

Butterfly effect

Enthusiast going extra mile to find new species, preserve biodiversity

GOING GREEN, PAGE 5



Consumer prices likely to increase modestly in H2

BUSINESS, PAGE 8



The opera talent show

Female stars stage traditional art form in front of modern audience

LIFE, PAGE 15

# CHINA DAILY

GLOBAL EDITION 中国日报 THURSDAY, JULY 11, 2024



President Xi Jinping and his wife, Peng Liyuan, pose for a photo on Wednesday with President of the Republic of Guinea-Bissau Umaro Sissoco Embalo and his wife, Dinisia Reis Embalo, at the Great Hall of the People in Beijing. HUANG JINGWEN / XINHUA



President Xi Jinping shakes hands with Bangladeshi Prime Minister Sheikh Hasina in Beijing on Wednesday. FENG YONGBIN / CHINA DAILY

## Beijing, Dhaka elevate ties, vow more BRI cooperation

By WANG QINGYUN wangqingyun@chinadaily.com.cn

China and Bangladesh elevated their relationship to a comprehensive strategic cooperative partnership on Wednesday during Bangladeshi Prime Minister Sheikh Hasina's visit to China, her first official trip to the country in five years.

President Xi Jinping emphasized that the two countries should carry forward their fine tradition of mutual support and deepen their political mutual trust during his meeting with Hasina in Beijing.

China supports Bangladesh in upholding an independent foreign policy, following a development path that suits its own national conditions, maintaining its sovereignty, independence and territorial integrity, and opposing any external interference, Xi said.

Hasina said that Bangladesh firmly adheres to the one-China principle and supports China in safeguarding its core interests.

The two leaders also pledged to further promote bilateral cooperation under the Belt and Road Initiative. Xi said that China hopes to deepen high-quality Belt and Road cooperation with Bangladesh, and Hasina responded by saying that Bangladesh will continue to actively participate in such cooperation.

She said that Bangladesh hopes to draw on China's development experience, and expand cooperation with China in trade, infrastructure and poverty reduction.

China has built seven railways, 12 highways, 21 bridges and 31 power stations in Bangladesh, the first South Asian country to have signed a memorandum of understanding on Belt and Road cooperation with China.

Lin Minwang, assistant to the dean of the Institute of International Studies at Fudan University, said

that Bangladesh "has always deemed China as one of its most important strategic partners".

Cooperation with China is a primary reason for the rapid growth of the South Asian country in recent years, said Lin, who is a researcher on South Asian studies.

The speedy development of infrastructure in Bangladesh, aided by Chinese companies over the past decade, has helped lower logistics costs and lay a solid foundation for the country's future growth, Lin added.

China is the largest trading partner of Bangladesh, while Bangladesh is China's second-largest trading partner in South Asia, according to the Chinese Foreign Ministry.

Also on Wednesday, Premier Li Qiang hosted a welcoming ceremony for Hasina and held talks with her in Beijing.

Li said that China will strengthen communication and coordination with Bangladesh, in order to oppose hegemony and power politics, and better uphold international fairness and justice as well as the common interests of developing countries.

After their talks, Li and Hasina witnessed the signing of multiple documents on bilateral cooperation in a number of fields, including trade, investment, the digital economy and health.

Both sides agreed to designate 2025, which marks the 50th anniversary of bilateral diplomatic relations, as the year of people-to-people exchanges between the two countries.

Cooperation between China and Bangladesh has developed steadily over the past five decades, and the two countries have seen frequent exchanges of high-level visits.

Hasina, who was reelected in January, previously visited China four times as Bangladeshi prime minister — in 1996, 2010, 2014 and 2019.

## Shared future highlighted

China, Guinea-Bissau agree to upgrade relationship to strategic partnership

By CAO DESHENG caodesheng@chinadaily.com.cn

President Xi Jinping expressed on Wednesday China's commitment to working with African countries to promote the Five Principles of Peaceful Coexistence, uphold the common interests of developing countries and international fairness and justice, and advance the building of a community with a shared future for mankind.

Xi made the statement while holding talks with Umaro Sissoco Embalo, president of the Republic of Guinea-Bissau, at the Great Hall of the People in Beijing. Embalo started a five-day state visit to China on Tuesday.

Xi said that China and Africa enjoy splendid civilizations, and they both have painful histories of being colonized and invaded, and hence value and pursue national independence and liberation.

The support and assistance that China and African countries offer to each other are sincere and genu-

ine, setting an example of unity and cooperation among developing countries, he said.

Xi noted that the Forum on China-Africa Cooperation is a significant platform for Chinese and African people to practice the Five Principles of Peaceful Coexistence and promote common development.

As Beijing will host the FOCAC summit this autumn, Xi said that China is willing to work with Guinea-Bissau and other African countries to discuss major plans for China-Africa cooperation in the new era, and jointly build a high-level China-Africa community with a shared future.

During their talks, Xi and Embalo agreed to elevate bilateral ties to a strategic partnership, and a joint statement on this was issued after the meeting.

Xi said that China is willing to enhance friendly exchanges with Guinea-Bissau at all levels, strengthen exchanges of governance experience, and expand cooperation in the fields of agri-

culture, mining, infrastructure construction and the blue economy under the framework of the Belt and Road Initiative.

China welcomes high-quality agricultural products from Guinea-Bissau to enter the Chinese market, encourages Chinese enterprises to invest in the African country, and assists it in transforming its resource potential into development momentum, he said.

Xi expressed China's commitment to providing support for Guinea-Bissau's domestic development and continuing to send Chinese rice experts and medical teams to the African country to contribute to its food security and public health sector development.

He underlined the need for both countries to strengthen exchanges and cooperation in education and youth development to promote mutual understanding.

China will continue to provide government scholarships and training opportunities to help Guinea-Bissau cultivate the various talents needed for its national development, Xi added.

Embalo hailed the development of bilateral ties, and said that

Guinea-Bissau's relationship with China is strong and solid, with both sides always firmly supporting each other.

When Guinea-Bissau has faced difficulties, China has always provided valuable support without hesitation, which the people of Guinea-Bissau will never forget, he said, adding that his country will continue to stand firmly with China, adhere to the one-China principle, and support China's position on its core interests, such as the Taiwan question.

Embalo said that Guinea-Bissau regards China as top priority in its foreign policy and the most important cooperation partner.

China does not engage in colonialism, does not interfere in other countries' internal affairs and does not dictate to other countries, and it always treats small countries with equality and respect and honors its commitments with actions, he said.

Through its cooperation projects, China brings schools, hospitals, roads and more to African countries, which truly benefits the African people, he added.

See Visit, page 3

## Nations aligning steps for green partnership

The China-Africa Dar es Salaam Consensus specifically speaks of aligning international initiatives and national plans to strengthen high-quality and sustainable development of China-Africa ties, including, and prioritizing, the development of renewable energy in Africa.

Climate change figures as one of the important thematic areas that represent a new frontier of global governance underscored in the consensus, presenting China with the occasion to display its willingness and ability to act as a responsible great power on the global stage, and serve as another catalyst in the ongoing shift toward a more plural global system.

At the same time, despite contributing only a small fraction toward total global carbon emission, African countries suffer from the negative effects of climate change more severely than those in other continents. According to the 2024 World Development Indicators of the

WORLD WATCH By Jeremy Stevens

World Bank, Africa is the most energy-intensive region in the world, measured as energy used to produce one unit of economic output. Consumption and carbon emissions are rising, underlining that policymakers must embrace energy efficiency and clean energy to mitigate carbon emissions.

Looking ahead, the pressure on African policymakers is only going to intensify. According to the United Nations World Population Prospects, Africa's population is expected to increase from 1.3 billion in 2025 to 2.2 billion in 2050 — the fastest growing population in the world. At the same time, Africa is experiencing rapid urbanization, adding an average of 14.7 million people to cities each year since 1990, which is expected

to rise to an average of 38 million additions per year through 2050. The lack of energy — particularly affordable modern energy — will be a serious headwind to African economic growth. The impact of this could expand further to hinder advancements in the socioeconomic well-beings such as education, health delivery and access to clean water and food.

Renewable energy was identified more than two decades ago as a potential solution, presenting an opportunity to leapfrog traditional sources of power for developing countries.

China has already emerged as the global leader in renewable manufacturing, and also a leader in the deployment of services. Significant progress has already been achieved in the application and use of renewable power technologies in Chinese cities, resulting in greater access to and saving of electricity.

See Energy, page 3



INSIDE Latin America bets on the Asia-Pacific Global Views, page 13

www.chinadailyglobal.com Member of ANN China Daily Global ©2024 All Rights Reserved Newsstand prices: US \$1, Canada C\$1, UK £1, EU €1, Kenya 50 Kenya Shilling, Asia Pacific: Thailand 120, Philippines 120 php, Myanmar 2000 kyat, Japan 210 yen, Dubai 10 dirham, Pakistan 300 rupee

## YOUNG LIVESTREAMERS SPARK DEBATE ON ETHICS, REGULATION

Students earning good income, but critics say content, actions need tighter supervision

By CAO YIN caoyin@chinadaily.com.cn



College student Liu Zihao is a livestreaming host who can earn about 10,000 yuan (\$1,379) "pocket money" every month playing online games.

The 21-year-old, who majors in business management at Beijing Technology and Business University, usually livestreams from home between 10 am and 8 pm, and most of his income comes from tips given by viewers. Liu demonstrates how to play online games and shares his skills and knowledge with them.

"Livestreaming brings me pocket

money, and since I like playing games, I don't feel tired, even if I spend a lot of time doing it," he said, adding that he is considering working full-time in livestreaming after graduation.

Another college student, who calls himself Boluo Xingqiqi17 on the popular video platform Bilibili, livestreams his train trips, but earns almost no money from his efforts.

See Youth, page 2

# PAGE TWO



Left: College students promote goji, or Chinese wolfberry, via livestreaming in Zhongwei, Ningxia Hui autonomous region, on June 22. MAO ZHU / XINHUA



Right: A student from Hua'an, Jiangsu province, introduces the cherry blossoms on his campus to viewers via a livestream, in March, 2023. PROVIDED TO CHINA DAILY

## Efforts stepped up to remove harmful content

By CAO YIN  
caoyin@chinadaily.com.cn

While more people are benefiting from livestreaming, authorities have also taken action to oversee the industry's development by issuing regulations and increasing inspections.

The country had 816 million livestreaming users by the end of last year, accounting for 74.7 percent of total netizens, and up 65.01 million on 2022, according to China Internet Network Information Center data released in March.

Most of them shop through livestreaming, followed by those who watch games, concerts, sports events or reality shows via online services, according to a report issued by the center.

The report said that Chinese authorities stepped up efforts to strengthen supervision of livestreaming platforms last year by removing harmful information and encouraging high-quality content.

For example, some hosts livestream from fields, farms or processing facilities in their hometowns, and engage in real-time conversations with viewers about rural life and village stories. These types of activities were supported by cyberspace administrations because they contributed to rural revitalization, the report said.

"Selling agricultural goods via the flourishing livestreaming platforms has brought more development opportunities for villages and played a significant role in increasing farmers' income," Yue Qiaoyun, a deputy to the National People's Congress, China's top legislature, said in March.

Yue went back to her hometown in Beijing's Pinggu district after graduating from college to sell peaches online, including through livestreaming promotions.

She said she had a sense of fulfillment helping her neighbors make more money. However, she pointed out that the increasing prevalence of counterfeit goods and misrepresentation of trademarks and geographical indications in livestreams posed a threat to consumers' rights and the livestreaming industry, adding it was imperative to eradicate such deceptions.

Lan Pingyong, an NPC deputy from Fuzhou, Fujian province, who follows the development of the livestream industry, said more measures were needed to fight the selling of fake and low-quality goods on social media platforms.

Businesses selling food in livestreaming rooms should be under stricter supervision, "because food safety is crucial to everyone's health," he said.

Both NPC deputies suggested that judicial authorities focus more on problems in the emerging business, provide stronger legal education for the market entities and help boost consumers' awareness of self-protection.

In recent years, China has attached greater importance to the livestreaming industry, with closer inspection of platforms.

To better protect juveniles, for instance, the Cyberspace Administration of China has prohibited children under 16 from acting as hosts and forbidden underage users being enticed to reward hosts.

A draft judicial interpretation formulated by the Supreme People's Court, the country's top court, also stipulates that if guardians discover a child under the age of 8 has tipped a livestreamer they can ask judges to order the return of the money. The courts should support such refunds, the interpretation said.

From page 1

# Youth: Profit pursuit requires responsibility

"I just want to record what I do in my spare time and enrich my college life via streaming," said the 21-year-old from Renmin University of China, who has been livestreaming since the beginning of the year about his rail expeditions.

He added: "I like interacting with viewers, which gives me a sense of fulfillment."

However, as livestreaming has become more ubiquitous among young people, concerns have been raised about lack of regulation of the industry.

A report on the development of livestreaming and short videos released by the China Association of Performing Arts last year, showed that as of December 2022, more than 64 percent of livestreaming hosts were aged between 18 and 29.

A Sina Weibo questionnaire last year revealed that 61.6 percent of 10,000 young participants were planning to become livestreaming hosts after graduating from college.

Beijing lawyer Ma Lihong expressed concerns about the growing cohort of young livestreamers, calling for regulations to limit their streaming times and locations, as well as an improvement in the quality of content.

Zheng Ning, head of the Law Department at the Communication University of China's Cultural Industries Management School, acknowledged that livestreaming by college students had become a trend, and stressed that livestreaming hosts over the age of 18 needed to follow industry-related laws and regulations.

However, given the popularity of livestreaming and short videos, universities and colleges can turn these operations into practical training for students, she added.

### No disturbance

In recent months, college students have become more active on livestreaming platforms. Some sing and dance, or share learning or travel experiences, while others help introduce and sell specialties from their hometowns. However, this phenomenon has sparked public controversy.

Some netizens have lauded the livestreaming, saying that it provides a platform for students to enrich their lives, earn pocket money and polish their communication skills.

But people like Ma argue that spending a significant amount of time on streaming not only disrupts young people's studies, but also has the potential to disturb other students.

A college junior in Pingdingshan,



A college student demonstrates how to cook ethnic food and promotes bean products in her hometown of Liuzhou, Guangxi Zhuang autonomous region, in August. LONG TAO / FOR CHINA DAILY

Henan province, for example, was discovered to have livestreamed 89 times within 25 days, including overnight for several days, according to Legal Daily.

Boluo Xingqiqi, the Bilibili user, said he has always attached great importance to his livestreaming time, location and environment, "as my principle is not to disturb others."

"I livestream while traveling on trains, so it won't disturb my dormitory mates' rest," he said.

"On trains, I also make an effort to avoid filming train staff and other passengers for lengthy periods, because I don't want to cause them any inconvenience."

Lan Bing, a postgraduate student in the chemistry department at Peking University, said one of her classmates is a livestreamer. The classmate usually goes live in a laboratory after finishing his day's study and ensuring that other students have returned to their dormitories, Lan said.

“Stricter verification must be conducted while providing the account registration service to youngsters aged 16 and 18, and consent from their parents or other guardians must also be obtained.”

Zheng Ning, head of the Law Department at the Communication University of China's Cultural Industries Management School

other people in livestreams, telling Legal Daily that such activities should not be conducted without regard to their time or location. Individuals should not be filmed without their consent, she added.

On the issue of some college students attracting viewers by vulgar actions, such as skimpily dressed female hosts who dance during livestreams, Ma said such behavior must be prohibited. "Most college students are already adults, meaning that they must take responsibility for their behavior, otherwise spreading harmful information online will lead to legal risks," she added.

In October, China's Cyberspace Administration punished two internet operators, Quark and NetEase, after users posted unhealthy content on their platforms.

Multiple anchors on NetEase engaged in vulgar language and borderline sexual content while dancing during their livestreams. Quark was discovered to have search

results displaying a large amount of obscene and pornographic content.

NetEase was eventually ordered to suspend the dancing channel for seven days, and Quark was fined 500,000 yuan (\$68,750).

### Guidance, suggestions

Given livestreaming and short-video hosting have become new professions that college students, and even young children, are eager to try, Zheng, from the Communication University of China, said online platforms need to implement identity verification of users, which is a regulatory and legal requirement.

"Stricter verification must be conducted while providing the account registration service to youngsters aged 16 and 18, and consent from their parents or other guardians must also be obtained," she said.

Ma said university and college students need to be prudent in their livestreams. If they engage in illegal activities and are punished, it could potentially impact their future employment and career prospects, she said.

Schools should also strengthen guidance and education for students, such as educating youngsters on legal boundaries and setting rules for the time, location and manner of their livestreaming, while encouraging high-quality content, Ma said.

In addition, internet platforms should eliminate harmful information and shut down illegal accounts as quickly as possible to ensure a clean online environment.

Cyberspace regulators also need to tighten supervision by taking stronger measures to combat unacceptable behavior in livestreaming rooms, and make greater efforts to promote the healthy development of the emerging industry, she added.

Wang Xiaoyi, a lawyer from Guangzhou, Guangdong province, told Legal Daily that college students should pay more attention to protecting their legitimate rights and interests when signing contracts with livestreaming companies or online platforms.

College students who aspire to work as livestreaming hosts should not only focus on making money, but also be aware of the mental burden and potential health risks that may arise from long hours of continuous streaming, she said.

Wang called on industry associations, social organizations, and businesses to promote self-management of the industry to achieve healthy growth.



Livestreamers from Southwest University voluntarily help local farmers sell agricultural products in Chongqing in August. QING TINGFU / XINHUA

"It's cool for college students to venture into this emerging business if it brings them happiness, a sense of fulfillment, and money," she said. "But it's important that they have enough time and energy for it, and that it doesn't interfere with their studies, or infringe upon others' privacy."

### Legal risks

Lan said her classmate greatly respects people's privacy.

"Although he likes sharing our laboratory's daily activities with viewers in his livestreaming room, he has never disclosed our experiment details, nor personal information of other students," she said.

Ma, from Beijing DHH Law Firm, stressed the importance of protecting privacy and the image rights of



Students from Taiwan learn e-commerce livestreaming at a vocational college in Jinhua, Zhejiang province, on July 4. HU XIAOFEI / FOR CHINA DAILY

## TOP NEWS

## Five principles applauded by forum experts

Participants at meet on civilizations highlight relevance of Confucius in modern world

By LIU WEILING and ZHAO RUIXUE in Qufu, Shandong

Participants in a forum that opened on Wednesday in Qufu, Shandong province, the hometown of Confucius, said the Five Principles of Peaceful Coexistence embody the wisdom of Confucius, such as the idea of harmony in diversity, and this helps keep the whole world safe.

At the 10th Nishan Forum on World Civilizations, Jeffrey D. Sachs, president of the United Nations Sustainable Development Solutions Network, said: "I believe that sustainable development is at the core of what we need to do together when we look for harmony in diversity. As the basis of sustainable development, we have the UN Charter, and aligned with the UN Charter, we have China-proposed Five Principles of Peaceful Coexistence."

The five principles — mutual respect for sovereignty and territorial integrity, mutual nonaggression, noninterference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence — have been the bedrock of China's independent foreign policy of peace since they were proposed by the Chinese leadership in the 1950s.

Yasuo Fukuda, former prime minister of Japan and chairman of the International Confucian Association, told the forum that Confucian concepts, which stress coexistence and the concept of peace, strongly align with the five principles in contemporary society.

"To achieve the peaceful coexistence advocated by the five principles, more focus is needed on rethinking the importance of culture and civilization," he said.

Fukuda said he believes that the concept of peace advocated by Confucius will help in understanding the diversity of civilizations and the sharing of values, which will greatly promote peace in the world.

The forum has been held annually since its launch in 2010 to promote the shared values of traditional Chinese culture, such as the Confucian concepts and mutual learning among civilizations.

This year's forum has the theme "Traditional Culture and Modern Civilization", aiming to draw wisdom from traditional culture to find

“What kind of world will it be? Confucius gives the right idea — one is harmony in diversity, and another is a shared future.”

Jeffrey D. Sachs, president of the United Nations Sustainable Development Solutions Network

solutions to global challenges.

Sachs said: "What kind of world will it be? Confucius gives the right idea — one is harmony in diversity, and another is a shared future."

More than 700 guests, including nearly 400 international guests from 63 countries, participated in discussions at the two-day forum on topics such as civilizational exchanges and mutual learning amid global challenges, Chinese-style and Western modernization, civilization inheritance, and innovation in the process of modernization.

Addressing the opening ceremony of the forum, Sun Chunlan, president of the International Confucian Association, said: "The forum, a practice that carries forward the Global Civilization Initiative, not only showcases the unique charm and value of traditional Chinese culture to the world, but promotes cultural exchanges among countries and ethnic groups, contributing to building a community with a shared future for humankind and advancing world peace and development."

