

# Full Steam Ahead: Ningbo Speeds Up Low-carbon Development

By Jin Lu

Ningbo is rolling out its road map for peaking carbon emissions by 2030, aiming to achieve low-carbon transformation in a diversified way.

According to this year's government work report, China will reduce energy consumption and carbon dioxide emissions per unit of GDP by 13.5 and 18 percent, respectively, during the 14th Five-Year Plan period (2021-25).

To fulfill the ambitious target, Ningbo has taken multiple measures to lower carbon emissions, with a focus on optimizing industrial and energy structures.

## Photovoltaic Project Achieves Win-win Result

Official statistics show that photovoltaic power has become the second largest source of electricity in Zhejiang after thermal power. More than one seventh of the province's power needs are met by solar energy. In terms of installed photovoltaic capacity, Ningbo is the leader in Zhejiang.

In Xiepu, Zhenhai, a solar farm built over the water surface of Lanshan Reservoir has achieved a win-win result.

The 1.45-billion-yuan solar farm is capable of generating 209 million kilowatt-hours of electricity per year, equivalent to the annual consumption of 100,000 households in Zhenhai.

The power generated by photovoltaic modules placed over the water is usually higher than those placed on rooftops and grounds because of the cooling effect of water.

Annually, the solar farm can reduce the consumption of standard coal by about 60,000 metric tons, carbon dioxide emissions by 151,300 tons, sulfur dioxide emissions by 5,000 tons, and nitrogen oxides emissions by 532 tons.

Besides, a photovoltaic project erected over tidal flats in the western part of Gaotang island in Xiangshan was put into operation recently.



Solar farm in Cixi.

[Photo by Wang Peng, Luo Yanhu]

The project, the largest of its kind in the nation, is expected to generate an average of 340 million kilowatt-hours of electricity annually, thus reducing carbon dioxide emissions by 270,000 metric tons per year and aiding Xiangshan's goal of being powered solely by clean energies by 2025.

This model makes it possible to generate photovoltaic power and breed aquatic products at the same time and same place.

## Push Ahead with Hydrogen Energy Plans

Hydrogen, known as "the ultimate energy in the 21st century", is considered as the most promising clean energy. Ningbo is gearing up for the development of hydrogen fuel cell energy, another green energy solution for vehicles, and has released spe-

cific plans for the industry.

Ningbo's first hydrogen refueling station, which will be opened to fuel hydrogen fuel cell vehicles, has recently completed construction in the city's Zhenhai district.

The station, built by Sinopec Zhenhai Refining & Chemical, covers a total area of 19 mu (1.26 hectares), with a daily capacity of providing 500 kilograms of hydrogen.

As one of the seven national petrochemical bases, Ningbo is now ready to supply 72,300 metric tons of hydrogen byproducts per year, which can be feed up about 360,000 hydrogen fuel cell passenger cars.

The city was ranked ninth among China's top 30 cities in hydrogen competitiveness in 2020.

Ningbo aims at lifting the output value of the hydrogen industry in the city to above 40 billion yuan (\$6.15 billion) by

2025, according to a drafted local government development plan.

The figure is targeted to exceed 150 billion yuan by 2035.

## Set to be the National Leader in Garbage Classification

Recently, Ningbo has been ranked among the top three cities in China in promoting garbage classification for the first half of this year. A total of 397,400 metric tons of recyclables were collected in the city from January to July, resulting in a decrease of 79,000 tons of carbon dioxide emissions.

To date, Ningbo has launched smart garbage recycling machines in 12 sites across the city. Residents are required to dispose of their garbage in a classified manner after swiping cards, scanning their faces, or inputting codes to operate the

machines.

The machines are able to automatically break disposed garbage bags and weigh the content. They are also equipped with facial recognition and AI technologies to identify users attempt to break the rules.

In the first half of this year, 259 Ningbo residential communities were designated provincial models for garbage classification, 59 more than the target pre-set by the city.

The city's 11 major express parcel distribution centers have all adopted recyclable plastic bags, while 81 star-rated hotels have banned the use of disposable products.

Over the six-month period, a total of 1,892 cases related to municipal garbage classification law violations were handled in Ningbo, with fines exceeding 180,000 yuan (\$27,692).

## SPOTLIGHT

### Craftswoman Making Knot Buttons in Cixi Goes Viral

By Dong Na

The Chinese knot button (盘扣 pánkòu) is an ornamental braiding for fastening the front of a garment that consists of a button and a loop through which it passes. It is often considered as a distinctive feature of traditional Chinese apparel. Even today, it is still highly visible on garments like Qipao, or cheongsam. Though normally associated with tradition, the knot buttons are currently enjoying renewed popularity.

In Weixi Village, Cixi, Mo Lijun, a craftswoman, is 52 years old this year. Over the past 20 years, she has devoted herself to the skill of making knot button, and her clothes with knot buttons have gone viral on social media.

Mo remembers when she was a child, many Cixi women were good at making knot buttons. After she married, she learned to make knot buttons to support her husband's career in the antiques industry. She also learned how to cut cloth and scrape pulp from her aunt, who was a seamstress.

Knot buttons are made with great emphasis on style design and color matching. When making women's clothes, buttons matched should be more delicate. Mo said it is better to use real silk to make the cloth with which knot buttons are used. It looks more exquisite, as she put it.

Not only so, with these buttons, the cheongsam looks even more vivid and a step more towards perfection with a sense of artistic pleasure.

The type of knot buttons varies. It takes three or four days to make complex buttons, while the simple ones can be completed in a day. "The buttons are in pairs, like the cheongsam, there are more than 10 pairs of buttons," she said.

In Cixi, few people specialize in making knot buttons. Although beginners can start very quickly, the design and production of good buttons need experience. In the eyes of Mo, knot buttons are not only folk handicraft, but also a symbol of Chinese traditional dress culture. At present, she is preparing for the application of intangible cultural heritage project. To better preserve and popularize the skills, Mo is also looking for successors.

Chief Adviser: Zhou Fangzhou  
Proofreader: Dong Na

## 双语汇 Different Tongues

### Ninghai:

## The Starting Point of Xu Xiake's Journey

### 宁海：“霞客行”，自此始

By Gou Wen

Xu Xiake was a "travel blogger" in ancient China. According to his travel notes, Xu has traveled to more than 20 provinces and cities. On May 19, 1613 A.D., he left the Ximen (West Gate), Ninghai and began his 34-year adventure.

徐霞客是一名中国古代的“旅游博主”，他的足迹遍布中国20多个省市。公元1613年5月19日，他从宁海西门出发，开始了34年的冒险之旅。在那个没有Vlog和社交平台的时代，他将自己的所见所感写成了《徐霞客游记》。

The hundreds-of-thousands-of-word book does not only contain valuable records about the great rivers and mountains of China, but also is a valuable literary work.

这本几十万字的游记不仅记录了中国的大好河山，同时也是一部很有价值的文学作品。

Since 2002, Ninghai has held the tourism festival named after Xu 19 times. As the first station of Xu's journey, this year, the county was also designated the main venue for Zhejiang to mark National Tourism Day.

自2002年起，中国（宁海）徐霞客开游节已连续举办了十九届。作为徐霞客游记开篇地，今年，宁海县被指定为中国旅游日浙江主会场。



The annual tourism festival named after Xu Xiake. 徐霞客开游节盛况。

[Photo by Wang Peng] 王鹏 摄

