

# Advancing Digital, Green Transformation

## Policy

By LIN Yuchen

Ten government departments, including the Office of the Central Cyber-space Affairs Commission and the National Development and Reform Commission, jointly released new guidelines for the coordinated transformation toward digital development and green growth on August 24.

The guidelines outline a strategic framework for accelerating the simultaneous development of digitalization and green transformation. It emphasizes four core principles: innovation leadership, collaborative advancement, open cooperation, and practical results. The document also identifies three types of stakeholders — local governments, industry associations, and enterprises — and provides guidance on how they can implement digital-green collaborative initiatives.

Two major directions are highlighted for achieving these goals: first, accelerating the green and low-carbon development of digital industries, including data centers and communication infrastructure; second, leveraging digital technology to drive green transformations in key sectors such as power, mining, metallurgy, and agriculture.



A solar panel project based in Tongliao city, Inner Mongolia autonomous region. (PHOTO: XINHUA)

Key measures include optimizing data center energy supply, encouraging the integration of data centers with renewable energy sources, developing collaborative power and computational infrastructure, and exploring green electricity supply models.

The guidelines highlight enhancing smart power resource allocation by developing intelligent dispatch systems to accommodate large-scale renewable energy and implementing

new technologies for power distribution and market integration. In addition, improving electricity market resource allocation by promoting a unified electricity market system, enhancing transparency, and improving mechanisms for green electricity certification and carbon emissions trading are included.

The guidelines also stress the importance of regional governments and industries focusing on high-quality de-

velopment and leveraging local resources. It calls for a transformation in energy, industry, and consumption structures, aiming for a comprehensive green shift in economic and social development.

The release of the guidelines signifies a significant step towards achieving China's goals of digital and green transformation, highlighting the government's commitment to fostering a sustainable and innovative future.

## High-quality Growth

# Yunnan: Living in Harmony with Nature

By ZHAO Hanbin, FANG Linlin, LI He & HE Liang

The concept of respecting nature, conforming to nature and protecting nature has become a growing consensus in Yunnan province. In the process of ecological protection and development, Yunnan has worked hard to achieve win-win cooperation between ecological environmental protection and high-quality economic development.

### Biodiversity protection strengthened

Yunnan is the most biodiverse province in China, with more than 50 percent of the country's higher plants, vertebrates and macro fungi.

In recent years, biodiversity protection in Yunnan has been strengthened. For example, Yunnan has been attaching great importance to the Asian elephant, Asia's largest and most iconic land vertebrate. Yunnan has built an intelligent system integrating wildlife protection, monitoring and early warning, and the species recognition rate of Asian elephants has exceeded 99 percent.

Yunnan is also committed to the protection of species with extremely small populations (SESP). The province has established 30 protection areas, 13 gardens for the ex-situ conservation and protection of plants in their original habitats, and five research labs, and is implementing more than 120 projects to save and protect SESP.

In September 2023, the 45th UNESCO World Heritage Conference inscribed "the Cultural Landscape of Old Tea Forests of the Jingmai Mountain in Pu'er" on the World Heritage List, which is also the world's first tea-themed World Heritage Site.

According to an executive summary published on the UNESCO website, the UNESCO World Heritage Committee noted that the site represents an exceptional testimony of the understorey tea cultivation traditions of local people, being an outstanding example of sustainable cultural landscapes of mountain forest farming.

### Scientific governance to protect lake

In recent years, scientific governance in Yunnan has resulted in the restoration of 3,733 hectares of wetlands. With the support of sci-tech,

the lake management capacity has been improved, and the water quality is generally good.

"One-hundred percent of the water quality in the outbound transboundary sections of the six major river systems, including the Jinsha River, Lancang River and Nujiang River, has met the standard," said Lan Jun, deputy head of the province's Department of Ecology and Environment.

For example, Zibi Lake, named after a water-lily that is discerning about water quality, is an important source of high-quality water for Erhai Lake, providing flood control, drought relief and agricultural irrigation.

