



# Work on Air Pollution Prevention and Control in Shenzhen, China

**LAN Zijuan**

**Shenzhen Academy of Environmental Sciences**

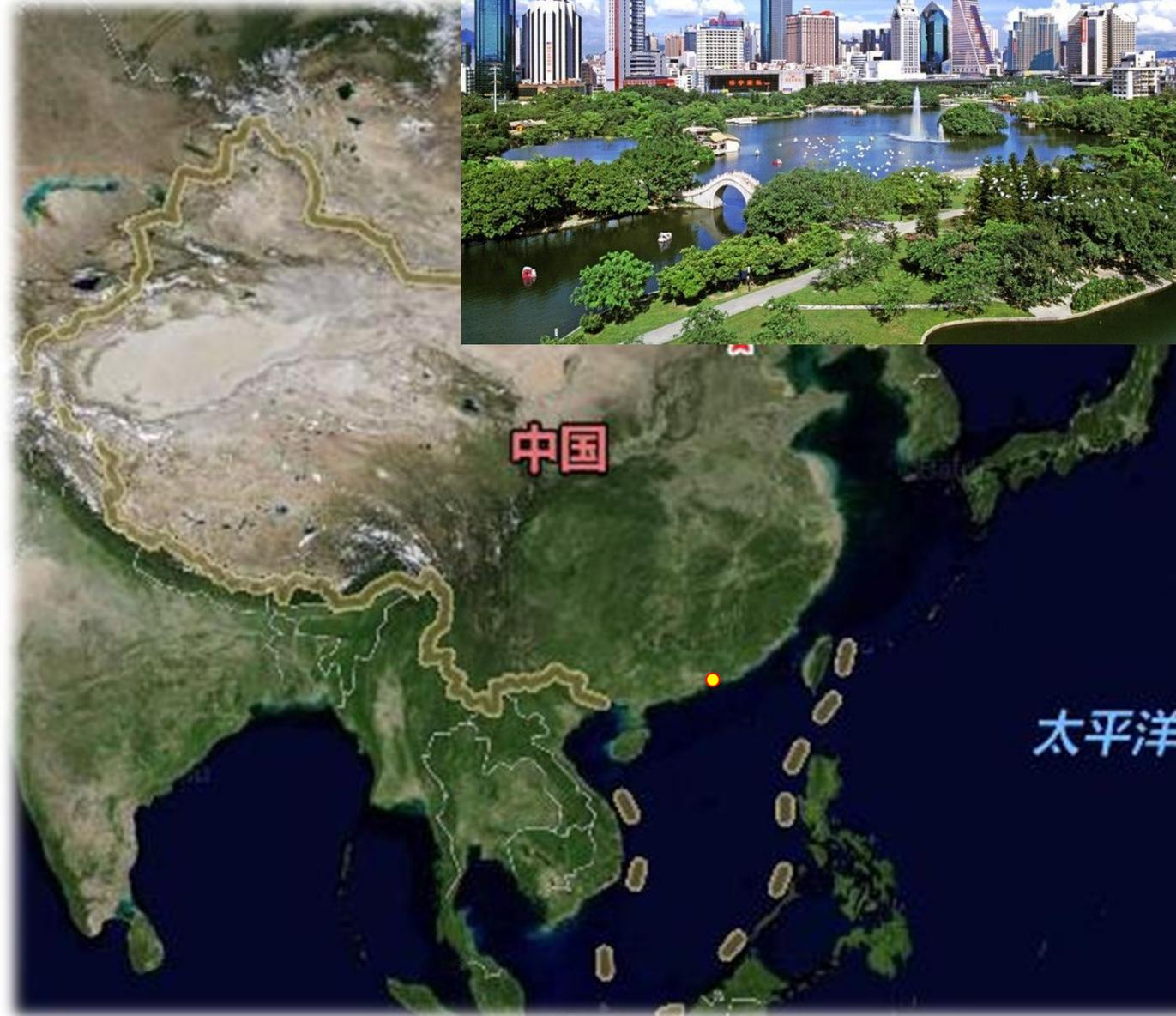
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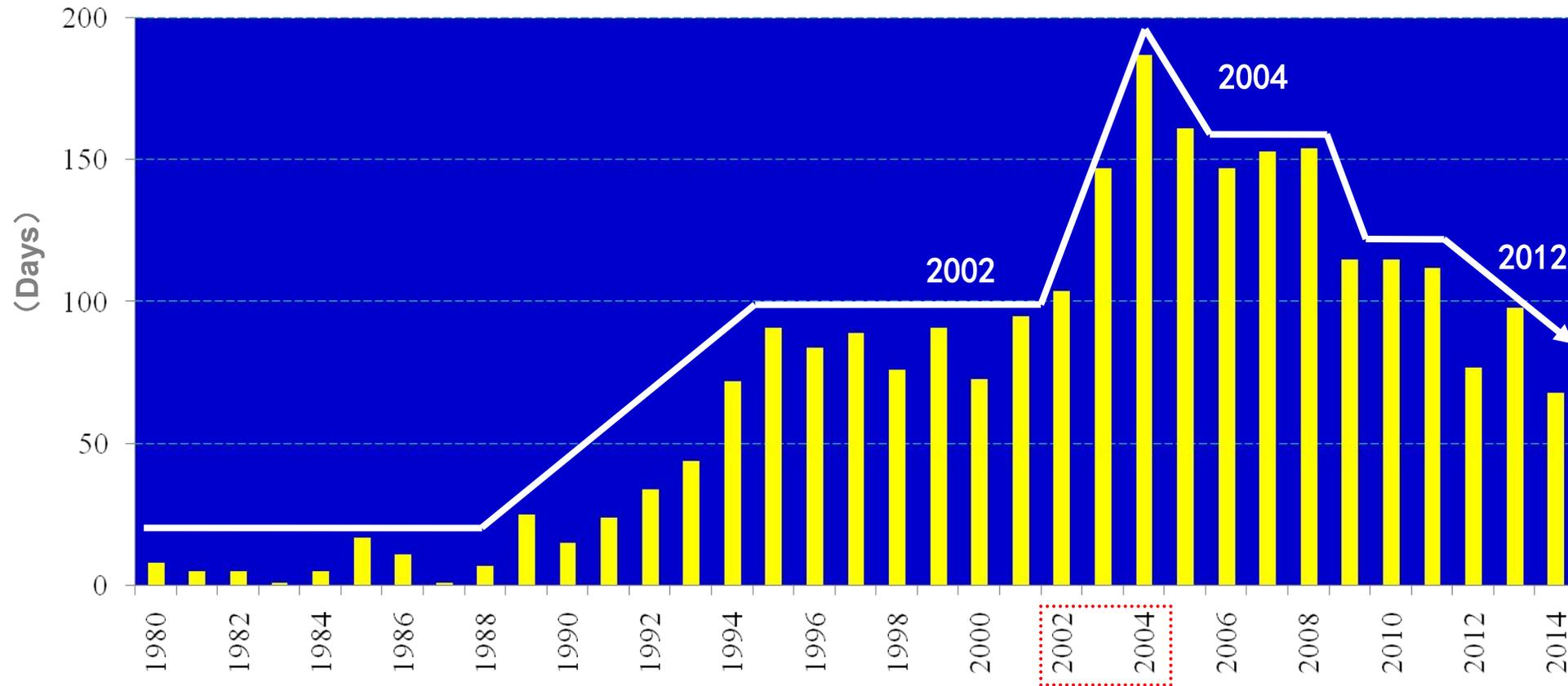
**深圳市环境科学研究院**