Lin Wu, Party secretary of Shandong, said that civilizational exchanges involve mutual learning and are an important driving force for advancing civilization.

"We will focus on exchanges among civilizations and strive to build the Nishan Forum and the International Confucius Cultural Festival with higher standards to better promote the development of Chinese civilization through exchanges and mutual learning with other civilizations," said Lin.

Contact the writers at zhaoruixue@chinadaily.com.cn

## CHINA DAILY USA

NEW YORK | HEADQUARTERS  
1500 Broadway, Suite 2800,  
New York, NY 10036

Telephone: 212-537-8888

Fax: 212-537-8898

editor@chinadailyusa.com

readers@chinadailyusa.com

Subscription: 212-537-8899

Advertising: 212-537-8916

Follow us on:

twitter.com/chinadaily

facebook.com/chinadaily

usa.chinadaily.com.cn

These materials are distributed by China Daily Distribution Corp. on behalf of China Daily Publishing Group. Additional information is on file with the Department of Justice, Washington, DC.

WASHINGTON

National Press Bldg, Suite 1108

529 14th Street NW

Washington, DC 20045

Tel: 202-662-7249

Fax: 202-662-7247

SAN FRANCISCO

235 Montgomery Street, Suite 900

San Francisco, CA 94104

Tel: 415-348-8288

Fax: 415-348-8388

SEATTLE

800 Fifth Ave, Suite 4100

Seattle, WA 98104

Tel: 206-922-2868

HOUSTON

1001 South Dairy Ashford, Suite 100

Houston, TX 77077

Tel: 713-595-7660

CANADA | TORONTO

4711 Yonge Street, 10th Floor

Toronto, Ontario, M2N 6K8

Tel: 416-481-5706

CHINA DAILY (ISSN 0748-6154) is published daily

except weekends by China Daily USA, 1500 Broadway,

Suite 2800, New York, NY 10036. Periodical postage

paid at New York, NY and additional mailing offices.

POSTMASTER: Send address changes to CHINA DAILY

USA, 1500 Broadway, Suite 2800, New York, NY 10036.

Vol. 38 — No. 656

## The healing touch



Two Chinese doctors and a local medical worker assess a patient's condition at the China-Guinea-Bissau Friendship Hospital on Monday in Bissau, capital of Guinea-Bissau. The 20th batch of Chinese medical personnel has been providing services for locals in the West African country since May. HAN XU / XINHUA

## Huangyan Island's coral reefs prosper, report says

By LI MENGHAN  
lmenghan@chinadaily.com.cn

The coral reef ecosystem of China's Huangyan Island in the South China Sea has thrived despite the global coral bleaching crisis, according to a report published on Wednesday.

Experts said the coverage of live coral and species diversity has grown over the past decade, and the exceptional marine environment of the island has fostered a coral reef ecosystem that is healthy and robust.

There are now 109 reef-building coral species recorded, a new peak in biodiversity in a region that recorded 64 such species in May 2015, the report said. The average coverage of live reef-building coral is now 28.6 percent, higher than the investigation results in 2015, it said.

The report, based on an on-site investigation conducted from May to June, was jointly published by five research institutes, including the South China Institute of Environmental Sciences and the National Marine Environmental Monitoring Center.

Yang Jing, a researcher at the institute who participated in the investigation, said, "While global warming has brought about an overall deterioration of coral reefs worldwide, the coral reef ecosystem around Huangyan Island has maintained its healthy condition, our data shows."

Reef-building coral play a vital role in marine ecosystems, serving as sensitive environmental indicators and essential components for assessing marine ecosystem health. In addition, the calcium carbonate they secrete not only provides the structural foundation for coral reefs, supporting marine life activities and habitats, but can also form islands



A giant clam that lives in the lagoon of Huangyan Island is among the marine species that were found in an on-site investigation of the island's ecological environment. XINHUA

after tens of millions of years.

The average live reef-building coral coverage in northeastern Huangyan Island has reached 37.1 percent, comparable with around 35 percent, which was recorded in 2023 in the northern and southern regions of the Great Barrier Reef in Australia, she said.

Huangyan Island has imposed strict restrictions on fishing activities and implemented a summer fishing moratorium, and the area now has a strong natural ability for coral recovery, with more than five juvenile coral observed per square meter, Yang said.

The report also showed a high biodiversity in its coral reef ecosystem, with 125 coral reef fish species, along with other key groups such as crustose coralline algae, giant clams and sea anemone.

In addition, the investigation revealed the excellent environmental quality of Huangyan Island, with seawater quality and marine sediment quality both rated as Grade I level.

Lin Kui, deputy head of the South China Institute of Environmental Sciences, said, "It is the first time to verify no cyanide was detected in the seawater, sediment and fish samples from Huangyan Island."

The average weight density of floating litter was 2.6 grams per square kilometers, with all the collected litter being plastic. Compared with other offshore areas worldwide, the weight density is relatively low, Lin said.

Yu Keftu, a professor at Guangxi University's Guangxi Laboratory on the Study of Coral Reefs in the South China Sea, which was among the five research institutes that jointly

released the report, said that as the primary cause of coral reef degradation, global warming has also led to an increase in sea surface temperatures and degree heating weeks — or DHW, a unit measuring the accumulated heat stress on coral reefs — around Huangyan Island. However, the coral reefs have displayed resilience and adaptability to the warming climate, showing no signs of disease and maintaining a low incidence of bleaching.

"We will continue to conduct scientific investigations, ecological monitoring and research on coral reefs in this area to further reveal their evolutionary patterns," Yu said, adding that the excellent coral reef ecosystem will hopefully provide new insights on how global coral reefs respond to the challenges of global warming.

## Energy: African renewables set to benefit from ties

From page 1

China's leading position in the global market for clean energy technologies has also involved the supply chains of critical raw materials such as rare-earth magnets, graphite and lithium-ion through domestic and overseas investments. Countries like Egypt and South Africa are turning to China to develop wind capacity, resulting in robust Chinese exports. Africa is an important market for export of Chinese renewable manufacturing capacity.

China's growing involvement in African renewables has the potential to transform African energy systems and ecosystems. Managed well, China's role in renewable energy could go a long way in enhancing its global reputation as

a responsible leader, dealing with energy access, climate change and environmental sustainability. Both solar and wind energy can enhance Africa's ability to deliver cleaner and environmentally friendly energy, boost energy security and reduce energy poverty.

However, it's worth recognizing that even in the renewable energy space, Africa is too small. If African policymakers want to shape the story, African markets need to be more important to the various actors at play.

In this respect, the Forum on China-Africa Cooperation has provided a platform to promote green and low-carbon projects and incorporate environment protection into all aspects for sustainability of investments and pathways to sustainable growth. FOCAC should focus on promot-

ing green and low-carbon projects. Projects must include the export of wind turbines and solar panels, and the development of new equipment manufacturing, grid and transmission building and management. Each project must be commercially viable.

The key approach is to help governments create macroeconomic and sector environments that enable private capital mobilization, and create a steady pipeline of high economic value projects in which the private sector can invest.

African policymakers should provide incentives to financial institutions that fund energy generation and transmission, as empirical evidence suggests that financial development is more significant for energy supply than even institutional quality.

In addition, often the social benefits of clean energy outweigh the private benefits for the investor. Correspondingly, as private companies tend to be at the forefront of China's renewable energy interactions, African policymakers must focus on creating the right incentives and scaffolding to attract these players.

Improving transparency in business regulations and legal frameworks, along with supportive government policies, are crucial for encouraging investment in Africa — renewable energy related or otherwise.

The author is an economist at Standard Bank Group and contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.

## Visit: Support voiced for Beijing to host key summit

From page 1

The Guinea-Bissau president noted that his country highly appreciates China's important role in and contributions to the development of the African continent, and it actively supports Beijing's hosting of the next FOCAC summit.

Guinea-Bissau is willing to closely communicate and cooperate with China in multilateral affairs to promote the building of a community with a shared future for mankind, he added.

After the talks, the two presidents witnessed the signing of multiple bilateral cooperation documents in various fields, including the implementation of the Global Development Initiative, economic development, customs inspection and quarantine, and geology and mining.

On Wednesday, Embalo also met with Premier Li Qiang in Beijing, with both sides vowing to promote bilateral ties and China-Africa cooperation.

## CHINA

## Top Talent Plan to boost basic research turns 15

By ZHAO YIMENG

zhaoyimeng@chinadaily.com.cn

More than 30,000 outstanding students have engaged in basic disciplines in China since a talent cultivation plan was launched in 2009 and many graduates have achieved major research breakthroughs, the Ministry of Education has said.

China has established 288 cultivation bases for the training of top students in basic disciplines at 77 premium research universities through the plan, ministry officials said at a meeting in Beijing on Tuesday marking the 15th year of the implementation of the plan.

The Top Talent Plan was launched by the ministry to attract the most outstanding students to engage in basic disciplines and help them grow into leading figures in their fields.

In 2018, six government departments jointly issued an opinion on implementing the Top Talent Plan 2.0, seeking to accelerate the cultivation of future natural, medical and social scientists, the ministry said.

China's ability to independently cultivate top talent has been significantly enhanced, and the plan has built a strong force in basic research, a ministry official said.

Among 17,000 undergraduates under the plan, 86 percent have pursued further education in basic disciplines, while 87 percent of doctoral graduates have engaged in basic research work at universities and research institutions.

Several graduates of the plan have made significant contributions in their fields, achieving important research breakthroughs, the ministry said.

In the field of chemistry, Cheng Yuhao, who was admitted by Nanjing University as an undergraduate in 2012, published a paper as the first author in Nature Communications journal, proposing a self-supplying oxygen photodynamic therapy, which significantly enhanced the effectiveness of traditional photodynamic drugs in treating cancer.

The plan has also contributed to building a high-caliber team of teachers. Over 1,600 top-tier scholars have delivered 52,000 hours of lectures a year at the bases for cultivating top talent since the plan was initiated.

It has also involved leading talent cultivation projects such as the "Yao Class", which was established by and named after world-renowned computer scientist Andrew Chi-Chih Yao in 2005 at Tsinghua University to nurture promising undergraduate students in computer science.

More efforts will be made to nurture outstanding talent in basic disciplines to meet new opportunities in technologies such as artificial intelligence, the official said.

## Room to read



People read at a public reading space in Feidong county, Anhui province, on Tuesday. In recent years, the county has increased the number of urban reading spaces, aiming to realize a "15-minute reading circle" where residents can walk for 15 minutes to reach the nearest space to enjoy reading. During the summer, the space extends its opening hours until 9 pm and provides air conditioning and hot water.

RUAN XUEFENG / FOR CHINA DAILY

## Ethical guideline issued for genome editing

### Altering germ cells and human embryos for reproduction is strictly prohibited

By WANG XIAOYU

wangxiaoyu@chinadaily.com.cn

China has issued a set of ethical rules on human genome editing, reiterating a strict ban on altering germ cells and embryos and clarifying standard ethical practices for gene editing research.

The guideline was formulated by the medical ethics subcommittee of the National Science and Technology Ethics Committee and released on the website of the Ministry of Science and Technology on Wednesday.

"At present, any clinical research involving germline genome editing is irresponsible and not permitted," it said. "Only when there is a full understanding and considering of benefits, risks and alternative options, when the safety and efficacy issues are addressed, broad consensus achieved and rigorous assessment completed can the possibility of carrying out such research under tight supervision be evaluated."

The document highlights that using edited germ cells, fertilized eggs or human embryos for pregnancy or reproduction is strictly prohibited.

Regarding clinical research involving genome editing of somatic cells — which are cells in the body other than sperm and egg cells — it said that such research should be aimed at preventing or treating diseases and should be carried out after animal tests or preclinical, in vitro experiments have offered basic evidence of safety and efficacy.

"When conducting clinical

research on somatic cells, special attention should be paid to whether it might trigger alterations in germ cells," it added.

In terms of conducting genome editing of human embryos or fetal somatic cells, it is also necessary to carefully evaluate the risk of potential heritable variations.

The fast development of gene-editing technologies in recent years has brought about innovations in medicine, but has also raised ethical questions and concerns about the reckless alteration of human DNA.

The guideline stresses that advancing human well-being and prosperity is the fundamental force behind genome editing research. It is important to rigorously evaluate the scientific and societal value of such research, be alert to potential risks, and implement whole-process risk monitoring and adequate supervision.

When considering transforming research outcomes into practical use, researchers should prioritize the affordability and accessibility of new technologies, rather than solely focus on market needs, it said.

The guideline also proposes setting up a mechanism to invite participation of all stakeholders and the public, and enhance information sharing while ensuring protection of personal information.

Shi Jiayou, a professor at Renmin University of China's Law School, said that the guideline has laid out clear standard practices for researchers to follow.

"As the genome editing technology is still developing, the condi-

tions are not ripe for establishing a law on regulating the industry," he said. "So it is appropriate at present to publish industry guidelines and regulations to rein in unprincipled and unethical actions."

In late 2018, He Jiankui, a Chinese researcher, announced the creation of the world's first gene-edited babies to make them less vulnerable to HIV/AIDS. His research attracted a wave of condemnation from the domestic and international science community.

Shi said that the incident prompted authorities to tighten oversight on genome editing studies.

For instance, China's Civil Code, adopted in May 2020, includes tightened provisions on human gene editing to minimize the threats the technology poses to personality rights, ethics and public interests. An amendment to the Law on Scientific and Technological Progress in 2021 and a guideline released by top authorities in 2022 also stress prioritizing the review of research ethics.

"The new rule represents a meaningful addition to the current governance system by demonstrating best practices and offering practical guidance to researchers," Shi said.

In addition to existing rules, Shi also called for setting up a whistleblowing mechanism to help identify potentially concerning research and protect whistleblowers who report violations of research integrity.

It is also important to explore feasible measures to strike a balance between guaranteeing the privacy of research participants, confidentiality of research, and promoting openness and transparency, he said.

## Kazakhstan becoming popular with tourists

By MAO WEIHUA in Urumqi and CHEN MEILING

Traveling to Kazakhstan via land ports in the Xinjiang Uygur autonomous region has become increasingly popular among Chinese tourists because it is cheap and convenient, with the regional government and companies developing more travel products to meet tourists' needs.

Although Kazakhstan is not among the top 10 overseas destinations for Chinese tourists, its popularity is increasing thanks to a visa-exemption policy launched in November, as well as more frequent people-to-people exchanges encouraged by both countries.

Kairat Sadvakassov, chairman of the Kazakh Tourism National Company, said at a conference in May in Urumqi, Xinjiang's regional capital, that about 500,000 Chinese tourists visited Kazakhstan last year, most of whom were from Xinjiang.

The number will keep growing and it will bring people closer and open more opportunities for trade cooperation, he said.

From January to May, Alashankou, which has one of Xinjiang's five land ports on the Kazakhstan border, received 347,300 tourist visits, with tourism consumption reaching 150 million yuan (\$20 million).

Da Jilin, director of Alashankou's culture, sports, radio, television and tourism bureau, said most of the outbound tourists, mainly from major cities such as Beijing, Shanghai and Guangzhou, Guangdong province, are interested in exploring niche countries and experiencing exotic cultures.

"Kazakhstan features cathedrals, mosques and European-style buildings," Da said. "There are rich cultural resources, traditional ethnic music and handmade embroidery that appeal to tourists. Furthermore, Lake Alakol offers shooting and hunting grounds, which attract young people looking for the excitement of using real firearms."

The unique mud baths at the lake are said to have therapeutic effects, he said.

Bi Shengping was one of 19 tourists from Dexing, Jiangxi province, who joined a 15-day tour of Xinjiang and Kazakhstan in mid-June. They first visited Sayram Lake in the Bortala Mongolian autonomous prefecture in Xinjiang, left China through Alashankou to Kazakhstan for Lake Alakol, and returned to visit the Kanas scenic area in Altay, Xinjiang.

"The exotic scenery is incredibly natural, with the beautiful Lake Alakol and the surrounding environment blending harmoniously," Bi said. "The local people are very warm and hospitable."

"The staff of a local museum explained the local customs, cultural development and history to us. The museum director played music, sang folk songs, and we were deeply moved. We tasted local delicacies and learned local dances, which brought us great joy and happiness."

Liu Jiying, who is in charge of the Dexing branch of the online travel agency Ctrip, which organized the tour, said it's a new travel product.

"Currently, the number of inquiries is not very high," Liu said. "We will deepen cooperation with Kazakhstan to explore appealing products."

Alashankou has cross-border buses to Kazakhstan from Monday to Saturday, with a ticket price of about 100 yuan per person.

The city has launched different travel products for one-day, three-day, four-day and seven-day tours. It plans to increase the routes and frequency of international buses, hire more bilingual tour guides and develop more travel products to promote tourism, Da said.

It takes about one hour to reach Zaysan county in Kazakhstan. Travelers can take the international buses or drive across the border.

Contact the writers at chenmeiling@chinadaily.com.cn

## Cool idea



Ring-tailed lemurs eat watermelons to beat the heat at the Shenyang Forest Zoo in Liaoning province on Wednesday.

ZHANG WENKUI / FOR CHINA DAILY

## China allows Philippines to retrieve sick individual

By JIANG CHENGLONG

jiangchenglong@chinadaily.com.cn

The China Coast Guard allowed the Philippines to retrieve a sick person for medical treatment from a Philippine warship illegally grounded in the South China Sea on humanitarian grounds on Sunday following a request from the Philippine side, a spokesman said on Tuesday.

Gan Yu said the China Coast Guard had monitored and verified the Philippine actions throughout the process in accordance with the law.

The Philippine military vessel was grounded at Ren'ai Reef in 1999. The Philippine side promised to tow away the warship, according to China's Foreign Ministry, but 25 years have passed, and the Philippine warship is still stranded at the reef.

A Foreign Ministry spokesman told a news conference in Beijing in April that China and the Philippines had reached an understanding on properly managing the situation at Ren'ai Reef.

The Philippine side had committed not to reinforce the grounded

warship and to notify China in advance of resupply plans, while in return, China, on humanitarian grounds, had made temporary special arrangements multiple times to allow the Philippines to deliver necessary living supplies to the grounded vessel, he said.

But he said the Philippines had repeatedly renege on its promises and attempted to transport construction materials intended for large-scale repairs and reinforcement of the vessel, aiming for the permanent occupation of Ren'ai Reef.

On Tuesday, Gan criticized the Philippine authorities for "ignoring facts and maliciously hyping the situation", thereby "deliberately misleading international perception".

"China has indisputable sovereignty over the Nansha Islands, including Ren'ai Reef, and their adjacent waters," he said.

The China Coast Guard will continue to carry out rights protection and law enforcement activities in waters under China's jurisdiction, resolutely safeguarding national territorial sovereignty and maritime rights and interests, he added.

## Nation's first panda college to open doors in Sichuan

By HUANG ZHILING

and PENG CHAO in Chengdu

### 50 undergraduates

The number of students that will be admitted to the panda college this year.

graduate and postgraduate students who can work in the Giant Panda National Park and nature reserves.

Covering 27,134 square kilometers in the provinces of Sichuan, Shaanxi and Gansu, the Giant Panda National Park is home to 72 percent of the country's wild pandas. More than 2,500 sq km are in Sichuan's Baoxing county.

Wei Wei, director of China West Normal University's Institute of Rare Animals and Plants and a teacher at the panda college, said, "We will introduce professional

courses, such as frontiers of conservation biology, and invite experts in conservation biology from well-known domestic universities and research institutions to give special lectures to students in the panda college."

Twenty-two experts from the China Conservation and Research Center for the Giant Panda, the Chengdu Research Base of Giant Panda Breeding and the Chinese Academy of Sciences' Chengdu Institute of Biology and Institute of Zoology are on the university's expert committee.

Giant pandas are globally recognized as the "flagship species" of the world's biodiversity conservation. They also serve as a cultural symbol for Sichuan, home to the majority of the world's wild pandas.

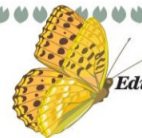
Wang Yuanjun, Party secretary of China West Normal University,

said the university has taken the lead in China's higher education sector in studying the ecology of wild giant pandas, boasting the country's longest track record of such research.

Since the 1970s, the university has been devoted to giant panda research and has created "four firsts" in the field, Wang said.

It has led the country's first giant panda field investigation and research, established the world's first giant panda field ecological observation station, promoted China's first international cooperation on wildlife protection, and published the world's first academic monograph to comprehensively explore the ecological environment of giant pandas, he said.

Contact the writers at huangzhiling@chinadaily.com.cn



**Editor's note:** As protection of the planet's flora, fauna and resources becomes increasingly important, China Daily is publishing a series of stories to illustrate the country's commitment to safeguarding the natural world.