"The water quality of Zibi Lake once deteriorated due to urbanization. But after scientific governance, most of the time it stays above class II, some of the time reaching class I water quality," Liu Xiaoyong, deputy director of Development Research Center of the Ministry of Water Resources in China, told *Science and Technology Daily* (S & T Daily).

**Green industries developed**  
In 2023, Yunnan received 1.04 billion tourists and its tourism revenue reached 1.4 trillion RMB. For instance, in the small fishing village of Shanggarlic town, Jinning district, a village on the south bank of Dianchi Lake in Kunming, with a history of more than 500 years, the villagers gave up fishing and developed tourism.

"Before, locals went out to work and earned thousands of RMB a month. Now at home, sometimes I can earn one or two thousand RMB a day through tourism," Xu Xi, post-90s CEO in that village, told S & T Daily.

In addition, an environmental technology company has achieved full coverage of organic waste collection. On their advanced intelligent management platform, 251 waste collection vehicles are running continuously.

At present, the installed capacity of green energy in Yunnan has exceeded 100 million kilowatts, and the proportion of green energy consumption leads in China and the world. The power supply from the west to the east exceeded 1.5 trillion kilowatt-hours, reducing carbon dioxide emissions by 1.28 billion tons.

*This article was edited and translated by WANG Jing based on the Chinese version.*

# Guangxi Writes New Chapter in Green Development

## Case Study

By LI Linxu

Known for its beautiful natural landscape and rich cultural heritage, Guangxi Zhuang autonomous region is transforming such invaluable assets into

new momentum for high-quality development.

Dazhai village, one of the many mountainous villages in Guangxi, is on the green track to rural revitalization.

In 2022, the village was named among the Best Tourism Villages by the United Nations World Tourism Organization.

Farming land and planting trees are

sowing seeds of wealth, said Pan Baoyu, former Party secretary of Dazhai, adding that the rice terrace is generating various yields for local residents through environmental protection and tourism development.

Once, there was a gold rush in the village. However, instead of making the village rich, it damaged local ecological environment.

Now, by safeguarding its lucid water and lush mountains, cultivating rice terraces, and leveraging its Yao ethnic culture, the village has hit the real gold mine.

This February, each household in Dazhai received more than 25,000 RMB from last year's tourism dividend.

To learn more about the Yao ethnic culture, Jinxiu Yao autonomous county, located in the Dayao Mountains in the east of the central part of Guangxi, is a must-visit. Known as the "capital of the Yao people in the world", it has become a renowned tourism destination.

The county is tapping into its unique ecological advantages and rich cultural heritages, said Liang Yongshuai, deputy county mayor of Jinxiu, adding that effort is being made to develop industrial chains with local

characteristics.

In 2019, the county was named among the innovation practice bases exemplifying that "lucid waters and lush mountains are invaluable assets."

Last year, the number of tourists reached 8.5 million in the county, up 54 percent year on year.

Chengyang Bazhai, a cluster of eight villages in Linxi town, Sanjiang Dong autonomous county, is also taking a green development path for rural revitalization.

Recently, it was recognized as a national 5A-class scenic spot for its beautiful rural scenery, exquisite wooden architecture, and the colorful festivals, songs and dances of the Dong ethnic group.

The thousand-year-old Dong villages attach great importance to the protection of ecological environment, historical buildings, and ethnic cultural heritage, said Li Xingwang, Party secretary of Linxi. The integrated development of ecology, culture and tourism has yielded bountiful results, Li added.

In 2023, the scenic spot received more than 900,000 visitors, generating 137 million RMB of tourism revenue, and helping over 3,000 villagers find jobs near their hometown.



Chengyang Bazhai, a cluster of eight villages in Linxi town, Sanjiang Dong autonomous county. (PHOTO: LI Linxu / Science and Technology Daily)

# Setting Examples for Agricultural Cooperation

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At present, in the PK24 Industrial Park on the outskirts of Abidjan, the cocoa processing plant contracted by the Chinese company is closer to completion, being the largest self-owned cocoa processing plant in the country.

