

Low-carbon City Pilot Initiative in China

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Outline

- ❑ **Why Low-carbon City Development in China?**
- ❑ **LCC pilot Initiative and Implementation**
- ❑ **Principles and Objectives for Next Step**

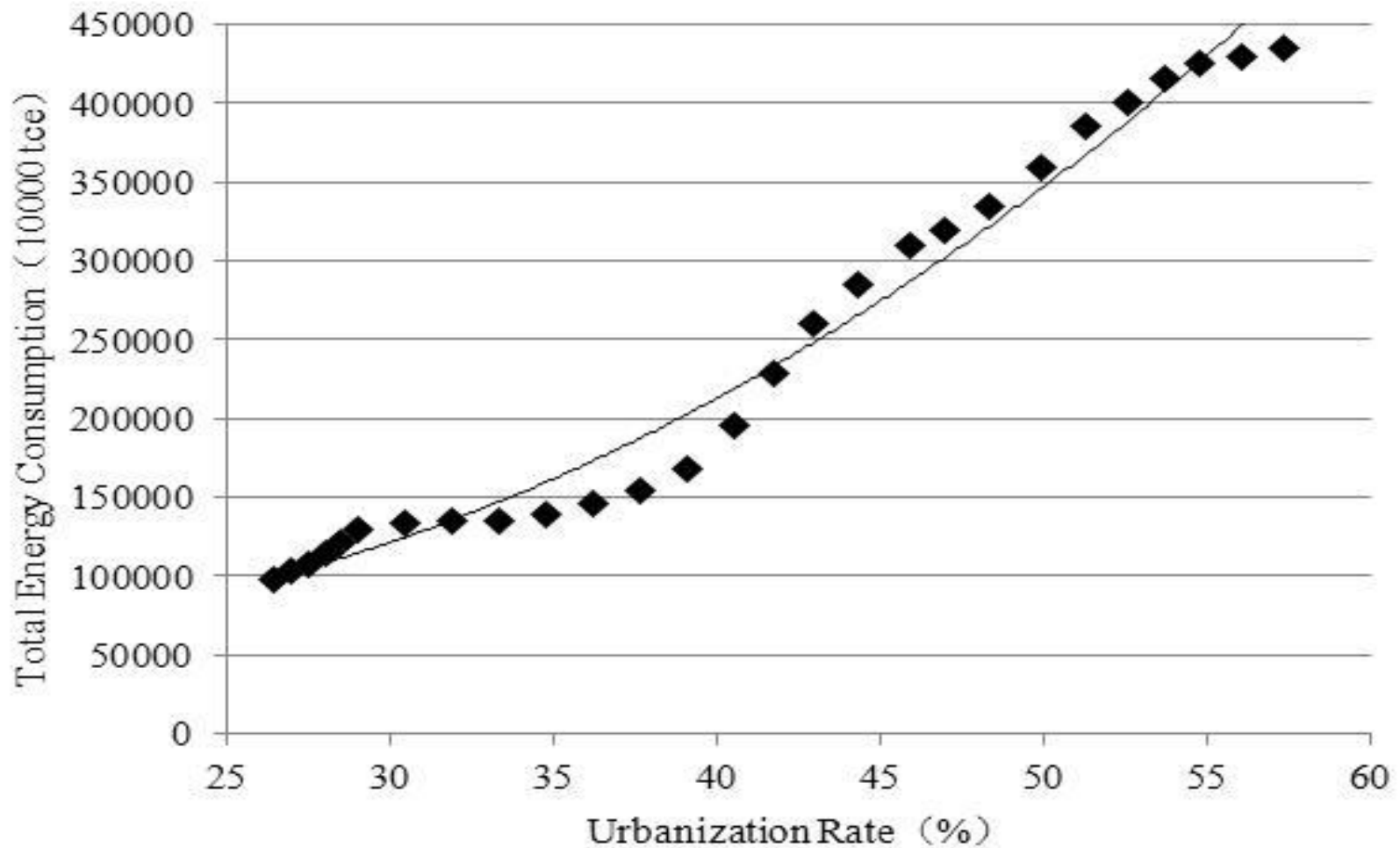
Cities and CO₂ Emissions



Cities are responsible for approximately 71% of the world's greenhouse gas (GHG) emissions

