

Low Carbon City Initiative

Shanghai Pilot Project

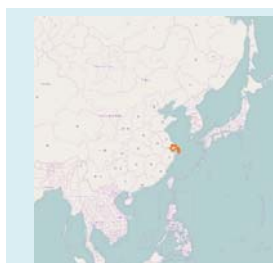
Shanghai, China



Shanghai joins WWF's initiative to explore ways for low carbon development

The most populous country with the one of fastest growing economies in the world, China faces pressing environmental issues brought on by its rapid urbanization, industrial expansion and energy consumption. Emphasis has been made by the government to adopt climate change and energy measures in recent policies to address these issues. In order to help China achieve its 2010 commitment to reduce its carbon intensity by 40% and to realise a 15% share of non-fossil fuels in energy consumption by 2020, the World Wildlife Fund (WWF) announced a partnership with China's cities to implement its Low Carbon City Initiative (LCCI) project. In 2008 Shanghai became one of the first two Chinese cities to join the LCCI project. The project sets its objective on green city development through energy efficiency, renewable energy and technologies that reduce carbon emissions [1].

Country/ City Profile



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Country		City	
Population (2014)	1.364 billion [2]	Population (2013)	24.1515 million [3]
Land area (km ²)	9.6 million [2]	Land area (km ²)	6,340 [3]
GDP per capita (2014, current international \$, at purchasing power parity)	13,216 [11]	GDP per capita (2014, US\$, at purchasing power parity)	24,065 [12]
Region	East Asia	Region	East China Sea, Coastal

City's physical geography

Location	<ul style="list-style-type: none"> ✓ Shanghai is China's largest city by population, sitting in the middle of the Chinese north-south coastline and bounded to the east by the East China Sea [4] (flooding risk, risk of sea level rising) ✓ The city is located at the mouth of the Yangtze in the Yangtze River Delta (land subsidence)
Climate	<ul style="list-style-type: none"> ✓ Subtropical monsoon climate (average temperature: 17.6° C) [3] ✓ The climate is mild and humid with distinct seasons. Annual precipitation was 1,173.4 cm in 2013, with 60% of it from May to September [3]

Initiating context

The most populous country in the world, China consumes large amounts of energy to supply its population as well as its unprecedented economic growth. By 2050, 75% of China's population will reside in cities, demanding even more resources and adding more pressure on environmental capacity than what is seen today [4]. Low carbon development, explicitly the question of how to reduce carbon emissions while at the same time providing for rapid economic development, has become one of China's biggest challenges.

In China's 12th Five Year Plan (FYP), the emphasis has started to shift from quantitative to qualitative growth. China planned to initiate a clean energy revolution that would encourage the development of low carbon energy, energy efficiency and clean technology, and pledged to reduce the nation's carbon intensity by 40-50% by 2020 compared to 2005 [6]. Shanghai, with its registered population increasing at 0.72 million persons per decade since 1981, has established cooperation with international organizations to implement low carbon initiatives that comply with China's environmental policies [7].

Project description

The WWF's Low Carbon City Initiative (LCCI) project focuses on green development via energy efficiency, renewable energy and low-carbon technologies. WWF partners not only with "cities", but also with agencies and

businesses. Since 2007, LCCI has promoted technology transfers and other exchanges between China and developed countries through exploring new tools for financing and investment in clean technologies [8].

LCCI's first stage included the implementation of pilot projects in Baoding and Shanghai. The pilot project in Shanghai involves eco-buildings, energy efficiency in office buildings, policy development and energy-saving campaigns [8].

Implementation process

In exploring low carbon development models in Shanghai, WWF set up its goal to improve energy efficiency in the industry, construction and transportation sectors. The Shanghai Program includes new eco-building demonstrations, energy efficiency improvement of existing large commercial buildings, a low carbon development roadmap and the "20 ways to 20% energy saving" campaign to raise public awareness of energy efficiency as well as to engage the citizens in energy saving [5].

WWF has focused on improving the energy efficiency of large commercial buildings by establishing an energy auditing system and developing energy efficient building policies. WWF is also partnering with local institutions to develop Shanghai's low carbon development roadmap while exploring low-carbon solutions in transportation, finance and other sectors [9].

Results

The first and longest-running low carbon city program in China, LCCI has been underpinned by strong branding in China and notable strengths in the outreach and engagement of diverse stakeholder groups. WWF's LCCI project has played a critical role in raising public environmental awareness.

Conclusion

The city is providing more and more green development opportunities, while also continuing to face new environmental challenges from an expanding economy. Successfully reaching China's environmental targets is only possible with strong and effective policy implementation at the national and local level. A low carbon path is the only choice for China, which needs to be supported by the international community and businesses to develop best practices for policy development and low carbon technology diffusion [10].

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