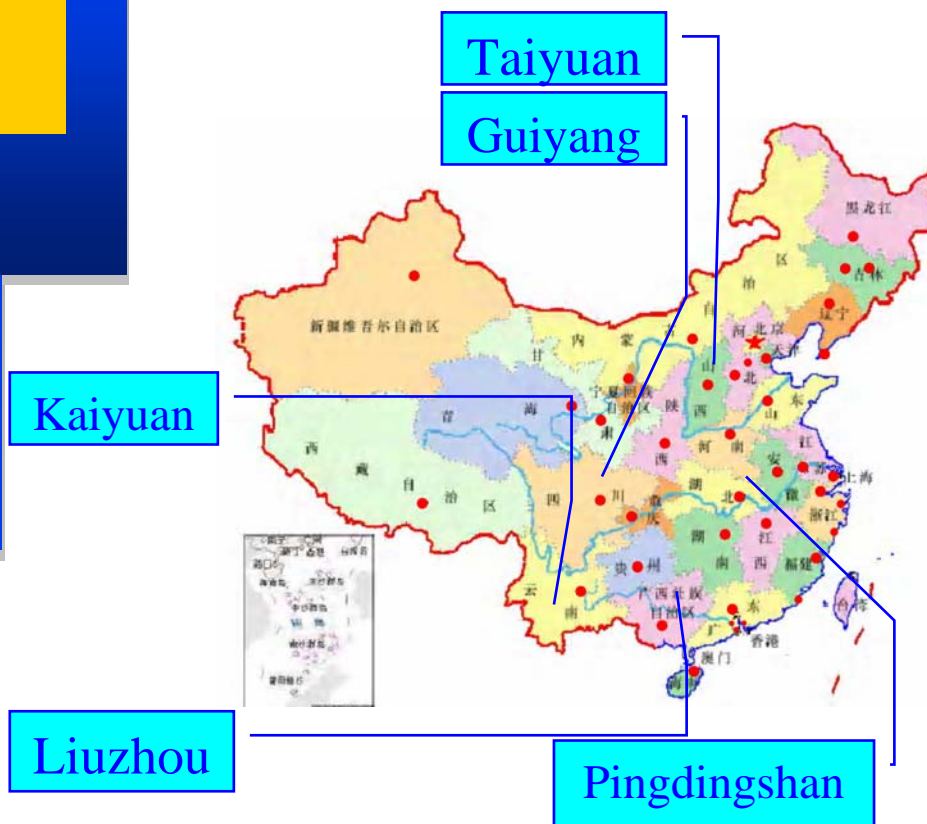
■ *Pilot SO<sub>2</sub> Emission Trading  
(national)*

➤ *SEPA1991-1994*

*Pilot Air Pollutant Emission Permit (16 cities,  
987 companies, 6646 sources)*

➤ *SEPA1994*

*Trail Program on Urban Air Emission Trading  
(CRAES, 6 cities, Project based case studies)*



- **Taiyuan:**  
*Pay local EPA*
- **Liuzhou:**  
*Point source with point source.*
- **Guiyang:**  
*Within Company*
- **Pingdingshan:**  
*Point source with non-point source.*
- **Kaiyuan:**  
*Point source with non-point source*

## ■ *Pilot SO<sub>2</sub> Emission Trading*

### ➤ *Kaiyuan:*

*1993, Temporary Administrative Decree of Air Pollutant Emission Permit in Kaiyuan City*

*1996, Administrative Decree of Air Emission Trading*

*Key Point: prevention rule in determine amount;  
equal amount trade (<50t-SO<sub>2</sub>/year)  
emission trading coefficient*



## ■ *Pilot SO<sub>2</sub> Emission Trading*

### ➤ *Taiyuan:*

*CMM utilization as an environmental offsetting project of a gangue power plant to get construction investment;*

*1998 Taiyuan Air Pollutant Total Emission Control Regulation*

## ■ *Pilot SO<sub>2</sub> Emission Trading*

### ➤ *Tianjin:*

*1997-1998, New build 2 power plant pay 24 million Yuan to local EPA for improvement of local environment.*

■ *Pilot SO2 Emission Trading  
(cooperation)*

- *2001-2003, Promoting Policies of SO2  
Total Emission Control and Emission  
Trading in China (SEPA and US EDF)*

*Power industry*

*131 cities, 727 companies, >10% total emission*

*Emission quotas allocated from 2001.7 to 2003.5.*

*Capacity building: SO<sub>2</sub> ET Survey; [www.cet.net.cn](http://www.cet.net.cn);  
TEC Regulations; training*

*2002 Proclamation of Implementing SO<sub>2</sub> Emission  
Trading Pilot in Liuzhou City*

*2003 <Administrative Decree of Emission Trading of  
Main Pollutants in Hangzhou City>*

*2003 <Administrative Decree of SO<sub>2</sub> Emission Trading  
in Jiangsu Province>*

*2004 <Administrative Decree of SO<sub>2</sub> Emission Trading  
in SO<sub>2</sub> Control Zones in Henan Province>*

*... ..*

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<i>Buyer</i>	<i>Seller</i>	<i>Location</i>	<i>Price</i>	<i>Amount</i>
<i>Acetate Fibre</i>	<i>TSG Power</i>	<i>Jiangsu</i>	<i>0.25</i>	<i>1800</i>
<i>TC Power</i>	<i>XG Power</i>	<i>Jiangsu ©</i>	<i>1.00</i>	<i>5100000</i>
<i>Prince Paper</i>	<i>Acetate Fibre</i>	<i>Jiangsu</i>	<i>1.00</i>	<i>1200</i>
<i>DG Power</i>	<i>Chemical</i>	<i>Tianjin</i>	<i>0.40</i>	<i>1000</i>
<i>Liuzhou Chemical</i>	<i>Liuzhou Wood</i>	<i>Liuzhou</i>	<i>0.40</i>	<i>200</i>
<i>YM Coal Gas</i>	<i>ZY Gold</i>	<i>Henan</i>	<i>0.60</i>	<i>900</i>
<i>2<sup>nd</sup> Power</i>	<i>1<sup>st</sup> Power</i>			<i>2130</i>
<i>DS Power</i>	<i>Heavy Mech.</i>	<i>Shanxi</i>	<i>0.53</i>	<i>200</i>
<i>2<sup>nd</sup> Power</i>	<i>XinX Equip.</i>	<i>Shanxi</i>	<i>2.00</i>	<i>2500</i>
<i>DY Co.</i>	<i>HJ Chemical</i>	<i>Shandong</i>	<i>1.20</i>	<i>90</i>
<i>Changzhou Power</i>	<i>Jianbi Power</i>	<i>SP, Jiangsu</i>	<i>-</i>	<i>14000</i>

## ■ *Pilot SO2 Emission Trading*

- *ADB Pilot Project: SO2 emission Trading  
2001.9, US\$700 thousand, first in Shanxi*

## ■ *Experiences*

- *Speed up law making progress*
- *High emission source like Power Plant*
- *Real practice prefer Yangzi Triangle*
- *Other(grandfather, financial sources, CB)*

*Thank you,  
Communication is welcomed!*