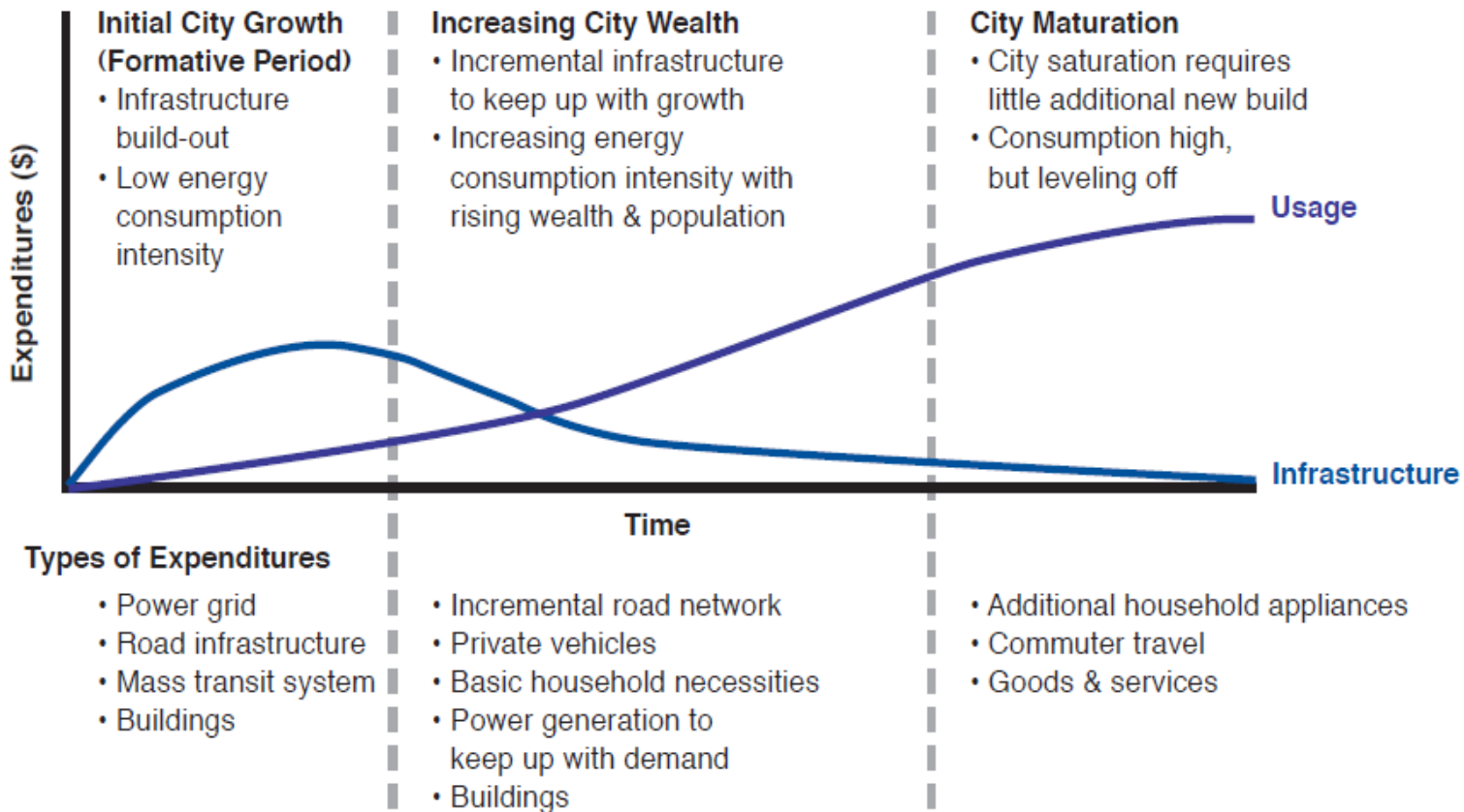
Source: International Energy Agency(2009)