# Butterfly guardian surveys Yunnan biodiversity

Yang Zhenwen has spent more than two decades trekking the mountains in Southwest China looking into new species

By **WANG XIAOYU**  
and **LI YINGQING** in Honghe, Yunnan

**T**he life of Yang Zhenwen is deeply intertwined with butterflies, so much so that the 47-year-old has three nicknames associated with the winged insects.

The curator of the Butterfly Museum in Jinping county, Yunnan, Yang is sometimes referred to as "the butterfly daddy" because he has traversed the mountains of the province in Southwest China for more than two decades to survey butterfly species and contribute to their conservation.

The passionate enthusiast has accompanied scientists on treks into the mountains in Jinping, and even contributed to the discovery and identification of new butterfly species.

His museum is home to more than 2,200 butterfly specimens, and is the headquarters for Yang to spread knowledge about the insect and promote awareness of environmental protection.

When he is giving tours to visitors and nature enthusiasts, he becomes "the butterfly encyclopedia."

The moniker "the butterfly guardian" has also been bestowed on Yang for his meticulous care for the delicate insects.

As a special treat for the butterflies, he and his fellow villagers have created a concoction of water, sugar, sticky rice flour and pineapple that they spray around the local trails and on branches in the forest.

Despite his many epithets, Yang considers himself an ordinary guy. "If anything, I think of myself only as a butterfly enthusiast with an everlasting passion for them," he said.

Yang was born and raised in the town of Maandi in Jinping county, which is part of the Honghe Hani and Yi autonomous prefecture, bordering Vietnam.

The town has a mild and humid climate with an average temperature of about 18 C and abundant rainfall all year round. There are more than 2,670 hectares of bamboo that provide the butterflies in the area with plentiful food and ideal breeding grounds.

An extraordinary event occurs in Jinping from May to June each year as an estimated 100 million butterflies burst forth from their chrysalises in the biodiverse county, creating a rare sight known as a butterfly explosion.

"When I was a kid, a mountain path leading to my school was thronged with so many butterflies that I had to wave them aside to make my way forward," said Yang. "Some elderly people in the village said that there were even more butterflies when they were young, but there is no clear record as to when butterflies first emerged here."

The butterfly is a symbol of love in China. In a well-known legend considered the Chinese equivalent of *Romeo and Juliet*, two star-crossed lovers separated due to pressures from their families, transform into a pair of butterflies and live happily ever after.

In the 1980s, locals in Jinping disliked the abundance of butterflies, fearing they were affecting their crops, and some even sprayed chemicals to curb their population.

"For me, I just thought the scene of butterflies flapping their wings in the breeze was very beautiful," said Yang, who was working at an agricultural facility at the time.

Research shows that the so-called butterfly valley in Maandi township has more than 320 species from 11 of the 12 butterfly families found in China, and the most common species is *Stichophthalma*, or jungle queen.

"The wings of jungle queen butterflies are golden yellow and interspersed with fish scale patterns. In the bright sunlight, their wings seem to reflect the sunrises and carpet the ground or tree branches with a layer of glittering gold," he said.

The spectacle of the butterfly explosion was largely unknown to the outside world until 1998, when a team of experts from Southwest Forestry University in Kunming, Yunnan, who intended to introduce local bamboo to the 1999 Kunming International Horticultural Exposition, visited there and stumbled across the phenomenon.

"Research into the butterfly explosion began in Jinping, and I was able to dedicate more time and effort to observing them," said Yang.

"Their wings are extremely thin and vulnerable. A single raindrop can weigh 20 or 100 times that of a butterfly's wings, and they can easily break if unfurled when wet," he said.

"So on rainy days, I look under tree leaves to find them resting there. If I want to get a closer look at their size and condition, I can only gently pick their bodies up by the tips of my fingers."

The life cycle of a butterfly includes four stages: egg, larva, pupa and adult, with the duration of each stage varying across different species. "Taking the jungle queen species as an example, they spend the majority of their lifetime as caterpillars or larvae, and die within 15 to 20 days after emerging from chrysalises," said Yang.

While the caterpillars mainly feed on bamboo leaves native in Jinping, adult butterflies



"I usually set off from home around 6 am to examine how butterflies wake up from their resting places under leaves, and I don't return until dusk falls after they've laid their eggs," he said.

Countless hours spent in the forest have endowed Yang with a vivid understanding of the role butterflies play in nature.

"Because it is an extremely delicate insect, butterflies can also be seen as a symbol of the health of the local ecology, and only in a favorable, healthy environment can the spectacle of a butterfly explosion occur," he said.

Yang said that about 90 percent of butterflies are eaten by other insects before they reach the adult stage. "As a result, behind a butterfly explosion is an enormous population of diverse animals. Butterflies not only provide a breathtaking sight for us to enjoy, but also contribute to biodiversity," he added.

To step up the protection of butterflies, Jinping county released a regulation in October 2012, which prohibits actions such as altering the natural state of the water environment, spraying pesticides, indiscriminately cutting down trees or digging up bamboo shoots.

Sun Sen, deputy head of the county, said that habitat destruction, environmental pollution, use of fertilizers and pesticides, global climate change, invasive species and overexploitation of resources are regarded as the major challenges in butterfly conservation.

In addition to the release of the regulation, Sun said the county has stepped up awareness campaigns among the public, cracked down on the illegal collection and trade of butterflies and helped advance scientific research to improve conservation technologies.

The butterfly valley in Maandi township has been gaining popularity among domestic and foreign tourists, and the residents have set up rural homestays and restaurants to cater to their needs. According to local authorities, more than 2 million tourists have visited since 2010.

Yang Tingcui, who owns a local grocery store and a hostel, said that she is glad of Jinping county's growing popularity and the increasing number of travelers.

"I strive to keep my rooms clean so that tourists can have a good rest here after they've experienced the mountains and the butterfly valley," she said.

Kazuo Unno, chairman of the Society of Scientific Photography in Japan, has been snapping pictures of natural landscapes for decades and has a particular interest in butterflies.

The 76-year-old visited Jinping in late May upon the recommendation of his Chinese tour guide.

"I have traveled to Laos and Thailand in the past and seen how butterflies rest by the riverbank, and I was excited to discover if there were similar sceneries here in China," he said.

Contact the writers at  
wangxiaoyu@chinadaily.com.cn

While running from the bear, Yang said he tripped on a fallen tree trunk and passed out.

"When I opened my eyes again, several hours had already passed, and I could only feel that my whole body was icy cold," he said. "After realizing that I was not dead, I made my way back home."

Yang said that he's had his fair share of accidents over the years, but the risk has never dampened his enthusiasm for potentially discovering new species and learning more about butterflies.

This year's butterfly explosion was described as being "only small" by Yang.

"There is a natural cycle of having a year with a large number of butterflies followed by a year with relatively fewer," he said. "This year's butterflies also appeared to be larger in size and very healthy, which I believe lays a solid foundation for next year's production of eggs and larvae."

Yang follows the same routine during the peak butterfly season each year.

**Center and right:** Jungle queen butterflies gather in the so-called butterfly valley in Jinping, Yunnan province.

**Above left:** Yang Zhenwen examines a butterfly in Jinping in May last year. PROVIDED TO CHINA DAILY  
**Above right:** Tourists take photos of butterflies in a bamboo forest in Jinping. PROVIDED TO CHINA DAILY

## WORLD

## Macron faces problems over govt formation after polls

By JULIAN SHEA in London  
julian@mail.chinadaily.com

France's President Emmanuel Macron may have seen the far-right National Rally party, or RN, relegated to third place in the country's national assembly election on Sunday, but he still faces a major headache over the makeup of the country's next government.

Macron's centrist coalition Ensemble finished second behind the hastily concocted New Popular Front alliance of parties of the left, or NFP, with RN in third.

None of them won the 289 seats needed for an outright majority, so now a round of horse-trading is taking place as people look to build alliances.

Macron is safe in his role as president, but faces having to contend with a new parliament no more sympathetic to him than the one before he called the snap election.

Prime Minister Gabriel Attal has offered his resignation, but Macron has asked him to remain in office until the post-election fog clears.

That does not seem like it will happen in a hurry, and to exacerbate the situation, this week Macron has to go to Washington for a meeting of leaders of the NATO military alliance.

## 'Choice of voters'

Mathilde Panot, parliamentary leader of one of the NFP parties, the hard-left France Unbowed, said Macron should "bow to the choice of the ballot box" and let the NFP take over.

This would lead to a situation known as cohabitation, where the president would be from a different party to the prime minister and the cabinet.

This has been done before, but only when there has been a party with a clear majority, which is not the case now.

Clement Beaune, the former transport minister and a close ally of Macron, who lost his seat in the election, said the NFP had no entitlement to power.

Writing on social media platform X, he conceded that the election had given the NFP "rights", but said the lack of a majority showed many of its members were not elected in their own right, but as a rejection of RN.

"The only answer is a broad coalition which party leaders must start negotiating," he wrote.

Macron has indicated his openness to forming a so-called rainbow coalition, which could include dissident members of the right-wing Republican party, who declined to join a pre-election pact that party leader Eric Ciotti struck with RN.

But in a sign of how widespread divisions are across the political spectrum, Johanna Roland, the chief negotiator for the Socialist party, has indicated it might welcome Ensemble members into the fold.

"We are clear-sighted but not sectarian, so those who want to meet us on these bases — I'm thinking, notably, about left-wing Macronists — we'll be open," she told television channel France 2.

## Twin parks boost joint development

Collaboration program between China and Malaysia creates job opportunities

By PRIME SARMIENTO in Kuantan, Malaysia  
and YANG HAN in Hong Kong

Khairy Akmal Ismail, a 20-something chemical engineer, has seen how the rise of the Malaysia-China Kuantan Industrial Park has created opportunities for locals and brought development to his hometown.

Khairy, a senior executive at Alliance Steel, one of the biggest steel makers in Malaysia and among the first companies to set up a plant in the park, said his friends and neighbors have managed to buy homes and cars thanks to jobs created by Chinese companies that had invested in the industrial park.

New roads were also built near the park, allowing residents to travel to the nearby state of Terengganu.

Before the park was set up, Kuantan offered few opportunities for its residents, Khairy said, but everything changed when companies such as Alliance Steel started recruiting workers.

The company offers jobs even to those who have diplomas but no university degrees, he said. "They can try to apply, and we will give them training to help them grow."

The park, which opened in 2013 and is located in the East Coast Economic Region, covers more than 14 square kilometers and caters to

heavy and medium industries, light industries, residential and commercial components. The park is part of the Two Countries, Twin Parks collaboration model between China and Malaysia.

Its sister park, the China-Malaysia Qinzhou Industrial Park, opened in Qinzhou, Guangxi Zhuang autonomous region, in 2012.

Lee Chun Fai, the Malaysian shareholder representative for the Malaysia-China Kuantan Industrial Park, said the China-Malaysia collaboration produced a "very resounding success" for the industrial park.

"The growth of foreign direct investment in (Kuantan) has been very encouraging," Lee said. The park has extended many benefits to its investors including tax incentives, infrastructure development and grants for skilled workers, he said.

Lee welcomed the Two Countries, Twin Parks collaboration model because it means that both sides are simultaneously promoting the two parks. Both countries are "making use of each other's capability" and working for mutual benefit, he said.

"For example, when Chinese investors come in, we in Malaysia will be able to help them to navigate the local requirements."

Development and construction of the Malaysia-China Kuantan Industrial Park is in full swing. It hosts 13

projects with a total investment of about 46 billion yuan (\$6.3 billion) and has generated a cumulative industrial output value of more than 60 billion yuan. The park is said to have created about 5,000 long-term jobs and has brought an annual increase in throughput of nearly 10 million metric tons to Kuantan Port.

Zhuang Yan, deputy secretary of the Joint Cooperation Council Secretariat, Qinzhou Port Area of China (Guangxi) Pilot Free Trade Zone, said the China-Malaysia Qinzhou Industrial Park is the third international park jointly built by the Chinese government and a foreign government.

## Key node

The aim is to make the park a key node of the New International Land-Sea Trade Corridor to promote connectivity and development of both countries as well as the broader region. Since the park was set up, it has rapidly expanded its development scope and brought in many industrial projects, Zhuang said.

By last year, a total of 249 projects had been set up, with cumulative investment in park development and construction reaching about 8 billion yuan. The value of imports and exports combined was 35.2 billion yuan and the cumulative actual use of foreign capital reached \$820 million.

The park has developed a cross-border industrial and supply chain for processing and trading projects



Staff members show packed batteries at a factory of the Carmel Group at the Malaysia-China Kuantan Industrial Park in Pahang State, Malaysia, on June 13. CHENG YIHENG / XINHUA

with "ASEAN characteristics", including bird's nest, durian, palm oil and recycled aluminum, Zhuang said.

Allen Phua Lan Tat, general manager of the internal audit department of Minko International, a palm oil producer and exporter in Malaysia that has invested in the park, said it has unique advantages in location, platform and policy.

Minko has also expanded its business "by leveraging the unique geographical advantage of Qinzhou, which is facing ASEAN and backed by the market of Southwest China".

"Qinzhou Port is the closest port to ASEAN, so by taking advantage of its transport connectivity that links sea and rail as well as the new western land-sea corridor, we have effec-

tively reduced cost and increased efficiency," Phua said.

Chin Yew Sin, president of the Malaysia Strategy Research Center, underlined the importance of the Kuantan Port in the development of the two parks.

"The short distance between Kuantan Port and Qinzhou Port has cut down the cost of transportation between them," Chin said. "This will bring benefits to both Malaysia and China business people so that their imported goods or products from either Malaysia or China will be more competitive in each other's country."

Contact the writers at  
prime@chinadaily.com.



Members of a rescue team carry a survivor of the landslide in a village in Bone Bolango Regency, Gorontalo Province, in Indonesia on Monday. DIDOT / AFP

## Rains halt search for 30 missing in Indonesian landslide that killed 23

PALU, Indonesia — Incessant rains on Wednesday halted the search for 30 people believed trapped under a landslide that engulfed an unauthorized gold mine on Indonesia's Sulawesi Island over the weekend, killing at least 23 people.

More than 100 villagers were digging for grains of gold on Sunday in the remote and hilly village of Bone Bolango in Gorontalo Province when tons of mud plunged down the surrounding hills and buried their makeshift camps.

The search was suspended on Wednesday afternoon due to heavy rains, said Heriyanto, head of the provincial Search and Rescue Office. Rescuers have not yet been able to locate the missing people, he said.

The National Search and Rescue

Agency said on Wednesday that 92 villagers managed to escape from the landslide. Several of them were pulled out by rescuers, including 18 with injuries. It said 23 bodies were recovered, including that of a 4-year-old boy, while 30 people were missing.

More than 1,000 personnel, including army troops, were deployed to increase the strength of the search efforts, said Edy Prakoso, the agency's operation director.

## Helicopter on the way

He said the Indonesian Air Force would send a helicopter as it was the only way to speed up the rescue operation that has been hampered by heavy rains, unstable soil and rugged terrain.

Photos released by the agency

showed an excavator removing tons of mud and rocks that blocked access to the site.

Nopri, a miner, told news channel MetroTV that he spent about eight hours buried under about a meter of debris before he got out. He and his companions survived by breathing air flowing in through gaps in the debris and had some water left to fend off thirst, but they had been forced to wait for rescue, he added.

"When we tried to get out, dirt fell back again," he said. "So we were resigned, we just waited for help."

Informal mining operations are common in Indonesia, providing a tenuous livelihood to thousands laboring in conditions that pose a high risk of serious injury or death.

AGENCIES VIA XINHUA

## UK parliament returns, sees new MPs' record

By JONATHAN POWELL in London  
jonathan@mail.chinadaily.com

The United Kingdom Parliament reconvened on Tuesday with an agenda that included selecting a new speaker of the House of Commons and the formal swearing-in of newly elected members of Parliament, following last week's general election.

The incumbent speaker, Lindsay Hoyle, retained his position through a reelection by his fellow MPs. He returned to the post unopposed.

Putting himself forward to be reelected for the role in the House on Tuesday, Hoyle said: "I know from experience that decisions have consequences, but with experience comes wisdom and if reelected I will be guided by that as I continue to be fair, impartial and independent."

Labour MP Cat Smith said Hoyle is a speaker "who champions the voices of his backbenchers", adding: "Our speaker is fair, impartial, and independent. Newly elected members will find a great friend in our speaker, I know I have."

The speaker, though initially elected as a party representative, is chosen by MPs to oversee House of Commons proceedings with strict impartiality. Upon taking this role, the speaker abandons party affiliations and remains neutral during debates and votes.

However, they continue to represent their constituency's interests outside of parliamentary session.

Hoyle, who has served as speaker since 2019, contested and won the Chorley, Lancashire constituency, seat without party affiliation. Before he was elected as speaker, Hoyle was a member of the Labour Party.

The House of Commons welcomed an unprecedented 335 new MPs, marking the largest influx of fresh faces in modern British political history.

This figure surpasses the previous record set in 1945, when 327 newcomers entered Parliament following the first election in a decade, held in the wake of World War II.

## Pledging an oath

A total of 643 MPs pledged an oath ahead of Parliament's State Opening on July 17, promising to "be faithful and bear true allegiance to His Majesty King Charles, his heirs and successors, according to law".

There are 650 elected MPs, but Sinn Fein, the party that won seven seats across Northern Ireland, has a long-standing policy of abstentionism and does not take its seats in the Parliament.

The oath of allegiance, which MPs must swear or affirm before taking their seat in the House of Commons, is derived from the Promissory Oaths Act 1868 and has been updated to reflect the current monarch, King Charles III.

UK Prime Minister Keir Starmer made a brief appearance and delivered a speech in Parliament, his first in the House of Commons as the country's new leader, before departing for Washington in the United States to participate in a summit of NATO leaders.

Starmer said he hopes the new Parliament will replace the "politics of performance with the politics of service".

Lawmaking and debates in the Commons are suspended until the State Opening ceremony next week, when the King's Speech from the House of Lords will outline the government's legislative agenda.

## Famine threat looming over Gaza, UN warns

By JAN YUMUL in Hong Kong  
jan@chinadaily.com

A group of independent experts and special rapporteurs of the United Nations have said famine was now gripping the Gaza Strip as children die from malnutrition amid Israel's alleged starvation campaign as bombings of schools continued.

"We declare that Israel's intentional and targeted starvation campaign against the Palestinian people is a form of genocidal violence and has resulted in famine across all of Gaza. We call upon the international

community to prioritize the delivery of humanitarian aid by land by any means necessary, end Israel's siege, and establish a cease-fire," said experts for the UN Human Rights Council in Geneva in a statement on Tuesday.

Israel's mission to the UN in Geneva slammed the famine statement, saying the UN experts were as much accustomed to spreading "misinformation" as they were to supporting " Hamas propaganda", the Times of Israel reported.

Israel's Coordination of Government Activities in the Territories,

or COGAT, which implements the government's civilian policy within the territories of Judea and Samaria, and the Gaza Strip, posted on its X account on Monday that they were committed to collaborating closely with international partners to meet urgent humanitarian needs of civilians "despite our war with Hamas".

The independent experts highlighted the deaths of Fayez Ataya, who was barely 6 months old when he died on May 30, and 13-year-old Abdulqader al-Serhi, who died at the Al-Aqsa Hospital in Deir al-Balah on June 1. These were followed by the death of

Ahmad Abu Reid, 9, on June 3 in the tent sheltering his displaced family in Al-Mawasi, Khan Younis.

All three died from malnutrition and lack of access to adequate healthcare. With the deaths of these children from starvation despite medical treatment in central Gaza, there is "no doubt that famine has spread from northern Gaza into central and southern Gaza", the experts said.

Further, they noted that the death of a child from malnutrition and dehydration indicated that the health and social structures "have critically weakened".

Al Jazeera reported on Wednesday that at least 30 Palestinians were killed in Gaza after Israel struck a school housing civilians in Khan Younis.

The report noted it was the fourth attack on schools in as many days and following Israel's most recent mass evacuation orders for parts of Khan Younis and Gaza City. The Israeli military said Hamas militants were operating from within the schools, which Hamas denied.

The UN Relief and Works Agency for Palestine Refugees on June 15 had earlier said that more than 50,000 children require treatment for acute malnutrition.

The Integrated Food Security Phase Classification's acute food insecurity

analysis conducted in December 2023 had warned of a risk that famine may occur by the end of May 2024, affecting an estimated 1.11 million people.

It noted in its latest report on June 25 that the amount of food deliveries and nutrition services provided to the northern governorates increased, temporarily alleviating conditions there. In this context, the report said, available evidence does not indicate that famine is currently occurring.