# Shenzhen

- ❖ Land area: ~2000 km<sup>2</sup>
- ❖ Population: ~10.6 million  
**doubled** in last 10 years
- ❖ GDP : ~1.6 trillion  
increased **5 times** in last 10 years

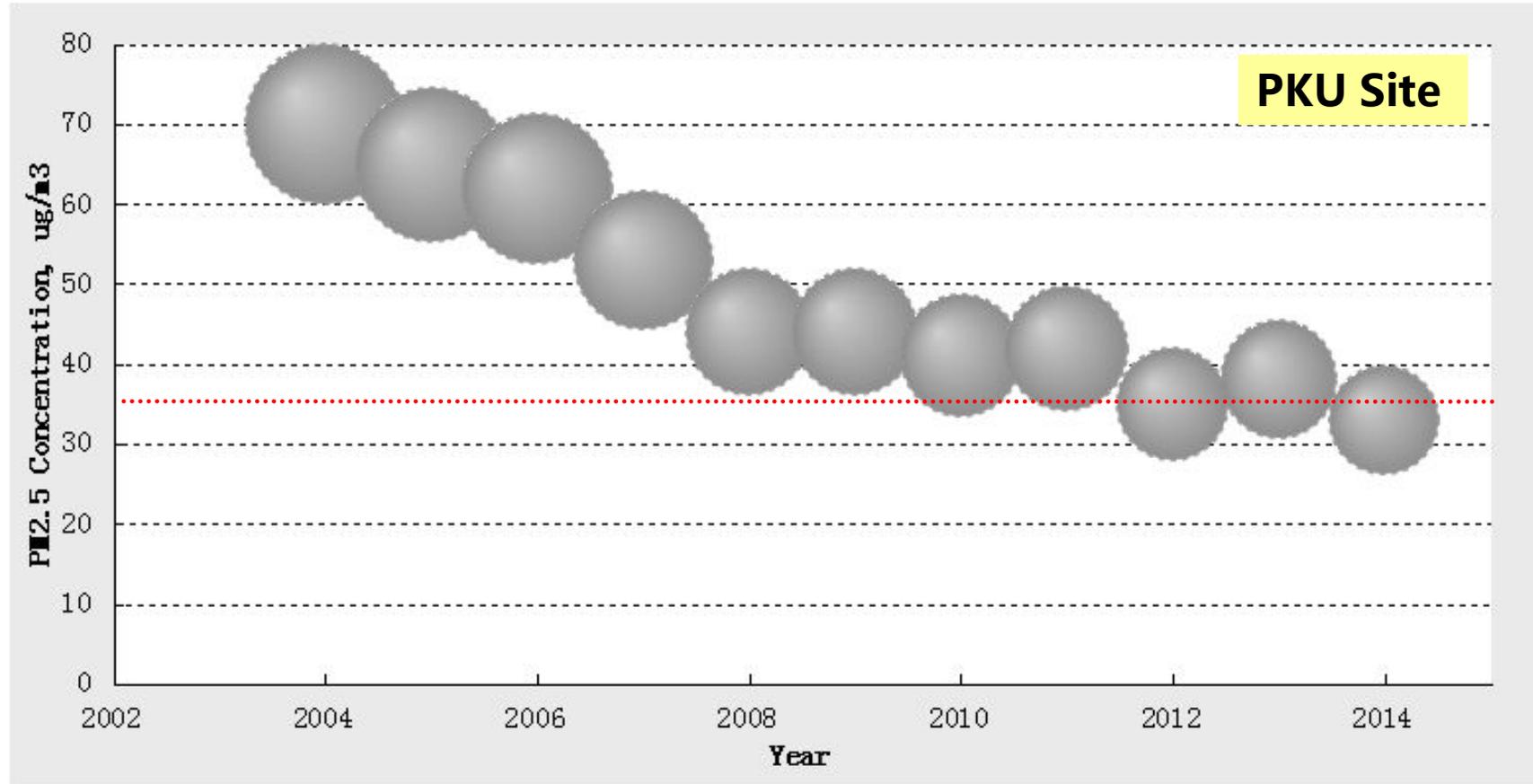


# Haze days in Shenzhen history



With the rapid development of economy, **haze days** in Shenzhen started to decrease annually since 2004 after a obviously increasing period.

# PM2.5 variation in last 10 years



Shenzhen air quality improved significantly through making great effort to control air pollution in the past 10 years, the concentration of **PM2.5** decreased year by year.

