

Lantern festival



Visitors admire a set of giant panda lanterns at a lantern festival celebrating the upcoming Mid-Autumn Festival and National Day at Beijing World Park on Tuesday. The festival features miniature landscapes at the park and traditional lantern craftsmanship, blending cultural elements from different continents. It includes seven themed zones, showcasing 70 sets of lantern displays and over 60,000 lantern decorations to highlight the fusion of Chinese culture and world civilizations. LIU PING / FOR CHINA DAILY

Festival shows how smart tech is transforming modern farming

Harvest event promotes role of AI and robotics to improve agricultural sector

By ZHAO RUIXUE in Jinan and ZHAO YIMENG

A robot dog patrolling a demonstration field during the Chinese Farmers' Harvest Festival in Shandong province became the center of attention on Tuesday, drawing crowds of curious onlookers. Equipped with a multispectral camera and intelligent recognition algorithms, the four-legged machine scanned rows of crops, uploaded data to a central platform and produced a detailed report of the farmland. Song Zhihua, chairman of Shandong Shenlan Zhipu Digital Technology, said the smart field-patrol robot dog consists of three main parts: the robot itself, environmental sensing equipment and, most importantly, a multispectral camera with edge-computing capacity. "It focuses on crop growth, soil moisture and pest detection. It's just like a doctor for the fields," Song said. The main event of the eighth annual festival, held in Dahuchenjia village of Zhaoyuan city, showcased the rapid rise of artificial intelligence and robotics in agriculture. From robots that pick fruit with bionic hands to

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drones spraying crops, the exhibits highlighted how smart technology is transforming farming across China. Apart from the robot dog designed for field management, a fruit-picking robot developed by the Shandong Academy of Agricultural Machinery Sciences impressed participants with its precise operation. Equipped with vision recognition and real-time data fusion technology, it could detect ripened fruit and pluck it with

a biomimetic mechanical hand. "Farmers could simply relax in a chair, push a button and let machines do the plowing, sowing and harvesting. In the future, all operations will be unmanned," said Yang Huawei, vice-president of the academy. At the main venue in Zhaoyuan, the program featured a grand gala, five themed exhibitions and five special activities, including displays of seed industry advances, modern farming machinery, and smart agriculture applications such as unmanned tractors and farm robots. According to the Ministry of Agriculture and Rural Affairs, the country's high-standard farmland has expanded to about 67 million hectares, the mechanization rate of crop cultivation and harvesting has exceeded 75 percent, and smart equipment is increasingly integrated into every stage of production. In Lhundrub county, Xizang autonomous region, agricultural equipment and techniques have also greatly improved over the years. Tian Kexing, an agricultural technician, recalled how when he started work in 2011, only tractors were available. "Back then, farming was rough. Crops with different varieties were mixed together. There was a lack of uniform standards and field man-

agement," Tian said. At present, the county has more than 35 crop-protection drones and nearly 300 combine harvesters, bringing the total number of agricultural equipment in the county to more than 110,000 units. Mechanization usage has reached over 90 percent. Standardized planting technologies and improved barley varieties have stabilized yields and raised efficiency, Tian said. Similar changes were on display in Cangxi county in Sichuan province, where a themed event featured smart machinery in rice paddies and a bustling livestreaming zone where local officials and influencers sold produce online. Nationwide, more than 3,000 online and offline activities were held across various provinces to celebrate this year's bumper harvest and fuel rural vitalization. Since its launch in 2018, the Chinese Farmers' Harvest Festival has grown into a nationwide platform to promote rural culture and exhibit achievements in food security, poverty alleviation and modernization.

Palden Nyima in Lhasa contributed to this story.

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Shanghai university benefits from intl collaboration

By WANG XIN in Shanghai wangxin2@chinadaily.com.cn

Shanghai Ocean University is reaping results from its move to expand international collaboration on fisheries, which is aimed at improving livelihoods and supporting sustainable development in several countries. In Cambodia, the university has promoted rice-fish and rice-shrimp farming since 2021. Focusing on the giant freshwater prawn, the team has demonstrated, developed and refined farming techniques suited to local conditions. With the team's support, 38 demonstration households have been established and the prawns' survival rate has risen from 40 percent to 78 percent, helping 42 farming households move out of poverty, according to the team. Recognizing that local talent is key to Cambodia's sustainable development, the university has also trained farmers and attracted Cambodian students to study in China. Since 2024, 11 aquaculture students from Cambodia have been recruited to study in Shanghai on scholarships. Many Cambodian graduates have returned home to work in agriculture. The team has also carried out

17 training programs for more than 430 farmers and distributed hundreds of technical manuals to farmers and technicians. Matine Chhorn, a 28-year-old doctoral student from Cambodia, is studying aquaculture and genetic breeding at the university. He said the China-Cambodia friendship has always been close and based on mutual trust and cooperation. "China has brought a lot of experts to my country. One clear example is the Lancang-Mekong Cooperation, which not only strengthens regional ties but also supports education, research and sustainable development," Chhorn said. The giant freshwater prawn has brought new opportunities for farmers and contributed to rural development in Cambodia. Through his studies in China, Chhorn said he is gaining knowledge and skills he hopes to apply to farming practices back home. "The Lancang-Mekong project is not just about development, but also about people-to-people friendship and sharing a better future together," he said. As China and Cambodia step up construction of the Fish and Rice Corridor, more young Cambodians are joining. Among them is 25-year-

old Aily Chhour, who is pursuing a master's degree in applied economics at the university. She helped translate a comprehensive guidance book on China-Cambodia rice-fish farming, which aims to improve local farming skills. "This translated book helps academic communication between the two nations. More importantly, it can help Cambodians who do not understand Chinese to gain the knowledge they need and live a better life out of poverty and famine. I felt very proud to be part of it," she said. Chhour is now working on a paper about international trade in agriculture. She said she hopes to contribute to her country's development and deepen China-Cambodia cooperation when she returns home. In Indonesia, Shanghai Ocean University has supported fishery development since 2022, building an offshore marine ranch that deployed 650 cubic meters of artificial reefs. Experts from both countries have also jointly researched, designed and optimized five types of artificial reef structures, which play a key role in restoring and protecting coral reefs and fishery resources.