But it said a high risk of famine persists across the entire Gaza Strip "as long as the conflict continues and humanitarian access is restricted". It said about 96 percent of the population in the Gaza Strip, or 2.15 million people, face high levels of acute food insecurity through September 2024.

## ACROSS ASIA

Editor's note:

In this weekly feature China Daily gives voice to Asia and its people. The stories presented come mainly from the Asia News Network (ANN), of which China Daily is among its 20 leading titles.

## ARTIFICIAL ATTRACTION

Beauty pageant for 'Miss AI' could be setting inhuman societal standards

While beauty pageants have been around for about 200 years, a first of its kind pageant has recently emerged — Miss AI, the world's first beauty pageant for artificial intelligence-generated influencers and models.

Created by the World AI Creator Awards in partnership with Fanvue, a subscription platform that hosts virtual models, the pageant was open for AI creators over the age of 18 to submit their models under the following criteria earlier this year — they must be 100 percent AI-generated and a social media influencer.

The pageant has a panel of four judges, two human and two AI. They are co-founder of the PR agency Frank, Andrew Bloch, alongside Miss Great Britain judge and "beauty pageant historian" Sally-Ann Fawcett, as well as AI models Aitana Lopez and Emily Pellegrini, who both boast Instagram followings of over 200,000 each.

Contestants will be given points based on their beauty, tech and social clout. Beauty points are awarded like in every pageant, based on their conventional beauty and ability to answer questions with maturity and sophistication. However, it is worth considering that all the models were specifically designed to meet (and exceed) all modern day beauty standards so that category will not be hard to score in.

The details, quality and realism of the model and use of AI tools are also vital to win points, especially since AI is known to have little but noticeable flaws, like a sixth finger or extra teeth. To win, contestants will have to look as human-like and realistic as possible.

Lastly, the consistency of their social media engagement with fans, their following growth rate, as well as how they are using their platforms are what earn contestants points in the social clout category.

The contestant with the most points total is crowned Miss AI and the creator wins \$5,000 in cash and \$8,000 worth of PR support, programs and mentorship.

To the surprise of many, the pageant received over 1,500 applicants before they sorted it down to a shortlist of 10.

Creators curate characters that would traditionally fit in the pageant setting, although they have the advantage of their models being 100 percent AI-generated, meaning they can take unattainable beauty standards to any extent.

Apart from generally looking good and being conventionally attractive, AI models and influencers are the perfect candidates for product endorsement and promotion for three reasons: they are scandal free, they do not age, they cannot get ill or injured, and they can be reprogrammed to speak any language.

Despite his AI model Zara Shata-



Park Ji-eun, CEO of artificial intelligence company Pulse9, speaks as virtual humans are seen on a screen in Seoul on April 24, 2023. The company created South Korean virtual girl group ITERNITI. JUNG YEON-JE / AFP

vari being inanimate, co-founder of digital marketing agency Digimozo and AI creator Rahul Choudhry has made her a symbol for women battling afflictions like depression. She also regularly shares advice and experiences on social media, as well as commentaries on women's healthcare in India; this being one of the reasons Zara qualified for the shortlist.

Much like Zara, many of the other contestants have their activism cited as one of the reasons they were shortlisted.

Kenza Layli strives to promote a society of empowered Moroccan women and was praised by the judges for her ability to tie a larger international audience to her cause, through her 196,000 followers on Instagram.

French influencer Anne Kerdi partnered with the organization Oceanopolis to promote ocean conservation and, as believed by Bloch, was "a brilliant example of the positive influence AI creators can have on an audience."

This trend of using AI influencers not only as role models in a physical sense, but also personally, suggests they may be the future of marketing, especially as their reach and popularity are heightened by events such as Miss AI.

However, this pageant has opened up a far broader conversation around AI influencers and just AI in general.

This idea of virtual public figures can be traced back to 1997, when Japan debuted the first virtual pop star Kyoto Date. Since then, the world has seen an unforeseen rise in virtual and AI-generated characters becoming influencers or brand endorsers.

“We’re being exposed to highly altered images and people are beginning to view these as beauty standards.”

Jennifer Levine,  
facial plastic surgeon

**\$550 million**

of profit made in 2019 with the help of top AI influencer Lu, who was created by Brazilian retail company Magalu for marketing and has garnered over 30 million social media followers.

As of now, the most followed AI influencer is Lu, who was created by Brazilian retail company Magalu for marketing, and has garnered over 30 million followers across her social media platforms. Over the years, her work for Magalu and other partnerships resulted in about \$550 million of profit in 2019.

Another example would be the American AI influencer Miquela, who has over 2 million followers on Instagram and has worked with Bella Hadid, a real-world model, to promote the Calvin Klein brand.

South Korean agency Metaverse Entertainment took it a step further and created an 11-member K-pop girl group designed using motion capture technology and deepfakes,

or video and other digital representation made by sophisticated machine-learning techniques that produce seemingly realistic but fabricated, images and sounds. Named ITERNITI, the group debuted in 2021 with their ironic song *I'm Real*. While ITERNITI has yet to take part in any brand endorsements or marketing, the growing popularity of virtual influencers and celebrities rings true.

Considering the notable progress that has been made in the world of AI influencers, concerns have arisen about how much AI should be integrated into certain aspects of society.

When asked about his take on the ongoing debate surrounding AI usage, AI creator Rahul Choudhry commented: "AI is here to help humans, and Zara's purpose is to spread awareness. She has a celebrity-like aura because we noticed people tend to follow celebrities and join their causes."

That celebrity-like aura does have other effects on audiences as well, such as lower self-esteem and envy. The depiction of conventionally attractive women that were crafted by technology would simply reinforce the toxic beauty standards that have terrorized women for centuries. While their activism and awareness have their benefits, AI influencers may have set society back in terms of body positivity and confidence.

If what creators truly want is to help people connect and raise awareness, an AI-generated, skinny, Eurocentric character is not the way to do it. To this day, what many corporations fail to realize is the value in promoting role models that can represent different demographics

because people want to see real people who look like them, have a similar life to them, and have experienced relatable struggles; someone they can empathize with.

In a conversation with media group Forbes, facial plastic surgeon Jennifer Levine said: "AI has the ability to help us stay looking our most youthful by making small changes that are done precisely and regularly that will alter the way we age... We're being exposed to highly altered images and people are beginning to view these as beauty standards. I think that in the future more people will be calling out these images and hopefully not allowing them to be used."

Even though there is a creator, or even team, behind the AI influencer carefully curating a personality and image, to a certain extent covering behind a perfectly designed character reinforces the idea that you need to look like that to be desirable or to be heard.

For decades, real-life beauty pageants have been criticized for their objectification and lack of body diversity, supporting toxic beauty standards and the world's perception of beauty. In the case of AI pageants, these issues only worsen because they are not real, making their appearance genuinely unattainable and damaging young women's idea of beauty.

A better way forward would be giving these powerful platforms to real people with real struggles to fight for their own causes, and promote products for humans to humans.

DAWN

THE JAKARTA POST

## Indonesian poverty at record low

Indonesia's poverty rate has fallen to a historic low this year while inequality, as measured by the Gini coefficient, has hit its lowest point in more than a decade. However, both figures remain below the government's target, according to latest official figures.

The poverty rate fell to 9.03 percent in March, beating the previous record of 9.22 percent in 2019. Statistics Indonesia director Nurma Midayanti told The Jakarta Post that it was the lowest in the country's history, according to methodology used since 1998.

The statistics bureau set 582,932 rupiahs (\$35.56) per capita per month as the poverty threshold in its March survey.

David Sumual, chief economist of Bank Central Asia, the largest private bank in Indonesia, said the poverty rate falling to a historic low was good news, but he noted that the poverty metric was "tricky" because it was based on a relative definition.

Many Indonesians who are not considered poor are hovering slightly above the threshold and are therefore prone to slipping below the poverty line.

"So when there's a shift in prices or high inflation, or changes in income or purchasing power, it will affect the poverty rate; it will certainly go up," Sumual said.

The World Bank forecast that Indonesia's poverty rate could be about 16 percent in 2022 if measured by the global institution's standard poverty line of \$3.2 per day. Meanwhile, the government figure was 9.57 percent in the same year, based on its own threshold.

Despite the relative improvement, the poverty rate still missed its mark by quite a margin. The 2024 state budget, for instance, sets this year's poverty rate target at between 6.5 and 7.5 percent.

Sumual said that if all other factors were held constant, the target range set by the government would have been "achievable" but the pandemic had pushed the trajectory off course.

Like poverty, inequality, as measured by the Gini coefficient, fell to 0.379 points in March, compared to the last record low of 0.378 in 2010, according to the statistics agency, which noted that inequality in urban areas was higher than in rural areas.

A higher Gini coefficient reflects a greater level of economic inequality. This year's state budget set the target for the index at between 0.374 and 0.377.

Sumual of Bank Central Asia said disparities between regions and demographics were important as further examination could reveal worse inequality.

"That's where the fiscal functions of distribution and reallocation come in," he said. "They're an important factor to make our growth more inclusive."

## Cambodian artifacts return from US

Fourteen cultural artifacts were returned to Cambodia on July 3, according to the country's Ministry of Culture and Fine Arts.

Their return, from one of the largest cultural institutions in the world, New York City's Metropolitan Museum of Art, also known as the MET, was announced in December last year.

The repatriation follows several years of negotiations between the Kingdom's restitution team, the US Attorney's Office for the Southern District of New York, the Homeland Security Investigations agency and representatives of the museum, the ministry said in a press release.

According to the release, the artifacts include the body of an extraordinary stone sculpture of a 10th-century female goddess, Uma, from the ancient royal capital of Koh Ker. The foot of the statue was identified at the Koh Ker temple complex in 2021.

The ministry said that, based on

testimony from former looters, the sculpture's body was stolen in 1997.

"At last, the pieces of the Uma will be joined to achieve its full magnificence as one complete statue," it said.

Phoeurng Sackona, Cambodia's minister of culture and fine arts, said the return of the national treasures is of the utmost importance, not only for Cambodia but for all of humankind.

"There are many more of the Kingdom's treasures at the MET which we hope will be returned to Cambodia. We are thrilled that a number of private collectors and museums have reached out to us in recent months, and we expect many more significant returns in the future," she was quoted as saying in the release.

She added that the repatriation demonstrates Cambodia's continued commitment to finding and bringing back the souls of the ancestors that were taken from the motherland during past decades of civil war.

Another "exceptionally rare" and "expertly crafted" statue which was returned is a late 10th or early 11th-century bronze Bodhisattva Avalokiteshvara, which the MET called "Seated in Royal Ease". The piece was sold to the MET by the late Douglas Latchford in 1992. Latchford has since been described as a nefarious dealer in stolen antiquities, even by the MET itself, said the release.

Also part of the consignment is a 10th-century bronze Avalokiteshvara head, which will finally be reunited with its torso currently displayed at the National Museum of Cambodia. The head is believed to have been looted in the 1990s, while the torso was discovered in a river in Battambang Province in the 1930s, the ministry said.

"These returns contribute to the reconciliation and healing of the Cambodian people, who endured decades of civil war," Sackona said.

THE PHNOM PENH POST



Cambodian museum workers handle a statue returning from the United States, before a ceremony at the Cambodian National Museum in Phnom Penh on July 4 for the return of artifacts. HENG SMITH / AP

## BUSINESS

MORE NEWS WHENEVER YOU WANT IT · CHINADAILY.COM.CN/BUSINESS

## Bond market investors get more reasons to cheer

By SHI JING in Shanghai  
shijing@chinadaily.com.cn

China has taken yet another step in opening up its bond market, with offshore investors set to receive permission to use onshore bonds — held under the northbound leg of the Bond Connect program — as margin collateral for the derivative trading-based Swap Connect.

The People's Bank of China, the country's central bank, announced the plan during the Bond Connect Anniversary Summit 2024 held in Hong Kong on Tuesday.

The Bond Connect program links the bond markets of the Chinese mainland and Hong Kong, and its northbound leg provides international investors access to the Chinese onshore bond market. Launched in May 2023, the Swap Connect links the Hong Kong and Chinese mainland interbank interest rate swap markets.

OTC Clear, the clearing subsidiary under Hong Kong Exchanges and Clearing Ltd (HKEX), will start accepting these instruments as collateral for Swap Connect by the end of this year, HKEX said in an announcement on Tuesday.

While cash is the major source of collateral for Swap Connect at present, the new measure will provide overseas investors an additional choice, reducing their liquidity cost and improving capital efficiency, the Hong Kong Monetary Authority (HKMA) said in a circular on Tuesday.

In February, onshore government bonds and bonds issued by policy banks were approved as collateral for the HKMA's RMB Liquidity Facility. Under this arrangement, Hong Kong banks entering the onshore bond market can pledge such bonds held via the northbound leg of the Bond Connect program to the HKMA for intraday and overnight RMB funds, meeting their short-term capital demand.

John Thang, a regional head of markets for Standard Chartered, said the new measure will help energize onshore bond assets held by overseas investors, further elevating the appeal of onshore bonds.

The new arrangement comes at a time when foreign capital is flowing

into the Chinese onshore bond market, with net capital inflows seen for nine consecutive months as of May, Thang said.

The rise has been more noticeable in May, more than doubling from April's number to 172 billion yuan (\$23.7 billion), according to estimates by Stan Chart.

The optimization of the connect programs amid continued interest by international investors in the Chinese onshore bond market reflects the regulators' resolve to further open up the Chinese mainland financial market in an orderly manner, he added.

According to Bond Connect Company Ltd, the manager of the Bond Connect and Swap Connect programs, more than 1,100 institutions from over 70 countries and regions have entered the China interbank bond market as of the end of May.

Foreign holdings in China's bond market have reached 4.3 trillion yuan, an average annual growth rate of nearly 20 percent during the past five years.

As of the end of May, the northbound leg of the Swap Connect has attracted 61 participating foreign institutions, with over 4,300 transactions and a total nominal principal of about 2.2 trillion yuan.

Bonnie Y Chan, chief executive officer of HKEX, however, said that China's onshore bond market remains significantly underinvested by global investors although it is the world's second-largest in terms of size.

Foreign investors only account for about 3 percent of the onshore bond market's trading, which is incongruent with China's economic size. In this sense, there is still much room for growth, including the further expansion of the connect programs, she said.

Chan also said during Tuesday's summit that the HKEX is preparing to launch 10-year government bond futures.

This will serve as an important tool for international investors to manage the interest rate risks of RMB assets, further attracting the participation of foreign investors in the Chinese bond market, she added.



Shoppers buy goods at a supermarket in Zaozhuang, Shandong province. SUN ZHONGZHE / FOR CHINA DAILY

## CPI heralds modest price rises in H2

Recovery in demand, consumption foreseen on back of policy measures

By OUYANG SHIJIA  
ouyangshijia@chinadaily.com.cn

China's consumer prices will likely increase modestly in the second half of this year, as domestic demand and consumption are expected to recover with a series of macroeconomic policy measures taking effect gradually, analysts said.

However, they noted the persistently low price levels underline the challenges for policymakers trying to boost confidence in the world's second-largest economy, highlighting the necessity for stronger fiscal and monetary support in the remainder of the year.

Their comments came as data from the National Bureau of Statistics showed on Wednesday that the country's consumer price index, a main gauge of inflation, rose by 0.2 percent year-on-year in June after a 0.3 percent rise in May.

The growth in core CPI, which excludes volatile food and energy prices and is deemed a better gauge of the supply-demand relationship in the economy, rose by 0.6 percent year-on-year in June, unchanged from the growth in May.

"The mild rise in consumer prices points to the economy's continued recovery trend, while the persistently low price levels suggest the domestic demand recovery is slow and bumpy," said Zhou Maohua, a researcher at China Everbright Bank.

"More steps are needed to boost domestic demand and spur consumption."

While consumer prices rose mildly in June, China's producer price index, which gauges factory-gate prices, dropped by 0.8 percent from a year ago in June, narrowing from a 1.4 percent fall in May, the NBS said.

Zhou said a slowdown in the PPI declines reflects the improvement in the supply and demand situation for the industrial sector, mainly due to the strong policy support, gradual recovery in market demand, improvement in business inventories, international commodity price fluctuations and low base effect.

"China's consumer prices stabilized in the first half of 2024, while the decline in factory-gate price narrowed," said Zhang Xuewu, head of the price analysis and forecasting division at the National Development and Reform Commission's Price Monitoring Center.

NBS data showed China's CPI increased 0.3 percent year-on-year in the second quarter. In the first quarter, however, it remained flat. The PPI dropped 1.6 percent in the second quarter, narrowing from a 2.7 percent decline in the first quarter.

Looking ahead, Zhang said he expects a mild rise in overall price levels with macroeconomic policies taking effect gradually and a steady recovery in demand for goods and services.

Wen Bin, chief economist at China Minsheng Bank, estimates China's CPI will rise around 0.5 percent year-on-year this year, higher than

the 0.1 percent rise in the first half. The PPI may drop around 1.3 percent this year, narrowing from a 2.1 percent decline in the first half, he said.

The latest economic data showcased a mixed picture of the stabilizing economy. Media group Caixin said the Caixin China General Manufacturing Purchasing Managers' Index rose to 51.8 in June from 51.7 in May, while NBS data showed the official manufacturing PMI stood at 49.5 in June, unchanged from May, and still below the 50-point mark that separates growth from contraction.

"Domestic activity indicators continue to suggest that economic momentum in China has likely softened in the second quarter," said Louise Loo, lead economist at British think tank Oxford Economics. "On the bright side, exports, which were a sizable contributor to growth in the first quarter, continued to outperform, and positive spillovers of resilient external demand into industrial production have played out in recent months."

She said her team expects only a modest monetary easing this year. "The PBOC (People's Bank of China, the country's central bank) is likely to deliver a 25-basis-point cut to the reserve requirement ratio in the third quarter, effectively timing liquidity injections with further issuance of ultra-long government bonds in the second half."

"Outright rate cuts to the benchmark medium-term lending facility are likely to stay small, given concerns over banks' declining net interest margins and currency weakness."

## Mixed edible oil transport slammed

By ZHU WENQIAN  
zhuwenqian@chinadaily.com.cn

Tanker trucks in China transporting edible oils and chemicals without proper cleanings in between trips cross the bottom line of food safety management and reflect a lack of quality control among involved enterprises, said an industry expert.

Edible oil makers should strengthen their quality control efforts, trace the flow of products transported by tanker trucks, actively recall related products and compensate consumers accordingly, said Zhu Danpeng, an independent food and beverage industry analyst, following reports of tankers having illegal mixtures of cargo.

Edible oils should be transported in special containers and not in tankers used for nonedible products, according to Chinese regulations. The issue has sparked outrage among the public and led to a plunge in share prices of edible oil companies.

China Grain Reserves Group Ltd Co (Sinograin), the country's largest grain storage and transport company, was reportedly involved in mixed and contaminated cargo transport cases and has since removed edible oil products from Jinding, a brand affiliated with the group, from its online flagship stores on Taobao and JD.

**4.41 percent**  
decline in shares of Jinlongyu on Wednesday

Shenzhen-listed Jinlongyu, a major domestic producer of packed edible oils affiliated with Yihai Kerry Arawana Holdings Co Ltd — a major domestic agricultural and food products processor — reported mixed transport of edible oils at its plants in Wuhan, Hubei province, and Shaanxi province.

Shares of Jinlongyu fell 4.41 percent to close at 26.04 yuan (\$3.58) on Wednesday amid food safety concerns.

"It is common knowledge and practice for enterprises to clean the holding tanks of trucks when replacing transported cargo. The mixed transport of coal-based liquids and edible oils has exceeded people's imaginations and crosses the bottom line of food safety," Zhu said.

He added that coal-based liquids contain chemicals that are hazardous to human health, with the possible deleterious impacts awaiting specific test results.

Jinlongyu responded that the itinerary that involved its Wuhan factory was the first transport after the tanker truck was registered, meaning the truck was brand new at the time of transport in question.

For the itinerary involving its Shaanxi plant, the tanker was cleaned and an inspection was carried out, and the results of the product quality inspection met national requirements, the company said.

In addition, Shandong province-based Luhua Group, a major domestic peanut oil producer, said it has implemented strict supervision over the transport of its cooking oil products.

The office of the food safety commission under China's State Council said on Tuesday that it has organized authorities — including the National Development and Reform Commission and the State Administration for Market Regulation — to set up a joint investigation team to look into improper use of tanker trucks in edible oil transport.

## Briefly

## Drone industry reports rapid growth in H1

China's drone industry has experienced rapid development, with a massive surge in the number of newly registered unmanned aerial vehicles in the first half of 2024, Song Zhiyong, head of the Civil Aviation Administration of China, said at a news conference on Wednesday. Nearly 608,000 UAVs were newly registered during the period, up 48 percent from end-2023. The cumulative flight time of UAVs reached nearly 9.82 million hours in the January-June period, an increase of 134,000 hours over the same period last year.

