

# Low Carbon Cities in China

North-East Asia Low Carbon Cities Platform Expert  
Group Workshop

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# Agenda

- › About the Carbon Trust
- › Low carbon cities in China
- › Case studies
- › Key challenges

# About the Carbon Trust



## Our mission

- Accelerate the move to a sustainable, low carbon economy
- 180 people in the UK, China, Mexico and South Africa

## Our services

- We **advise** businesses, governments and the public sector on opportunities in sustainability
- We measure and **certify** the environmental footprint of organisations, products and services
- We help **develop** and deploy low carbon technologies and solutions, from energy efficiency to renewable power

## Our results

- We helped our clients save USD 8bn in energy costs
- We helped our clients reduce their CO2 emissions by 60m tons
- We leveraged USD 620m in private funding in clean tech investments since 2001



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# 12<sup>th</sup> FYP



Source: The first batch of low carbon cities, picture from blog sina

# National low carbon city pilots

- National Development and Reform Commission (NDRC) appointed the first batch of low carbon provinces and low carbon cities includes 5 provinces and 8 cities in 2010.
- In 2012, *“The notice on carrying out the pilot work of the second batch of countries with low carbon provinces and low carbon cities”* issued by NDRC appointed the second batch includes 2 municipalities, 1 province, 1 prefecture and 25 cities. NDRC further indicated the number of **low carbon cities will increase to 100**.
- **6.6 trillion RMB has been planed to invest by 2020** including 1.65 trillion on low carbon buildings, 4.45 trillion on green transportation, and 0.5 trillion on clean energy.

[http://www.gov.cn/zwgk/2010-08/10/content\\_1675733.htm](http://www.gov.cn/zwgk/2010-08/10/content_1675733.htm)

[http://qhs.ndrc.gov.cn/gzdt/201212/t20121205\\_517419.html](http://qhs.ndrc.gov.cn/gzdt/201212/t20121205_517419.html)

<http://finance.sina.com.cn/roll/2016-06-07/doc-ifxsvoxw8645174.shtml>

Green fiancé for low-carbon cities: <http://www.efchina.org/News-zh/EF-China-News-zh/LCCity-CN>

# Low carbon city policies in the 13<sup>th</sup> FYP



- › **Chapter: 29 Complete the Integrated Modern Transportation System**
- › **Chapter 34: Constructing Livable Cities**
- › Improve **urban governance**, the quality of urban environment and quality of life.
- › Regulate **urban scale** within resources and environment boundary. Implement **green planning, design, construction standards**, and ecological corridor and the restoration project. Strengthen the construction of modern information infrastructure. Build up the **smart city**.
- › **Chapter 43: Promote the Conservation and Efficient Use of Resources**
- › Implement the **energy efficiency in buildings** and development plan of green buildings in the industry chain. Promote **comprehensive utilization of energy**.
- › Promote **public bicycle and public bus system**.
- › **Chapter 46 Actively Respond to Global Climate Change**

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# Carbon Trust's Low Carbon Cities Programme



- Building the team and raising engaging key officials
- Understanding city specific barriers and opportunities
- Support to City Government to manages it own estate's emissions
- Ensure credibility of City Government leadership
- Engage key city partners in dialogue to share ideas to cut carbon
- City-wide opportunities sharing conference
- Gather synergies and prioritise city-wide projects
- Support to develop plan for the implementation of city-wide projects
- Best practice case studies from the UK and Toolkit

# City of Nanchang 2009



- › Stakeholder: City of Nanchang government
- › Lessons learned will be disseminated to other Chinese cities
- › The team: Carbon Trust, Xiamen University, and Atkins
- › Timing: August 2009 - December 2010
- › Tools adapted and developed for low carbon cities and lessons learned from Project is submitted to the NDRC.



## Nanchang outcomes

- Low-carbon development formed an important part of Nanchang's 12<sup>th</sup> Five-Year Guidelines, approved by the city's legislature.
- **Civil emission data** were collected through 500 surveys, out of which 423 were validated.
- Recommendations included the carbon intensity **reduction targets of 50% by 2020** from the 2008 baseline and economic and urban development strategies to achieve them.
- The **LCCP Toolkit** has been adapted for Nanchang city government. A carbon emission baselining and forecasting tool has been developed.