Rapid and Costly Urbanization in China



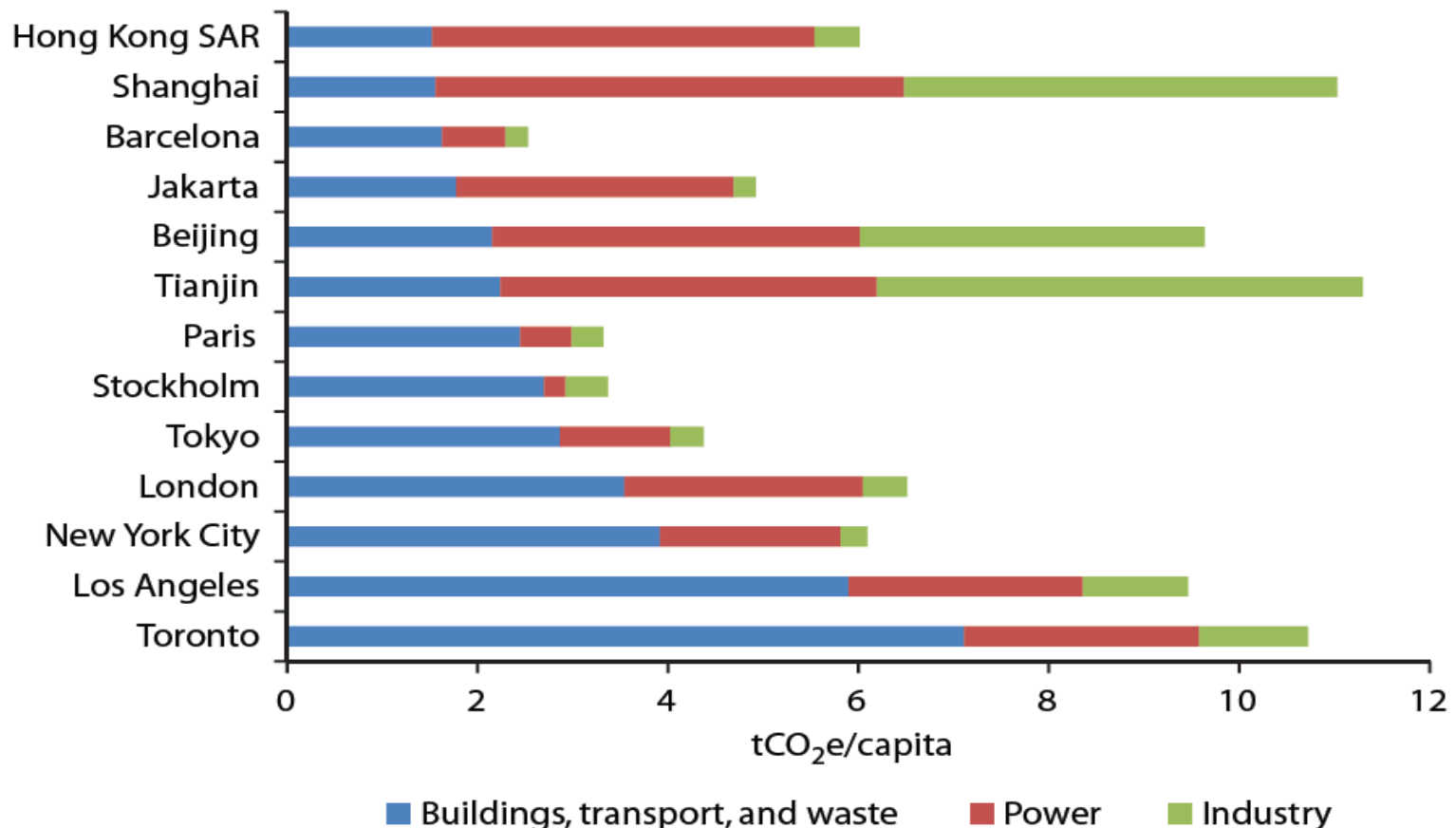
Urbanization Stage and Energy Expenditures