## Renminbi weakens against greenback

The central parity rate of the Chinese currency renminbi, or the yuan, weakened 32 pips to 7.1342 against the US dollar on Wednesday, said the China Foreign Exchange Trade System. In China's spot foreign exchange market, the yuan is allowed to rise or fall by 2 percent from the central parity rate each trading day. The central parity rate of the yuan against the greenback is based on a weighted average of prices offered by market makers before the opening of the interbank market each business day.

XINHUA - CHINA DAILY

## Ministry updates investment rules, technical specs for PV companies

By LIU YUKUN  
liuyukun@chinadaily.com.cn

China's Ministry of Industry and Information Technology updated an investment norm for the domestic photovoltaic manufacturing industry on Tuesday, which experts said will guide its structural adjustment and make its development healthier against the backdrop of rapid expansion and trade conflicts.

The updated norm proposed a minimum capital ratio of 30 percent for new photovoltaic manufacturing projects and project expansions, up from 20-30 percent in the 2021 version. Additionally, enterprises need to ensure their actual production in the previous year is at least 50 percent of their production capacity.

The updated norm detailed electricity consumption requirements and technical specifications for

products in newly established and expanded companies.

The photovoltaic manufacturing industry encompasses the production of polysilicon, wafers, cells, modules, inverters and related components.

Compared to the 2021 version, updated details include raised photoelectric conversion efficiency standards for cells and modules, alongside new stipulations for green production. Public opinions will be sought until Monday.

Experts said they anticipate these changes to mitigate risks of disorderly expansion, accelerate the phase-out of outdated capacities, foster high-quality development and support the industry's long-term sustainability.

"The MIIT's release of an updated industry norm aims to encourage photovoltaic enterprises to prioritize technological innovation, research and development

over mass expansion in scale and disorderly competition, promoting advancements toward high-end, intelligent and environmentally friendly development of the photovoltaic manufacturing sector," said Lin Boqiang, head of the China Institute for Studies in Energy Policy at Xiamen University.

Lin said over the past few years, the photovoltaic industry has seen fierce competition among its constituents.

Meanwhile, financial institutions have actively bolstered the new energy sector with investment incentives and financing buoyed by market demand and an influx of manufacturers hoping to tap the market trend. All this led to new problems in the industry.

"The photovoltaic industry is still at a phase of structural adjustment facing the phase-out of outdated capacity and the culti-



An employee oversees a photovoltaic production line in Lianyungang, Jiangsu province. SI WEI / FOR CHINA DAILY

vation of advanced capacity," Lin said.

Lin further said the updated norm, particularly the requirement of increasing capital ratio for new and expanded projects, will hasten this adjustment phase, marking a positive step toward the industry's health and sustainable growth.

Recently, several photovoltaic

enterprises, including LONGI Green Energy Technology, Tongwei Co Ltd, Aiko Solar and JA Solar, projected losses for the first half of the year. Companies attributed this possible downturn mainly to continuous declines in silicon material prices, impacting wafer, cell and module pricing, thus affecting overall industry performance.

# BUSINESS

## Smart tech boosts Jiangxi expressway

By ZHUANG QIANG and PANG BO

In the prefecture-level city of Jiujiang, which borders Jiangxi province's capital of Nanchang, State-owned builders are adopting smart engineering technology to boost construction on the world's heaviest asymmetric curved cable-stayed bridge.

Builders from China Railway No 4 Engineering Group Co Ltd (CREC4), working on an interchange project of the Jiujiang Fast Transit Line, on Monday hoisted the first stay cable for the swivel cable-stayed bridge traversing Lushan Station, named after the city's renowned Lushan Mountain.

The stay cable, 25.02 meters long and weighing some 2.66 metric tons, is composed of 73 steel strands with each strand sustaining a weight of some 8 tons, said Shi Xifeng, chief engineer of the first phase CREC4 project.

The bridge type has the widest bridge deck and the largest swivel weight of its kind in the world, he added.

"We are installing three magnetic flux sensors in each anchorage at the tower end for stay cables, and there are 444 magnetic flux sensors spanning the bridge, along with two magnetoelastic instruments for data measurement to make the



CREC4 employees install steel strands at a swivel cable-stayed bridge traversing Lushan Railway Station in Jiujiang, Jiangxi province. SHEN JIAPENG / FOR CHINA DAILY

stay cables intelligent," Shi said.

"Compared with traditional cables, intelligent cables are more accurate in the tensioning process during installation, allowing timely examination and measurement during the bridge's later inspection and maintenance work, and better ensuring the cable force safety of the bridge," he said.

The first phase of the Jiujiang Fast Transit Line project, starting from the east side of Jiujiang Toll Station of the Nanchang-Jiujiang Expressway — which was put into operation on Jan 28, 1996 — has a total length of 15.1 kilometers.

Designed as a two-way eight-lane bridge, the structure is 465

meters long and 42 meters wide, and has an 83-meter-high mother tower and a 77.5-meter-high sub-tower to support 148 intelligent anticorrosion stay cables of 74 pairs, Shi said.

The longest single-stay cable will be 137.54 meters long with a weight of some 20.22 tons, and can sustain a weight of over 950 tons, he added.

Starting construction on June 20, 2022, the first phase of the fast transit line is the maiden viaduct expressway in central Jiujiang. Upon completion, it will connect with the Jiujiang Yangtze River Bridge and the rapid transport network of the Lushan high-speed rail-

way station, optimizing the layout of Jiujiang's road network, said Chu Lingpeng, publicity chief of CREC4 Fifth Engineering Co Ltd, which is building the bridge.

The successful hoisting of the first stay cable has laid a solid foundation for the expected turn of the swivel cable-stayed bridge in late September, he said.

The bridge is currently being built in two sections, with one section weighing 41,400 tons and the other 47,600 tons, and the two sections will be turned on two gigantic rotating devices by then, Chu said.

Contact the writers at zhuangqiange@chinadaily.com.cn

## Emerging industries key to SOEs

State-asset regulator to enhance sci-tech innovation amid deepening reform

By ZHONG NAN and ZHU WENQIAN

As China deepens reforms of its State-owned enterprises, centrally administered SOEs are set to allocate more resources to develop strategic emerging industries in order to support national efforts and enhance their competitiveness, market analysts and business executives said.

Fostering innovation and strengthening self-reliance in science and technology will enhance the earning potential of central SOEs, secure more orders and project contracts in foreign markets, and contribute to building a modern industrial system, particularly in advanced manufacturing and green energy sectors, they added.

Strategic emerging industries in China include sectors such as energy-saving and environmental protection, next-generation information technology, biotechnology, high-end equipment manufacturing, new energy, advanced materials and electric vehicles, according to the State-owned Assets Supervision and Administration Commission of the State Council, or SASAC. It called for continuous efforts to deepen SOE reforms earlier this week.

The commission urged central SOEs to enhance their mechanisms for scientific and technological innovation, actively develop emerging and future industries, and continuously optimize the structure and allocation efficiency of State-owned capital.

Under the government plan, revenue from strategic emerging industries is projected to make up 35 percent of the total revenue of central SOEs by 2025.

China Oil & Gas Pipeline Network Corp, or PipeChina, pledged that it will further intensify research and development to acquire technologies for strategic emerging industries, accelerate the development of new energy storage businesses, and advance research on hydrogen blending in existing natural gas pipelines, high-pressure large-diameter pure hydrogen and carbon dioxide pipeline transportation solutions.

Zhang Wei, PipeChina's chairman, said the group aims to nurture and expand new businesses in the pipeline network sector, promote the establishment of industry standards and facilitate technological achievements.

In addition to showcasing seven new energy locomotives to offer both home and global markets new

solutions for low-carbon development in rail transport in Beijing in June, Chinese train manufacturer CRRC Corp recently unveiled the world's first commercially operational metro train built with carbon fiber materials in Qingdao, Shandong province, marking a significant leap in eco-friendly urban transportation technology.

Developed by Qingdao CRRC Sifang Rolling Stock Co Ltd, one of CRRC's subsidiaries, the train boasts reduced weight and energy consumption, paving the way for a greener future for subways.

Lin Cunzeng, CRRC's vice-president, said the development of the next-generation trains will further contribute to the high-quality growth of the Belt and Road Initiative and enrich China's export content in the coming years.

Chinese SOEs generated 32.85 trillion yuan (\$4.51 trillion) in operating revenue in the first five months, up 3.1 percent year-on-year, the Ministry of Finance said.

Profits of these companies totaled 1.71 trillion yuan during the January-May period, a year-on-year increase of 2.3 percent.

SOEs can also achieve rapid and effective strategic depth in emerging industries through mergers and acquisitions, said Zhou Lisha, a researcher at the Institute for State-owned Enterprises of Tsinghua University.

"It will help SOEs enter new market areas or enhance their own technological capabilities, thereby achieving rapid growth in market value," said Zhou, adding that China's continued SOE reforms, high-end products and green technologies have benefited the overseas market.

For instance, the Panati photovoltaic power station in Brazil, in which Beijing-headquartered State Power Investment Corp has invested, began operations last month. The power station has an installed capacity of 292 megawatts and can provide clean energy for more than 350,000 local households annually.

Lin Guixiang, chairman of SPIC's Brazil branch, said that after the station is connected to the grid at full capacity, it will reduce carbon dioxide emissions by around 630,000 metric tons annually as a move to help alleviate climate change.

Contact the writers at zhongnan@chinadaily.com.cn

## AI conference points to China's large role

By WANG YING in Shanghai wang\_ying@chinadaily.com.cn

The annual World Artificial Intelligence Conference, which wrapped up over the weekend, showcased China's growing significance in promoting global governance of the game-changing technology, industry experts said.

With agreements reached during this year's event exceeding 40 billion yuan (\$5.5 billion), WAIC 2024 also witnessed the birth of the Shanghai Declaration on Global AI Governance.

The declaration is committed to promoting the healthy, orderly and safe development of global AI by initiating joint efforts in its development and security, consultation on governance, mutual benefit and shared results, and promoting exchanges and dialogue among countries.

"We look forward to positive responses from governments, the scientific and technological community, the industry and all parties involved, and joint actions will promote AI to benefit mankind," said Chen Jining, Party secretary of

Shanghai, during the opening ceremony.

Themed "Governing AI for Good and for All", 10 separate forums on global AI governance and international collaboration were conducted throughout this year's World AI Conference & High-Level Meeting on Global AI Governance, and experts discussed the development status, challenges and countermeasures of AI ethical governance from different dimensions.

"While AI brings positive impacts on the development of the economy, society and environmental sustainability, the technology also contains risks and may pose threats to society over the long term," said Xue Lan, dean of Schwarzman College at Tsinghua University.

"In order to tackle major issues emerging in AI development, a system on global exchanges, prevention and control, strengthening multilateral dialogue mechanism among governments, and improving the global system by the scientific community must be developed," said Xue, who is also director of the Institute for AI

International Governance with Tsinghua University.

"The role of AI governance is similar to the steering wheel and brakes of a vehicle, which means AI governance can not only guide the research and development of technology and products in the right direction, but also stop AI innovation from going the wrong way in a timely manner," said Zhang Wang, vice-president of SenseTime Group, who is also chairman of the company's AI ethics and governance committee.

"In such reference, AI governance should adapt to technological innovations," Zhang said.

Zhou Bowen, director and chief scientist of Shanghai Artificial Intelligence Laboratory, said in the process of AI development, security and controllability of AI should be ensured, and it is necessary to develop security with coordination.

"The investment into AI security is lagging far behind that into talent density, commercial motivation and computing power. Currently, only 1 percent of investment is used in AI security or pri-

oritized safety considerations. Therefore, instead of expanding market scale, we need to pursue the trustworthiness of AI, ensuring its security and performance," Zhou said.

"By making a Chinese proposal into an international consensus, China has played a very important role in tapping into the aspirations and wishes of developing countries for AI governance," said Dai Bing, China's deputy permanent representative to the United Nations, during a special briefing on the sidelines of the Global AI Governance Forum.

According to Dai, on July 1, the 78th session of the UN General Assembly unanimously adopted the resolution proposed by China and cosponsored by over 140 countries on strengthening international cooperation in the capacity building of AI.

Calling it a milestone in global AI governance, Dai said this UN document showcases the unity and cooperation of various countries, as well as their determination and confidence in promoting the orderly and inclusive development of AI. And he believes China's contribution will have far-reaching influence on shaping the future of the world.



LEAVE ME A HOME

CHINADAILY Public Interest Ad: 005  
LIANG LUWEN AND MA XUEJING / FOR CHINA DAILY

# BUSINESSFOCUS

## CHINA UP-CLOSE

By ZHENG XIN

zhengxin@chinadaily.com.cn

As the offshore wind sector booms in China, opportunities are also arising beneath the whirring blades and churning turbines.

Eyeing massive marine resources, turbine manufacturers across the country are stepping up efforts to integrate new energy projects with aquaculture farms, where fish, lobsters and crabs coexist with wind turbines, blades and cable routes, further promoting marine biodiversity.

Longyuan Power, a subsidiary of China Energy Investment Corp — the world's largest power producer and the top wind power developer in terms of installed capacity — recently put into operation the world's first wind-fishery integrated floating platform near Nanri Island off Fujian province, which will co-deploy floating turbines and deep-sea fish farming equipment.

The project, pioneering a new marine economic development model that combines underwater fish farming and above-water power generation in the field of floating offshore wind power, will take better advantage of surrounding marine resources, it said.

Consisting of a 4-megawatt floating wind turbine and 10,000 cubic meters of aquaculture water volume, the project is capable of generating 96,000 kilowatt-hours of electricity each day, which can meet the daily electricity needs of about 42,000 households while boosting income from batches of fishery products, thus representing win-win cooperation between the development of new energy and the traditional marine economy, said Chen Yong, deputy director of Longyuan's Fujian subsidiary.

With remote monitoring and unattended operation, the intelligent deep-sea aquaculture equipment allows remote and intuitive observation of the state of the sealife populations, he said.

Longyuan said the electricity generated by the offshore wind turbine also ensures the safe and stable operation of the aquaculture equipment, solving the common problems of "insufficient power supply and unstable power supply" in traditional marine ranching.

Industry experts are optimistic about the integration of offshore wind and marine ranching, seeing the project — China's latest bid to combine offshore wind and fish farming — as a synergistic approach to sustainable development.

Combining wind power with aquaculture or ranching could benefit companies on both sides, leading to more resilient and diversified food systems, said Luo Zuoxian, head of intelligence and research at the Sinopec Economics and Development Research Institute.

"While aquaculture firms can take advantage of turbine bases as a stable and sustainable environment to anchor fish cages or rope-and-raft systems for growing shellfish and kelp, any power needed to run the aquaculture farm or marine ranch could also be drawn directly from the turbines," Luo said.

"For the wind power firms, making fuller use of the site would reduce maintenance costs while they can make extra profits by selling the power generated to aquaculture firms."

By combining renewable energy with aquaculture, China is demonstrating a holistic approach to addressing environmental challenges, while the combination could also help China make better use of its ocean resources, he added.

Ocean resources now account for 7 percent of global GDP, and it is crucial for all nations to collaborate and promote sustainable development, said Beate Trankmann, the United Nations Development Programme's resident representative in China, adding that the blue economy is also important globally.

The mixed wind power and aquaculture



## Offshore breezes prove windfall for fisheries

Mixed project facilities spur both green goals, seafood sector



**Above:** A view of the world's first wind-fishery integrated floating platform near Nanri Island off Fujian province in June.

**Left:** A technician operates systems when the mixed energy project was first put into operation in June.

PHOTOS BY CAI HAO / FOR CHINA DAILY

model is not new overseas. European countries such as Germany, the Netherlands, Belgium and Norway started trials as early as 2000, fixing fish cages and shellfish and kelp rafts to turbine bases. Asian countries, such as South Korea, got started in 2016, finding that valuable seafood such as kelp, mussels and scallops increased around offshore wind farms.

Before Longyuan's move, China Three Gorges Corp announced in 2019 plans for the country's first offshore wind project integrated with fish farming at Laizhou Bay in seafood-centric province Shandong, while China General Nuclear Power Group, the country's largest nuclear power plant operator by installed capacity and China Datang Corp, one of the largest power generation enterprises, are also pushing similar agendas.

Mingyang Smart Energy is among the private enterprise pioneers striving to take better advantage of vast ocean resources. The wind turbine manufacturer is working on a typhoon-resistant wind turbine jacket foundation that will incorporate an offshore fish farm, which will have an intelligent aquaculture system with remote functionality such as automated feeding, monitoring, detection and harvesting.

With a goal to produce 150,000 aquatic animals in a 5,000-cubic-meter cage, the innovative marine ranching project that harnesses cold energy from offshore wind farms will revolutionize sustainable aquaculture by utilizing renewable energy to create optimal breeding conditions for marine life, promote efficient use of the sea, along with offshore wind and hydrogen production, it said.

The high-quality aquatic products raised in this system are comparable to wild seafood and are less impacted by nearshore marine pollution, while the innovative project will also address concerns about potential area conflicts between future offshore aquaculture and wind farms, it said.

Shanghai Electric Wind Power Group also came up with the world's first floating wind turbine, solar farm and fish farm combination last year in Fujian province, which features a three-columned, semi-submersible floating platform that supports 3.6 megawatts of offshore wind turbine power and 0.4 MW of lightweight, flexible solar panels. A fish farming space has been dedicated in the hexagonal space beneath the central platform.

Once operational, the mixed energy project has the capacity to generate 96,000 kWh of electricity daily at full capacity, equivalent to the daily energy consumption of 42,500 individuals.

Li Ziyue, an analyst with BloombergNEF, said China's offshore sector has great upside potential in the years to come.

While China's offshore oil and gas production is expected to continue rising in the years to come, its continuous upstream investment and production commitment will also play a critical role in China's energy supply security, she said.

Lin Boqiang, head of the China Institute for Studies in Energy Policy at Xiamen University, said China's strategic focus on maximizing the use of its marine resources represents a significant move toward sustainable economic growth and environmental stewardship.

By investing in offshore wind farms and other marine-based renewable energy projects, China can tap into vast energy potential while simultaneously fostering marine biodiversity, Lin said.

The creation of artificial reefs and habitats around these installations not only supports marine life, but also promotes fishery and tourism, thereby boosting local economies.

The holistic utilization of marine resources underscores the country's commitment to innovative sustainable practices that can drive long-term prosperity, he added.

## Cold energy new impetus for fish farmers in dual-use tech

By ZHENG XIN

In an innovative twist on sustainable energy use, China is harnessing the icy byproducts of liquefied natural gas stations to create thriving fish farms, transforming cold energy into a lifeline for aquaculture and pushing the boundaries of green technology.

The initiative, spearheaded by China National Offshore Oil Corp, utilizes the frigid temperatures generated during the LNG regasification process to maintain optimal conditions for cold-water aquatic species. This cutting-edge method is being piloted at Guangdong Dapeng LNG terminal in Shenzhen, Guangdong province, and is expected to expand to other coastal provinces where LNG terminals are abundant.

Instead of discharging the huge amounts of cold energy — which are produced during LNG vaporization and distribution — into the ocean, the company has decided to utilize it for aquaculture within the terminal,

turning what was once considered waste into a valuable resource, enhancing fish farming capacities and reducing energy waste at the same time.

Similar to a marine aquarium, a total of 1,000 kilograms of red snappers and lobsters, among other sealife, are raised in the cold waters within the terminal, one of the largest LNG receiving stations in China.

Tests have shown that the sealife meets the requirements of various physiological indicators, said the company.

An analyst said the approach, part of a larger trend in China's energy and environmental sectors to find innovative uses for byproducts and reduce waste, sets a precedent for other countries with similar LNG infrastructures, potentially revolutionizing global aquaculture practices.

While cold energy has in the past been applied to low-temperature power generation and refrigerated storage, CNOOC has been the first to start aquatic cultivation through LNG cold energy, marking a new



An aerial view of the Guangdong Dapeng LNG terminal in Shenzhen, Guangdong province, in January. WANG XIAOKE / FOR CHINA DAILY

step in the construction of modern "ocean ranches" in the domestic LNG industry, said Li Ziyue, an analyst with BloombergNEF.

"During the regasification process of LNG, a substantial amount of cold energy is often wasted. If harnessed properly, it can greatly enhance energy efficiency and reduce emissions," Li said. "CNOOC's innovative approach can both utilize LNG cold energy and revolutionize the aquaculture industry."

According to CNOOC, the aquaculture experiment focuses on high-value fish species such as grouper and snapper, as well as seafood such as shrimp, crab and sea cucumber. Its projected annual output is expected to reach 100,000 kilograms.