About 82 percent of cocoa processing in Cote d'Ivoire is currently in the hands of four global chocolate manufacturers. "This project is an important milestone in the development of the cocoa industry and is of great significance for the country," said Tang Chong, project manager of the cocoa processing plant in Abidjan, adding that the project covers an area of 21 hectares, including 67,000 square meters of cocoa bean warehouse and 18,000 square meters of processing workshop.

According to the project agreement, in the future, 40 percent of the products produced by the cocoa processing plant

will be sold to the Chinese market.

### Rice harvest boosted

Sun, conducive temperature and rain are the necessary conditions for rice cultivation, and Cote d'Ivoire has the advantages in all three requirements. However, due to the lack of suitable rice varieties and advanced technical equipment, the local rice production has been low.

In 1997, the first Chinese Agricultural Assistance Mission (MATAC) visited the Guiguidou area, Divo Province in southern Cote d'Ivoire, helping local farmers with rice cultivation, repairing water conservancy facilities, and training technicians in the rice industry.

After nearly 30 years of committed efforts by Chinese agricultural experts, the quality of rice varieties in the Guiguidou area has been vastly improved through the use of four high-yield and high-quality rice varieties, resulting in higher rice yields, better crop

quality and improved rice taste.

At present, the Guiguidou area is not only a demonstration base for agricultural cooperation between China and Cote d'Ivoire, but also a well-known rice planting base in Cote d'Ivoire.

Kobenan Kouassi Adjoumani, minister of agriculture and rural development of Cote d'Ivoire, said that support from partners is critical for Cote d'Ivoire to increase rice production and achieve rice self-sufficiency, according to Xinhua.

### Rubber industry bouncing back

In addition to cocoa and rice, Cote d'Ivoire is the largest producer of natural rubber in Africa.

However, due to a lack of processing plants in the rubber industry, exports are only low-value-added raw materials, which resulted in meager incomes for farmers.

In 2020, the first rubber processing plant in Cote d'Ivoire was built by a

Chinese company.

Two years later, a second plant was put into operation, bringing the total annual capacity to approximately 260,000 tons, equivalent to a quarter of the country's annual rubber production.

These plants process rubber, palm oil, cotton, soybeans and corn, which increases the value of agricultural products exported to international markets.

More than 1,000 local people are working at the two operational rubber plants, and the other two plants under construction will provide another 1,000 new jobs, boosting local economic development.

The agricultural sectors of China and Cote d'Ivoire, are highly complementary and the bilateral agricultural cooperation has broad prospects, said Li Chengyao, economic and commercial counselor at the Chinese Embassy in Cote d'Ivoire.

# Sci-tech Drives Eco-conservation on Roof of the World

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This approach requires researchers to bury organic matter to improve soil fertility, cultivate plants with high wintering survival rates to block wind erosion and sand loss, and create "micro-reservoirs" to replenish water for plants during dry periods by adding an eco-friendly water retention material to the soil, according to Zhou Ping, a researcher at the institute.

Situated at over 4,700 meters above sea level, the Xainza Alpine Steppe and Wetland Ecosystem Observation Station in Nagqu city, Xizang autonomous region, is the highest comprehensive ecological monitoring station in the world.

The station features three specialized laboratories for biology, soil and moisture, as well as an integrated observation site, focusing on key issues related to the protection and construction of the national ecological security barrier.

The station's unique geographic

location provides an extensive range for monitoring, allowing researchers to monitor and assess the impact of human activities on the natural environment and ecosystems, and predict how changes in the plateau's environment and ecosystem functions will affect ecological security in our country and even across Asia, said Wang Xiaodan, head of the station, who has worked on the plateau for more than 20 years.

To uncover the scientific laws of plateau ecology, he has consistently conducted expeditions into the wilderness on foot. Wang has left his footprints on over 60 counties in Xizang. His longest research expedition lasted for three months, covering 3,000 kilometers.

Wang is not alone. Generations of Chinese researchers have rooted themselves on the Qinghai-Xizang Plateau to conduct scientific explorations and promote ecosystem conservation of the snowy land.