Typical City Expenditures and Emissions Trajectory



Chinese Cities: high carbon emission characteristics

Figure 1 Per Capita Carbon Emissions of Selected Cities

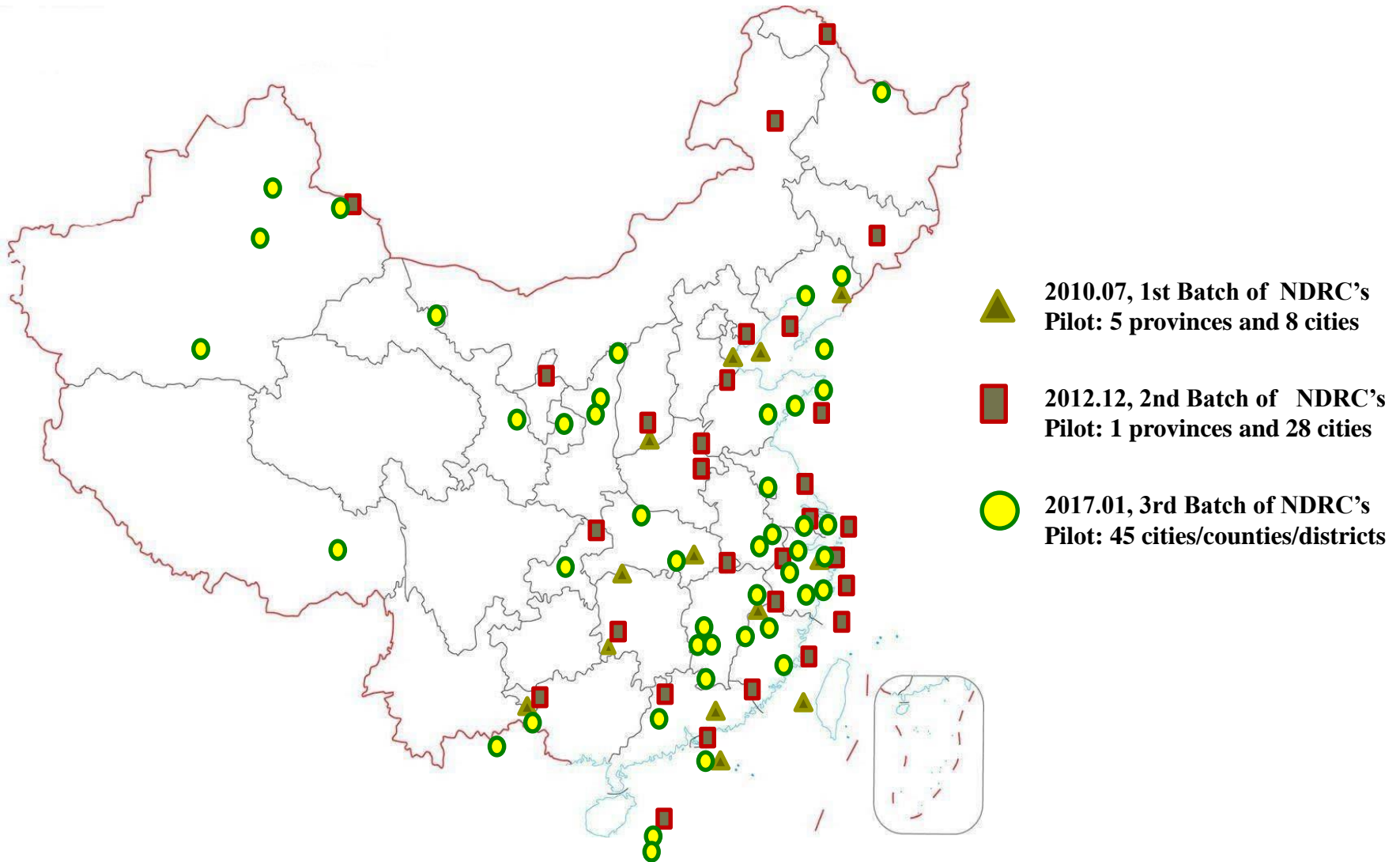


Source: World Bank (2010)

Why Low-carbon City Pilot in China?

- ❑ **An important pillar of China's climate strategy**
 - A combination of top-level design with local pilot
 - Finding a win-win mode of development and low-carbon.
- ❑ **To avoid long-term carbon lock-in**
 - **Rapid urbanization now and in the future**
 - Cost of huge amounts of energy and resource consumption
 - Huge infrastructure investment needed
- ❑ **Lots of co-benefits (better city, better life)**
 - Low transport efficiency/Traffic jams (**addressing city “sickness”**)
 - Air pollution
 - Urban waste
 - Resource saving
- ❑ **To gaining advantages of first-mover**
 - Create jobs and investment
 - Improve carbon competitiveness

NDRC's National LCC Pilot Initiative



Requirements for LCC Pilot

- Formulate LC development and implementation plan
- Explore to establish an accountable scheme for meeting the GHG emission controlling target
- Speed up the establishment of low-carbon industries, buildings, transport and energy systems
- Strengthen the basic capacity building for the GHG emissions accounting and inventory preparation
- Advocate green and low-carbon lifestyle and consumption patterns
- Set carbon peaking target**