The use of cold energy in aquaculture is expected to reduce overall costs by 30 percent compared with traditional aquaculture.

"Temperature control is a major cost factor in aquaculture, and this project will significantly reduce expenses while providing considerable economic benefits," said Cao Yueming, secretary-general of the seed branch of the Shenzhen Fisheries Industry Association.

## COMMENT

## Editorials

## Washington won't reach summit it aspires to by always trying to force its way to top

Mike Johnson, speaker of the United States House of Representatives, made his first major foreign policy speech on Monday at the conservative think tank Hudson Institute.

It was no surprise the speech by the leading Republican in the House sounded at some points like a pro-Donald Trump Republican Party campaign manifesto. Nor that he openly disparaged Democratic Party leaders Barack Obama and Joe Biden and sang the praise of Trump. Nor the fact that much of his speech dwelled on the alleged "threat" from China. Or as he said, in his attempt to give his words more gravitas, "a China-led axis".

As former House speaker Nancy Pelosi convincingly demonstrated, the song remains essentially the same no matter which party is boss of the House. China-bashing is the new political correctness in the US Congress, where people can talk whatever rot is in their head without worrying about being held accountable so long as they present it as countering the "China threat".

Beijing has largely grown accustomed to taking such cheap shots as "a puff of wind passing the ear". Still, Johnson's speech on Monday was particularly bargain-basement bullets, and served only to expose how rotten things are in the state of the country.

In a rhetorical style that has become typical of Congress ravings, Johnson spoke of an "interconnected web of threats", from "enemies" such as China, Russia and Iran, "a group of nations openly aligned against the United States".

In his words, "Russia, Iran, North Korea, Venezuela, and even Cuba ... all wake up every morning thinking how they can take down America".

According to his account, weak Democratic leadership under Obama and Biden has exposed US vulnerabilities at "a fateful moment". His prescription is a return to the Ronald Reagan approach to the former Soviet Union and, not surprisingly, a second term for Trump.

With Trump, he argued, the US would embrace "a new policy of peace through strength". Praising his own leadership in the assault on TikTok — conveniently ignoring the fact that Trump has been prominently using the social media platform as part of his campaigning — he promised to focus Congress on "countering China with every tool at our disposal".

He also vowed to pass a "significant package of China-related legislation" by this year's end, from sanctioning Chinese companies to restricting outbound investment in China.

Parroting Trump, he highlighted the need for a "US-led, America-first coalition" to "reinstate fear" in America's enemies and "retake the summit of respect".

Unintentionally, that gets to the nub of the US' problem: Fear does not beget respect. It is the US' predilection for the use of force to bully and coerce and the divorced-from-reality hamming in the House that drag it inexorably down and ever further from the summit it aspires to. Even its clinging-to-privileges allies don't have any respect for the showboating of Washington although they debate themselves by going along with it.

Spouting paranoid gibberish may pass for hard-hitting certainty of purpose for a prime-time audience desperate for hope that things are going to change. But to earn respect and "Make America Great Again", Washington needs to display some humility. Constructive engagement will prove far more productive than Johnson's baby-milk formula of bloc confrontation. By pitting itself against a self-forged "coalition", the US will only sink further into the quagmire of delusions of empire.

No matter how Washington politicians such as Johnson exaggerate the dire plight their country is in — ignoring its true nature — none of the "enemies" seem ready to take on that mantle. Beijing, for one, emphasizes the importance of healthy China-US relations. Even Moscow has clarified it has no intention to seek confrontation.

Time moves on and the world is moving with it. But the US is in danger of being left behind in a time loop of its own as those in Washington rant and rage about the lost good old days.

## NATO's musketeering makes all less secure

The ongoing NATO Summit in Washington was initially aimed at finding ways to reassure Ukraine of the organization's enduring support and offer some hope to its battle-weary citizens that their country might prevail in its conflict with Russia. But it is US President Joe Biden's health and cognitive abilities that grabbed the attention of all sides before the start of the gathering on Tuesday.

The NATO Summit undoubtedly comes at a trying moment in the US president's bid for reelection, and the three-day meeting is also likely to become a trying test for Biden to prove he is "fine", as he claims. The gathering on the 75th anniversary of the alliance's founding involves not only the 32 leaders of the NATO member states but also others from some Asia-Pacific countries and international organizations invited to attend. That means dozens of multilateral and bilateral meetings and a lot of talking for Biden.

After his stumbling in the first televised debate with Republican presidential candidate Donald Trump two weeks ago, which has raised questions about his ability to defeat his challenger in the November election, Biden is intent on using the NATO Summit to show he is capable of not only winning that contest but also holding office for another four years.

However, all parties are holding a wait-and-see attitude toward that, even as the White House has tried its best to reassure the public of the president's health and mental capacities.

Yet several anonymous senior US officials, who say there isn't — at least not yet — a crisis of confidence over Biden's general mental state, told the media that the president displays a strong grasp of the broader issues — Russia's invasion of Ukraine, the threat posed by China — but on specific and incremental actions that countries or groups may take when it comes to these conflicts, Biden has appeared confused at times.

Even if Biden can prove he is no less vigorous and healthy, over the three days, than the 75-year-old organization that was said to be "brain-dead" just three years back, the other leaders have enough reasons to care about a U-turn change in the US' NATO policy if Biden does lose the election.

European anxiety was heightened in February when Trump warned NATO allies in a campaign speech that he "would encourage" the Russians "to do whatever the hell they want" to countries that don't meet defense spending goals if he returns to the White House.

If that happens, the most pressing challenge the European NATO member states will be facing in just a few months will not be about how to support Ukraine to defeat Russia, but how to come up with the money to pay their NATO dues at a time when many European economies are flagging and there is public questioning of whether spending it that way is putting the money to best use.

The US and several other allies have said they will deliver on the \$1 billion air defense systems they have pledged to provide Ukraine at the opening of the NATO Summit on Tuesday. But how the others will follow up remains a question. The US used its you-are-on-the-table-or-the-menu argument to coerce its allies to follow its lead not long ago when they appeared to be reluctant to be dragged into its geopolitical games. It remains to be seen how Washington will try and persuade its allies to open up their wallets this time to stake its geopolitical games of aggression.

Over the past more than three years, an increasing number of people, including in the NATO member states, have seen clearly that the Three Musketeers-like vow of all for one, one for all "collective security model for like-minded countries" that Biden has tried to resurrect from the Cold War era has brought disastrous consequences to Europe and beyond.

A more consensus-seeking secretary-general is set to replace the US yes-man head of the organization. Over the past decade, the latter has done a good job in turning the NATO countries into an extended buffer zone for the US, transforming Russia from a potential dialogue partner into an enemy, and even antagonizing faraway China. So it is to be hoped the rest of the NATO member states will get a reality check and realize that their true concerns are not external threats but internal challenges.

NATO is howling that once security is hijacked by a few, it becomes a threat to all.

## CHINA DAILY WORLDWIDE

## Contact us at:

**China Daily**  
15 Huixin Dongjie Chaoyang District,  
Beijing 100029  
News: +86 (0) 10 6491-8365  
editor@chinadaily.com.cn  
Advertisement: +86 (0) 10 6491-8631  
ads@chinadaily.com.cn  
Subscription: +86 400-699-0203  
subscription.chinadaily.com.cn  
App: www.chinadaily.com.cn/mobile/daily.html

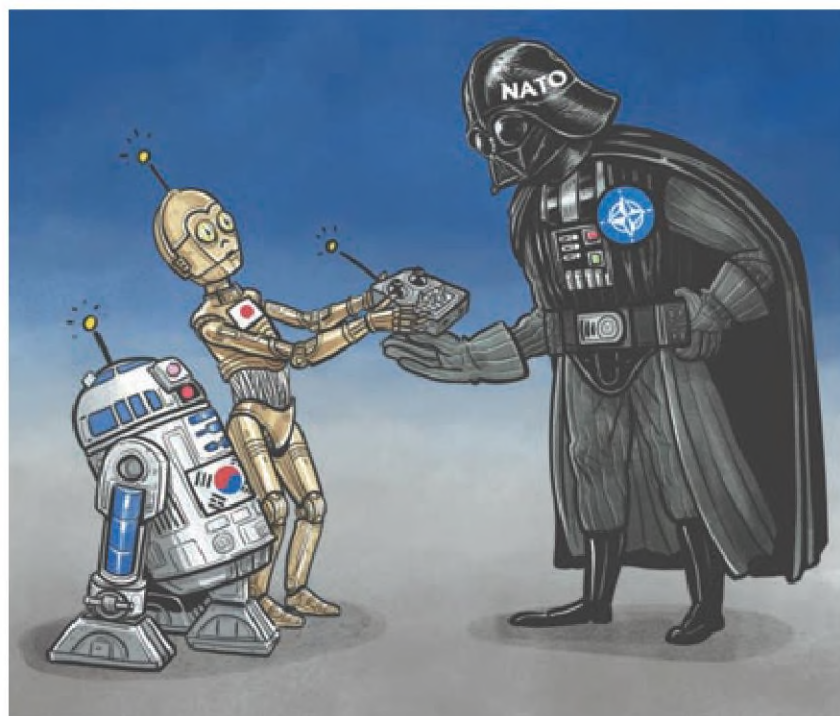
**China Daily UK**  
90 Cannon St, London EC4N 6HA, UK  
+44 (0) 207 398 6270  
editor@chinadailyuk.com

**China Daily Asia Pacific**  
**China Daily Hong Kong**  
Unit 1818, Hing Wai Centre, 7 Tin Wan  
Praya Road, Aberdeen, Hong Kong  
+852 2518 5111  
editor@chinadailyhk.com  
editor@chinadailyasia.com

**China Daily USA**  
1500 Broadway, Suite 2800,  
New York, NY 10036  
+1 212 537 8888  
editor@chinadailyusa.com

**China Daily Africa**  
P.O. Box 27281-00100, Nairobi, Kenya  
+254 (0) 20 242 8589 (Nairobi)  
editor@chinadailyafrica.com  
enquiries@chinadailyafrica.com  
subscription@chinadailyafrica.com

## Cai Meng



## Opinion Line

## Closer encounters with space for understanding and asteroid defense

China's Tianwen 2 probe is scheduled for launch on a Long March 3B rocket in May 2025. This is an ambitious mission which involves collecting samples from a near-Earth asteroid, delivering it to Earth, and then taking a gravitational slingshot back into deep space to study a comet.

The first destination is the near-Earth asteroid 469219, a quasi-satellite of Earth. After rendezvousing with Kamo'oalewa, as it is called in the Hawaiian language, the spacecraft will carry out remote sensing to assess potential landing sites. It will then attempt to collect samples using two different techniques — touch-and-go and anchor-and-attach — and then return to Earth to deliver the samples for analysis.

Kamo'oalewa is about 14.5 million kilometers away and the mission will take around two and a half years. This is the first time an asteroid sampling

mission is using the anchor-and-attach method, with the autonomously operating lander employing four robotic arms with drills to secure itself onto the surface.

If the mission is successful it will determine if Kamo'oalewa is a primitive planetary body or a piece of the moon that blasted into space on the impact of an asteroid, as a French analysis concluded in April.

By returning with samples from Kamo'oalewa, Tianwen 2 will test the technologies involved in conducting round trips from asteroids, increasing hopes of mining from the Asteroid Belt in the not-so-near future.

Many of the asteroids have high metal content, of which a good example is Psyche, 30 to 60 percent of its volume being metals that might be worth \$100,000 quadrillion.

After sending the capsule to Earth,

the Tianwen 2 spacecraft will use its close encounter with the planet to propel itself into a transfer orbit that will take it to the main-belt comet 311P/PANSTARRS. After reaching there about seven years later, it will orbit the comet and conduct a remote sensing study.

China also has Tianwen 3 scheduled for launch in 2028, which is a round-trip mission to collect samples from Mars, and the ambitious Tianwen 4 mission, which is scheduled to launch around 2030 and involves both a Jupiter orbiter and a Uranus flyby spacecraft.

Relatively low-cost, such missions can provide a better understanding of the early stages of the solar system and lead the way to the assessment of space resources and their utilization, as well as the development of asteroid-strike defense strategies.

—ZHANG ZHOUXIANG, CHINA DAILY

## Opening-up policies attract tourists to country

Traveling to China is in vogue in recent months, and "China Travel" a popular search term on multiple online platforms.

This is largely thanks to China's continuous efforts to expand the visa-free policy for foreigners, including the unilateral opening of 15-day visa-free travel for people from some countries and a 144-hour visa-free transit for people from more than 50 countries, including the United States, Canada and the United Kingdom.

China has also optimized the payment channels for inbound foreign

tourists to facilitate their travel. On March 7, the State Council, China's Cabinet, issued a guideline document requiring a multilevel and diversified payment service system to be put in place for foreign tourists. Ever since, four-star scenic spots and hotels in Beijing have completed the addition of foreign currency exchange points, ATMs and POS machines.

Data from the Chinese authorities show that in the first half of this year, 14.64 million foreign tourists visited China, up 152.7 percent year-on-year. Among them, 8.54 million visits were

made through visa-free entry, an increase of 190 percent year-on-year.

After arriving in China, many foreign tourists have found that what they see in China is very different from how some in the Western media portray it. China has made a big step forward in many aspects, including its airports, high-speed rail, and other modern urban infrastructure. At the same time, China is also one of the safest countries in the world, with tourists walking freely on the streets even late at night.

—BEIJING YOUTH DAILY

## What They Say

## Russia and Ukraine footing bill for US' bloody game

The Russia-Ukraine conflict has taken an increasingly ugly turn in recent weeks as both sides appear to be intent on including civilians and civilian infrastructure among their attack targets to try and inflict as heavy losses as possible on each other.

Both sides should realize that as immovable neighbors their conflict, for which they have already paid a heavy price, cannot last forever and it is imperative to seek a political resolution of the crisis so as to pave the way for the establishment of a lasting fair and workable peace mechanism in the Europe continent.

It is evident to most parties that the Ukraine crisis is an outburst of the long-accumulated tensions and hostility between Russia and the North Atlantic Treaty Organization, which was triggered by the former's rising security concerns caused by the latter's continuous eastward expansion since the end of the Cold War. Apart

from the United States, a major supporter of its proxy Ukraine, no parties benefit from the crisis, including the US' European allies.

Both Moscow and Kyiv, as well as the European Union, should bear that big picture in mind and give a serious thought to the question of how long they will continue to foot the bill for Washington's geopolitical game in Europe.

That being said, both Russia and Ukraine should exercise restraint and be rational, effectively comply with international humanitarian law, and avoid attacks on civilians and civilian infrastructure. Preventing an expansion of the conflict into a protracted all-out war between the two nations serves their common interests, and is in line with the expectation of the world, except Washington.

There are no winners in conflict and confrontation, and military means will not bring lasting peace. An early cease-fire and a political settlement are in the interests of all parties, and

the priority is to cool down the situation by observing the three principles of no expansion of the battlefield, no escalation of fighting, and no fanning of the flames by any party.

On the one hand, the sovereignty and territorial integrity of all states should be respected, the purposes and principles of the UN Charter should be adhered to; on the other hand, the legitimate security concerns of all states should be taken seriously, and all efforts conducive to the peaceful settlement of the crisis should be supported.

The international community, based on an objective and impartial position, should pool its efforts to create conditions conducive to putting an early end to the fighting and play an active role in this regard. China will continue to actively promote peace talks in its own way and make unremitting efforts and play a constructive role in promoting a political settlement of the Ukraine issue.

—LI YANG, CHINA DAILY

## COMMENT

Li Qingyun

## China right to pursue its modernization path

As the founding fathers of the United States declared, all men are created equal, that they are endowed by their creator with certain unalienable rights, that among these are life, liberty and the pursuit of happiness, and that to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed.

In other words, the fundamental reasons a government is formed include providing the people of the country safety and security, fostering the country's economic development to produce benefits for all and facilitating social development to ensure a greater sense of happiness.

But how well have Western-style democracy and socialism with Chinese characteristics delivered these benefits to the people?

China launched reform and opening-up in 1978, but the growth of the Chinese economy in the past more than four decades has been beyond all expectations, perturbing the US-led West. China has lifted more people out of poverty than any other country in history in the shortest time. In just a matter of four-plus decades, about 800 million people in China have been lifted out of extreme poverty.

Modern China's economic development has vastly outpaced that of the US, with the growth of the Chinese economy being phenomenal. In fact, according to London-based World Economics estimates, China's economy is 33 percent bigger than the US' (in GDP purchasing power parity terms).

When one thinks about how big the US economy was compared to China's in 1978, the questions that arise are: Which economic system has produced more benefits for the common people? Which political system has been economically more successful?

Certain Western critics persist in characterizing the CPC's governance as "authoritarianism" instead of "democracy".

But in doing so, those critics forget that only 63 million people elected Donald Trump as US president in 2016. As a matter of fact, an analysis of voter data shows quite a sizable percentage of US citizens see the elections as a mandatory public exercise. For example, while the 2020 US presidential election saw the highest voter turnout since 1900, even with the aberrant boost, only about 37 percent of the US population voted that year and in the midterm elections in 2022. Does the US democracy truly represent the majority of US citizen's rights and opinions?

The other important question is: The "social fabric" developed by which political system is better, the US' or China's?

There may not be a single criterion to measure the social health or social cohesion of a country. But individual metrics do provide some insight into a country's social health. One criterion to measure a country's social health is what percentage of its population is in prison. While the US has about 1.8 million people in prison,

It is clear therefore that the Chinese political system has been far more successful than the US system in delivering government benefits to the average citizen.

China, with four times the US' population, has only 1.7 million people behind bars.

In terms of public safety and security, China has a much safer environment than the US no matter which metric you use to measure the situation. Not only is the rate of homicide but also that of other crimes in the US higher than in China.

Besides, the advent of the internet has created unprecedented opportunities for communication and dissemination of misinformation, and the US has done a most unsatisfactory job of addressing the social divisions stoked by deep fakes and false narratives.

Instead of curbing such crimes and offenses through centralized and effective control, the US has balkanized the problem by allowing private enterprises to provide internet content and services without strict management, including false and damaging content.

Everyone agrees there have to be some laws or rules to regulate the internet. Why does the US perceive its more relaxed governance, which can foster environments conducive to violence and crime, as superior?

It is clear therefore that the Chinese political system has been far more successful than the US system in delivering government benefits to the average citizen.

The Third Plenary Session of the 20th Central Committee of the CPC, to be held in Beijing from July 15 to 18 under the theme of further comprehensively deepening reform and promoting Chinese modernization, will likely encourage people to embark on a new journey of Chinese modernization, in order to improve people's well-being and promote social equity.

The author is a professor at the Institute of Chinese Marxism, Shanghai Academy of Social Sciences. The views don't necessarily reflect those of China Daily.



SHI YU / CHINA DAILY

Zhu Feng

## Japan-Philippines military ties raise tensions

The deepening of military cooperation between Japan and the Philippines has cast a long shadow over the security landscape of East Asia, with Japanese Defense Minister Minoru Kihara visiting the Philippines on Sunday and Monday for a "2+2" meeting between the two countries' foreign and defense ministers.

The meeting led to the signing of a "Reciprocal Access Agreement", allowing Japanese naval fleets to remain in Philippine ports during joint exercises and enabling both countries to conduct joint live-fire drills. The agreement, which will become effective once it's ratified by the parliaments of the two countries, signifies not only Tokyo's ongoing intervention in the South China Sea issue but also an explicit shift in Japan's security policy for countering China.

This shift is in line with Japanese Prime Minister Fumio Kishida's speech in the US Congress, on April 11 in which he called China the "greatest strategic challenge". The Kishida administration's support for Manila in the Ren'ai Reef dispute and its attempts to challenge China's maritime claims in the South China Sea underline this strategic orientation.

Yet the Japan-Philippines military cooperation is unlikely to substantially change the situation in the South China Sea.

Since the signing of the Declaration on the Conduct of Parties in the South China Sea in 2002, China and ASEAN member states have had an understanding on the importance of maintaining the status quo in territorial disputes and resolving the

Given these facts, China, Japan and the Philippines should ideally set aside their differences and disputes, hold talks and explore cooperative security measures to ensure the region's long-term stability and prosperity.

differences through dialogue, cooperation and joint development. Efforts continue to be made toward establishing a binding Code of Conduct in the South China Sea to prevent the situation from worsening further and thwart foreign military intervention in the issue.

The Ferdinand Marcos Jr. government's recent actions, including the upgrading of Philippine-Japanese naval cooperation and the regular deployment of Japan Maritime Self-Defense Force in the Philippines, contravene the commitments made in the Declaration on the Conduct of Parties. These moves, designed to gain the support of external powers such as Japan and the United States, exacerbate tensions in the region rather than defuse them.

