

# Safeguarding Food Security Benefits the World

## Policy

By CHEN Chunyou

Food security is China's most fundamental interest at all times. To safeguard the country's lifeline, it will adopt an all-encompassing approach to food, develop protected agriculture, and build a diversified food supply system, said the report delivered to the 20th CPC National Congress.

Gao Wangsheng, dean of the National Academy of Agricultural Science and Technology Strategy affiliated with China Agricultural University, said that China has completed the building of a moderately prosperous society in all respects. With the improvement of the per capita income and consumption level, the traditional grain-based food supply system is far from meeting people's current food consumption needs.

It is time to establish a more diversified food supply system, namely asking for food from forests, rivers, lakes, oceans, protected agriculture and micro-organisms, to better meet people's demand for a healthy diet, added Gao.

Globally, food security has wors-



Rapeseed flowers, grown for the production of edible vegetable oil, are in full bloom in Tongnan district, Chongqing municipality. (PHOTO: VCG)

ened over the past few years. According to the 2022 Global Report on Food Crises released by the Food and Agriculture Organization of the United Nations (UN), nearly 193 million people experienced crisis level or worse food insecurity in 2021, an increase of almost 40 million over the previous record in 2020. This trend is projected to continue for

some time.

Compounding the issue is that the world population reached eight billion in 2022, according to UN, meaning that food security remains a global challenge. It is therefore a matter of urgency for the world to increase its current food production.

Lyu Xin, dean of the College of

Food Science and Engineering, Northwest A&F University, suggested that the research on emerging interdisciplinary technologies such as synthetic biology, should be intensified, while advancing basic research in artificial edible proteins and carbohydrates and their industrialization, to establish a new food manufacturing model.

Wang Jiaqi, director of the Institute of Food and Nutrition Development, Ministry of Agricultural and Rural Affairs, said that an all-encompassing approach to food will contribute to rural revitalization. This could be done by harvesting high-quality agricultural products in the countryside, and establishing and strengthening distinctive rural industries, which will become the backbone for rural development.

Wang also said that implementing this approach is the foundation of the Healthy China Initiative because it can guide food production, help expand food sources and increase food diversity, which is a major factor in improving human health.

China's sustainable food supply system will not only manifest a people-centered development philosophy, but will also benefit the whole world, said Lyu.

# Education, Sci-tech and Talent Highlighted in Local Two Sessions

By LI Linxu

As local two sessions were wrapped up across the country, education, sci-tech and talent have become buzzwords in local government reports.

This is in response to the 20th CPC National Congress report, which vowed to give high priority to the development of education, build China's self-reliance and strength in science and technology, and rely on talent to pioneer and to propel development.

Shanghai will further advance the integration of education, sci-tech, and talent resources, according to its government work report for 2023, noting that it will kick off a new batch of municipal

sci-tech major projects and roll out a series of measures to attract talent.

Statistics show that in 2022, the metropolis's R&D expenditure as a percentage of its GDP climbed to 4.2 percent.

Like Shanghai, Beijing also pays great attention to the importance of education, sci-tech and talent resources in achieving its 2023 goals.

As a sci-tech and education heavyweight, Beijing is determined to leverage its education, sci-tech and talent advantages, so as to inject new dynamic impetus into the capital's innovation-driven development.

Focusing on advanced, sophisticated, and high-tech industries, Beijing has cultivated two industrial clusters worth

more than one trillion RMB in the fields of new generation information technologies and sci-tech services, and five industrial clusters worth more than 100 billion RMB in the fields of medicine & health, smart equipment, artificial intelligence, energy conservation & environmental protection, and integrated circuits.

In Guangdong, one of the country's most economically vibrant provinces, education, sci-tech and talent are high on the agenda in its government work report for 2023.

Aiming to build an education, sci-tech innovation, and talent hub, the province is accelerating the establishment of a whole-process innovation eco-system, so as to attract sci-tech

and innovation talent from around the world.

In recent years, great progress has been made in the country's innovation-driven initiatives. Local governments are rolling out targeted policies and measures in light of their own conditions, to create a more favorable ecosystem for innovation.

Of particular note is that Shenzhen- Hong Kong- Guangzhou, Beijing, and Shanghai- Suzhou are among the top 10 S&T clusters in the 2022 edition of World Intellectual Property Organization's Global Innovation Index.

Now, China is on a par with the U.S. in terms of the number of top 100 S&T clusters, with 21 each.

# China Takes Tough Stance on Invasive Alien Species

By LI Linxu

In its annual rural policy blueprint, known as the "Central No. 1 Document", China reiterated the policy to strengthen the management of invasive alien species.

The country will crack down on illegal introduction of alien species, according to the document.

Meanwhile, further actions will be carried out to prevent and control major hazardous invasive species.

In recent years, China has made great efforts to guard against and re-

spond to invasive alien species, such as improving relevant rules and regulations, and setting up inter-ministerial coordination mechanisms.

Invasive alien species are defined as animals, plants or other organisms that are introduced by humans, either intentionally or accidentally, into places outside of their natural habitats, negatively impacting native biodiversity, ecosystem services or human economy and well-being.

China faces multiple risks of invasive alien species due to its long land border, frequent foreign exchanges, and

illegal introduction and breeding of exotic pets, said an official from the Ministry of Agriculture and Rural Affairs (MARA).

In the 20th CPC National Congress report, China vowed to strengthen biosafety and biosecurity management, and make efforts to prevent and treat the harm caused by invasions of alien species.

Shortly after the conclusion of the 20th CPC National Congress, China released a new list of key invasive alien species, totaling of 59 from eight groups.

tween Malaysian and Chinese universities, while calling for sharing of innovation and teaching resources.