## City of Ningbo 2015



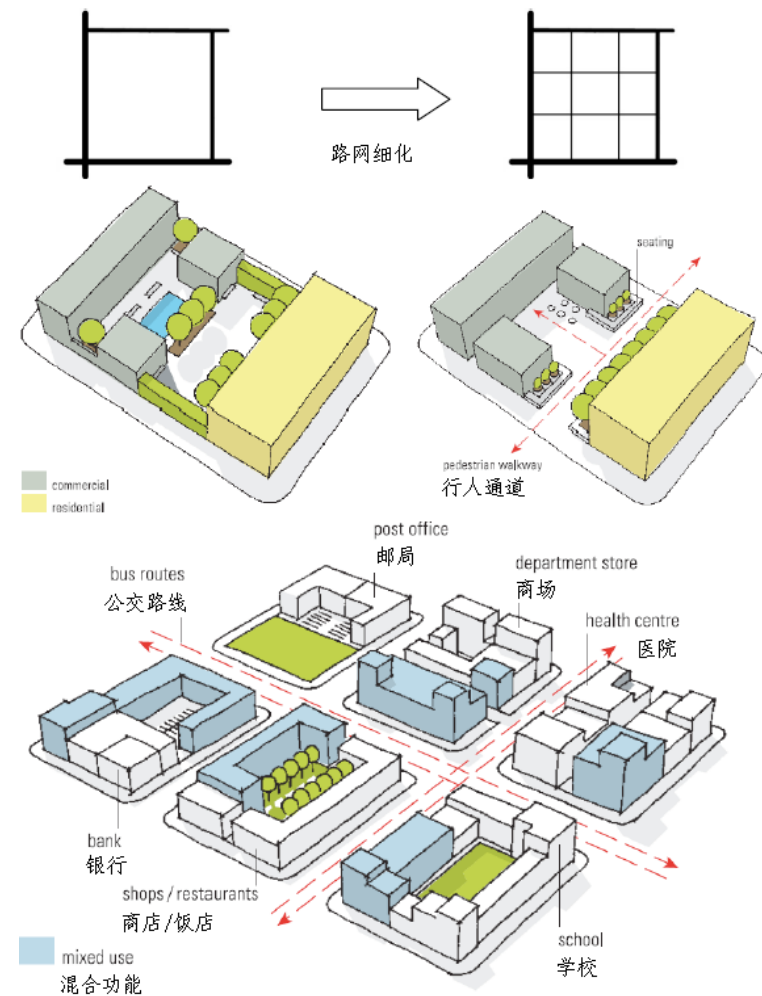
Historically a significant port (ranked 4<sup>th</sup> in 2015), Ningbo is an independent planning city in China. It imports 15% crude oil for all of China, generating 28% of electricity for Zhejiang province.

Ningbo government has pledged to reduce 50% carbon by 2020 from 2005, and is committed to peak its emission 10 years before the national target.

Our ongoing work: Carbon reduction assessment in the soft traffic management measures for transport in city centre

# Low carbon city development in Ningbo

- World bank funded projects on Urban form revision (small grid) and sustainable infrastructure financing.
- Research in low carbon building design and construction standards, urban form revision, net zero transport system, large scale renewable energy implementation.



## Zhongshan 2016

Named after Sun Yat Sen (1866–1925), the founding father of the Republic of China. Zhongshan is a manufacturing hub in the south of Guangdong province.

Our work is to help the city and its industries to be more resilient in the economic front. Specifically, we help develop low carbon services capability in their industry zone whilst designing policy and financing lever to accelerate low carbon service to grow as a local business.



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# Challenges to low carbon cities



## Urbanization and economy

- Jobs, industries and economy
- Energy mix and resources sustainability
- Population migration (Residence permit and welfare
- Standard of living
- Urban form and connectivity
- Biodiversity
- Smart city





# Thank you!

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