China has demanded that the Philippines abandon or withdraw the BRP *Sierra Madre* which it grounded on the Ren'ai Reef in 1999, because historically China

has exercised sovereignty over the reef and its nearby islands, islets, shoals and reefs. The Philippines should also withdraw the military vessel from Ren'ai Reef, because that is necessary for the conservation of the marine ecology and protection of the maritime environment.

A joint report by the South China Sea Ecological Center and the South China Sea Development Research Institute of China's Ministry of Natural Resources, titled the "Report of Illegally Grounded Military Vessel Destroying Coral Reef Ecosystem at Ren'ai Jiao", comprehensively and systematically evaluates the health of the coral reef ecosystem around Ren'ai Reef based on satellite remote sensing and on-site investigation data, while analyzing the reasons for the degradation of the coral reefs.

The report says the illegal grounding of the Philippine military vessel at Ren'ai Reef in China's Nansha Islands has seriously damaged the diversity, stability and sustainability of the coral reefs. Beijing has urged Manila to promptly withdraw or abandon the wrecked vessel. Beijing also warned that if the Philippines attempts to reinforce the grounded vessel, China's Coast Guard law enforcement forces will intercept and prevent the Philippine forces from doing so.

This not only demonstrates Beijing's determination to adhere to the DOC but also highlights its efforts to persuade the Philippines to jointly develop the South China Sea into a sea of peace, friendship and cooperation.

But the ongoing confrontational attitude and actions of the Marcos Jr. administra-

tion aimed at boosting flagging public support at home will only escalate tensions and instability in the South China Sea.

East Asia, a key region driving global trade, technological innovation and wealth creation, faces complex international dynamics, especially because of the ongoing conflicts in Ukraine and the Middle East. Given these facts, China, Japan and the Philippines should ideally set aside their differences and disputes, hold talks and explore cooperative security measures to ensure the region's long-term stability and prosperity.

But by amplifying the "China threat" narrative and strengthening their military cooperation, Japan and the Philippines are undermining this potential and serving the interests of the US, which seeks to curb China's rise by strengthening its military and ideological alliances. Hence, the possibility of the RAA evolving into a full-fledged Tokyo-Manila military alliance, supported by the US, can't be ruled out. Such a development would signal a return to Cold War-era divisions and conflicts, posing a threat to peace and prosperity in East Asia.

Therefore, all the countries in the region must remain vigilant against outside interference and seek diplomatic solutions to differences, prevent further escalation of tensions and ensure a stable, cooperative and peaceful East Asia.

The author is executive dean and a professor with the School of International Relations at Nanjing University. The views don't necessarily reflect those of China Daily.

Yang Dong and Lei Linxuan

## 'Fifth paradigm' of science at future's door

A new wave of technological breakthroughs, represented by artificial intelligence, blockchain and the mobile internet, is reshaping the world. These advancements, combined with the innovative allocation of production factors and industrial transformation, are promoting new quality productive forces. And the digital economy, characterized by innovation, efficiency and intelligence, is transforming traditional production methods while developing new quality productive forces.

As a new production factor, data are crucial for cultivating new quality productive forces in the digital economy, while theoretical and practical innovations need to be leveraged to exploit the multiplier effect of data and facilitate the development of new quality productive forces.

Traditionally, there have been three paradigms of science: empirical, theoretical and computational. But since our ability to collect "big data" has greatly surpassed our capability to analyze the data, a fourth paradigm has emerged, which is data-driven discovery. Despite that, however, the limitations of these paradigms become evident in the digital economy and, as a result, conclusions derived from the data may not align with real-world situations or common sense.

That in turn has made it necessary to explore the possibility of a "fifth paradigm" of science, and reconstruct the institutions of industrial society and economy. This approach is in line with the disruptive impacts of scientific theory, which will fully unleash the multiplier effect of data.

Hence, this is the right time to explore the "fifth paradigm" of science so as to seize the opportunities and overcome the challenges of digital civilization.

This author's proposed theory of data intellectual property is based on the "Coken theory". By integrating diverse knowledge, this approach aims to improve market-based distribution of data benefits, enhance transaction efficiency and overcome the limitations of traditional IP rights protection.

By using the Coken theory, one can transcend the limitations of traditional ownership, combine it with the "fifth paradigm" of science and realize incentive distribution for data revenue and value creation in circulation.

By using revenue certificate registration systems and technologies such as smart contracts and distributed ledger technology, it is possible to establish a transparent revenue distribution system based on data IP ownership and contribution.

Data rights holders can possess, use, trade and benefit from registered data, ensuring dynamic protection throughout the data's lifecycle. Currently, the theory and system of data IP registration are being implemented in places such as Zhejiang province, and the explosive growth of new technology clusters represented by AI and blockchain, especially through massive aggregation of multi-source data, has significantly altered organizational models and production methods.

Hence, this is the right time to explore the "fifth paradigm" of science so as to seize the opportunities and overcome the challenges of digital civilization.

The Coken mechanism, as a new comprehensive equity certificate, uses blockchain technology to mark the contributions of diverse participants in creating data value, and encourages participation and sharing among all entities in the data value chain. By attributing value to data sharing and re-sharing, the Coken mechanism enables value transformation and enhancement of data elements in circulation and sharing, while data providers, users, managers and other stakeholders play different roles within the Coken mechanism, coordinating and balancing interests through Coken's design.

For example, China Mobile's digital content unit, Migu, has implemented the "Coken" mechanism. By creating a data element content dissemination system and incorporating business results into blockchain smart contracts, original video ringtone creators, secondary creators, users, and other entities can receive corresponding revenue through content dissemination and sharing.

In conclusion, the proposed "fifth paradigm" of science represents a new frontier where AI is not just another tool, but an integral part of the scientific endeavor. In it, AI becomes the catalytic force driving scientific discovery, problem-solving and knowledge generation.

Yang Dong is a research fellow at the National Academy of Development and Strategy, Renmin University of China; and Lei Linxuan is an assistant research fellow at the Blockchain Research Institute of Renmin University of China. The views don't necessarily reflect those of China Daily.

## GLOBAL VIEWS

JORGE HEINE

## Latin America bets on the Asia-Pacific

By applying to join the RCEP, Chile has sent a powerful signal to the rest of the region, which urgently needs to further link up with the most dynamic part of the world

During a visit to Indonesia in mid-June, Claudia Sanhueza, Chilean under-secretary for international economic relations, formally submitted the country's request to join the Regional Comprehensive Economic Partnership. The RCEP, signed in 2020, is the world's largest trade agreement. Its 15 member countries represent 30 percent of the world's population and 30 percent of the world's GDP. It includes all 10 members of the Association of Southeast Asian Nations, plus China, Japan, Australia, New Zealand and the Republic of Korea.



It means that Chile, after several years of internal turmoil, is once again taking up the pioneering role it has played in fostering trans-Pacific trade and in building bridges between Latin America and Asia.

Chile was the first country in South America to establish diplomatic relations with the People's Republic of China, as early as 1970 under the government of president Salvador Allende, preceding even former US president Richard Nixon's visit to China in 1972. Later, Chile was the first country in the region to support China's application to join the World Trade Organization, the first to recognize China as a market economy, and the first individual country to sign a free trade agreement with China, in 2005. In fact, since the signing of the Chile-China FTA, bilateral trade has increased eightfold to \$62.5 billion in 2023, and 39 percent of Chile's exports now go to China.

But Chile's highly successful international trade strategy since its transition to democracy in 1990 goes way beyond China. As Chile rejoined the international commu-



LIMIN / CHINA DAILY

nity after 17 years of isolation during the Pinochet dictatorship, it needed a suitable approach to link up with the world economy. The one that was followed relied on two key components. One of them was that of a "lateral international trade policy". It deploys free trade agreements as an essential tool to access

world markets and propel Chile's progress, whose own internal market was (and is) too small to sustain the sort of self-sustaining growth the country needs. With 30 FTAs signed with 65 countries, including some of the world's biggest economies, covering 88 percent of the world's GDP, Chile is today the

country with the highest number of signed FTAs. From 1990 to 2007, Chile increased its exports near sevenfold to \$68.7 billion, a key factor fostering the country's rapid growth, as the country relied on an export-led economic model.

The other pillar of this approach was a certain diagnosis of the direc-

tion the world would take in the post-Cold War era, when globalization was taking hold. This diagnosis was to recognize "globalization as Asianization". This meant that Chile identified the Asia-Pacific region as the most dynamic and fastest-growing one, and the one where the country would bet on. In quick succession, Chile opened additional embassies and trade offices there, joined APEC in 1994 (the second Latin American country to do so), and started to explore the possibility of signing trade agreements in Asia. In quick succession, Chile signed an FTA with the ROK in 2002 (the first FTA between a Latin American country and an Asian nation); one with China in 2005; and a preferential trade agreement with India in 2006. For much of this period, Chile's was the fastest-growing Latin American economy, something driven by the constant opening of new markets. In 2019, Chile ratified a Comprehensive Economic Partnership Agreement with Indonesia. Today, 58.4 percent of Chile's exports go to Asia.

Nonetheless, Chile did not limit itself to the pursuit of bilateral trade agreements. Impatient with the slow pace of trans-Pacific trade liberalization within APEC, in 2004 Chile joined with Singapore, New Zealand and Brunei-Darussalam to create the P4. This group eventually led to the formation of the Trans-Pacific Partnership, a mammoth inter-regional trade project that brought together 12 countries from Asia, Australasia and Latin America, and was signed in New Zealand in October 2016. Yet, to the surprise of many, the United States, which had battled for nine years to get the TPP in place, unceremoniously ditched it in January 2017. Though many thought this would spell the end of the TPP, Chile did not give up on it, and was among the signatories of the original treaty that

fought tooth and nail to keep it alive. This effort bore fruit in March 2018 when a rechristened TPP11, now called (somewhat pretentiously) the Comprehensive and Progressive Trans-Pacific Partnership, was signed in Santiago. Shortly thereafter, Chile joined Singapore and New Zealand in the Digital Economic Partnership Agreement, another pioneering project aimed at liberalizing trade in digital services.

During his state visit to China in October 2023, Chilean President Gabriel Boric took part in the Third Belt and Road International Cooperation Forum. This meant that Chile became the only Latin American country to be represented at the presidential level in all three BRI international cooperation fora — in 2017, 2019 and 2023, with heads of state from three different ruling coalitions. Chile has also joined the Asian Investment and Infrastructure Bank as a full member.

In applying to the RCEP, Chile underlines the degree to which it is doubling down on its bet on the new century as the Asian century. In so doing, it conveys a powerful signal to the rest of Latin America, a region in dire straits that urgently needs to further link up with the most dynamic part of the world, one where free trade is still the coin of the realm, and where protectionism and isolationism have not yet raised their ugly heads.

The author is a research professor at the Pardee School of Global Studies, interim director of the Pardee Center for the Study of the Longer-Range Future at Boston University and a former Chilean ambassador to China. The author contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.

QU FENGJIE

## Expanded horizons

China should adopt some measures to promote the internationalization of the renminbi within the RCEP region

While the renminbi is being more widely used in China's cross-border payments with Regional Comprehensive Economic Partnership member countries, the US dollar remains the dominant currency used in settlements and payments between other RCEP members, and RCEP cross-border clearing mainly relies on the SWIFT system.



In Japan, the Republic of Korea, New Zealand and Australia, the use of renminbi is very limited. And the members of the Association of Southeast Asian Nations, although economically dependent on China, rely on the United States for security.

The regionalization of the renminbi has a long way to go. First, compared with high-standard free trade agreements, the RCEP needs to strengthen its role in promoting regional economic integration.

Many RCEP members have signed high-standard free trade agreements. Seven of them are also members of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership. On top of that, many bilateral free trade agreements have been signed between the RCEP members. With strong protection of regional supply chains by CPTPP rules, non-CPTPP members in the RCEP are at a disadvantage, with risks of losing supply chains.

Moreover, the RCEP rules are primarily about traditional topics such as trade, investment and facilitation, with very few related to deeper integration. The agreement only has some indirect impact on

regional monetary integration, because it does not cover monetary and financial cooperation, nor currency pricing, payment or trade settlement.

Second, in ASEAN countries, the Japanese yen has an advantageous position over the renminbi, which is expected to further strengthen as a result of the heightened confrontation between China and the US.

The yen takes up a larger share of global foreign exchange reserves than the renminbi, whose amount is about 40 percent of the yen's. The yen had long been the fourth most-used global currency, only overtaken by the renminbi in recent years.

With deepening economic and trade cooperation, Japan is ASEAN's second-largest trading partner, followed by the US. Japan has signed currency swap agreements with five ASEAN countries, namely Indonesia, Malaysia, the Philippines, Singapore and Thailand. As one of the main destinations for ASEAN countries' exports of final products, Japan is an industry chain leader in Asia and globally, which also contributes to the yen's advantageous position in trading among ASEAN countries.

Third, China's financial market, its financial openness and liberalization are not yet sufficient to support the widespread international use of the renminbi. Despite continuous opening up of the bond market, it is still immature with relatively small holdings by overseas institutional investors.

With the Chinese capital account only partly open and the renminbi not yet fully convertible, offshore renminbi deposits are far too limited in scale to enable the use of the renminbi as a third-party currency in cross-border settlement and payment.

To promote the internationaliza-

tion of the renminbi under the RCEP framework, there are a few measures China can take.

First, it should promote the effective implementation and upgrading of RCEP rules to build a high-standard free trade area. To achieve this, it is necessary to work out details for implementing professional services, economic and technical cooperation and intellectual property protection. Existing laws and regulations need to be revised as soon as possible to meet the requirements of the RCEP rules. It should also work together with developed economies, such as Japan and the ROK, on projects to support developing countries within the region. More studies and actions should be made to upgrade the RCEP to align with high-standard free trade agreements.

Second, complementary cooperation with other RCEP members should be deepened in order to enhance China's position in the regional industry and value chains. This includes deepening cooperation with Japan and the ROK in automobiles, machinery and electronics manufacturing, as well as emerging sectors such as big data and artificial intelligence; attracting Japanese and Korean enterprises to invest in China, and making good use of existing China-Japan, China-ROK industrial parks; tapping into China's advantages in the digital economy to strengthen relevant cooperation with ASEAN; and enhancing cooperation with Singapore in electronics, machinery manufacturing, biomedicine and green development.

Third, connectivity of both financial infrastructure and rules should be improved to optimize the environment for using the renminbi globally. Infrastructure for regional renminbi cross-border payment



WANG XIAOYING / CHINA DAILY

among RCEP members should be built. Channels for renminbi cross-border outflow, overseas circulation and cross-border inflow should be improved. The capital market needs to be further opened up, so as to increase renminbi assets investment channels for overseas institutions and individuals, as well as to smooth the cross-border inflow of renminbi. In this process, it is imperative to strike a balance between facilitating the international use of renminbi and preventing risk.

Fourth, China should strengthen currency and financial cooperation with other RCEP members, especially with the ASEAN countries,

and strive to reach cooperation agreements with them. Many countries are now aware of the risks of dollar dominance in the international monetary system due to the US' abuse of the SWIFT system to impose sanctions. Also, due to aggressive rate hikes in the US, many countries are suffering from dollar shortages and are more eager to seek alternative currencies.

RCEP members vary widely in terms of economic strength, political and economic systems, and values, making it quite hard to achieve comprehensive currency cooperation. Therefore, China may choose to strengthen cooperation with ASEAN countries while

remaining open to others.

An Asian monetary and financial cooperation mechanism should be built, covering the Asian monetary fund, regional financial organizations, the Asian bond market, bilateral and multilateral currency swap networks, coordination of currency and exchange rate policies, etc.

The author is a researcher at the Academy of Macroeconomic Research at the National Development and Reform Commission. The author contributed this article to China Watch, a think tank powered by China Daily. The views do not necessarily reflect those of China Daily.

LIFE



**Center:** Italian student Giacomo Bruni's graduation work, a Chinese painting on which visitors are able to walk, is one of the pieces of *World Tree: CAA Graduation Season*, that met visitors in Hangzhou, Zhejiang province, this summer.

**G**iacomo Bruni from Italy is one of nearly 40 international students who presented their graduation artwork in the China Academy of Art's annual graduation exhibition, *World Tree: CAA Graduation Season*.

Bruni, who studied Chinese landscape painting at the CAA, obtained his master's degree this summer. For his graduation submission, he devised a Chinese painting on which visitors were able to walk. His aim was to eliminate the barrier between visitor and painting, allowing body and spirit to merge into the natural landscape depicted in the painting.

"Through this interaction, I hope visitors can find a connection with nature in the art, and experience a sense of immersion," Bruni says.

Nearly 3,000 young artists, who are this year's graduates of the CAA, transformed the cityscape of Hangzhou, Zhejiang province, last month, with work of various kinds themed on topics such as woods, jungles and forest islands.

Over the years, the graduation exhibition has transformed into a city-wide celebration of art every year, allowing visitors to enjoy thousands of pieces of art ranging from oil paintings, calligraphy and sculptures to videos, fashion, ceramics and multimedia installations. This year's exhibition showcased the graduation projects of 2,868 students: 1,834 undergraduates and 1,034 postgraduates, from 20 academic units, and was held at eight venues across Hangzhou, including the academy's Xiangshan and Liangzhu campuses, the Zhejiang Art Museum, the World Tourism Museum, and the Qian Shanshi Art Center. The exhibition ended on June 20, but visitors interested can also view the exhibits on an app, CAA Cosmos, launched by the academy.

"The exhibition has evolved into a youth festival involving cultural and artistic elements like the visual arts, design, exhibitions, fashion shows and bazaars," says Jin Yibin, chairman of the CAA committee of academy affairs.

The academy began this innovative approach in 2010, gathering graduation work for public exhibition. In 2019, it broke the confines of the campus and opened exhibition spaces in other venues of the city.

The aim is to create an "academy with no boundaries" that integrates internal and external resources, and to share achievements with the public, align accomplishments with urban development, and foster the growth of young artists alongside society, says Gao Shiming, president of the academy.

World Tree was the main theme of the exhibition this year. "In Old English, 'tree' and 'true' share the same root," Gao says. "From woodblock printing to artificial intelligence, from photography to image generator Midjourney, and from movies just over a century ago to Sora (a text-to-video generative model), most of us feel the way technology is reshaping truth and how the idea of a person has dissolved, as humans have become beings with technologically integrated senses." The ancient legends of

# Citywide celebration of culture

Graduates show works, as China Academy of Art provides fertile ground for imagination, **Li Yingxue** reports.



**Clockwise from far left:** The exhibition by the China Academy of Art displays works by nearly 3,000 young artists who graduated this year from the academy, in eight venues across Hangzhou. PHOTOS PROVIDED TO CHINA DAILY

quite a few cultures around the world have the concept of a world tree. For example, Yggdrasil, which is also referred to as the World Tree, occupies a central position in Norse cosmology and is said to be an enormous ash tree that connects the nine worlds, including the underworld, the earth, and the realm of the gods, and so is associated with both life and death.

"The World Tree was once a channel connecting heaven, earth, and humanity, and now, this ancient legend will help our graduates understand the world through the perspective of life, and understand people through the perspective of nature," Gao says.

He speaks of people's experience of climbing trees and their unique perspectives, metaphorically. "Looking upward or downward, from your position on a branch, you see a complex, multifaceted world," he says. "However, a little exploration may lead to new beginnings, if one explores higher, walks farther, or digs deeper to the roots. It's the same with exploring one's field of specialization."

Gao is keen to emphasize that the core of education at the academy is to help students appreciate different worldviews, understand the diversity of worlds, develop sensitivity, discernment and tolerance, and forge an independent spirit.

The academy's departments each devised their own subthemes for the exhibition. For example, the Design Industry Innovation Center took the subtheme of Forest Island and presented work by 31 students which reflected their engagement with issues such as society, culture, urban development, ecology and technology. The School of Animation and Games presented the work of 177 graduates under the subtheme, *Leaves of Grass*. Youthful and raw, the creations resonated with the spirit of the young and are vibrant, ambitious and impassioned.

Among the works, there was one, titled *Fifty*, by He Chao-hong, a master's graduate in animation, which had earned recognition and was shortlisted for the Chilean Animation Film Festival in 2022.

From 2017, Bruni began to focus on the art of Chinese landscape painting. He enrolled in the CAA in 2019 to become a postgraduate. At the beginning of 2020, he and his wife co-founded a company, Shanshui Projects, to promote contemporary Chinese painting in magazines, exhibitions, lectures and workshops.

His Chinese painting through which visitors were able to walk were one of the most impressive art pieces for visitors during the exhibition, who experienced collaboration and a sense of immersion.

The Italian plans to stay in China after graduation to pursue his art.