# Main measures



# To optimize the structures of industry and energy

## Industry

- ❖ Keep heavy pollution industries out;
- ❖ Eliminate backward production capacity;
- ❖ Encourage the development of environmental friendly industries;

## Energy

- ❖ Control the amount of heavy oil;
- ❖ Preferred natural gas and electric energy;
- ❖ Encourage the development of clean energy, e.g. solar energy;

Proportion of the three industry :

2004, 0.4 : 61.6 : **38.0** (%)

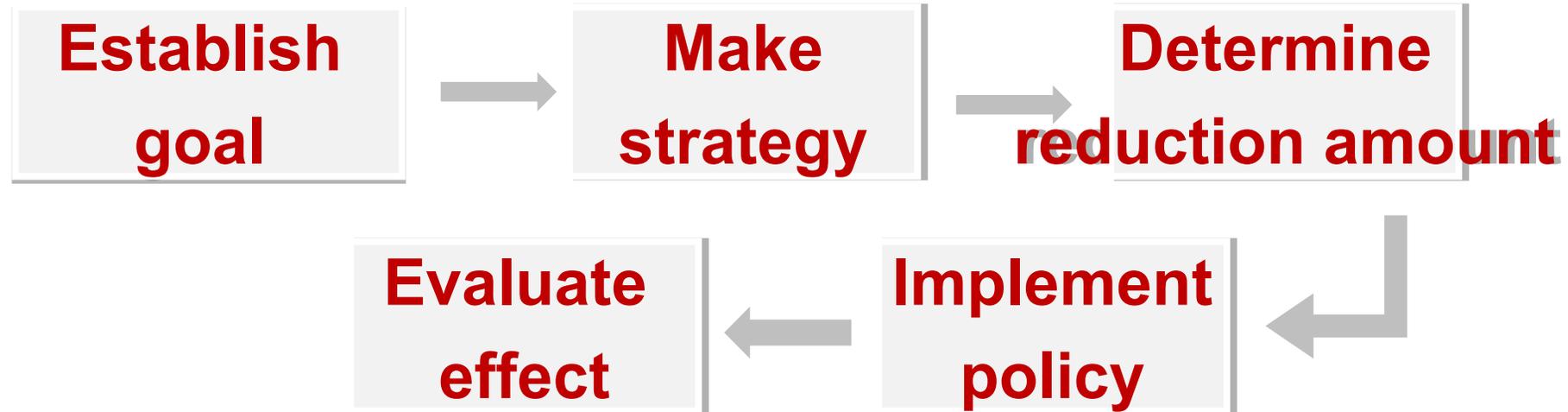
2013, 0.1 : 43.4 : **56.6** (%)

Proportion of **natural gas** use in primary energy:

2004, < 1%

2013, **>8%**

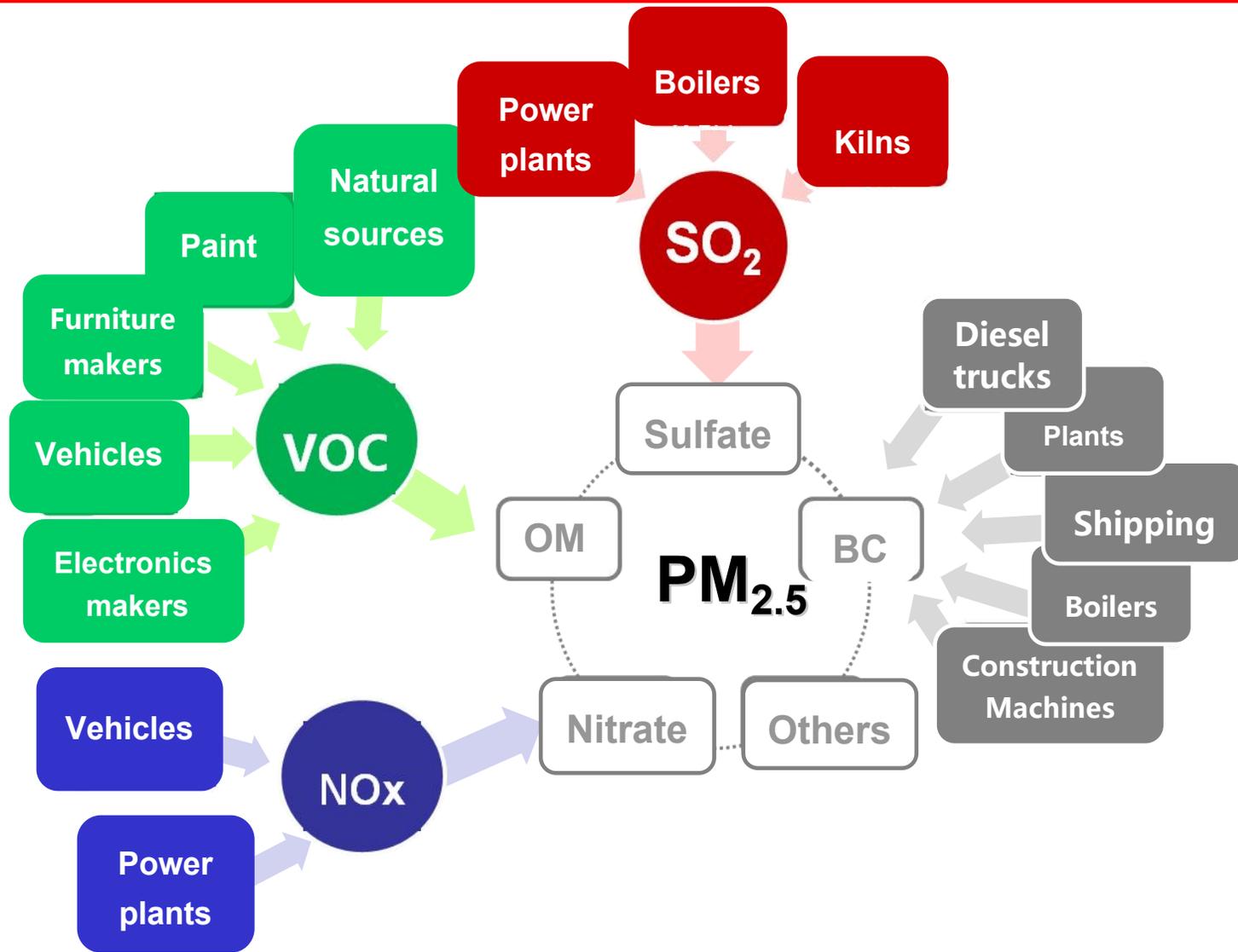
# Scientific management mechanism



- ❖ Make sure that every step is scientific;
- ❖ Local government support to carry on the research projects a lot;
- ❖ Keep in close touch with research institutes and schools.

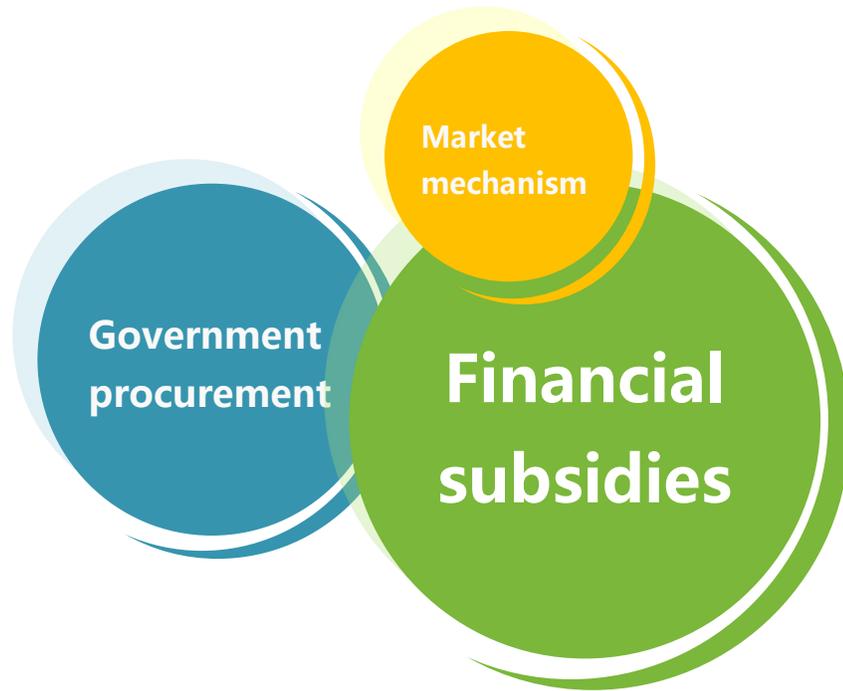


# Pollution control on major sources



To control pollution emissions of **major sources** would effectly reduce the pollutants amounts.