The project addresses the degradation of Indonesia's biological resources — particularly its declining fishery stocks — as well as the impact of climate change on coastal coral reef communities, said Lin Dongming, a senior engineer at the university's College of Marine Living Resource Sciences and Management. "The marine ranch focuses on restoring coastal ecosystems, protecting fishery resources and enabling sustainable use of marine biological resources. We have seen very positive results, as fishery resources are recovering and local fishermen are having much better harvests," Lin said. Looking ahead, Lin said his team is exploring the integration of the ecosystem and socioeconomic development, and aims to build collaborative models that benefit more countries. "We have signed agreements of cooperation with more than 180 institutions across the globe. Taking full advantage of our expertise in aquaculture, we are expecting to share our knowledge and skills with the world and contribute to global sustainable fishery and agricultural development," said Li Juanying, director of the university's international exchange office.

Cooperation to bolster Beidou in Arab world

By HE CHUN and ZHAO LEI in Zhuzhou, Hunan

China and Arab states will deepen their cooperation to better promote the use of China's Beidou Navigation Satellite System in the Arab world, according to an official from the Arab Information and Communication Technologies Organization. Sami Trimech, director of strategic planning and development at Tunisia-headquartered AICTO, said on Wednesday in Zhuzhou, Hunan province, that there is huge potential for the Beidou system in a variety of sectors in the Arab world, including traffic navigation, transportation, land mapping and survey, agriculture and rail construction. He said the intergovernmental organization, which works under the aegis of the League of Arab States, has been proposing to work with its Chinese partners to advance the applications of Beidou-enabled services in Arab nations. "AICTO would like to take this opportunity to propose the launch of pilot projects in order to introduce and popularize the use of Beidou applications in the agriculture sector to achieve the sustainable development goals," the official said. "We will continue to promote academic exchanges between Chinese and Arab experts and scholars in the field of satellite navigation, and also promote training and exchanges of technicians and talented professionals by providing academic degree education, short-term training and on-site technical guidance." In addition, Trimech said a professional website is being planned

to publish all information about the cooperation between AICTO and related Chinese entities, provide updated information about Beidou for Arab users, share project results and connect Chinese and Arab enterprises. He made the remarks on the sidelines of the 4th International Summit on Beidou Navigation Satellite System (BDS) Applications, which opened in Zhuzhou on Wednesday. Chinese Vice-Premier Ding Xuexiang addressed attendees at the summit's opening ceremony, stressing that China is ready to work with all parties to advance Beidou's global service. He called for enhancing international collaboration on Beidou-enabled service, setting up more joint application centers, improving compatibility and interoperability among different satellite navigation networks, and enhancing global governance in this sector. Jointly hosted by the National Development and Reform Commission, the Cyberspace Administration of China, the Ministry of Industry and Information Technology, the Ministry of Transport and the Hunan provincial government, the two-day summit features a large number of attendees at home and abroad. Attendees include representatives from 24 foreign countries such as Madagascar, Pakistan, Brazil and Laos; five international organizations, including the United Nations Human Settlements Programme; and 32 central government departments in China, organizers said.

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FIVE-YEAR STRIDES

China refines workplace safety, disaster response

By JIANG CHENGLONG and LI PEIXUAN

The number of deaths related to workplace safety accidents in 2024 was 28 percent lower than in 2020, the final year of the 13th Five-Year Plan period (2016-20), senior emergency officials said on Wednesday as they highlighted improvements in production safety and disaster response during the 14th Five-Year Plan period (2021-25). In 2024, the number of particularly serious accidents fell to single digits for the first time, down 44 percent from 2020, said Emergency Management Minister Wang Xiangxi at a news conference in Beijing hosted by the State Council Information Office. He said both the number of accidents and related deaths have continued to decline this year. From 2021 to 2024, the average number of people affected by natural disasters fell 31 percent, and the number of people dead or missing as a result of disasters dropped 23 percent, compared with the 2016-20 period, Wang said. He said the 14th Five-Year Plan marked a major shift in China's emergency management, "with governance moving toward prevention before crises occur", and stressed that the country's emergency response has also become more efficient. "We have established a national emergency command headquar-

ters, connected 24/7 by audio and video with command centers at the provincial, city and county levels, building a vertically integrated and coordinated emergency response system," Wang said. During the 14th Five-Year Plan period, China has launched 85 national-level emergency responses, handling major disasters such as the 6.8 magnitude Luding earthquake in Sichuan province in 2022, the large wildfire in Chongqing in 2022 and severe floods that have affected the Beijing-Tianjin-Hebei region in recent years. At the briefing, Wang Kun, director of the China Earthquake Administration, outlined prevention and response efforts to major earthquakes over the past five years, stressing that China is among the most earthquake-prone continental countries in the world. He said rolling assessments of seismic risks and pre-evaluations of potential losses in key regions have been conducted to provide scientific support for disaster prevention and relief. Authorities at all levels initiated more than 1,000 emergency responses during the 14th Five-Year Plan period. In 2024, China also completed the world's largest earthquake early warning system, Wang said.

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Monument of honor



Veterans of the 1948 battle of Jinan during the War of Liberation (1946-49) witness a monument dedication ceremony for 40 newly identified martyrs at the Jinan martyrs' cemetery in Shandong province on Wednesday. WANG FENG / FOR CHINA DAILY