"I hope to continue my journey of research and study around the world, teaching and promoting Chinese painting, and sharing this rich cultural heritage with a global audience," Bruni says. "I want to introduce Chinese painting to more people and foster a deep appreciation for its beauty."

Contact the writer at [liyixue@chinadaily.com.cn](mailto:liyixue@chinadaily.com.cn)



## Wildlife film highlights AI use in industry

By **WANG YING** in Shanghai [wang\\_ying@chinadaily.com.cn](mailto:wang_ying@chinadaily.com.cn)

Chinese director Lu Chuan's latest documentary on wildlife protection and rescue shows how artificial intelligence-powered personal computers can engage in and benefit content creators, according to industry insiders.

Premiering at this year's Shanghai International Film Festival last month, the documentary *Qinghai-Tibet Plateau Wildlife Park* is the latest such effort of Lu, whose works include *Kekevili: Mountain Patrol* (2004) and *Born in China* (2016).

The latest documentary allowed the in-depth involvement of AI solutions throughout its production by Lenovo Group, the world's largest personal computer maker by shipments.

The Chinese name of the documentary, *Xiye*, is an abbreviation of *xining yesheng dongwuyuan*, or Xining Wildlife Park in Xining, Qinghai province. It offers insights into the park's efforts in rescuing

and breeding wildlife.

"With the help of Lenovo's AI PCs, the film's production efficiency has been greatly enhanced," Lu says, adding that the audio, video and image generation has become easier and the whole production process runs more swiftly at a lower cost.

AI PCs have a revolutionary significance toward film creation, cultural activities and arts, according to the director. "With their full participation in the creative industry, AI PCs have become an inevitable topic," Lu says.

After experiencing the AI PC performance, security and confidentiality of data assets in the documentary's production, Lu says he believes that the popularity of AI PCs can close the gap between knowledge and technology for young creators in visualizing their projects.

"AI will quickly shorten, deepen and strengthen the creative chain in future practices, and the entire workflow will completely change," Lu says.

“AI will quickly shorten, deepen and strengthen the creative chain in future practices, and the entire workflow will completely change.”

**Lu Chuan**, director

AI PCs will develop the creator economy into a new driving force for China's economic development, according to Hu Yanping, an IT expert. Creators including filmmakers, musicians and programmers will form an industry with the involvement of tens of millions of people and an industrial scale of up

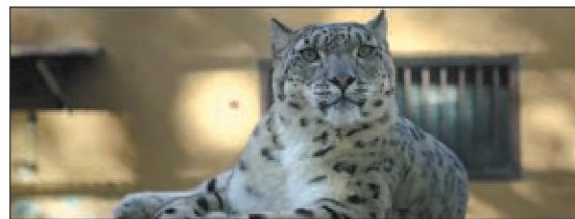
to a trillion yuan (\$137.57 billion), Hu says.

Moreover, technology has strong involvement in the wildlife park, says Qi Xinzhang, deputy head of the park. "The application of Lenovo's technology allows us to step out of the role of traditional zoos and effectively improve scientifically," Qi adds.

AI technology has been applied to the wildlife park for tracking and analyzing snow leopard behavior, creating a database of wild species and establishing a center for wildlife breeding, rescue and scientific research.

The documentary shows how animal protection workers respect and care for the wildlife. The park focuses on rescuing wild animals and strives to maintain the natural behavior of each animal.

Injured creatures will be rescued and treated in the park and released after regaining the ability to live in the wild. For those unable to live in the wild, the park will be their safe haven.



**From top:** *Qinghai-Tibet Plateau Wildlife Park* is director Lu Chuan's latest documentary on wildlife protection and rescue, with AI technology used. PHOTOS PROVIDED TO CHINA DAILY

## LIFE

# Yueju Opera talent hopes for broader audience

Reality show highlights female prowess, giving artist a platform to share traditional performance with the modern world, **Xing Wen** reports.

The hit music reality show *Riding Wind* is a stage production showcasing female talent. Since its inception in 2020, it has been a platform for women over 30 to display their charms and talents through various pop music performances.

As a spotlight illuminated the vast, empty stage, the camera slowly zoomed in to reveal a handsome figure dressed in exquisite *hanfu*.

Holding a folding fan and radiating an heroic aura through eyes, the performer presented a Yueju Opera song with delicate vocals, portraying the image of a carefree, unambitious knight-errant of ancient China.

As the performance concluded, the audience waved red glow sticks and loudly chanted "Chen Lijun," the performer's name, over and over.

The energy was palpable, with enthusiastic screams and waving red lights that created an atmosphere more electrifying than a show put on by a pop star.

## Celebrating diversity

Yueju Opera is a traditional style of opera popular in the Yangtze River Delta region. Its male roles are typically played by women.

The performance marks the first time the pop-dominated stage of *Riding Wind* has presented traditional opera as one intact section.

The show gathers female contestants at a minimum age of 30, to vie for a spot in the winner's group, celebrating the diverse beauty and confidence of women across different age groups in the youth-obsessed entertainment industry. The show concluded on Friday on the video-sharing platform Mango TV.

Throughout rounds of competitions with varied themes, they perform as individuals or in groups to win audience votes.

Usually, the show's participants are singers, film and TV actresses, female anchors, musicians or dancers who are or were active in the entertainment industry.

Chen, a 32-year-old Yueju Opera actress who performed in house theaters, is surprised by her immense popularity since her debut on the show.

Besides the Yueju Opera performance, she has often attempted to integrate it with pop music in the program.

She once joined singer-turned-actress Chen Haoyu, 32, anchor and actress Liu Yan, 43, and singer-songwriter Sa Dingding, 40, to perform an adaptation of the megastar Jay Chou's Chinese-style hit song *Fa Ru Xue* (Snow-like

Hair) featuring Yueju Opera pieces. "The four performers showcased four styles of beauty. Their performance included traditional elements such as sword and fan dancing. I believe this is a brilliant Chinese-style stage performance that more foreign audiences should see," comments a netizen with the username Yuegujiangnan.

Yan Qing, a 24-year-old viewer, says that Chen Lijun's performances in the show piqued her interest in Yueju Opera.

"I watched Chen Lijun's live, unedited Yueju Opera performance on the program. I immediately understood the beauty of this art form and her sincere devotion to the arts. After that, I started searching for Yueju Opera excerpts online," Yan says.

"I joined this show to promote Yueju Opera. I hope our traditional art forms can integrate into people's daily lives and reach a wider audience," Chen Lijun says, adding this journey is "not in vain".

"For each stage performance, I strive to incorporate Yueju Opera elements but also balance them to create performances that suit the stage style. Every other participant's attitude toward life and performance inspires me. Although we excel in different fields, I believe their enjoyment is the same as mine on the opera stage."

French chanteuse Joyce Jonathan is among the participants who have a keen interest in Yueju Opera.

Jonathan's mother runs a travel agency that began promoting tours to China in the 1990s.

"I first came to China when I was 10. I always feel that this is my second home," she says, noting her ability to listen to Chinese and sing some Chinese songs.

To help Jonathan better sing an excerpt from the classic Yueju Opera piece *The Red Chamber*, Chen Lijun patiently demonstrated each word. With another participant, Shang Wenjie, a singer-songwriter and a French major graduate of Fudan University acting as the interpreter, Chen Lijun taught Jonathan how to accurately pronounce the lyrics and modulate her voice for Yueju Opera.

"Chen Lijun is very professional when it comes to opera. She showed me that traditional Chinese opera requires fine-tuned techniques and emotions. It made me appreciate how charming Yueju Opera is," says Jonathan.

## Empowering women



From top: Yueju Opera actress Chen Lijun looks stunning in various styles in the show *Riding Wind*, which drew wide attention on traditional culture. **Group photo:** (from left) Veteran singer-songwriter Sa Dingding, actress Chen Haoyu, Chen Lijun and actress Liu Yan perform an adaptation of Jay Chou's hit song *Fa Ru Xue* (Snow-like Hair). PHOTOS PROVIDED TO CHINA DAILY

On the program that pursues female empowerment, Chen Lijun says: "Feminine strength is diverse. It can be gentle, resilient, brave or wise. I believe feminine strength is undefined and infinite."

The "infinite female strength" runs through the evolution of the all-female Yueju Opera troupes.

When Yueju Opera was first created, the performers were male farmers, because women were barred from the theater due to constraints in feudal society.

Influenced by the New Culture Movement, an intellectual and cultural campaign in the 1910s and 1920s that sought to modernize Chinese society, women sought liberation and stepped out of home.

Inspired, a group of women from Shengxian county, Zhejiang province, formed the first all-female Yueju Opera troupe and went to Shanghai to make a living. And they got popular and recognized.

"The birth of the all-female Yueju Opera was influenced by the awakening of female consciousness at that time," Luo Huaizhen, a playwright and adviser to the China Theatre Association, tells China Art newspaper.

"Yearning for urban life and emotional freedom, they maintained independence and stayed sober-minded. These spiritual pursuits and values were intentionally or unintentionally reflected in the performances of the all-female Yueju Opera, becoming the era's voice for women's liberation," Luo says.

## Defining strength

Chen Lijun has also demonstrated an undefined feminine strength in her career by portraying male roles one after another in Yueju Opera.

Growing up in Shengzhou, Zhejiang, the birthplace of Yueju Opera, Chen Lijun was familiar with the art by listening to her grandparents and parents often humming tunes.

At 13, she decided to become a Yueju performer and entered a local art school to start the long days of practicing gestures, expressions, movements and steps.

However, after joining a five-year training program in 2008 that prepares actresses for the renowned Zhejiang Xiaobaihua Yueju Opera Troupe, she was advised to switch to performing *xiaosheng* (young man) roles due to her tall height.

This meant starting anew, practicing the body language and vocal techniques for male roles. She went through a difficult transition peri-

od, practicing martial arts until she had many injuries and singing until her vocal cords were strained.

Year after year, through countless rehearsals and refining different roles, she gradually learned how to portray male characters.

"I have learned to walk onto the stage relaxed, not worrying about whether every line, vocal part or movement is perfect. On stage, I worry not about making mistakes but about becoming the character."

In 2023, Chen Lijun got to play a supporting male role in the innovative Yueju Opera show *New Dragon Gate Inn*, which was adapted from a movie of the same name.

The show features six actresses dressed in exquisitely designed costumes who play roles from a spirited landlady to skilled swordsmen, spies and soldiers on a stage that intrudes into the audience, offering a more immersive experience with opportunities for interaction.

This is very different from a conventional Yueju Opera show.

Its 138 performances in small theaters attracted over 15,000 visitors with an average attendance rate of 97 percent, 80 percent of whom were young people experiencing Yueju Opera for the first time.

The show's first live online broadcast on the short-video platform Douyin drew over 9 million viewers.

Chen Lijun's portrayal of Jia Ting, characterized by a handsome face, swift and decisive fight scenes, and a charming, nonchalant demeanor, captivated many.

A video clip of Jia lifting and spinning the landlady with just one arm went viral. Many female viewers affectionately called her "Miss Husband" to express their admiration for her precise portrayal of male roles. Chen has garnered over 3.4 million followers on Douyin.

Chen attributes the show's popularity to the bold innovations by producer Mao Weitao, an established Yueju Opera actress, the creative ideas from the young production team and the audience's active editing of the show's videos, which helped to spread many clips to the public.

Facing sudden fame, Chen Lijun remains calm.

"This overwhelming attention isn't about me but about Yueju Opera and traditional culture. Public attention comes quickly and fades just as fast. My goal is to keep the focus on Yueju Opera for as long as possible."

Contact the writer at [xingwen@chinadaily.com.cn](mailto:xingwen@chinadaily.com.cn)

## Scientists tackle Arctic grit for climate change

ALESUND, Norway — In 1963, French geologist Jean Corbel established a small hut near Ny-Alesund, sparking modern research in the high Arctic of the Svalbard Islands in Norway. Since then, the former mining town has evolved into a global center for science, attracting countries like China to its research efforts.

"It was a very fine event," recalls Kim Holmen, special adviser at the Norwegian Polar Institute, reflecting on the founding cere-

mony of China's inaugural Arctic research station. China's Arctic Yellow River Station is located on the far east side of the town.

According to Hu Zhengyi, the current manager of the station, the institute mainly serves as a support for China's scientific monitoring and research work in various specialties. Hu's research centers on meticulously tracking glacial dynamics which is crucial metrics in understanding the impacts of climate change.

Glaciology is a young and relatively niche major in China, Hu says, adding that choosing it normally means that one would be working far from home in what sometimes can be a backbreaking job as it includes field research work on glaciers and trudging across frigid ice while carrying equipment weighing dozens of kilograms.

"This job is not for everyone," he jokes about the workload.

The Chinese station has been carrying out

field research on glaciers for over 10 years, including monitoring and research on glacier material balance and movement.

Such studies help reveal the glaciers' response to global warming and provide an important basis for predicting the rise of the sea level, Hu says.

Other research on the changes in terrestrial ecosystems and studies on marine life contribute to a better understanding of the common challenges faced by humanity.

By gathering critical data on the Arctic ecosystems, the research efforts could contribute to developing better conservation measures.

"The problems we have in front of us are so big that none of us, regardless of how clever we are, could do it alone," Holmen says, stressing the significance of more scientific cooperation between countries.

Currently, scientists from over 10 countries are based in the town.

Holmen says this is a research town where scientists from all over the world meet, make friends, and build trust, which are essential for dealing with global issues.

"I believe it can make a difference in the world," he says.

XINHUA

## LIFE

## Great Wall funding drive success marked

Project, launched 40 years ago, was outstanding achievement sparking domestic and global response, **Cheng Yuezhu** reports.



Pingxingguan pass, a renovated section of the Great Wall, originally built in 1511 in Datong, Shanxi province. It was the site of a key victory for Chinese forces in the War of Resistance Against Japanese Aggression (1931-45). PHOTOS BY JIANG DONG / CHINA DAILY

Four decades ago, Beijing Daily, the Beijing Evening News, the former Badaling Great Wall special zone administrative office, among other organizations, launched a campaign, under the slogan of "Love China, Restore the Great Wall".

The campaign sparked widespread efforts to preserve the Great Wall, including an outpouring of donations made by individuals and organizations from around the world. Cities along the Great Wall, such as Qinhuangdao in Hebei province, Tianjin, and Jiayuguan in Gansu province, also launched fundraising events.

On Friday, the project's 40th anniversary, an exhibition opened at the Capital Museum in Beijing that will run through to Aug 31.

It presents the trajectory of the campaign and the achievements made in the preservation of the Great Wall.

The exhibition displays around 150 artifacts, photographs and textual materials, including work briefs, registers of donations and sponsorships, as well as newspaper clippings, which piece together the project's journey across geographical and temporal boundaries.

Su Wenyang, former director of the editorial department at the Beijing Evening News, was the initiator of the project.

Working as a reporter, he saw the dilapidated state of the Great Wall, and proposed the campaign to call for public involvement in its protection and restoration, which tapped into a well of goodwill.

Upon hearing about the project, Xi Zhongxun, then member of the Secretariat of the Communist Party of China Central Committee, and Deng Xiaoping, then director of the Central Advisory Commission of the CPC, wrote the campaign's slogan in calligraphy, which was published in the Beijing Evening News.

The campaign called for the public to make donations according to their means, and organizations and individuals making larger contributions were



Left: Su Wenyang (third to the left), the initiator of the Great Wall preservation fundraising campaign, introduces items on show at the exhibition in Beijing. Right: The event celebrates the campaign's 40th anniversary, by displaying around 150 artifacts, photographs and documents.



This exhibition not only reflects on the past 40 years of the Great Wall preservation efforts, but also looks forward to the future. Today, the protection, inheritance and utilization of the Great Wall have entered a new era."

**Han Zhanming**, director of the Capital Museum

commemorated by having their names inscribed on monuments near the Great Wall.

According to the organizers, more than 10 million people from around China participated in the campaign, and institutions from 26 countries and regions, including Pakistan, Greece and the United States, made donations.

Until this day, monuments honoring these contributions and marking the friendly relations between China and other countries can still be found at Great Wall scenic areas.

"The Great Wall was built by numerous generations of people. Our generation has merely done a bit of restoration and preservation work. Over the past 40 years, through the efforts of countless individuals in various fields, the ancient and once dilapidated Great Wall has been given a new lease on life," Su said at the exhibition's opening ceremony.

"It has transformed from an ancient defense structure into a symbol of the spirit and culture of the Chinese nation,

as well as a must-visit destination for both domestic and international tourists."

The sponsorships and widespread attention raised by the campaign accelerated the restoration process of the Great Wall, key sections of which, such as Badaling, Mutianyu and Simatai, were subsequently restored and opened to the public.

The exhibition also showcases the advanced technological methods adopted in recent years as part of the wall's restoration efforts, via exhibits including 3D-printed models and multimedia displays.

An interactive section is set up at the end of the exhibition, where visitors can leave comments and sign their names for the campaign, collect themed seal stamps, or scan QR codes to share their own stories with the Great Wall or go on virtual tours to the sites.

"This exhibition not only reflects on the past 40 years of the Great Wall preservation efforts, but also looks forward to the future. Today, the protection, inherit-

ance and utilization of the Great Wall have entered a new era," says Han Zhanming, director of the Capital Museum.

In 2019, a general plan was officially released for the protection of the Great Wall, establishing a long-term mechanism for its preservation, and in 2021, a plan was launched to construct the Great Wall National Cultural Park.

The Capital Museum is now supporting the renovation and upgrading of the China Great Wall Museum, and the Tencent Foundation, a coorganizer of the exhibition, is working with cultural heritage preservation institutions on the adoption of digital methods for preservation and documentation.

"Forty years mark a milestone and a new starting point. This is an opportunity to further unite the efforts of all sectors of society, and elevate the cause of Great Wall preservation to new heights," Han says.

Contact the writer at [chengyuezhu@chinadaily.com.cn](mailto:chengyuezhu@chinadaily.com.cn)

## Majestic landscape provides a stairway to heaven

As the tour bus zigzagged its way up the hill, the valley below was shrouded in mist.



**Biju Dwarakanath**  
Second Thoughts

We were a group of about 30 travelers headed to the Wulong karst region, part of the UNESCO World

Heritage Property of South China Karst, which comprises seven karst clusters.

The karst terrain of Wulong is situated about three and a half hours away from Chongqing, a bustling metropolis famed for its spicy hotpot located at the confluence of the Jialing and Yangtze rivers in southwestern China.

Visitors throng to Wulong to see its giant sinkholes, natural bridges and caves; it has a prehistoric charm and a pristine beauty all its own.

We had come to experience some of its famed attractions, including *tiankengs*, or the three natural bridges, and the Longshuixia gap, a

deep gorge surrounded by sheer cliff, natural waterfalls and stalactite formations.

Our uneventful trip started at 7:30 am sharp from the downtown area of Chongqing, with a break for a sumptuous, yet simple Chinese-style brunch at 10:30 am and arrival at the ticket counters by 11:30 am. A few meters past the entrance is an oversized modern glass ledge that extends a good few meters from the rocky outcrop to offer a spectacular first view.

Standing on the transparent structure and considering with quickening breath a drop of several hundred meters is certainly not for the fainthearted, I thought, as I

started taking pictures and recording videos. Soon, we embarked on a 45-minute walk along well-cut steps, hugging the cliff face at times, to an elevator for a bottom-up view of the unique bridges as well as to a remarkably well-preserved small outpost that served as a way station and post office for travelers several hundred years ago.

In fact, the local authorities have gone the extra mile to ensure that the whole exercise is a hassle-free one for tourists, especially the elderly.

The three natural bridges — Tianlong, Qinglong and Heilong — have, we were told, formed stunning backdrops to scenes from

Michael Bay's *Transformers: Age of Extinction* and Zhang Yimou's *Curse of the Golden Flower*.

Standing in awe a little distance away from each of the three bridges and clicking quite a few pictures in the rain, I made a mental note to watch these movies once again to admire their grandeur on celluloid. Absorbing the sights and sounds of the bridges was an unforgettable experience and the intermittent drizzle through the day made it even more memorable; their breathtaking scope is sure to blow your mind, too.

Two hours later, some of us were hopping on to a minibus to Longshuixia gap, a subterranean world

that gradually slopes down to depths of over 250 meters, with steps winding all the way down the craggy limestone gorge to the exit about 2 kilometers away, leaving me wonder-struck at its untamed charm and tranquility.

This is as marvelous as the three natural bridges and a must-see if you plan on visiting Wulong. I was reluctant to leave, I must confess.

Our return journey began at 3:45 pm and by the time we reached the city at 6:45 pm, I was already missing the stillness and majesty of the ancient karst.

Contact the writer at [biju@chinadaily.com.cn](mailto:biju@chinadaily.com.cn)