



Unlocking the potential of the land sector in China

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250 million tonnes – amount of CO₂e reduced over lifetime of TNC China’s NCS strategy

500 million people shifting to low-carbon choices

0.4 million cars off the road – CO₂e equivalent of TNC China’s combined forest carbon projects

4.5 billion m³ increase of China’s forest stock

WHY WE LOVE THIS STORY China is on the brink of a new, world-changing era - by creating the world’s largest carbon market. This is a huge opportunity for driving investment into forests and high biodiversity conservation and TNC is uniquely placed to pioneer the use of emerging market tools for rehabilitating ecosystems, fighting climate change and benefiting communities.

Where are we?

The vast geographic scope of this project encompasses some of China’s largest and most important provinces, from Yunnan and Sichuan in the southwest, to Guangdong in south China, Zhejiang on the east coast, and Henan in the central plains, all the way to Inner Mongolia in the north, as well as the capital city of Beijing itself. These regions include rural and urban areas, forests and grassland, cropland, wetlands and desert, but are united by a common and massive opportunity to unlock the full potential of land-based natural climate solutions (NCS) at a game-changing, globally significant scale.



TNC China is one of the most active players in the development of China’s NCS action. For over a decade, the Conservancy has been advancing scientific research, spearheading demonstration projects, and developing new methodologies for carbon accounting, climate smart agriculture, and land-based climate solutions. The goal of this multi-pronged strategy is to ensure that, by 2022, funding and support is in place for NCS projects in China with the combined potential of sequestering and avoiding at least 250 million tonnes CO₂e over their lifetime. This equates to an approximate reduction of 50 million tonnes CO₂e by 2030. In the process, around 500 million people will be incentivized to shift towards more low-carbon choices.

What’s new here?

TNC is supporting the Ministry of Ecology and Environment of China to mainstream NCS in China, by providing scientific analysis and intellectual support. Specifically, while China is establishing the world’s largest carbon market, TNC is helping to lay the foundations for this new financing tool to drive investment in the land sector, including for the restoration of high-biodiversity forests and wetlands, sustainable agriculture, and enhancing soil quality. These solutions will play a major role towards China meeting its Paris Agreement commitments to peak its emissions by 2030 and increase its forest stock by 4.5 billion cubic meters, creating a pathway for more ambitious future goals.

TNC China has been breaking new ground in NCS and carbon credit accounting in China for years. In 2007, a project to restore 500 hectares of forest in Tengchong of Yunnan province became the world's first to receive gold certification by the international Climate, Community, and Biodiversity (CCB) standards scheme, followed in 2009 by a second reforestation project covering over 2,000 hectares. Following these models, TNC China is restoring 12,500 hectares of forest in Yunnan, Sichuan and Inner Mongolia, with expected carbon credits of more than 3 million tonnes of CO₂e over the next 60 years. That's equivalent to taking 400,000 cars off the road for one year. This work is proving that forest carbon sink projects have the capacity to contribute massively to the fight against climate change, promote community well-being, and boost biodiversity.

The Conservancy is also pioneering the use of emerging technologies. For example, TNC China has been instrumental in harnessing digital technologies by providing the science behind ANT Forest, a new consumer engagement app launched in 2016 to encourage users to adopt low-carbon behavior by matching the resulting emission reduction with actual trees planted and high conservation value areas protected. This powerful tool has attracted 500 million users in just three years. Another example is the promotion of cross-laminated timber, a low-carbon building material using engineered timber, which has huge potential in China's expanding medium-level building market, where it can be used as a more sustainable alternative to steel. TNC is continually exploring potential market drivers and policy opportunities as they emerge and encouraging the government, communities and private businesses to seize the unprecedented opportunities in the interconnected forest, land and carbon sectors.

Can we replicate this work?

The ability to scale-up and replicate its projects is at the heart of TNC China's NCS strategy. That's why the work focuses on showcasing a cross-section of pilot schemes to be adapted and rolled out across the country. These include two projects aimed at improved forest management in Heilongjiang and Yunnan, two for forestation in Yunnan, one for restoring a former mining area in Beijing, and a major initiative promoting climate smart agriculture and sustainable grazing in Inner Mongolia. These land-based projects are together expected to absorb about 30 million tonnes of CO₂e over their lifetimes.

With the help of evidence from these projects and extensive scientific research, TNC and its partners are leading the development of new carbon offset methodologies as a part of the China Certified Emission Reductions (CCER) registry. Four CCER methodologies have been developed so far – for forestation, bamboo forestation, improved forest management and restoration of small-scale mining areas, and a fifth, aimed

“The protection of these critical ecosystems is a key opportunity for major climate mitigation advances towards the goals of the Paris Agreement.”

Xiaoquan Zhang, Chief Science Officer, TNC China

at wetland restoration, is in progress. By showing that large-scale land-based solutions can generate economic, social and environmental benefits, TNC is helping to position them as a vital component of China's emerging carbon market, driving investment towards NCS.

What's next?

The next phase of this initiative is focused on getting the TNC methodologies endorsed and adopted more widely by government, community and private partners. In addition to the new methodology for wetlands, and expanding work in climate smart agriculture, sustainable grazing, and crop cover innovations, TNC is also working with the government to develop a recognized forest carbon accounting system. This is starting at the provincial level in Sichuan, but will subsequently be promoted at the national scale.

As China advances towards the launch of its national carbon market, TNC will be demonstrating incentive policies and advising government agencies on how to design the emissions trading scheme to maximize demand for land sector offsets that benefit communities, the economy and nature. The Conservancy will also be developing a new strategy aimed at positioning China as a world leader in NCS.

Additional benefits

TNC China's projects are all committed to achieving multi-benefits. Alongside the carbon sequestration, ecosystem rehabilitation and climate change mitigation, these initiatives promote sustainable community development, create jobs and opportunities, provide training, protect and restore native plant and animal species, and improve local air, water and soil quality.

Key partners

TNC has been working with Central Government Ministries and Commissions such as the National Development and Reform Commission, the State Forestry Administration, the Ministry of Environmental Protection, the Ministry of Water Resources, and the Poverty Alleviation Bureau of the State Council. In addition, TNC works with provincial government bodies, scientific institutes, other NGOs and a growing number of private partners.

Contact for more information

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