Achievement of LCC Pilots in 12th FY

- ❑ **1st & 2nd batches of pilot provinces and cities: Pop accounts for 40% and GDP accounts for 60% of the country**
- ❑ **LCC pilots have yielded positive results in promoting nationwide green and low-carbon development**
- ❑ **The assessment of the fulfillment of carbon intensity targets during the 12th FY period showed that the decrease of carbon intensity in the pilot provinces and cities was significantly higher than the national average level**
- ◆ **Played a leading role in realizing low-carbon development goals through low-carbon pilot projects**
- ◆ **Improved understanding and capacity building of low-carbon development through low-carbon pilot projects**
- ◆ **A number of good practices and good experience have emerged**

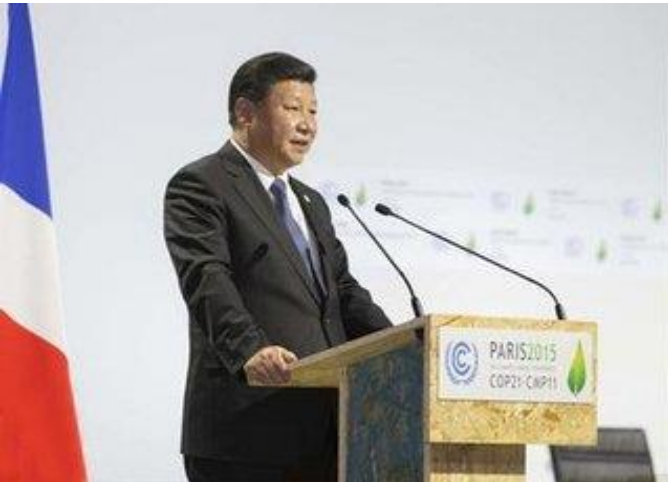
Selected Best Practice

- ❑ **Zhejiang: Normalization of inventory development**
浙江/清单编制常态化
- ❑ **Zhenjiang: Carbon emission management cloud platform**
镇江/碳排放管理云平台
- ❑ **Shenzhen: Low-carbon technology innovation and application** 深圳/低碳技术创新与应用
- ❑ **Nanchang: Local legislation on climate change**
南昌/地方气候变化立法
- ❑ **Guangdong: Carbon GSP (generalized system of preferences)** 广东/碳普惠制
- ❑ **Guangyuan: Specialized agencies for LCC** 广元/低碳发展局

Potentials for Deepening LCC pilots

- ❑ **The advancement of the low-carbon goal needs to be strengthened**
- ❑ **The roadmap to realize carbon emission peak target needs to be further demonstrated**
- ❑ **The consistency between energy and carbon data needs to be checked and the necessity of data statistical accounting capacity building needs to be strengthened**
- ❑ **Innovation of institution and mechanism should be specific, adjust to local conditions and local characteristics**
- ❑ **Strengthen coordination and synergy among various fields and sectors**

China's Intended Nationally Determined Contributions (INDC)



- ◆ To achieve the **peak of CO₂ emissions** around 2030 and making best efforts to peak early;
- ◆ To lower **CO₂ emissions per unit of GDP** by 60% to 65% on the 2005 level;
- ◆ To increase the **share of non-fossil fuels** in primary energy consumption to around 20%;
- ◆ To increase the **forest stock volume** by around 4.5 billion cubic meters on the 2005 level.

- Low-carbon green transformation is not merely in response to global climate change, but also a necessity for low-carbon green growth
- A question of how to accelerate the process rather than one of whether or not