Thailand looks forward to deepening cooperation in education and research, particularly in fields that align with Thailand's development strategies, such as the Bio-Circular-Green (BCG) Economy Model, said Arthayudh Srisamoot, ambassador of Thailand to China.

Li Xin, deputy director-general of the Department of Foreign Expert Services, Ministry of Science and Technology, introduced innovation and entrepreneur-

Based on the evaluation of survey data and invasion risk, the newly released list consists of 33 plant species, 13 insect species, four plant pathogenic microbe species, one plant entomopathogenic nematode species, two mollusk species, three fish species, one amphibian species, and two reptile species.

The management of these species will be strengthened, according to MARA, citing measures such as strengthening quarantine inspection of inbound goods, optimizing monitoring and early-warning systems, and boosting sci-tech support.

ship policies regarding global experts working and living in China. He encouraged young experts to establish cooperative relations with China through exchange programs and platforms.

In response to the Belt and Road Initiative, TJU will continue to deepen talent cultivation cooperation with ASEAN countries through ACNET-EngTech, and make more contributions to addressing global challenges and building a community with a shared future for mankind, said Hu Wenping, executive vice president of TJU.

Source: Tianjin University

# Robot Industry Prospers in Tangshan

## Hi-tech Zones

By Staff Reporters

Walking into the manufacturing center of Tangshan Robot Industry Base is like entering another world, as technicians rush about testing robot products that include flexible two-arm robots and wide-vision 3D industrial cameras.

The robot industry has been developing for 20 years in north China's Tangshan Hi-tech Industrial Development Zone (THDZ). The zone has adhered to the market-oriented development vision, relied on supporting enterprises, and tried to integrate industry, academia, research and application.

"Our robot industry has grown from scratch, but it has now formed a strong industry system featuring industrial robots and specialized robots," said Li Xiaoli, director of the high-tech division of THDZ's Science and Technology Bureau.

Over the years, the THDZ administrative committee has endeavored to create a sound environment for the development of the robot industry. It has encouraged resource sharing, collaborative innovation, and technological transformation.

The robot industry has become one of the most dynamic and characteristic industries and serves as an important growth pole, leading the intelligent manufacturing industry in Tangshan and even Hebei province.

With an efficient collaborative mechanism involving multiple parties, many robot-related enterprises have de-



A technician tests welding robots in a workshop in the THDZ. (PHOTO: XINHUA)

# Shipbuilding in China Riding the Wave of Success

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To cope with the massive engineering data of the cruise ship, Shanghai Waigaoqiao independently developed a new generation shipbuilding management platform, turning the traditional construction site drawings into a tablet computer to enable all-time tracking of 25 million parts of the cruise ship from design, procurement, and production, to construction, commissioning and delivery.

Li Yanqing, secretary-general of CANSI, said that once the construction of the cruise ship is completed, China's shipbuilding industry will be able to build all the marine vessels and platforms in the world.

**Shipbuilding's good prospects**

According to CANSI, China's shipbuilding international market share has been ranked first for 13 consecutive years until 2022.

Among the 18 major ship types in the world, China topped the new order list in 12 ship types. In particular, new orders for bulk carriers, container ships, car carriers and crude oil tankers made

cided to settle here, and found diversified paths and broader space for the industrialization of their technological achievements.

Liu Ruizhi, founder of Tangshan Zhonghong Guangtai Electronic Technology Co., LTD., is one of those who has benefited from the business environment of the zone.

Liu recalled that when he founded his company in 2016, the company only had four employees, with annual sales of 200,000 RMB.

"My company now has annual sales of 30 million RMB, and owns a number of patents in intelligent technology and industrial robots. These results cannot be achieved without the support of THDZ, which provides us with free rent, tax reduction and a series of other preferential policies," said Liu.

As a leader in China's welding equipment manufacturing, Kaiyuan Group has set up a national welding industry base in THDZ, focusing on the manufacturing of welding and cutting equipment, welding robot systems, welding materials, and welding auxiliary equipment.

Through cooperation with world-class welding enterprises in Japan, the U.S., Germany and other countries, the company now provides welding solutions for global customers.

"We will continue to leverage our advantages in the robot industry, promote further integration of innovation, industry, capital, and talent chains, and create a first-class entrepreneurship ecosystem, so as to inject stronger impetus for high-quality development of THDZ," said Dong Xuezhong, secretary of the Party Working Committee of THDZ.

up 74.3 percent, 56.8 percent, 88.7 percent and 66.1 percent respectively.

Top Chinese shipbuilding enterprises maintain a strong international competitiveness, as six of them are in the world's top 10 in terms of shipbuilding completion, new orders and handheld orders.

New breakthroughs in high-end equipment have also been achieved, especially in the field of high-tech ships and marine engineering equipment.

The world's first dual-fuel main engine, with intelligent control of exhaust gas recirculation system, has also been delivered. In addition, large intelligent fishery breeding ships at 100,000-ton level, the fourth-generation self-elevating wind power installation vessel and other offshore engineering equipment were delivered.

In the following three to four years, China's shipbuilding enterprises will welcome the peak period of delivery, while shipbuilding enterprises will focus on quality and safety, and ensure the delivery of handheld orders on schedule.

# CAS Joins Hands with ESA for Satellite Experiments

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China made critical efforts early to prepare for the experiments. The three modules of SMILE were transported to ESA in advance at the end of December 2022, realizing the first transportation endeavor of Chinese satellites and equipment to Europe.

The SMILE mission team will conduct a series of docking tests in the following months, and will travel to Spain in April, Germany in May and September respectively, to further consolidate the development of SMILE's prototype and ensure the satellite launch on time.