# Economic incentives



- ❖ A lot of subsidies for heavy pollution industries, e.g. power plant;
- ❖ Promote to substitute vehicles that fail to meet the European No.2 standard for exhaust emissions;
- ❖ Make strict standard in government procurement;
- ❖ Authenticate the environmental friendly products to lead green market.

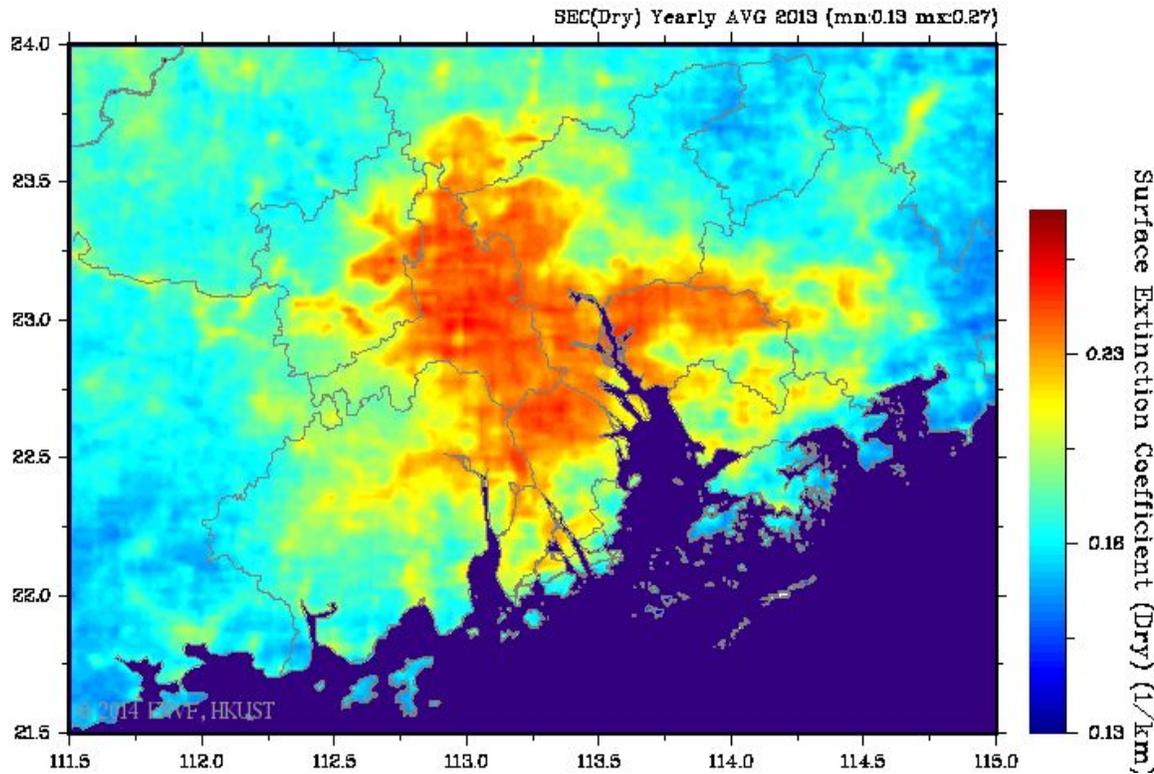
Shenzhen government use various **economic means** to promote the pollution control effectively .

# Performance reviews



Strict **performance reviews** effectively improves the work efficiency of the responsible departments, ensure that pollution control plan can be accomplished in given time.

# Regional co-operation



**Well regional air quality** effectively ensure and magnify the effort of every local government on the pollution prevention and control.

**Thank you for your attention!**



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