Principles and Objectives for Next Step

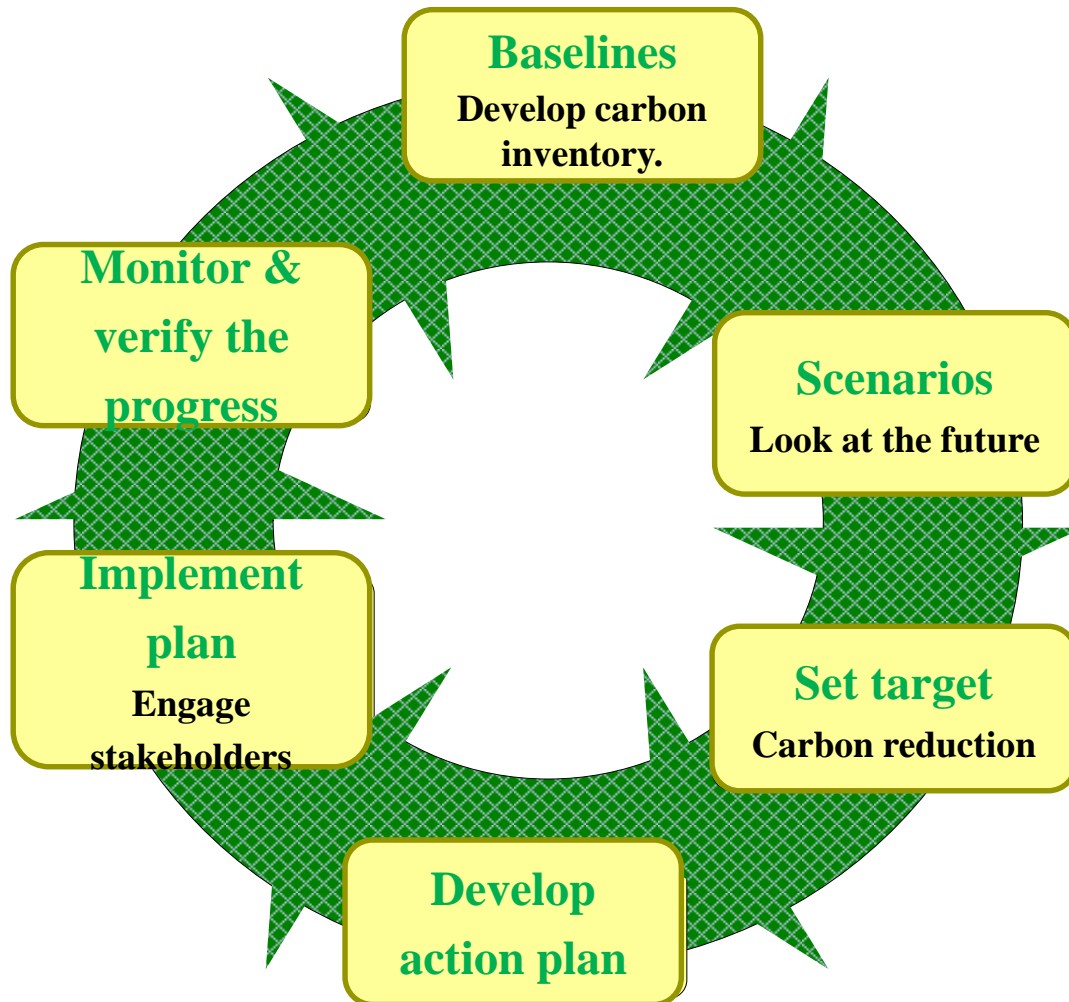
□ **Guiding principles**

- Base on urban classification to promote carbon emission peaking
- Explore various innovations adapting to local conditions
- Consolidate achieved foundation and improve related system
- Expand cooperation and full participation

□ **Major objectives**

- Take the lead to realize carbon emission peak target
- Basically establish the low-carbon industry system
- Initially form the low-carbon development model
- Basically establish the institutional system of low-carbon development
- Further strengthen the influence of low-carbon pilots

6-Steps Approach for Low-carbon City Development



Conclusions and Discussions

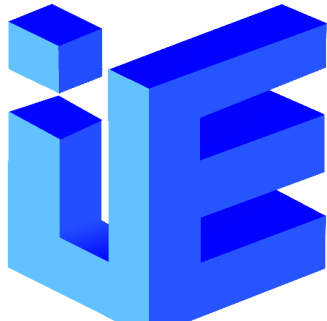


- ❑ LCC pilot is both a theoretical issue and a practice issue
- ❑ “Pilot +top” level design mode
- ❑ Follow the concept of “green is gold”
- ❑ Mobilize the initiative of local governments
- ❑ Carbon pricing to attract enterprise
- ❑ Public participation
- ❑ International cooperation and knowledge sharing

About CASS



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IUE is one of the leading institutes under the CASS in the field of urban and environmental studies, in particular in climate change and sustainable development



CASS think-tank on ecological civilization studies is a specialized think tank, aims to explore the ecological civilization theory and method, serve national ecological construction decision-making practice and promote international cooperation and communication



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Thank You!